ROMAN JAKOBSON
SELECTED WRITINGS
II

ROMAN JAKOBSON

SELECTED WRITINGS

II

Word and Language

71707-66

c°

ACKNOWLEDGEMENTS AND DEDICATION

The Moscow linguistic school, faithful to the precepts of its founder, Filipp Fedorovič Fortunatov, has been destined to elucidate, substantiate, and develop his view that language is not a mere "external cover in regard to the phenomena of thought" and not only a "means for the expression of ready-made ideas" but first and foremost it is "an implement for thinking". Or, according to his boldly deepened formulation, "in a certain respect, the phenomena of language themselves appertain to the phenomena of thought"; and "language as such, when our thoughts are expressed in speech, has its being precisely because it exists itself in our thinking". The pervasive thesis of Fortunatov's *General Course in Linguistics* (1902-3) asserts that the chief subject of this science is

"neither one single language nor some group of languages but all of human language in its history". In agreement with the ever timely suggestions of the chapter entitled "The signification of sound shape in language", it is necessary "to realize that not only language depends on thinking but thinking, in turn, depends on language." We are summoned to realize that our thought uses word sounds as signs, "signs of something that could not be conceived of by our mind without their mediation". – More than ever before one submits to the wise simplicity of those weighty, enchantingly angular lines which do equal justice both to language and to thought in their manifold interwovenness.

Beside the far-reaching theoretical and above all methodological questions raised and sharpened, the vital boon in the legacy of our teachers was their uncommon open-mindedness which in my recollections merges with Russian fairy tales, where an indeed magnificent order is received by the initiate from the ruler: "Go there – I don't know where, bring that – I don't know what!" This was the moral atmospehre which favored the birth and swing of our circle.

I still feel particularly attached to both congenial circles, two unusual workshops of vigorous and ardent research in the science of language – *Moskovskij lingvističeskij kružok* and *Pražský linguistický kroužek*. A recent issue of an American academic journal names them "two of the century's most imaginative and productive intellectual groups". Recollecting their passionate, impetuous discussions which tested, egged on, and whetted our scientific thought, I must confess that never since and nowhere else have I witnessed learned debates of similar creative force. The signboards of both workshops get lost but their work has not been abandoned. Despite any peremptory shout and senile grumbling, it draws in new generations of studious seekers and blazes still new trails in the science of oral, written, and formalized language and in the wide area of semiotic.

The proclaimed and achieved cooperation of the inquirers into the realm of word with its creative masters seems to me an invaluable asset in the activities of both circles. We learned from poets. In particular, ties to the poetic experiments of Velimir Xlebnikov and to their author were the first and most powerful spur to my pondering on the complex anatomy of the word (*slovo kak takovoe*). Another example of my indebtedness to poets was a message from Jaroslav Durych, a prominent Czech writer of narratives, carven lyrics and ballads, as well as subtle remarks on the makeup of native poetry and prose. After having reviewed my book on *The Foundations of Czech Verse* (Prague, 1926), Durych wrote me that in studying the sound texture of native poetry he was able to apply the current phonetic arrangements of vowels but complained

that for consonants he found no trace of suitable classification and therefore besought me for possible help. This acute question rightly and pressingly raised by the Czech poet, while still unsettled, underrated or simply overseen in linguistic studies of those days, compelled me to a persistent and prolonged search for a solution. A tentative table of consonants was drafted in 1938 (see *Selected Writings*, I, 272 ff.) but the problem of their patterning and its implications for general linguistics and poetics never left my mind, and Durych's handwritten lines are some of the few which have accompanied me through all my wanderings.

Young unorthodox linguists heeded the rallying slogans of the avant-garde poets, and we were at one with the brave and moving call jointly launched by Xlebnikov, Kručenyx, Burljuk, and Majakovskij: "To stand on the boulder of the word WE amid a high sea of catcalls and hatred". Indeed all of us, throughout lands and ages, observed and experienced every possible kind and degree of malignant obstructions, calumnies (Majakovskij, 1923: *Spešát rasčitát'sja**** *Xvatáj, kleveščá!*), persecutions, and repressions against "the advanced detachment of inventors", in Xlebnikov's visionary parlance.

When, a few years before Majakovskij's untimely end, the final quatrain of his poem "Home" opened with the line "I want to be understood by my country", any inventive man of science from our two circles – earlier or later – must have shared also the tragic doubt uttered in the further lines of this stanza, with their vacillating epithet (native/alien) and gloomy, deliberately ambiguous simile.* None of us could remain deaf to the despair hidden in the suppression of this entire stanza by the poet himself: "I have torn out beautiful plumelets damped by rain".

Hence my volume is dedicated to the memory of our teachers and of all those no longer among us who championed the cause of verbal art and science. The book is addressed to the critical attention of anyone – young or old – who zealously confronts the entangled problems of word and language.

Within each section papers are published in the chronological order of their composition. Only the articles of the section III – *Toward a Nomothetic Science of Language* – were grouped according to the historical order of the events discussed. This section might carry Saussure's note as epigraph: "A mesure qu'on approfondit la matière proposée à l'étude

---

* Я хочу быть понят моей страной,
   А не буду понят, – что ж,
   По чужой [variant: родной] стране пройду стороной
   как проходит косой дождь.

linguistique, on se convainc davantage de cette vérité qui donne, il serait inutile de le dissimuler, singulièrement à réfléchir: que le lien qu'on établit entre les choses préexiste, dans ce domaine, *aux choses elles-mêmes*, et sert à les déterminer."

This collection covers studies written from 1929 till 1969 and I sense the most annoying gaps in its table of contents. Among the major absent links I shall name a few lectures which, *mea culpa*, remained unwritten, in particular, the Presidential Address – "Metalanguage as a Linguistic Problem" – given at the Annual Meeting of the Linguistic Society of America, December 27, 1956, and promised for *Language*; the inaugural paper of the International Conference on Semiotic, Warsaw, September 12, 1965 – "Signatum and Designatum" – promised for the publication of this colloquy: *Sign, Language, Culture* (Mouton, 1970); two Forum Lectures – 1) "Lexical and Grammatical Meanings", 2) "Meaning and Reference" – delivered at the Los Angeles meeting of the Linguistic Institute, July 6, 1966, and promised for the collection of the Forum Lectures, *Substance and Structure of Language*, ed. by Jaan Puhvel (University of California Press, 1969); and finally, the report in the Paris Symposium on Brain Research and Human Behavior (under the patronage of Unesco and of the International Brain Research Organization) – "Structural Principles of the Verbal Code" – presented March 14, 1968 and promised for the acts of this symposium.

What I chiefly miss in the first section of the present volume is, however, the kernel of my Masaryk University, Columbia, and Harvard courses on historical morphology where I endeavored to treat the history of Slavic nominal, pronominal, and adjectival declensions as a total, united system of "grammatical processes" in movement and interaction; I ventured to interpret the sense of the changes undergone; the traditional concept of grammatical analogy allegedly contraposed to the sound laws required a radical revision, and the morphological scrutiny of inflection was about to merge with morphophonemics. Fortunatov's and Baudouin de Courtenay's warnings against any forcible imposition of morphological features and divisions of yore upon the analysis of the "same" languages in their present stage (see below, p. 399) was to be supplemented by an abstention from ascribing later features and divisions to earlier, actually quite dissimilar forms.

Perhaps, if time is granted, I'll manage to pay off at least some of these old debts.

Ossabaw Island, Georgia
February, 1971

CONTENTS

D. PHILOLOGICAL GLEANINGS

E. INTERDISCIPLINARY OUTLOOKS

A

MORPHOLOGICAL STUDIES

ZUR STRUKTUR DES RUSSISCHEN VERBUMS*

I

Eine der wesentlichen Eigenschaften der phonologischen Korrelation besteht darin, dass die beiden Glieder eines Korrelationspaares nicht gleichberechtigt sind: das eine Glied besitzt das betreffende Merkmal, das andere besitzt es nicht; das erste wird als m e r k m a l h a l t i g bezeichnet, das zweite – als m e r k m a l l o s (s. N. Trubetzkoy in *TCLP*, IV, 97). Dieselbe Definition kann zur Grundlage der Charakteristik der m o r p h o - l o g i s c h e n K o r r e l a t i o n e n dienen. Die Frage der Bedeutung einzelner morphologischer Kategorien in einer gegebenen Sprache ruft öfters ständige Meinungsverschiedenheiten und Zweifel der Sprachforscher hervor. Wie erklärt sich die Mehrzahl dieser Schwankungen? – Indem der Forscher zwei einander entgegengesetzte morphologische Kategorien betrachtet, geht er oft von der Voraussetzung aus, diese beiden Kategorien seien gleichberechtigt, und jede besitze ihre eigene positive Bedeutung: die Kategorie I bezeichne A, die Kategorie II bezeichne B. Oder minde- stens: I bezeichne A, II bezeichne das Nichtvorhandensein, die Negation von A. In Wirklichkeit verteilen sich die a l l g e m e i n e n B e d e u t u n g e n der korrelativen Kategorien anders: falls die Kategorie I das Vorhanden- sein von A ankündigt, so kündigt die Kategorie II das Vorhandensein von A nicht an, d.h. sie besagt nicht, ob A anwesend ist oder nicht. Die allgemeine Bedeutung der merkmallosen Kategorie II im Vergleich zu der merkmalhaltigen Kategorie I beschränkt sich auf den Mangel der "A-Signalisierung".

Falls in einem gewissen Kontext die Kategorie II das Nichtvorhanden-

---

* Im folgenden Beitrage skizziere ich nur vorläufig und konspektiv eine der Kapitel der strukturalen Grammatik. Den Wesenskern dieses Beitrages bildet die Analyse des Imperativs – einer Kategorie, die nur mit Rücksicht auf die Verschiedenartigkeit der Sprachfunktionen begriffen werden kann.

sein von A ankündigt, so ist es bloss eine der Anwendungen der gegebenen Kategorie: die Bedeutung wird hier durch die Situation bedingt, und wenn es sogar die geläufigste Funktion dieser Kategorie ist, darf dennoch der Forscher nicht die statistisch vorherrschende Bedeutung der Kategorie mit ihrer allgemeinen Bedeutung gleichsetzen. Eine solche Identifizierung führt zum Missbrauche des Begriffes Transposition! Die Transposition einer Kategorie findet nur dort statt, wo die Übertragung der Bedeutung empfunden wird (ich betrachte hier die Transposition bloss vom Standpunkte der synchronischen Linguistik). Das russische Wort *oslíca* "Eselin" kündigt das weibliche Geschlecht des Tieres an, wogegen die allgemeine Bedeutung des Wortes *osël* "Esel" keine Ankündigung des Geschlechtes des gemeinten Tieres enthält. Wenn ich *osël* sage, bestimme ich nicht, ob es sich um ein Männchen oder um ein Weibchen handelt, aber fragt man mich "*èto oslíca?*" und ich antworte "*nét, osël*", so wird hier das männliche Geschlecht angekündigt – das Wort ist in verengter Bedeutung angewandt. Soll man aber nicht eher die geschlechtslose Bedeutung des Wortes *osël* als erweitert deuten? – Nein! denn hier fehlt die Empfindung einer figürlichen Bedeutung in derselben Weise wie die Redensarten *továrišč Nína* oder *èta dévuška – egó stáryj drúg* keine Metaphern sind. Aber die Bedeutungsübertragung ist vorhanden beispielsweise im Höflichkeitsplural oder bei der ironischen Anwendung der 1. Pers.Plur. im Sinne der 2. Pers.Sing., und ebenso wird *dúra* "Närrin" in Bezug auf einen Mann als Metapher empfunden, die die affektive Färbung erhöht.

Die russischen Sprachforscher der Mitte des vorigen Jahrhunderts haben den wesentlichen Unterschied zwischen der allgemeinen und der gelegentlichen Bedeutung einer Kategorie richtig eingeschätzt. Schon K. Aksakov unterscheidet streng den durch die grammatische Form ausgedrückten Begriff einerseits, und den abgeleiteten Begriff als eine Sache des Gebrauches anderseits (*Sočinenija filologičeskie*, I, 1875, 414 ff.). Ebenfalls N. Nekrasov lehrt, dass "die Grundbedeutungen innerhalb des Gebrauches in eine Anzahl Einzelbedeutungen zerfallen, die vom Sinne und vom Ton der ganzen Rede abhängig sind". Er hält konsequent auseinander die allgemeine grammatische Bedeutung einer Form und diejenigen episodischen partiellen Bedeutungen, welche sie im Kontext erhalten kann. Den Zusammenhang zwischen der Form und der Bedeutung definiert er im ersten Falle als tatsächlich, im zweiten als möglich. Indem die Grammatiken das, was in der Sprache bloss die Geltung eines möglichen Zusammenhangs hat, als einen tatsächlichen Zusammenhang auffassen, gelangen sie zur Aufstellung von Regeln mit einer Unmenge von Ausnahmen (*O značenii russkogo glagola*, 1865, bes. 94 ff., 115 ff. u.

307 f.).[1] Aus den Zitaten, die wir weiter anführen, ergibt sich folgendes: schon Aksakov, Nekrasov und noch früher A. Vostokov (*Russkaja grammatika*, 1831) haben in ihren Forschungen nach der Grundbedeutung einzelner russischer morphologischer Kategorien mehrmals festgestellt, dass während eine Kategorie ein gewisses Merkmal ankündigt, dieses in der anderen Kategorie unangekündigt bleibt. Diese Beobachtung wiederholt sich mehrfach auch in der späteren russischen Fachliteratur – besonders bei F. Fortunatov ("O russkix zalogax" in *Izvestija Otd. rus. jaz. i slov. AN*, 1899), A. Šaxmatov (*Sintaksis russkogo jazyka*, II. T., 1927), A. Peškovskij (*Russkij sintaksis*, I. Ausg., 1914, und III. ganz umgearbeitete Ausg., 1928), S. Karcevskij (*Système du verbe russe*, 1927). So behandelt Šaxmatov einzelne Gegensätze verbaler Kategorien als Verwicklung ("oboskloznenie") durch gewisse begleitende Vorstellungen (§ 523); Peškovskij spricht über "Nullkategorien", in denen infolge des Vergleichens mit den entgegengesetzten Kategorien "der Bedeutungsmangel eine Bedeutung sui generis bildet" – "unsere Sprache ist voll von derartigen Nullkategorien" (III 31). Diese "Nullkategorie" entspricht im wesentlichen unserer merkmallosen Kategorie. Mit Nullwerten oder negativen Werten operiert in diesem Zusammenhang auch Karcevskij, der dabei schon treffend feststellt, dass die Gegensätze der grammatischen Kategorien b i n a r sind (18, 22 f.).

Die morphologischen Korrelationen und ihre Verbreitung in der Sprache wurden also anerkannt, blieben aber dennoch in den konkreten grammatischen Beschreibungen meistens episodischer Nebenbegriff. Nun

---

[1] Diese beiden Linguisten, vorzügliche Erforscher der russischen sprachlichen Synchronie, wurden von den einseitig historisch eingestellten Gelehrten natürlicherweise unterschätzt. Z.B. E. Karskij in seinem *Očerk naučnoj razrabotki russkogo jazyka* (1926) schweigt über Nekrasov und widmet Aksakovs Schriften bloss einige inhaltslose Vorwürfe. [Schon Baudouin de Courtenay warnte in seiner einleitenden Petersburger Vorlesung, Herbst 1900: "Как иногда «общественное мнение» данной науки в известной стране оскорбляется поведением людей, решающихся отделаться от ходячих мнений и взглянуть на предмет без предубеждений и предвзятых идей, доказывает пример, почерпнутый из истории русской грамматики. Тридцать пять лет тому назад Н. П. Некрасов в своем сочинении *О значении форм русского глагола* (СПб., 1865) сделал попытку отнестись самостоятельно к русскому глаголу; но его перекричали и накинулись на него с ожесточением. Как-де посмел он, будучи только русским, взглянуть собственными глазами на факты русского языка и видеть в нем то, что в нем действительно есть, а не то, что ему навязывается по шаблону средневековых латинских грамматик. Своеобразное «западничество», вызванное, конечно, опасением, что в случае принятия учения Некрасова придется пошевелить мозгами, а ведь «Denken ist schwer und gefährlich!» Лучше убаюкивать себя повторением чужих мыслей, – лишь бы только не тревожить, лишь бы только не тревожить!" (Бодуэн де Куртенэ, *Избранные труды по общему языкознанию*, I, 1963, 363).]

muss der weitere Schritt gemacht werden; der Begriff der morphologischen Korrelationen soll, entsprechend Trubetzkoys Auffassung der phonologischen Korrelationen, zur Grundlage der Analyse des grammatischen Systems werden. Falls wir unter dem Gesichtspunkte dieses Begriffes beispielsweise das System des russischen Verbums betrachten, lässt sich dieses restlos auf ein System einiger Korrelationen zurückführen. Die Feststellung dieser Korrelationen bildet den Inhalt der folgenden Bemerkungen. Dabei operieren wir meistens mit den traditionellen grammatischen Termini, obgleich wir uns ihrer Inexaktheit bewusst sind.

<div align="center">II</div>

Die Klassen der Verba sind mit Hilfe zweier "Aspektkorrelationen" und zweier "Genus verbi-Korrelationen" gebildet.

Die allgemeine Aspektkorrelation: "Perfektiva" (merkmalhaltig) ~ "Imperfektiva" (merkmallos). Die Merkmallosigkeit der Imperfektiva ist offenbar allgemein anerkannt. Nach Šaxmatov "bezeichnet der imperfektive Aspekt eine gewöhnliche, unqualifizierte Handlung" (§ 540). Schon Vostokov: "Der perfektive Aspekt zeigt die Handlung mit der Bezeichnung, dass sie angefangen oder beendet ist", wogegen der imperfektive Aspekt "die Handlung ohne Bezeichnung ihres Anfangs und ihrer Vollendung zeigt" (§ 59). Exakter könnte man definieren, dass die Perfektiva im Gegensatze zu den Imperfektiva die absolute Grenze der Handlung ankündigen. Wir betonen "absolute", weil die Verba, die wiederholte Anfänge oder Vollendungen mehrmaliger Handlungen bezeichnen, imperfektiv bleiben (*zaxážival*).[2] Die Definition der Sprachforscher, welche die Funktion der Perfektiva auf die Bezeichnung der Ungedehntheit der Handlung beschränken, scheint uns allzueng – vgl. solche Perfektiva wie *ponastróit'*, *povytálkivat'*, *nagulját'sja*, wo die Vollendung der Handlungen angekündigt ist, aber keine Angaben über ihren "punktuellen" oder kurzdauernden Charakter stattfinden.

Innerhalb der Imperfektiva besteht eine weitere Aspektkorrelation: "Iterativa", die die Mehrfachheit der Handlung ankündigen (merkmalhaltig) ~ Formen ohne solche Ankündigung. Während die allgemeine Aspektkorrelation alle Konjugationsformen umfasst, gehört die zweite Korrelation bloss dem Präteritum an.

[2] Imperfektiv bleiben auch diejenige Verba, bei denen der absolute Charakter der Handlungsgrenze fakultativ ist (d.h. er ist nicht grammatisch angekündigt, sondern nur durch die Situation gegeben). Vgl. *vót ón vyxódit* und *ón částo vyxódit*.

III

Die allgemeine Genuskorrelation: Formen, die die Intransitivität der
Handlung ankündigen (merkmalhaltig) ∼ Formen ohne solche Ankün-
digung, d.h. "Aktiva" im breiten Sinne des Wortes. Die Auffassung der
Aktiva als der merkmallosen Kategorie ist eigentlich schon bei Fortunatov
gegeben (1153 ff.).

Die merkmalhaltige Kategorie der erwähnten Korrelation verfügt über
eine weitere Korrelation: "Passiva" (merkmalhaltig) ∼ "Reflexiva".
Die Passiva kündigen an, dass die Handlung nicht vom Subjekt hervor-
gebracht wird, sondern auf dasselbe von aussen übergeht. In der Wort-
verbindung *dévuški, prodaváemye na nevól'nič'em rýnke* signalisiert das
Partizipium die "Passivität"; falls wir aber in diese Wortverbindung die
Form *prodajúščiesja* unterstellen, wird hier die Passivität nur durch den
Kontext gegeben, während die Form an sich bloss die Untransitivität
ankündigt; vgl. z.B. die Wortverbindung *dévuški, prodajúščiesja za
kusók xléba* – hier fehlt die passive Bedeutung vollkommen, weil der
Kontext sie nicht nahelegt. Die allgemeine Genuskorrelation umfasst
alle Konjugationsformen, die zweite hingegen nur die Partizipia. In der
sprachwissenschaftlichen Literatur waren Zweifel entstanden, wohin bei
der Einteilung der Verba die sog. "Communia" oder "Reflexiva tantum"
(*boját'sja* usw.) einverleibt werden sollten. Unter dem Gesichtspunkte der
allgemeinen Genuskorrelation sind es unpaarige merkmalhaltige Formen.

IV

Konjugationssystem. Die "zusammengesetzten" Formen lasse ich
beiseite. Sie stehen ausserhalb des morphologischen Verbumsystems.

Der "Infinitiv" wird von Karcevskij in Bezug auf den "syntaktischen"
Wert als eine Nullform des Verbums charakterisiert, es handelt sich um
"l'expression d'un procès en dehors de tout rapport syntagmatique" (18,
158). Die übrigen verbalen Formen kündigen das Vorhandensein der
syntagmatischen Beziehungen an und fungieren somit im Gegensatz zum
Infinitiv als merkmalhaltiges Glied der Korrelation.

Diese merkmalhaltige Kategorie zerlegt sich wiederum in zwei korre-
lative Reihen: "Partizipia" (merkmalhaltig) ∼ "finite" Formen. Šaxma-
tov bezeichnet die Partizipia als eine Kategorie, welche, im Vergleich
mit den finiten Formen, durch die Eigenschaftsvorstellung "verwickelt"
ist (§ 536). Somit fungiert hier als Korrelationsmerkmal die Signalisierung
der "Adjektivität". Umgekehrt bilden die Partizipia im Verhältnis zu den

Adjektiva eine merkmalhaltige Kategorie, die die "Verbalität" signalisiert.

V

Die finiten Formen verfügen über eine "Modalitätskorrelation". Der Indikativ wurde schon mehrmals als der negative Modus oder der Nullmodus definiert. "Es ist einfach eine Handlung, eine Handlung, die durch keine besondere modale Schattierung kompliziert ist, sowie der Nominativ einfach den Gegenstand bezeichnet ohne Schattierung der Kasualität" (Peškovskij, I, 126; vgl. Karcevskij, 141). Dem merkmallosen Indikativ ist ein Modus, der den willkürhaften Einschlag der Handlung ("modalité d'acte arbitraire") ankündigt, entgegengesetzt (s. Karcevskij, 139 ff.); eben in dieser Ankündigung besteht das Korrelationsmerkmal. Die Handlung, die durch diesen Modus ausgedrückt ist, kann dem Subjekt willkürhaft zugeschrieben werden (*pridí ón, vsë by uládilos'*), sie kann dem Subjekt willkürhaft eingezwungen werden (*vsé govorját, a mý molčí*), oder sie kann endlich eine willkürhafte, plötzliche, unmotivierte Aktion des Subjekts darstellen ("*nečájanno zagljaní k nemú smért' i podkosí emú nógi*"). In den Wortverbindungen des letzten Typus sieht Nekrasov den Ausdruck der "Selbsttätigkeit der Handlung" ("samoličnost' dejstvija"), was der meisterhaften allgemeinen Charakteristik, die der genannte Forscher von dieser grammatischen Kategorie gibt, vollkommen entspricht: "Es gibt in ihr selbst keinen wirklichen Zusammenhang zwischen der Handlung und der handelnden Person. *** Die sprechende Person verfügt sozusagen in diesem Falle über die Handlung" (105 ff.).

VI

Der Indikativ besitzt eine "Zeitkorrelation": "Präteritum" (merkmalhaltig) ~ "Präsens". Das Präteritum kündigt an, dass die Handlung der Vergangenheit gehört, während das Präsens an sich zeitlich unbestimmt ist und eine typische merkmallose Kategorie bildet. Bemerkenswert ist die Auffassung des russischen Präteritums, die Aksakov vorgeschlagen (412 ff.) und Nekrasov weiter entwickelt hat (306 ff.): diese Form drückt, im Grunde genommen, keine Zeit aus, sondern nur den Bruch des unmittelbaren Zusammenhangs zwischen dem Subjekt und der Handlung – die Handlung verliert eigentlich den Charakter der Handlung und wird einfach zum Kennzeichen des Subjekts.

Das Präsens ist mit zwei "Personkorrelationen" versehen.

1. Persönliche Formen (merkmalhaltig) ∼ unpersönliche Formen. Als grammatische unpersönliche Form fungiert die sog. Form der "dritten Person", die an sich die Bezogenheit der Handlung auf ein Subjekt nicht ankündigt; diese Form wird semantisch persönlich nur in dem Falle, dass das Subjekt gegeben oder wenigstens hinzugedacht ist. Die sogen. Verba impersonalia sind unter dem Gesichtspunkte der erwähnten Korrelation unpaarige merkmallose Formen.

2. Die persönlichen Formen verfügen über die Korrelation: Form der "ersten Person" (merkmalhaltig) ∼ Form, die die Bezogenheit der Handlung auf die sprechende Person nicht ankündigt. Es ist die sog. Form der "zweiten Person", die als merkmallose Kategorie fungiert. Die allgemeine Bedeutung der russischen Form der 2. Person wurde von Peškovskij treffend als "verallgemeinert-persönlich" charakterisiert (III, 429 ff.). Der Kontext bestimmt, auf welche Person diese Form jeweils bezogen wird – ob auf eine beliebige (*umrëš'*, *poxorónjat*), auf die sprechende (*výp'eš' byválo*) oder auf die konkrete angesprochene Person. Freilich wird diese Form vorwiegend im letzten Sinne gebraucht, aber dennoch ist dies bloss eine ihrer partiellen Bedeutungen, und in der Frage nach der allgemeinen Bedeutung einer Form ist das statistische Kriterium unanwendbar – usuelle und allgemeine Bedeutung sind nicht synonym; ausserdem entwickelt sich im Russischen die Form der 2. Person in ihrer verallgemeinernden Rolle "immer mehr auf Rechnung der gewöhnlichen persönlichen Sätze". Was den verallgemeinernden Gebrauch der Form der 1. Person betrifft, so wird hier das Figürliche der Wendung (pars pro toto) empfunden.

Präsens wie Präteritum besitzen eine "Numeruskorrelation": "Plural" (merkmalhaltig) ∼ "Singular". Die allgemeine Bedeutung dieser merkmallosen Kategorie begrenzt sich darauf, dass die Pluralität nicht angekündigt wird. Das hat schon Aksakov erkannt: "Der Singular ist allgemeiner, unbestimmter, er enthält sozusagen mehr Gattungscharakter; darum kann er eher in andere Verhältnisse übertragen werden; während der Plural einen spezielleren Charakter hat" (569). Aber im Gegensatze zu allen übrigen verbalen Korrelationen, welche wir erwähnt haben, ist die Numeruskorrelation im Indikativ (und ebenfalls in den Partizipia) äusserlich bestimmt: sie ist keine selbständige Korrelation, sondern eine Kongruenzkorrelation, weil sie den grammatischen Numerus des Subjekts wiedergibt.

Zu der Kongruenzkorrelation gehören auch die beiden "Geschlechtskorrelationen", die den Singular Präteritums charakterisieren. 1. "Neu-

trum *** bezeichnet *** etwas Negatives, weder Männliches, noch Weibliches" (Peškovskij, I, 126), d.h. es signalisiert die Beziehungslosigkeit zum Sexus; Nomina neutra bilden also eine merkmalhaltige Kategorie gegenüber den Nicht-Neutra, die den Sexus bezeichnen können und somit keine "Asexualität" ankündigen. 2. Die Nicht-Neutra zerfallen in zwei korrelativen Reihen. Die Nomina feminina bilden eine merkmalhaltige Kategorie, wogegen das Maskulinum grammatisch bloss besagt, dass die Signalisierung des weiblichen Geschlechts nicht vorhanden ist (vgl. die oben angeführten Beispiele *osël*, *oslíca*, usw.).

<center>VII</center>

Im Gegensatz zum Indikativ ist der "Modus der willkürhaften Handlung" mit keinen Korrelationen versehen: er hat weder selbständige Zeit- und Personkorrelationen, noch Kongruenzkorrelationen des Numerus und des Geschlechts.[3] Aber dieser Modus ist "zweiflächig": einerseits gehört er samt allen übrigen verbalen Kategorien zur darstellenden Sprache, anderseits – als eigentlicher "Imperativ – dient er der Auslösungsfunktion, nach K. Bühlers Terminologie.

Die Sprachwissenschaft hat eingesehen, dass der Vokativ sich nicht auf derselben Ebene befindet, wie die übrigen Kasus, und dass die vokativische Anrede ausserhalb des grammatischen Satzes steht; ebenso ist der echte Imperativ von den übrigen verbalen Kategorien abzusondern, da er durch dieselbe Funktion wie der Vokativ gekennzeichnet ist.[4] Der Imperativ darf nicht syntaktisch als prädikative Form behandelt werden: die imperativen Sätze sind, gleich der Anrede, volle und zugleich unzerlegbare "vokativische einteilige Sätze", und auch ihre Intonation ist ähnlich. Das Personalpronomen beim Imperativ (*tý idí*) ist seiner Funktion nach eher Anrede als Subjekt. Der Imperativ zeichnet sich innerhalb des russischen Verbalsystems deutlich nicht nur syntaktisch, sondern auch morphologisch und sogar phonologisch aus.

Die sprachliche Tendenz, den Vokativ auf den reinen Stamm zu redu-

---

[3] G. Pavskij erkennt die Fehlerhaftigkeit der Tendenz, solche Formen wie *sdélaj* als 2. Person Sing. zu deuten. Wenn auch diese Form "öfter in der Bedeutung der 2. Pers.Sing. und dabei ohne Zusatz von *ty* gebraucht wird, berechtigt es noch gar nicht, sie unmittelbar als 2. Person zu benennen. Sie wird in der Bedeutung der 2. Person öfter gebraucht, weil die 2. Person im Imperativ öfter gefordert wird, als alle übrige Personen" (*Filologičeskie nabljudenija*, III. T., II. Ausg., 1850, § 90). Gleicherweise F. Buslaev (*Opyt istoričeskoj grammatiki*, II. T., 1858, 154). Den neueren Grammatiken ist das Verständnis für diese Tatsache mehrfach abhanden gekommen.
[4] Schon Aksakov hat erkannt: "der Imperativ ist ein Ausruf; er entspricht dem Vokativ" (568).

zieren, ist bekannt (vgl. Obnorskij in *ZfslPh.*, I, 102 ff.). Dasselbe kann man auch am russischen Imperativ beobachten. Die merkmallose Imperativform stellt, vom synchronischen Standpunkte, den Präsensstamm ohne grammatische Endung dar. Der Bau dieser Form wird durch folgende Prinzipien bestimmt: 1. Findet im Präsensstamm eine grammatische Alternation zweier korrelativen Phoneme statt (des unbetonten und betonten Vokals, des mouillierten und unmouillierten Konsonanten), so erscheint im Imperativ der merkmalhaltige Alternant: der unbetonte Vokal (*xlopočí*), der mouillierte Konsonant (*idí*). – 2. Alternieren am Ende des Präsensstammes Konsonanten, so erscheint im Imperativ derjenige Konsonant, welcher in der 2. Person Präsens sich vorfindet (*sudí*, *prostí*, *ljubí*); die einzige Ausnahme bildet die Alternation der Velaren mit den Zischphonemen: in diesem Falle hat der Imperativ stets einen Velar (*lgí*, *pekí*, *ljág*). – 3. Endet der Präsensstamm auf *j* und ist er unsilbig, so wird im Imperativ vor *j* ein *e* als Alternant der Lautnull eingeschoben (*šéj*). – 4. Endet der Präsensstamm auf eine Konsonantengruppe oder besteht der präfixlose Stamm bloss aus unbetonten Silben, so erhält die Imperativform einen Flickvokal *i* (*sóchni*, *ézdi*, *kolotí*, *výgorodi*);[5] einzige Ausnahme: die unbetonten Präsensstämme auf *j* von Verben, die zu den unproduktiven Klassen gehören (s. Karcevskij, 48 ff.), erhalten im Imperativ die Betonung und kommen ohne Flickvokal aus (*stój*, *pój*, *žúj*, *sozdáj*).

Der Imperativ wird durch folgende besondere Korrelationen gekennzeichnet: I. "Die Mitbeteiligungskorrelation": Formen, die die Absicht des Sprechenden, an der Handlung teilzunehmen ankündigen (merkmalhaltig) ~ Formen ohne solche Ankündigung. In der Rolle der merkmalhaltigen Kategorie wird die umgedeutete Form der 1. Person Plur.Präs. verwendet (*dvínem* ~ *dvín'*). – II. Die "Numeruskorrelation": Formen, die ankündigen, dass der Wille des Sprechenden auf eine Mehrzahl gerichtet ist (merkmalhaltig) ~ Formen ohne solche Ankündigung (*dvín'te* ~ *dvín'*, *dvínemte* ~ *dvínem*). Es wurde mehrfach die Frage aufgeworfen, warum eigentlich nicht der Modus der willkürhaften Handlung in der darstellenden Sprache diejenige Form des Plurals benutzt, die er dort verwendet, wo es sich um die Auslösungsfunktion handelt. Diese

---

[5]   Nach Mouillierung ist *i* im Russischen der geläufige Flickvokal. Denselben Flickvokal erhält gewöhnlich die Endung des Infinitivs, falls sein Stamm auf einen Konsonanten ausgeht (*nesti*). Vgl. das Erscheinen des Flickvokals *a* bei dem reflexiven Morphem *s* unter denselben Bedingungen (phonologisch transkribiert: /*dul'ís* – *dulsä*, *fp'ílas* – *fp'ílsa*/). Ich erinnere, dass ich den Begriff "Flickvokal" vom synchronischen Standpunkte verwende.

Frage lässt sich auf einfache Weise lösen: zum Imperativ kann kein
Subjekt hinzugedacht werden, also ist die Numeruskorrelation innerhalb
des Imperativs eine selbständige Korrelation; und ein merkmalhaltiges
Glied einer selbständigen Korrelation kann nicht in eine Kongruenz-
korrelation übertragen werden. – III. Die "Intimitätskorrelation": For-
men, die eine gewissermassen intime oder familiäre Färbung der Willens-
äusserung signalisieren (merkmalhaltig) ∼ Formen ohne solche Signali-
sierung (*dvín'ka, dvín'teka, dvínemteka* ∼ *dvín'* usw.).

Der Unterschied zwischen der Auslösungs- und der Darstellungs-
funktion äussert sich im System des russischen Verbums nicht nur durch
die Liste der Korrelationen, sondern unmittelbar durch ihre Bildungs-
weise.[6] Die Formen des Imperativs unterscheiden sich von den übrigen
verbalen Formen durch die Agglutinierung der Endungen: im Imperativ
dient jede Endung zum Ausdruck nur je eines Korrelationsmerkmals, bei
Anhäufung der Merkmale wird eine Endung an die andere angehängt.
Nullendung = merkmallose imperative Form, /ĭm/im/ oder /om/ =
Merkmal der Beteiligungskorrelation, /t'i/ = Merkmal der Numerus-
korrelation, /s/ = Merkmal der Genuskorrelation, /kă/ = Merkmal der
Intimitätskorrelation. Beispiel: /dv'in'-ĭm-t'ĭ-s-kă/.[7] Eben durch diesen
agglutinativen Charakter der Morphemverbindung im Imperativ erklärt
sich die relative Leichtigkeit, mit welcher seine Endungen an die Inter-
jektionen oder an die transponierten Indikativformen hinzugefügt werden:
ná-te, ná-ka, nú-te-ka, brýs'-te, pojdú-ka, das volkstümliche *pošól-te* usw.
Die Interjektionen *ná, nú, brýs'* u.ä. verschmelzen mit der merkmallosen
Imperativform.

Die Agglutinierung äussert sich auch phonologisch: die einzelnen
Morpheme bewahren hier ihre Individualität, die Endungen des Impera-
tivs werden, phonologisch betrachtet, nicht als Wortteile, sondern als
Enklitika behandelt. An der Morphemfuge des Imperativs bleibt die
Gruppe *t'*+*s* unverändert, dagegen hat sich in den anderen Verbalformen
t/*t'*+*s* in *c* mit langem Verschluss verwandelt: vgl. Imperativ /zăbut'să/
– Infinitiv /ăbutcă/, III. Person Plur.Präs. /skr'ibutcă/; Imperativ
/v'it'să/ – Infinitiv /v'itcă/; Imperativ /p'at'să/ – 3. Person Plur.Präs.
/tălp'atcă/. Überhaupt erscheinen im Imperativ mouillierte Vorder-
linguale vor unmouilliertem *s*, was sonst innerhalb des Wortes nicht
geschieht: /ăden'să, žar'să, kras'să/. Vor den Lingualen figurieren im
Imperativ mouillierte Labiale, während sonst im Wortinnern Labiale vor

---

[6] Es gibt auch noch eine morphologische Eigentümlichkeit des Imperativs: die
Funktionen der Aspekte sind hier einigermassen modifiziert (s. Karcevskij, 139).
[7] In Diagonalen ist die phonologische Transkription der Formen gesetzt.

Lingualen keine Mouillierung zulassen: /păznăkom'kă, sip'kă, staf'kă, ŭpr'am'să, pr'ispăsop'să, slaf'să, grap't'i/ (neben /grapt'i/), /gătof't'i/ (neben /gătoft'i/). Im Imperativ wird die Verbindung zweier *k* erhalten, die sonst im Wortinnern zu *xk* werden: vgl. Imperativ /l'akkă/ – Adjektiv /m'axkă/.

Die russische Grammatik deutete den Imperativ sozusagen metaphorisch: seine Elemente und deren Funktionen wurden, auf Grund der äusserlichen Teilähnlichkeit, mit den Elementen und Funktionen der anderen Formen identifiziert. So z.B. wurde sein Flickvokal einerseits, seine enklitikartigen Endungen anderseits mechanisch der Kategorie der Affixe zugeschrieben usw. Daher konnte selbstverständlich die Eigenart des Imperativs nicht erfasst werden.

VIII

Die Partizipia werden durch die folgende Korrelation charakterisiert: Formen, die die Prädikativität ankündigen (merkmalhaltig) ∼ Formen ohne solche Ankündigung, d.h. die "attributiven" Partizipia. Den passiven attributiven Partizipia sind als merkmalhaltige Formen die "prädikativen" Partizipia entgegengesetzt, den aktiven attributiven Partizipia die "Gerundia". Vgl. *júnoša, tomímyj somnéniem, skitáetsja – junoša, tomím somnéniem, skitáetsja*; *júnoša, tomjáščijsja somnéniem, skitáetsja – junoša, tomjás' somnéniem, skitáetsja.* Im Gegensatz zum passiven prädikativen Partizipium ist das Gerundium in der Rolle des Hauptprädikates der Schriftsprache beinahe unbekannt.

Alle attributiven und die passiven prädikativen Partizipia verfügen über dieselben Kongruenzkorrelationen wie das Präteritum Ind. (nämlich über Numerus- und Geschlechtskorrelationen). Die Gerundia entbehren der Kongruenzkorrelationen. Die attributiven Partizipia besitzen ausserdem Kasusunterschiede (die Frage über die Struktur dieser Unterschiede lassen wir hier beiseite).

Die perfektiven Partizipia haben keine Zeitkorrelation; die imperfektiven Partizipia kennen zwar diese Korrelation; doch die passiven Partizipia haben die Zeitunterschiede fast vollkommen eingebüsst, die imperfektiven Gerundia verwenden das Präteritum sehr spärlich, und selbst bei den aktiven attributiven Partizipia wird teilweise eine Grenzverwischung zwischen den beiden zeitlichen Kategorien beobachtet (vgl. N. Kaganovič in *Naukovi Zapysky Xar'kivs'koji naukovo-doslidčoji katedry movoznavstva*, 1929, No. 2).

IX

Bei der Prüfung der sog. Vertauschung der grammatischen Kategorien stellen wir fest, dass es sich gewöhnlich um eine Anwendung der merk-mallosen auf Kosten der entsprechenden merkmalhaltigen Formen handelt (z.B. die Substitution der finiten Formen durch den Infinitiv, des Präteritums durch das Präsens, der ersten Person durch die zweite, der passiven Partizipia durch die reflexiven, des Plurals Imp. durch dessen Singular), wogegen die umgekehrten Substitutionen natür-licherweise nur seltene Ausnahmen sind und als figürliche Rede aufge-fasst werden. Die merkmallose Form fungiert im sprachlichen Denken als Repräsentant des Korrelationspaares; darum werden als gewissermas-sen primäre Formen empfunden: die Imperfektiva gegenüber den Perfek-tiva, die Nicht-Reflexiva gegenüber den Reflexiva, der Singular gegenüber dem Plural, das Präsens gegenüber dem Präteritum, die attributiven Partizipia gegenüber den prädikativen, usw. Es ist kein Zufall, dass der Infinitiv von uns als Repräsentant des Verbums, als "Lexikonform" eingeschätz wird.

Die Erforschung der Aphasien zeigt, dass die merkmalhaltigen Kate-gorien eher als die merkmallosen eingebüsst werden (z.B., die finiten Formen eher als der Infinitiv, das Präteritum eher als das Präsens, die ersten zwei Personen eher als die dritte, usw.). Ich habe halb-scherzhafte, halb-affektive Familien-argots beobachtet, die die Konjugation aufge-hoben haben: die persönlichen Formen wurden hier durch die unpersön-liche ersetzt (*jà ljúbit, tý ljúbit,* usw.). Dieselbe Erscheinung ist aus der Kindersprache bekannt. Auch für das humoristische Wiedergeben des Ausländerrussischen ist die Verwendung der dritten Person statt der zwei ersten charakteristisch (der Deutsche spricht in Turgenevs Lustspiel: *fí ljúbit = vý ljúbite,* usw.). Das Präsens des Verbums *být'* hat im Russi-schen die Konjugation eingebüsst: die Form der 3. Person Singular *ést'* vertritt die Formen aller Personen der beiden Numeri (*tý ést'*; *takový mý i ést'*).

X

Wir akzeptieren vollkommen die These Karcevskijs: der asymmetrische Bau des sprachlichen Zeichens ist eine wesentliche Voraussetzung der Sprachveränderungen (*TCLP*, I, 88 ff.). In dieser Skizze möchten wir auf zwei von den vielfältigen Antinomien hinweisen, die die Grundlage der Sprachstruktur bilden.

Die Asymmetrie der korrelativen grammatischen Formen kann als Antinomie der Signalisierung von A und der Nicht-Signalisierung von A charakterisiert werden. Zwei Zeichen können sich auf dieselbe gegenständliche Gegebenheit beziehen, aber die Bedeutung des einen Zeichens fixiert ein gewisses Merkmal (A) dieser Gegebenheit, während die Bedeutung des anderen Zeichens dieses Merkmal unerwähnt lässt. Beispiel: eine Eselin kann sowohl mit dem Worte *oslíca* als auch mit dem Worte *osël* bezeichnet werden. Es wird derselbe Gegenstand gemeint, nur ist im zweiten Falle die Bedeutung unvollständiger und weniger präzisiert.

Aus der Asymmetrie der korrelativen Formen folgt eine weitere Antinomie – die der allgemeinen und der partiellen Bedeutung der merkmallosen Form, oder mit anderen Worten, die Antinomie der Nicht-Signalisierung von A und der Signalisierung von Nicht-A. Ein und dasselbe Zeichen kann zwei verschiedene Bedeutungen besitzen: in dem einen Falle bleibt ein gewisses Merkmal (A) der gemeinten gegenständlichen Gegebenheit unfixiert, d.h. sein Vorhandensein wird weder bejaht, noch verneint, im anderen Falle tritt das Fehlen dieses Merkmals hervor. Beispiel: das Wort *osël* kann entweder den Esel ohne Rücksicht auf den Sexus oder bloss das Männchen bezeichnen.

Diese Widersprüche bilden die Triebkraft der grammatischen Mutationen.

LES ENCLITIQUES SLAVES

I

Le slave commun possédait deux catégories grammaticales d'enclitiques : les particules et les mots enclitiques fléchis. Il accordait aux enclitiques la seconde place dans la phrase, c'est-à-dire qu'il avait hérité de l'indo-européen la règle de Wackernagel.

M. Meillet insiste avec raison sur le fait que c'est le caractère accessoire de ces mots qui est le facteur essentiel pour cette règle. Chaque mot de la catégorie en question est un déterminant sans être un déterminé. Il ne porte pas d'accent de phrase, puisqu'il est subordonné et qu'aucun autre mot ne dépend de lui : son caractère atone est donc d'origine syntactique. L'ordre des mots fait ressortir les différentes formes et nuances de rapports entre les mots ; le mot accessoire étant absolument subordonné, il ne peut donc prétendre exploiter les différentes oppositions significatives que prête l'ordre des mots libre ; ainsi s'explique l'enclise du mot accessoire et sa place invariable dans la phrase.

Mais pourquoi ce mot ne se place-t-il pas simplement après le mot qu'il détermine ? – C'est parce qu'un tel ordre conduirait nécessairement à l'univerbation et l'enclitique serait ainsi réduite à un simple affixe. La règle de Wackernagel permet de sauver l'individualité du mot accessoire.[1]

II

Toutes les langues slaves modernes possèdent des particules enclitiques, qui habituellement occupent la seconde place dans la phrase. Si une telle enclitique sert particulièrement à déterminer un certain mot

---

[1] Le premier mot dans la phrase est ordinairement dépourvu d'accent de phrase, et c'est pourquoi l'enclitique vient s'appuyer justement sur ce mot.

dans la phrase, ce mot tend à être posé à la première place, c'est-à-dire immédiatement devant la particule.

C'étaient précisément ces faits et la position usuelle de l'impératif au commencement de la phrase qui ont rendu possible la tendance des diverses langues slaves à assimiler la structure des désinences de l'impératif à la structure des particules. La linguistique générale a clairement établi qu'au point de vue fonctionnel l'impératif diffère profondément des autres modes du verbe. Sa structure tend à refléter cette différence essentielle. Tandis que les autres désinences verbales caractérisent l'action et l'agent, celles de l'impératif ne servent qu'à déterminer l'attitude du sujet parlant et à désigner ceux à qui il s'adresse. Ce sont des fonctions qui précisément se rapprochent de celles des particules. C'est surtout le russe qui parmi les langues slaves tend à traiter les désinences de l'impératif comme des particules enclitiques. Ces désinences peuvent être cumulées et chacune d'entre elles n'a qu'une seule fonction.

Umoemtes'ka (lavons-nous), quatre désinences, dont la première annonce que le sujet parlant désire participer à l'action, la séconde qu'il s'adresse à une collectivité, la troisième que l'action voulue ne doit pas être transitive, et la quatrième que l'ordre comporte une nuance affective. Ce sont les règles du s a n d h i   e x t e r n e qui s'appliquent à la soudure des désinences de l'impératif. Tandis que le *t* mouillé suivi d'un *s* donne en russe à la soudure des morphèmes d'un mot un *c* à occlusion longue (transcr. phonét. [zab'ic:ə] – s'oublier), à la soudure des désinences de l'impératif ce groupe reste intact ([zab'ut'sə] – oublie-toi). De même la mouillure des consonnes en russe, leur sonorité en tchèque et en polonais et, comme l'a démontré M. Bubrix, l'accent en cachoube sont traités à la soudure des désinences de l'impératif de la même façon qu'à la limite et non pas à l'intérieur des mots.

III

Tandis que toutes les langues slaves possèdent des particules enclitiques qui suivent la règle de Wackernagel, le groupe des langues qui appliquent cette règle aux m o t s   e n c l i t i q u e s   fléchis est plus restreint. Chacune de ces langues comprend deux catégories d'enclitiques fléchies: 1) formes pronominales, personnelles et réfléchies; 2) formes personnelles du verbe auxiliaire. Parmi les langues slaves contemporaines ce sont les langues slaves occidentales, le serbocroate et le slovène qui entrent dans ce groupe. M. Berneker y faisait rentrer également le bulgare, mais MM. Havránek, Seliščev et Beaulieu ont irréfutablement démontré que, dans

la langue bulgare, la règle de Wackernagel ne s'applique pas aux mots fléchis atones. Que les langues slaves de l'est ne rentrent pas dans ce groupe, c'est ce qu'avait déjà démontré M. Berneker.

En quoi les langues slaves de l'est et la langue bulgare diffèrent-elles des autres langues slaves? En premier lieu par l'accent d'intensité libre. Nous pouvons donc établir que, dans les langues slaves à accent d'intensité libre, la règle de Wackernagel ne s'étend pas aux mots enclitiques fléchis.

Cette thèse a une valeur non seulement synchronique mais aussi diachronique. Les textes russes et bulgares les plus anciens nous prouvent qu'à l'origine ces deux langues possédaient des formes pronominales enclitiques de même que des formes enclitiques du verbe auxiliaire, et que la position de ces mots dans la phrase était régie par la règle de Wackernagel. C'est que le russe et le bulgare étaient à l'origine des langues polytoniques; autrement dit, elles possédaient l'accent musical. Mais la manière d'emploi des mots accessoires a changé, dès que ces langues avaient acquis l'accent d'intensité libre. Quel est donc le lien intérieur entre ces deux phénomènes?

Ayant essayé de m'expliquer la différence essentielle entre la structure du vers russe et bulgare et celle du vers serbocroate, j'ai pu formuler la conclusion suivante: Pour le vers serbocroate, ce sont les accents des syntagmes qui ont le plus d'importance, tandis que pour le vers russe et bulgare l'accent des mots joue un rôle plus important que celui des syntagmes. C'est pourquoi une opposition de syllabes d'un même mot est, pour le vers russe et bulgare, plus importante qu'une opposition de syllabes appartenant à des mots différents, alors que, dans le vers serbocroate, le rapport est exactement renversé. Dans une langue à accent d'intensité libre, cet accent est, selon l'expression de M. A. Schmitt, beaucoup plus centraliste et le rapport entre la syllabe accentuée et les syllabes atones qui l'encadrent ressort beaucoup plus, C'est pour cette raison qu'il est impossible, dans une langue à accent d'intensité libre, qu'un mot enclitique s'appuie à la fois sur un certain mot tout en étant subordonné, au point de vue syntactique, à un autre mot.

IV

Essayons d'envisager le sort réservé aux enclitiques fléchies dans les langues slaves à accent d'intensité libre, après que la règle de Wackernagel avait perdu sa valeur. Nous pouvons distinguer à ce point de vue deux

types de langues: dans le premier groupe rentrent le bulgare et le dialecte
ukrainien de sud-ouest, le second groupe comprend les autres dialectes
ukrainiens, le blanc-russe et le grand-russe.

Le groupe sud-ouest est caractérisé par une intensité d'accent
moins marquante. A cette différence phonétique s'ajoute une différence
essentielle de caractère morphonologique: les langues à accent plus faible
ont considérablement restreint la portée des alternances d'accent.[2] C'est
dans ces langues, notamment dans le bulgare et dans l'ukrainien du sud-
ouest, que le mot accessoire fléchi n'occupe plus la seconde place
dans la phrase mais s'appuie directement au mot qu'il détermine.
Il se place ou bien immédiatement devant ou immédiatement derrière ce
mot. Ainsi ce ne sont plus des enclitiques, mais des mots atones pouvant
s'employer aussi bien comme enclitiques que comme proclitiques. Cette
faculté d'emploi double n'est pas due au hasard: si un mot de ce genre
était employé exclusivement en qualité d'enclitique, cela pousserait forte-
ment à l'univerbation. Il va sans dire que l'emploi double constitue un
moyen efficace contre l'univerbation, car l'interchangeabilité des mots
dans une phrase est, comme l'a bien fait ressortir M. Mathesius, un des
criteriums importants de l'autonomie du mot.[3]

V

Le groupe nord-est a aboli les mots enclitiques fléchis.
Trois méthodes d'élimination ont été employées.

1) L'enclitique s'est incorporée au mot déterminé et est devenue un
simple affixe. La fusion du pronom réfléchi (acc. *s'a* et dat. *si*) avec le
verbe en grand russe, en blanc russe et dans les dialectes ukrainiens du

---

[2] Cfr. p.ex. d'une part gr. russe *xožú* (je marche) – *xódiš'* (tu marches), ukr. du
nord et de l'est *xodžú* – *xódyš*, d'autre part ukr. du sud-ouest *xódžu* – *xódyš*,
bulg. *xódja* – *xódiš*.

[3] Il faut ajouter qu'en bulgare et dans l'ukrainien du sud-ouest on met aussi parfois
les mots accessoires à titre de variante stylistique ou expressive à la seconde place dans
la phrase. Ces idiomes forment, à ce point de vue, une zone intermédiaire entre le
groupe nord-est, ou les mots accessoires fléchis n'existent plus, et le groupe de langues
slaves sans accent d'intensité libre pour lesquelles la règle de Wackernagel reste com-
plètement intacte. Dans le cadre de ce dernier groupe, on pourrait de même délimiter
une zone intermédiaire, notamment le secteur nord-est du groupe, c'est-à-dire le polo-
nais, le serbe de Lusace et le dialecte slovaque de l'est. Ces idiomes suivent en principe
la règle de Wackernagel, mais parfois ils rattachent le mot accessoire, à titre de variante
stylistique, immédiatement au mot déterminé. Au point de vue prosodique, ces langues
forment un ensemble spécial: elles ne possèdent ni l'accent phonologique du mot, ni
l'opposition des voyelles longues et brèves.

nord et de l'est en est un exemple typique. Un autre exemple d'univerbation nous est fourni par le futur composé du blanc russe et de l'ukrainien de l'est (*bratymu, bratymeš*).

2) Les mots enclitiques fléchis sont devenus des particules. Ainsi l'aoriste du verbe auxiliaire *byt'* employé dans le cadre du conditionnel composé perd sa conjugaison et devient une simple particule, *by*. Un example analogue nous est fourni par le sort réservé à l'ancien plus-queparfait composé, en grand russe (particule *bylo*).

3) Là où les deux méthodes précitées n'ont pu être employées, la langue a tout simplement laissé tomber les enclitiques fléchies. Ainsi le grand-russe, le blanc-russe, et les dialectes ukrainiens du nord et de l'est ont perdu toutes les formes du présent du verbe auxiliaire *byt'* et toutes les formes enclitiques des pronoms personnels.

Nous avons donc trouvé une formule synthétique qui explique la mutation de tous les mots enclitiques fléchis dans les langues du groupe nord-est.

VI

La disparition des enclitiques fléchies a eu des conséquences d'une grande portée, quant à la structure grammaticale des langues en question. Nous allons nous borner à un exemple syntactique.

Les formes du présent du verbe *byt'* (être) ont été employées en leur qualité de verbe auxiliaire seulement sous forme enclitique, en leur qualité de copule sous forme tantôt enclitique, tantôt orthotonique, et en leur qualité de verbe indépendant exclusivement sous forme orthotonique. La perte des formes du présent du verbe auxiliare a provoqué la disparition des formes du présent du verbe-copule. Comparée aux formes du passé et du futur, l'absence de la forme du présent a été interprétée par la conscience linguistique comme copule-zéro, selon l'observation judicieuse de M. Bally. *Urožaj byl xoroš* (la récolte a été bonne); *urožaj budet xoroš* (la récolte sera bonne); *urožaj xoroš* (mot à mot: la récolte bonne, c'est-à-dire – la récolte est bonne). Le même système a été étendu à la conjugaison du verbe indépendant *byt'* (être, exister). Ce changement a eu un résultat paradoxal: le russe a perdu les propositions énonciatives à un terme dépourvues de prédicat. Les langues slaves connaissent deux variantes équipollentes: la variante à deux termes (par exemple tchèque *je noc* – nox est) et la variante à un terme (par exemple tchèque *noc* – nox). En russe seule la seconde variante a survécu, mais elle fut réinterprétée comme une proposition à deux termes avec un prédicat-zéro.

La perte des formes du présent du verbe auxiliaire et du verbe-copule exigeait qu'on introduisît dans des propositions telles que *dal* (< *dal esi*), *mal* (<*mal est'*) un pronom personnel pour exprimer le sujet (*ty dal* – tu as donné, *on mal* – il est petit). Cette construction a été généralisée. D'après le type *ty dal* on a normalisé le type *ty daëš'* (tu donnes). Du point de vue de la norme linguistique du russe moderne, les propositions à un terme dépourvues de pronom sont des variantes elliptiques. La norme en question ne connaît donc plus de propositions personnelles sans sujet. Les propositions impersonnelles ont un sujet-zéro. En résumé: la norme linguistique du russe a perdu les propositions enonciatives à un terme.

Le sort de la copule et celui des conjonctions sont étroitement liés dans l'évolution de la langue. M. G. S. Keller a étudié l'asyndète dans les langues slaves et a établi que celui-ci est une marque stylistique du grand russe et de l'ukrainien, à l'exclusion des dialectes ukrainiens de l'ouest, alors que dans les autres langues slaves ce phénomène n'est que peu connu. Keller part d'une hypothèse erronée, d'après laquelle l'asyndète est dans les langues slaves un héritage indo-européen, et il est étonné de l'absence de cette particularité précisément dans les textes vieux-slaves et vieux-russes, de même que dans la langue serbocroate, par ailleurs très archaïque. Mais si pour commencer nous confrontons le traitement des conjonctions et celui de la copule, les résultats des observations de Keller apparaîtront comme logiques et persuasifs.

VII

Nous n'avons jusqu'ici examiné que les enclitiques qui déterminaient la phrase toute entière ou le verbe et qui occupaient à l'origine la seconde place dans la phrase. Mais à côté d'elles le slave commun a dû posséder des enclitiques qui ne déterminaient que les noms et qui occupaient la seconde place dans le groupe nominal. Les groupes de mots tels que *ego syn* (son fils) à côté de *syn starika* (fils du viellard) indiquent que c'est précisément la seconde place que recherchait la particule *go* qui finit par fusionner avec le génitif des pronoms et par leur servir de désinence. Pour la même raison l'adjectif déterminé (né d'un juxtaposé de la forme nominale et du relatif *je*, employé comme enclitique) tendait à se poser en vieux-russe devant le substantif, tandis que la place de l'adjectif indéterminé (simple forme nominale) restait relativement libre. M. Meillet a fait remarquer qu'en vieux-slave l'élément *je* ne peut figurer qu'après

le premier de deux adjectifs coordonnés. De même l'enclitique *to, en bulgare et dans les parlers du grand-russe, occupe la seconde place dans les groupes nominaux. Exemple russe: *zlaja-ta žena, žena-ta zlaja.*

L'univerbation du groupe "adjectif suivi du pronom enclitique *je" put être réalisée dès le slave commun, vu qu'il ne s'opposait à ce groupe aucun groupe comportant le pronom orthotonique *je suivi d'un adjectif. Mais les groupes du type *žena-ta*, où la signification démonstrative du pronom enclitique fut affaiblie, ont eu un pendant *ta žena* où le pronom orthotonique a une signification démonstrative plus marquée. Ce n'est que l'accent d'intensité libre, centraliste par sa nature, qui fut capable de différencier radicalement ces deux variantes: tandis que dans le groupe *ta žena* le mot *ta* garde sa qualité de pronom démonstratif (cette femme), il ne joue dans *žena-ta* que le rôle d'article (la femme). Nous observons cet état de choses en bulgare et dans les dialectes du grand russe. Les correspondances du type *ženata – zlaja-ta žena* empêchent la fusion complète de l'enclitique avec le mot auquel elle s'attache. Ainsi c'est précisément dans les langues à accent d'intensité libre qu'a persisté la classe des enclitiques déterminant exclusivement le nom (l'article en bulgare et dans les parlers du grand russe et le datif possessif des pronoms personnels et du pronom réfléchi en bulgare).

VIII

La position des enclitiques dans la phrase constitue une des questions fondamentales concernant l'ordre des mots. Les lois du groupement des mots, de même que les principes du groupement des phonèmes ne représentent pas une agglomération mécanique de règles éparses mais un système cohérent. C'est à la fois un tout et une partie du système linguistique global. Le lien étroit subsistant entre les différentes tranches de cet ensemble apparaît de plus en plus nettement et on voit les faits phonologiques, morphologiques et syntactiques former une chaîne ininterrompue dans l'évolution d'un système linguistique.

BEITRAG ZUR ALLGEMEINEN KASUSLEHRE

GESAMTBEDEUTUNGEN DER RUSSISCHEN KASUS

I

Die Frage der Gesamtbedeutungen der grammatischen Formen bildet naturgemäß die Grundlage der Lehre von dem grammatischen System der Sprache. Die Wichtigkeit dieser Frage war grundsätzlich jenem linguistischen Denken klar, das mit den ganzheitlichen philosophischen Strömungen der ersten Hälfte des vorigen Jahrhunderts verknüpft ist, aber eine erschöpfende Lösung war ohne eine weitere Verselbständigung und Verfeinerung der linguistischen Methodologie unmöglich. Doch die nächste Etappe der Forschung schob eher im Gegenteil das genannte Problem zur Seite; die mechanistisch eingestellte Sprachwissenschaft setzte die Gesamtbedeutungen auf den Index. Die Geschichte der Frage gehört nicht zu meiner Aufgabe und daher beschränke ich mich auf einige erläuternde Beispiele.

Der bekannte russische Sprachforscher Potebnja verwirft die Lehre von einer grammatischen Gesamtbedeutung als einer Substanz, aus der die Sonderbedeutungen als Akzidenzen hervorgehen, und behauptet, daß die "Gesamtbedeutung" lediglich eine Abstraktion, ein künstlicher Auszug, "bloß ein Erzeugnis des Einzeldenkens ist und keine wirkliche Existenz in der Sprache haben kann". Weder die Sprache noch die Sprachwissenschaft bedürfe derartiger Gesamtbedeutungen. In der Sprache gäbe es bloß Einzelfälle, und die Form besitze in der Rede jedesmal bloß je eine, und zwar unzerlegbare Bedeutung, "das heißt, genauer gesprochen, jedes Mal ist es eine andere Form". Die einzelnen Verwendungen des Wortes betrachtet Potebjna einfach als "gleichklingende Worte ein und derselben Familie" und alle ihre Bedeutungen "als gleich partiell und gleich wesentlich" (33 f.). Die Leugnung der Gesamtbedeutungen ist hier bis zu Ende gedacht, und zwar bis zu einer unbegrenzten und unfruchtbaren Atomisierung der sprachlichen Gegebenheiten.

Es werden natürlich Versuche unternommen, den Einheitsbegriff einer grammatischen Form zu retten, einen Begriff, ohne den die Formlehre eigentlich zerfällt. Man versucht die Form von ihrer Funktion und speziell die Einheit einer grammatischen Kategorie von der Einheitlichkeit ihres Bedeutens loszureißen: so meint beispielsweise Marty, die Kasus seien "nicht Träger je eines generellen Begriffes, sondern vielmehr Träger eines ganzen Bündels von verschiedenartigen Bedeutungen" (32 ff., Funke 57). Infolgedessen geht der Zusammenhang zwischen dem Zeichen und der Bedeutung verloren und die Fragen der Bedeutung werden unrechtmäßig aus dem Gebiete der Zeichenlehre (Semiologie und insbesondere Sprachlehre) ausgeschaltet. Die Semantik, dieser Grundkern der Linguistik und jeder Zeichenlehre überhaupt, wird somit gegenstandslos, und es entstehen solche monströse wissenschaftliche Versuche wie eine Morphologie, welche auf die Formbedeutungen ganz und gar keine Rücksicht nimmt.

Ein hervorragender Linguist der Fortunatovschen Schule, Peškovskij, versuchte die semantische Charakteristik der grammatischen Formen aufrechtzuerhalten, indem er die These aufstellte, die Vereinigung der Formen seitens der Bedeutung könne sich nicht nur mittels einer einheitlichen Bedeutung verwirklichen, sondern auch mittels "eines einheitlichen Bündels verschiedenartiger Bedeutungen, die sich innerhalb jeder dieser Formen in gleicher Weise wiederholen" (24 ff.). So erweisen sich zum Beispiel als in ein und derselben kasuellen Kategorie des russischen Instrumentals vereinigt die Bedeutungen des Werkzeugs, des Vergleichs, der Raum- und Zeiterstreckung u.s.w., welche "nichts Gemeinsames miteinander haben" und dennoch eine grammatische Einheit bilden, weil diese verschiedenartigen Bedeutungen "sich innerhalb jeder Form wiederholen", so daß jede beliebige Endung des Instrumentals zur Wiedergabe aller seiner Bedeutungen dienen kann. Diese Behauptung ist ungenau: jede Endung des Instrumentals Sing. masc. fällt bei den russischen Adjektiva mit der Endung des Dativs Plur. zusammen (*zlym, bož'im*); jede Endung des Nominativs Sing. masc. fällt bei den qualitativen Adjektiven mit der Endung ihres Genitivs Sing. fem. zusammen (*zloj–zloj, staryj–staroj, tixij – tixoj, sinij –sinej*; die graphischen Unterscheidungen sind künstlich), und nichtsdestoweniger ist die Getrenntheit der grammatischen Kategorien in jedem dieser Fälle außer Zweifel. Das sind bloß Paare homonymer Formen, und wenn die Einzelbedeutungen eines Kasus wirklich "nichts Gemeinsames miteinander hätten", so wäre auch der Kasus unvermeidlich in mehrere homonyme, miteinander nicht verknüpfte Formen zerfallen. Aber das objektive Vorhandensein der Kasus

in der Sprache und im Gegensatz hiezu die äußerst subjektive Wesensart ihrer Gliederung in Einzelbedeutungen ist allzu klar.

Peškovskij selbst muß zugeben: "die Zahl der Bedeutungen ein und derselben Form festzustellen und dann diese Bedeutungen in Schattierungen und in selbständige Bedeutungen einzuteilen, ist eine ungemein schwere Aufgabe, die gewöhnlich von verschiedenen Sprachforschern auf verschiedene Weise gelöst wird." Wenn es, wie Peškovskij richtig schließt, allzu gefährlich wäre, den Begriff der grammatischen Kategorie von ihrer objektiven Äußerung, d.h. von der lautlich verwirklichten grammatischen Form loszutrennen, so darf man anderseits den Begriff einer derartigen Kategorie von ihrem objektiven Werte, d.h. von der Bedeutung, die ihr in der Sprache ("langue"), zum Unterschied von den anderen Kategorien zugehört, nie absondern.

Wurde in der russischen Zeitwortlehre trotz der abergläubischen Furcht des atomistischen Denkens vor der Problematik des Ganzen und der Teile die Frage der Gesamtbedeutungen der grammatischen Formen wenigstens angedeutet, so lag es viel schlimmer mit der Frage der Kasusbedeutungen. Nicht nur eine größere Verwickeltheit des Problems war daran schuld. Die flektierende Deklination ist in den Sprachen des romanisch-germanischen Westens bloß durch unbedeutende Relikte vertreten. Die westlichen Sprachforscher konnten kaum beim Buchen der mannigfaltigen Verwendungen der einzelnen Kasus in antiken und fremden Sprachen mit einem entwickelten Deklinationssystem ihr eigenes sprachliche Denken zur Kontrolle heranziehen. Deshalb wurde die Frage über das Wesen solch einer vermeintlich nutzlosen Kategorie wie ein Kasus meistenteils durch mechanisches Verzeichnen seiner verschiedenen Einzelbedeutungen ersetzt. Durch solche zerstückelnde Beschreibungen versuchten mehrmals die westlichen Sprachforscher auch den Gehalt der slavischen Zeitwortaspekte zu erfassen. Aber die Aspekte und manche andere Besonderheiten des Zeitwortsystems sind allzu spezifisch für die russische und die übrigen slavischen Sprachen, um den mißglückten Bestimmungen westlichen Ursprungs den Eintritt in die slavische Sprachwissenschaft zu gewähren.

Anders verhält es sich mit der Kasuslehre, wo Muster für die Deutung des slavischen Tatbestandes die angesehene klassische Philologie und Sanskritologie gewährt hat. Die Tatsache, daß die flektierende Deklination den westlichen Sprachen verhältnismäßig fremd ist, spiegelte sich in der Linguistik der entsprechenden Länder ab, und der Einfluß der letzteren entfremdete die Kasusproblematik der slavischen Wissenschaft, trotz der Wichtigkeit der Deklination in den meisten slavischen Sprach-

systemen.[1] Derartige Beispiele einer unrechtmäßigen und zu Mißverstehen führenden Anwendung fremdartiger westlicher Kriterien auf heimische Erscheinungen, sind keine Seltenheit in der Wissenschaft der slavischen Völker.

II

In der Festschrift *Charisteria G. Mathesio...* (1932) veröffentlichte ich eine meiner Skizzen zur strukturellen Grammatik der heutigen russischen Sprache, wo ich die Gesamtbedeutungen der russischen verbalen Formen behandelt habe. Dieselben Prinzipien liegen auch dieser Studie über das russische Kasussystem zugrunde. Eine derartige Beschreibung scheint mir umso zeitgemäßer, als die Frage der Gesamtbedeutungen der Kasus endlich zum Gegenstand einer lebendigen, fruchtbaren Diskussion wird.

Am internationalen Linguistenkongreß in Rom 1933 hielt M. Deutschbein einen Vortrag über die "Bedeutung der Kasus im Indogermanischen" (s. *Atti*), der einige interessante Bemerkungen zur Systematik der kasuellen Grundbedeutungen enthielt, jedoch starre Grundbedeutungen postulierte, ohne dabei in vollem Maße der sprachlichen Empirie Rechenschaft zu tragen. Die Gesamtbedeutung jedes Kasus ist aber "durch das ganze Kasussystem der gegebenen Sprache bedingt" und kann nur durch die Untersuchung der Struktur dieses Systems festgesetzt werden, und Thesen von allgemeiner Tragweite nur durch vergleichende Analyse und Typologie einzelner Sprachstrukturen. Man kann nicht universal und allezeit gültige und vom gegebenen System (bzw. Systemtypus) der Kasusgegensätze unabhängige Kasusbedeutungen aufstellen (s. *Atti*, 146).

Einen ansehnlichen Schritt vorwärts auf dem Wege zur wissenschaftlichen Bewältigung des Kasusbaus bedeutet das wertvolle Buch von L. Hjelmslev *La catégorie des cas* (1935). Der feinsinnige dänische Sprachtheoretiker stützt sich auf eine reiche heimische Tradition: weitsichtige Beobachtungen der Komparatisten von Rask bis Pedersen, welche die Notwendigkeit einer breitangelegten vergleichenden Erforschung der verschiedenen grammatischen Systeme herausstellen, der großzügige Kampf Jespersens für die immanente funktionelle Sprachanalyse und besonders die bahnbrechenden Versuche Brøndals zur Grundlegung

---

[1] Eine nicht zu unterschätzende Rolle in der Geschichte der slavischen Kasuslehre spielte gleichfalls die allmähliche Zersetzung des Systems der Kasusgegensätze auch in den meisten modernen slavischen Sprachen, außerhalb des ostslavischen und polnischen Sprachgebietes.

einer ganzheitlichen strukturellen Morphologie. In der kritischen Über-
sicht der älteren Kasuslehren und in der klaren, durchdachten Fragestel-
lung liegt die Bedeutung des neuen Buches. Seine Hauptthesen knüpfen
an die großartige Arbeit Wüllners an, die ihr Zeitalter weit überholt hat:
"Die Grammatik ist eine Theorie der Grundbedeutungen oder der Werte
und der durch sie gebildeten Systeme, und um ihre Aufgabe zu lösen,
muß sie empirisch vorgehen" (Hjelmslev, 84). Der Forscher hebt aus
dieser Formel drei Kernprobleme hervor: G r u n d b e d e u t u n g , S y s t e m,
e m p i r i s c h e s V e r f a h r e n.

Der erste Begriff wird durch die folgende Bestimmung klargestellt:
"Ein Kasus wie eine Sprachform überhaupt bedeutet nicht einige ver-
schiedene Dinge; er bedeutet ein einziges Ding, er trägt einen einzigen
abstrakten Begriff, aus dem man die konkreten Verwendungen ableiten
kann" (85). Ich nehme Anstoß nur an dem Terminus G r u n d b e d e u t u n g
(signification fondamentale), welcher leicht fehlerhaft mit der Bezeich-
nung H a u p t b e d e u t u n g (*signification principale*) identifiziert werden
kann, während der Verfasser richtig denjenigen Begriff im Auge hat, den
der Terminus G e s a m t b e d e u t u n g (*signification générale*) genauer wie-
dergibt.

Man kann gegen die Forderung eines empirischen, d.h. eines immanen-
ten, innersprachlichen Verfahrens nichts einwenden, vielmehr wäre seine
noch konsequentere Anwendung zu befürworten. Es ist nicht nur unzu-
lässig, dasjenige, was vom sprachlichen Standpunkt zusammengehört,
loszutrennen, sondern man darf auch nicht das, was vom sprachlichen
Standpunkt getrennt ist, künstlich vereinigen. Nicht nur zwei gramma-
tische Formen, sondern auch zwei Formenklassen bedeuten einen Wert-
unterschied. Das Wort ist in der Sprache eine funktionelle Einheit, die
sich vom Wortgefüge grundsätzlich unterscheidet. Die Form des Wortes
und die Form der Wortfügung sind zwei verschiedene Pläne der sprach-
lichen Werte. Man kann also nicht nur vom Unterschiede der Gesamt-
bedeutungen zweier kasuellen Kategorien sprechen, sondern auch vom
Unterschiede zwischen den G e s a m t b e d e u t u n g e n d e r K a t e g o r i e n
W o r t u n d W o r t g e f ü g e. Daher bezweifle ich die Richtigkeit der
Behauptung Hjelmslevs, wonach *les distinctions faites par un ordre fixe
des éléments agissent sur le même plan de relation que les distinctions
faites par les formants casuels.* Für das Russische gilt als normal die W o r t-
f o l g e – Subjekt, Prädikat, direktes Objekt: *otec ljubit syna* "der Vater
liebt den Sohn"; *syn ljubit otca* "der Sohn liebt den Vater". Die Inversion
ist zulässig: *syna ljubit otec* "den Sohn liebt der Vater"; "*žida naduet
grek, a greka armjanin*" "den Juden wird der Grieche betrügen, und den

Griechen der Armenier". Eine derartige Inversion besagt, daß das Objekt
der Ausgangspunkt der Aussage ist und das Subjekt ihr Richtungspunkt.
Das Objekt kann Ausgangspunkt sein entweder als Glied einer Anti-
these oder als Bezeichnung eines Gegenstandes, der aus dem vorangehen-
den Kontext oder aus der Situation bekannt ist, oder es handelt sich von
Anfang an darum, die Aufmerksamkeit auf den Gegenstand zu lenken.
Wie dem auch sei, es wird dabei das übliche Zusammenfallen des Mittel-
punktes der Aussage, d.h. des Subjekts, mit ihrem Ausgangspunkt
verletzt. Wenn aber in einem derartigen Wortgefüge die Endungen der
beiden Nomina ihre Kasus nicht anzeigen, darf die normale Wortfolge
nicht verletzt werden. Z.B.: *mat' ljubit doč'* "die Mutter liebt die Tochter";
doč' ljubit mat' "die Tochter liebt die Mutter" oder im Gedichte "*strax
gonit styd, styd gonit strax*" "die Angst jagt die Schande, die Schande
jagt die Angst". Auf Grund der Wortfolge wissen wir, daß im ersten
Falle die Angst, im zweiten die Schande als Subjekt fungiert. In den
Sätzen wie *otec ljubit syna, syna ljubit otec* wird die syntaktische Funktion
der Nomina durch ihre Kasusform nahegelegt, dort aber, wo die Kasus-
form unklar ist (*mat' ljubit doč'*), wird die Funktion der Nomina im
Satze durch die Wortfolge bestimmt.[2] Sie ist es, die in den wortbeugungs-
losen Sprachen diese Funktion völlig übernimmt. Doch wir haben nicht
das Recht zu behaupten, daß die Wortfolge Kasus ausdrücken kann, sie
kann bloß die syntaktische Funktionen der Worte ausdrücken, was
keinesfalls dasselbe ist. Brøndal hat richtig erkannt, daß die Kasus mor-
phologischer, nicht syntaktischer Natur sind: "jeder Kasus hat seine
Definition oder 'Funktion'; aber es gibt kein notwendiges Verhältnis
zwischen einer Kasusfunktion und Satzfunktion; Kasuslehre und Mor-
phologie sind nicht Syntax" (*Atti*, 146). Die Übertragung der Frage der
kasuellen Gesamtbedeutungen aus der Morphologie in die Syntax konnte
nur unter dem Drucke eines sprachlichen Denkens enstehen, welchem die
Kasus als morphologische Kategorie fremd sind.

Auch das System der p r ä p o s i t i o n a l e n F ü g u n g e n ist nicht mit der
flektierenden Deklination zu verwechseln, da die Sprachen, die beide
erwähnten Kategorien besitzen, erstens die syntaktischen Verwendungen
eines Kasus mit Präposition und ohne solche (mittelbare – unmittelbare
Verbindung) einander entgegensetzen, und zweitens die Bedeutung der

---

[2] Es ist bemerkenswert, daß in den Fällen, wo die Kasusform der Nomina unklar ist,
die Wortfolge meistenteils starr bleibt, auch dann, wenn das syntaktische Verhältnis
aus den reellen Wortbedeutungen sichtbar ist, z.B. kann man sagen *syna rodila mat'
proslym letom* "den Sohn hat die Mutter vorigen Sommer geboren", aber keinesfalls
doč' rodila mat' – – "die Tochter hat die Mutter – – geboren", sondern bloß *mat'
rodila doč'* – – "die Mutter hat die Tochter – – geboren".

Kasus und der Präpositionen als zwei besondere Bedeutungsgattungen deutlich voneinander unterscheiden: ein und derselbe Kasus umfaßt mehrere Präpositionen, und dieselbe Präposition kann verschiedene Kasus fordern. Der sogenannte Übergang einer Sprache vom flektierenden Bau zum analytischen ist in der Tat ein Übergang vom gleichzeitigen Bestand eines flektierenden und eines analytischen Systems zur Monopolstellung des letzteren. In einer Sprache, welche ein System der präpositionalen Fügungen mit einem unabhängigen Kasussystem vereinigt, unterscheiden sich die Bedeutungen der beiden Systeme in dem Sinne, daß in der präpositionalen Fügung die Beziehung an sich in den Blick genommen wird, während sie im präpositionslosen Gefüge etwa zu einer Eigenschaft des Gegenstandes wird.

"Dem atomistischen Verfahren muß man einen ganzheitlichen Standpunkt entgegenstellen, der das System zugleich zum Ausgangspunkt und zum Endziel der Forschung macht," schreibt zutreffend Hjelmslev, "aber ein solches Verfahren ist noch bei weitem nicht erfüllt und deshalb wurde die Kasustheorie bisher noch nicht verwirklicht" (86 f.). Die Erfahrung, daß die Versuche, die einzelnen Kasus isoliert zu bestimmen vergeblich sind, und daß es unumgänglich ist, vom Gesamtsystem der Kasusgegensätze auszugehen, ist eine naturgemäße Schlußfolgerung eines immanenten Verfahrens gegenüber der sprachlichen Empirie, welcher der Begriff einer isolierten und unabhängig vom System der sprachlichen Gegensätze bestimmbaren Form vollkommen fremd ist. Die Abhandlung über die allgemeine Struktur des Kasussystems, die das lehrreiche Buch Hjelmslevs schließt, und die ich nach dem Erscheinen des angekündigten zweiten Bandes eingehender zu besprechen hoffe, versucht die Gesamtbedeutungen des Kasus im Lichte des Kasussystems als einer Ganzheit zu erörtern. Auch in diesem Falle könnte man gegen die programmatischen Äußerungen des Sprachtheoretikers nicht das Geringste einwenden, sondern es wäre eher zu beanstanden, daß der Verfasser in der konkreten Erforschung der Kasussysteme seinen eigenen Grundsätzen nicht mit genügender Strenge folgt.

Die Grundfrage, die sich dem Forscher erhebt, lautet: welches ist das objektive Verhältnis zweier grammatischer Kategorien, namentlich zweier Kasus in der Sprache, und vor allem: worin unterscheiden sich ihre Gesamtbedeutungen? – In den *Charisteria* schrieb ich: "Indem der Forscher zwei einander entgegengesetzte morphologische Kategorien betrachtet, geht er oft von der Voraussetzung aus, diese beiden Kategorien seien gleichberechtigt, und jede besitze ihre eigene positive Bedeutung: die Kategorie I. bezeichne α, die Kategorie II. bezeichne β, oder mindestens:

I. bezeichne α. II. bezeichne das Nichtvorhandensein, die Negation von α. In Wirklichkeit verteilen sich die allgemeinen Bedeutungen der korrelativen Kategorien anders: falls die Kategorie I. das Vorhandensein von α ankündigt, so kündigt die Kategorie II. das Vorhandensein von α nicht an, d.h. sie besagt nicht, ob α anwesend ist oder nicht. Die allgemeine Bedeutung der Kategorie II. im Vergleich zu der Kategorie I. beschränkt sich auf den Mangel der "α-Signalisierung" (74). [S. oben, S. 3.]

Dieser Grundsatz wird von Hjelmslev anerkannt: "La structure du système linguistique n'est pas telle qu'il soit possible de maintenir la distinction entre un terme positif et un terme négatif.... L'opposition réelle et universelle est entre un terme défini et un terme indéfini" (101). Doch in den Beschreibungen der einzelnen Kasussysteme, z.B. derjenigen der gotischen Substantive, weicht der Verfasser der *Catégorie des cas* von den erwähnten Leitfäden ab. So gibt er z.B. eine derartige Definition des gotischen Nominativs und Akkusativs: "Le nominatif désigne à la fois éloignement et rapprochement, puisqu'il est à la fois cas 'sujet' et cas 'prédicat': mais il insiste sur la face négative de la dimension parce que la valeur de 'sujet' prédomine. En outre le nominatif peut être neutre à l'égard de l'opposition; ainsi s'il est mis hors contexte ou s'il prend le rôle du vocatif. L'accusatif désigne à la fois éloignement et rapprochement puisqu'il est à la fois 'sujet' et 'objet' dans la construction dite accusatif avec infinitif; mais l'accusatif insiste sur la face positive de l'opposition parce que la valeur d''objet' prévaut et est souvent la seule envisagée. En outre l'accusatif peut être neutre à l'égard de l'opposition comme c'est le cas lorsqu'il indique le temps, l'espace temporelle à l'intérieur de laquelle un fait est situé." (116 f.).

Das Problem der Gesamtbedeutungen ist hier offenkundig einerseits durch die traditionelle Liste der Einzelbedeutungen verdrängt, bzw. durch die Liste der syntaktischen Funktionen eines jeden der beiden Kasus (z.B. Nominativ als Subjekts- und Prädikatskasus, als prädikatslose Form und als Anredeform), und anderseits durch die Feststellung der Hauptbedeutung jedes Kasus (beim Nominativ "herrscht der Wert des 'Subjekts' vor", beim Akkusativ hingegen "überwiegt der Wert des 'Objekts' und ist oft der einzig berücksichtigte"), obgleich der Forscher im Prinzip ein solches Verfahren verurteilt (6 u.a.).

Die folgenden Skizzen versuchen die morphologischen Korrelationen, aus denen das System der modernen russischen Deklination besteht, aufzudecken, die Gesamtbedeutungen der russischen Kasus auf diesem Wege zu erläutern und somit Material zur künftigen vergleichenden Kasuslehre beizusteuern.

III

Beim Vergleich des russischen Nominativs und Akkusativs definiert
man häufig den ersten als Kasus, der das Subjekt einer Tätigkeit und den
zweiten als Kasus, der ihr Objekt bezeichnet. Eine derartige Bestimmung
des Akkusativs ist im großen und ganzen richtig. Der Akkusativ besagt
stets, daß irgend eine Handlung auf den bezeichneten Gegenstand ge-
wissermaßen gerichtet ist, an ihm sich äußert, ihn ergreift. Es handelt
sich also um einen "Bezugsgegenstand" nach der Terminologie Büh-
lers (250).

Diese Gesamtbedeutung kennzeichnet die beiden syntaktischen Abarten
des A-s: 1. Der A, welchen Peškovskij als den "starkregierten" defi-
niert, bezeichnet entweder ein inneres Objekt der Handlung, welches
als ihr Ergebnis entsteht (*pisat' pis'mo* "einen Brief schreiben"), oder ein
äußeres, das einer Wirkung von außen unterworfen ist, aber auch un-
abhängig von ihr bestanden hat (*čitat' knigu* "ein Buch lesen"; 2. Ein
"schwachregierter" A bezeichnet einen Zeit- oder Raumabschnitt, der
von der Handlung restlos umfaßt ist (*žit' god* "ein Jahr leben", *idti verstu*
"eine Werst gehen") oder den objektivierten Inhalt einer Äußerung (*gore
gorevat'* "Leid leiden", *šutki šutit'* "Scherze scherzen", *stoit' den'gi*
"Geld kosten"). Der schwachregierte A unterscheidet sich vom stark-
regierten dadurch, daß sein Inhalt ungenügend vergegenständlicht und
nicht genug gegenüber der Handlung verselbständigt ist, sodaß er zwi-
schen der Funktion eines Objektes und eines Umstandes der Handlung
(Adverbiale) schwankt, auch mit den sonst intransitiven Zeitwörtern ver-
bunden werden kann, einer Umwandlung in das Subjekt einer passiven
Konstruktion unfähig ist und innerhalb eines einfachen Satzes sich mit
einem starkregierten A vereinigen läßt (*vsju dorogu menja mučila žažda*
"den ganzen Weg quälte mich der Durst"), während zwei starkregierte
A-e nicht vereinbar sind.

Die Bedeutung des A-s ist so eng und unmittelbar mit der Handlung
verbunden, daß er ausschließlich von einem Zeitwort regiert werden
kann und sein selbständiger Gebrauch immer ein ausgelassenes und hin-
zugedachtes Zeitwort empfinden läßt: *karetu!* "den Wagen!", *nagradu
xrabrym!* "eine Auszeichnung den Tapfern!" In solchen akkusativischen
Anreden wie *Van'ku! Lizu!* (ein Fernruf oder ein nachdrücklicher Anruf,
welcher in den Volksmundarten verbreitet ist) oder in solchen Ausruf-
sätzen wie *nu ego* [A] *k lešemu!* "zum Teufel mit ihm!"; *pust' ego* [A]
kutit! "soll er bummeln!"; "*èk ego* [A] *zalivaetsja!*" (Gogol') "wie er
trillert!", ist der Akkusativgegenstand als Objekt einer tätigen Stel-

lungnahme des Sprechenden, und zwar von Appell, von Ablehnung, von Gewährenlassen, von Bewunderung vorgestellt. Die Bedeutung der Gerichtetheit ist auch mit dem präpositionalen A verbunden. Vgl. solche Fügungen wie *na stol* "auf den Tisch" – *na stole* "auf dem Tische", *pod stol* "unter den Tisch" – *pod stolom* "unter dem Tische" u.ä.

Ist die geläufige Bestimmung des A-s im allgemeinen richtig, so bleibt bei der traditionellen Charakteristik des N-s als eines Kasus, der das handelnde Subjekt bezeichnet, eine Reihe von Anwendungen des N-s nicht einbegriffen. Im Satze *vremja – den'gi* "Zeit ist Geld" ist weder der N des Subjekts, noch der des Prädikats als tätig gekennzeichnet. Im Satze *syn nakazan otcom* "der Sohn ist vom Vater bestraft worden" erweist sich der Nominativgehalt als ein Objekt der Handlung. Der tatsächliche Gegensatz des A-s und N-s besteht bloß darin, daß der A ankündigt, auf den Gegenstand sei eine Handlung gerichtet, wogegen der N an sich weder das Vorhandensein noch das Nichtvorhandensein eines Bezugs zu einer Handlung angibt.[3] Die Angabe des Vorhandenseins eines Bezugs ist also das Merkmal des A im Gegensatz zum N; es ist mithin angebracht, den A als das merkmalhaltige, bzw. den N als das merkmallose Glied einer Bezugskorrelation zu betrachten. Die Aufstellungen der indischen Grammatiker, der N enthalte nichts als die Bedeutung des Nominalstammes, des Geschlechtes und des Numerus, eine treffende Lehre, an der Delbrück mit Unrecht aussetzt, daß der N nicht als Subjektkasus aufgefaßt wird (181), gilt also, wie wir sehen, auch für das Russische.

Die Signalisierung der abhängigen Stellung des durch den A bezeichneten Gegenstandes verurteilt die Kasusform selbst zur abhängigen Rolle im Satze im Gegensatz zum N, der an sich keine syntagmatischen Beziehungen kennzeichnet. Der russische N wurde mehrmals richtig definiert als ein einfacher nackter Gegenstandsname ohne die Verwicklungen, die

---

[3] Ich glaube, daß im Gotischen die erwähnten Kasus in ähnlichem Sinne einander entgegengesetzt sind. Die Vereinbarung der entgegengesetzten Funktionen, von der Hjelmslev spricht, ist in beiden Fällen grundsätzlich verschieden: der N kann entweder die eine oder die andere Funktion erfüllen, d.h. mit anderen Worten, keine dieser Funktionen ist für seine Gesamtbedeutung spezifisch; dagegen kann der A die Funktionen des Objekts einer Handlung und des Subjekts einer Handlung vereinigen, z.B. in der Verbindung mit dem Infinitiv (*hausidedup ina siukan* = ἠκούσατε αὐτὸν ἠσθενηκέναι – der Akkusativgegenstand ist hier zugleich Objekt des Erfahrens und Subjekt des Erkrankens), aber die Objektsbedeutung bleibt dabei stets ein unentbehrliches Merkmal des A-s, während seine Nebenrolle als Subjekt bloß eine der syntaktischen Verwendungen dieses Kasus ist. Deshalb umfaßt die Definition des A als eines Kasus, der ein Handlungsobjekt bezeichnet, alle Sonderbedeutungen des A-s, und nötigt nicht zur unberechtigten Erklärung einzelner dieser Bedeutungen als metonymischer Kasusverwendungen.

durch die Formen der übrigen Kasus hineingetragen werden (Peškovkij, 118), als *cas zéro* (Karcevskij, *Système*, 18), kurz gesagt als merkmallose Kasusform. Die Tatsache, daß der N im Gegensatz zu allen übrigen Kasus die Selbstentfaltung des bezeichneten Gegenstandes keineswegs einschränkt (d.h. weder seine Abhängigkeit von einer Handlung kennzeichnet, noch das unvollständige Vorhandensein im Sachverhalt der Aussage u.s.w.), sondert diesen Kasus von allen übrigen wesentlich ab und macht ihn zum einzig möglichen Träger der reinen Nennfunktion. Der N nennt unmittelbar den Gegenstand, die übrigen Formen sind nach der treffenden Bestimmung des Aristoteles "keine Namen, sondern Kasus des Namens". Die Nennfunktion kann als einzige Funktion des ersten Kasus vorhanden sein: die Benennung wird einfach mit dem gegebenen oder vorgestellten Gegenstand verknüpft. Ein Inhalt wird angesagt: *buločnaja* "Bäckerei", "*Revizor*" "Revisor" – es ist die Sprache der Schilder und Überschriften. Der Sprechende erkennt und nennt die wahrgenommenen Gegenstände (ein Besucher des Tiergartens: *medved'*, *verbljud*, *lev* "Bär, Kamel, Löwe") und die eigenen Erlebnisse (*xolod, toska* "Kälte, Schwermut") oder er ruft durch Namen imaginäre Gegenstände hervor (der Dichter Bal'mont: "*Večer. Vzmor'e. Vzdoxi vetra*" "Abend. Strand. Seufzen des Windes"). Der Nominativ fungiert in allen diesen Fällen als eine Art von Prädikat im Verhältnis zur Gegebenheit, welche ob empirisch oder fiktiv der Aussage gegenüber außenliegend ist.

Der N ist die merkmallose Form für die Nennfunktion der Rede. Er fungiert aber auch als Bestandteil einer Aussage, welche den Gegenstand nicht nur nennt, sondern über ihn auch etwas mitteilt. Doch auch in der darstellenden Rede bleibt die Nennfunktion des N-s stets mitbestimmend, ja maßgebend: der durch den N bezeichnete Gegenstand wird als der Gegenstand der Aussage hingestellt. Die unvolkommene Verschmelzung der Nennfunktion mit der darstellenden äußert sich besonders in solchen Fällen wie *osël* [Nominalsatz], *tot* [Subjekt eines darstellenden Satzes] *ne trebuet bol'šogo uxoda* "der Esel, der fordert keine große Pflege" (diese Konstruktion ist auf čechischem Sprachmaterial am eingehendsten von Trávníček untersucht, *Věty*, 137 ff.).

Der N kann zwar in ein und derselben darstellenden Aussage verschiedene syntaktische Aufgaben erfüllen, und die Bedeutungen dieser verschiedenen nominativen Satzglieder können ihrem Umfange nach ungleich sein, doch beziehen sich diese verschiedenen Satzglieder notwendig auf einen und denselben Gegenstand, und zwar auf denjenigen Gegenstand, welcher durch das Satzsubjekt bezeichnet ist. Bloß mit dieser Einschränkung ist die These, der N sei der Kasus des grammatischen

Subjekts (so z.B. für das Russische schon Puchmayer, 259), zutreffend,
denn sonst ist weder der N der einzige Ausdruck des Subjekts (das Sub-
jekt kann auch durch den Genitiv ausgedrückt werden), noch das Subjekt
die einzige syntaktische Funktion des N-s (vgl. den prädikativen N). 1.
Onegin – dobryj moj prijatel' "Onegin ist mein guter Freund", 2. *"Onegin,
dobryj moj prijatel', rodiljsa na bregax Nevy"* (Puškin) "Onegin, mein
guter Freund, ist an der Küste der Neva geboren". Der Subjektnomi-
nativ und der des Prädikats im ersten Satz meinen einen und denselben
Gegenstand, ebenso im zweiten Falle das Subjekt und die Apposition.
Durch die Prädikation wird das Beziehen der Prädikatsbedeutung auf
den Subjektgegenstand angezeigt, hingegen durch die Apposition (bzw.
durch die Attribution überhaupt) das Bezogensein der Bedeutung. For-
mell ist im "doppelten N" bloß die Aufeinanderbeziehung zweier Be-
deutungen gegeben, und erst die reellen Bedeutungen der Nomina oder die
ganze Umgebung legen nahe, welche von den zwei Bedeutungen die deter-
minierende und welche die determinierte ist, und vielfach, besonders in
der dichterischen Sprache, bleibt der Unterschied zwischen dem Subjekt
und dem nominalen Prädikat (bzw. Apposition) mehr oder weniger
verwischt. So z.B. im Marsch von Majakovskij: *"Naš bog* [P] *beg* [S].
Serdce [S] *naš baraban* [P]"* "Unser Gott – das Rennen. Das Herz – unsere
Trommel".

Durch die Sonderstellung des N-s entsteht eine eigenartige syntaktische
Perspektive: der Nominativgegenstand nimmt die führende Rolle in der
Aussage ein, er wird vom Sprechenden in Blick genommen. Vergleichen
wir zwei Aussagen: *Latvija sosedit s Èstoniej* "Lettland ist mit Estland
benachbart" – *Èstonia sosedit s Latviej* "Estland ist mit Lettland benach-
bart". Der Sachverhalt der beiden Aussagen ist identisch, aber im ersten
Falle ist Lettland, im zweiten Estland der Held der Darstellung, von dem
ausgesagt wird. Husserl analysiert im zweiten Bande der *Logischen
Untersuchungen*, deren Tragweite für die Sprachtheorie man nie genug
betonen kann, derartige Satzpaare wie "a ist größer als b" und "b ist
kleiner als a" und stellt fest, daß die beiden Sätze zwar dieselbe Sachlage
ausdrücken, aber nach ihrem Bedeutungsgehalt verschieden sind (48).
Sie unterscheiden sich durch die Hierarchie der Bedeutungen.

Die Unterordnung der Akkusativbedeutung in der Abstufung der
Bedeutungen einer Aussage bleibt auch in den subjektlosen Sätzen in
Kraft. Die Besonderheit dieser Sätze liegt darin, daß die Stelle des
führenden Gegenstandes, ohne aufgehoben zu sein, vakant bleibt.
Man könnte, syntaktisch gesehen, von einem "Nullsubjekt" sprechen.
Soldata [A] *ranilo v bok* "der Soldat wurde an der Seite verwundet";

lodku [A] *daleko otneslo* "das Boot wurde weit abgetrieben". In den nach ihrem Tatbestand identischen Sätzen *soldat* [N] *ranen v bok*; *lodka* [N] *daleko otnesena* erhalten die durch den N bezeichneten Gegenstände die erste führende Stelle in der Abstufung der Bedeutungen. Der A an sich kennzeichnet, daß ihm in der Hierarchie der Bedeutungen der Aussage etwas übergeordnet ist, d.h. er besagt im Gegensatz zum N das V o r h a n - d e n s e i n   e i n e r   H i e r a r c h i e   d e r   B e d e u t u n g e n. Metaphorisch ge- sprochen, der A signalisiert die Unterordnung eines Punktes, setzt also irgendeinen anderen gegebenen oder bloß vermeintlichen Punkt, der mit dem ersten verbunden ist, über ihm voraus; der A kennzeichet mithin die "senkrechte" Wesensart der Aussage, während der N nichts als einen einzigen Punkt angibt. Wenn Andrej Belyj in einem Gedichte anstatt des Satzes *ty vidiš' menja* [A] "du siehst mich" die Wendung *ty vidiš' – ja* [N] gebraucht, so zeigt er, syntaktisch gesehen, bloß zwei unabhängige Punkte an und hebt somit die Hierarchie der Bedeutungen auf.

Die Frage der kasuellen Gesamtbedeutungen gehört der Wortlehre und die ihrer Sonderbedeutungen der Wortverbindungslehre an, da die Ge- samtbedeutung des Kasus von seiner Umgebung unabhängig ist, während seine einzelnen Sonderbedeutungen durch verschiedenartige Wortge- füge, bzw. durch verschiedenartige, formelle und reelle Bedeutungen der umgebenden Worte bestimmt werden – es sind also sozusagen die k o m b i - n a t o r i s c h e n   V a r i a n t e n   d e r   G e s a m t b e d e u t u n g. Es wäre eine unberechtigte Vereinfachung des Problems, die Untersuchung der Kasus- bedeutungen auf die Feststellung einer Reihe von Sonderbedeutungen eines Kasus und seiner Gesamtbedeutung als ihres gemeinsamen Nenners zu beschränken. Die Sonderbedeutungen, die syntaktisch oder phraseo- logisch bedingt sind, bilden keine mechanische Anhäufung, sondern es gibt eine gesetzmäßige H i e r a r c h i e   d e r   S o n d e r b e d e u t u n g e n. Man darf allerdings nicht die Frage der Gesamtbedeutung eines Kasus durch die Frage seiner spezifischen Bedeutung oder seiner Hauptbedeutung ersetzen und überhaupt, wie es oft der Fall ist, diese Fragen verwechseln, anderseits aber sind wir nicht berechtigt, das Problem selbst der Hierarchie der Sonderbedeutungen, die von einer Gesamtbedeutung umfaßt sind, wegzuleugnen. Die Hauptbedeutung und ebenso die spezifische Kasusbe- deutung ist keine gelehrte Fiktion, sondern eine wesentliche sprachliche Gegebenheit.

Wir stellen fest, daß zwei Kasus korrelativ sind, d.h., die Gesamtbe- deutung des einen nimmt ein gewisses Merkmal (α) der gegenständlichen Gegebenheit in den Blick, wogegen die Gesamtbedeutung des anderen Kasus das Vorhanden- oder Nichtvorhandensein dieses Merkmals uner-

wähnt läßt. Im ersten Falle sprechen wir von einer merkmalhaltigen, im letzteren von einer merkmallosen Kategorie. Aus der Tatsache, daß die beiden Kategorien einander entgegengesetzt sind, ergibt sich, daß zur spezifischen Bedeutung eines merkmallosen Kasus die Bezeichnung des Nichtvorhandenseins des Merkmals wird. Wenn die Gesamtbedeutung des N-s im Gegensatz zum A nicht angibt, ob der bezeichnete Gegenstand irgendeiner Handlung unterworfen ist (Nicht-Signalisierung von α), so gibt die spezifische Bedeutung dieses Kasus an, daß die Aussage von einer solchen Handlung nichts weiß (Signalisierung von Nicht-α; vgl. *Charisteria*, 84). Diese Bedeutung hat auch der N im selbständigen Gebrauch. Dagegen in den Fällen, wo die Wortumgebung ankündigt, daß der Nominativgegenstand einer Handlung unterworfen ist (die Signalisierung von α), wird diese kombinatorische Bedeutung des N, die mit der Akkusativbedeutung zusammenfällt, als eine "uneigentliche" Bedeutung gewertet. Diejenige spezifische Bedeutung des N-s, die der des korrelativen Kasus direkt entgegengesetzt ist, also die Bedeutung des handelnden Subjekts, oder, noch zugespitzter, die Bedeutung des Subjekts einer transitiven Handlung, gilt als die nominativische Hauptbedeutung. In dieser Bedeutung wäre ein anderer Kasus als der N unanwendbar – man sagt *detej* [G] *prišlo!* "was für eine Anzahl von Kindern gekommen ist!"; *nikogo* [G] *ne bylo* "es war niemand da", aber man kann bloß sagen *deti* [N] *sobirali jagody* "die Kinder suchten Beeren", *nikto* [N] *ne pel* "niemand sang" – und keineswegs *detej sobiralo jagody, nikogo ne pelo*. Der syntaktische Gebrauch des N-s, der diese Bedeutung zur Äußerung bringt, wird im Gegensatze zu demjenigen, der den Bedeutungsunterschied des N-s vom A aufhebt, naturgemäß als merkmallos empfunden. Darum sind solche aktive Fügungen wie *pisateli pišut knigi* "die Schriftsteller schreiben Bücher"; *Puškin napisal Poltavu* "Puškin schrieb 'Poltava'" merkmallos im Vergleich mit solchen Fügungen wie *knigi pišutsja pisateljami* "die Bücher werden von Schriftstellern geschrieben"; *Poltava napisana Puškinym* "'Poltava' ist von Puškin geschrieben".

Die geeignetste Vorstellung des handelnden Subjekts und insbesondere des Subjekts der transitiven Handlung ist das belebte Wesen und die des Objekts der unbelebte Gegenstand (vgl. *Atti*, 144). Eine Rollenvertauschung – ein unbelebter Gegenstand fungiert als Subjektnominativ, ein belebtes Wesen ev. als Objektakkusativ – erhält entsprechend einen gewissen Beigeschmack der Personifizierung: *gruzovik razdavil rebënka* "der Lastwagen tötete ein Kind"; *fabrika kalečit ljudej* "die Fabrik verkrüppelt die Menschen", *peč' požiraet mnogo uglja* "der Ofen verschlingt viel Kohlen". Thomson, der die Verteilung der beiden seman-

tischen Abarten (belebt–unbelebt) zwischen dem Subjekt und dem Objekt statistich untersuchte, kam zum folgenden Ergebnis: bei den transitiven Verben ist der Mensch Subjekt κατ' ἐξοχήν, die Sache ist Objekt, und die Tiernamen nehmen eine mittlere Stellung ein (XXIV, 305). Ein A, der einen unbelebten Gegenstand bezeichnet, entbehrt leicht, meist ohne die Verständlichkeit zu hemmen, eine formelle Charakteristik, die ihn vom N unterscheidet. Vgl. das Zusammenfallen des A-s der unbelebten Gegenstände mit dem N in den meisten russischen Paradigmen. Bezeichnenderweise beziehen wir die Frage *čto delaet* "was macht" im Gegensatz zu *kto delaet* "wer macht" auf das Objekt, keinesfalls auf das Subjekt.

Es gibt Sprachen (z.B. die baskische und die nordkaukasischen), wo die erwähnte ausgeprägteste Funktion des N-s, nämlich die des Subjekts einer transitiven Handlung, zur einzigen Funktion des Kasus wird. Das Verhältnis des merkmallosen und merkmalhaltigen Kasus ist hier im Vergleich mit dem Russischen (und mit den übrigen Nominativ-Akkusativsprachen) ein umgekehrtes: hier besagt nicht der merkmalhaltige Kasus, daß der Gegenstand einer Handlung unterworfen wird, sondern im Gegenteil, daß er etwas einer Handlung unterwirft, wogegen der merkmallose Kasus das Vorhandensein einer derartigen Handlung nicht kennzeichnet. Uhlenbeck bezeichnet den ersten als Transitivus, den zweiten als Intransitivus (eine interessante Übersicht der Frage bei Kacnel'son, 56 ff.). Der erste fungiert als Subjekt bei transitiven Zeitwörtern, wogegen der merkmallose Intransitiv naturgemäß verschiedene syntaktische Funktionen ausüben kann, nämlich die des Objekts bei den transitiven Zeitwörtern und die des Subjekts bei den intransitiven. Die Vergleichung der Gegensätze Nominativ–Akkusativ und Transitiv–Intransitiv mit den Gegensätzen der genera verbi deckt die enge Verwandtschaft dieser nominalen und verbalen Korrelationen auf. Das Paar Transitiv –Intransitiv wird richtig als ein Gegensatz des aktiven und neutro-passiven Genus gedeutet; es wäre angebracht, das Verhältnis des N und A entsprechend als einen Gegensatz des neutro-aktiven und passiven Genus zu betrachten.

IV

An der Analyse des angeblich "so vieldeutigen" Genitivs erwies sich besonders deutlich die Unfruchtbarkeit der atomistischen Betrachtungsweise, die den Kasus in eine Anzahl verschiedenartiger, ja sogar sich widersprechender Sonderbedeutungen zerstückelt. So z.B. nennt der

Forscher unter den "einzelnen Genitiven" der russischen Sprache einen G der Trennung, der "den Gegenstand, von dem sich die im verbalen Stamm ausgedrückte Bewegung fortbewegt" bezeichnet, und einen des Ziels, dessen Bedeutung "derjenigen des G. der Trennung direkt entgegengesetzt ist, da der erste einen Gegenstand bezeichnet, auf welchen oder zu welchem die Handlung gerichtet ist" (Peškovskij, 264 ff.). Vgl. solche Antithesen wie die polemische Auslegung der alten rechtgläubigen und der neuen Lehre in einer Schrift der Altgläubigen: einerseits *begaj bluda* [G] "weiche der Unzucht aus", anderseits *želaj bluda* [G] "wünsche Unzucht". In der Wirklichkeit sind derartige Bedeutungen wie "die Richtung von" oder "die Richtung zu" in die Aussage durch die reelle Bedeutung des Zeitworts hineingetragen, in solchen Wortgefügen wie *ot zari* [G] *do zari* [G] "von (Abend-)röte bis (Morgen-)röte" durch die Bedeutung der Präpositionen. Schon die Möglichkeit einer Verknüpfung mit dem G zweier entgegengesetzter Richtungsbedeutungen bezeugt, daß der Bedeutung des G-s an sich der Begriff der einen oder der anderen Richtung fremd bleibt.

Aus dem Vergleiche des G-s mit dem N und dem A ergibt es sich, daß der G stets die Grenze der Teilnahme des bezeichneten Gegenstandes am Sachverhalte der Aussage ankündigt. Es wird auf diese Weise der Umfang des Gegenstandes in den Blick genommen und wir können dementsprechend den Gegensatz des G-s, der die Umfangsverhältnisse anzeigt, und derjenigen Kasus, die keine Umfangsverhältnisse anzeigen (N, A), als eine Umfangskorrelation bezeichnen. Auch diesen nominalen Gegensatz könnte man mit der verbalen Aspektskorrelation vergleichen, deren Merkmal in der Ankündigung der Handlungsgrenze besteht und entsprechend von einer nominalen Aspektskorrelation reden.

Was den Gegensatz der Signalisierung und Nichtsignalisierung einer auf den bezeichneten Gegenstand gerichteten Handlung betrifft, ist dieser Bedeutungsunterschied im G aufgehoben, und der fragliche Kasus kann ebensogut einen von einer Handlung betroffenen wie einen unabhängigen Gegenstand bezeichnen.

Der G an sich besagt nur, daß der Umfang der Teilnahme des Gegenstandes am Sachverhalte der Aussage geringer als sein gesamter Umfang ist. In welchem Maße der Umfang des Gegenstandes beschränkt wird, das bestimmt der sprachliche oder der außersprachliche Kontext. Der Genitivgegenstand kann im Sachverhalt der Aussage 1. teilweise oder 2. negativ vertreten sein. Im ersten Falle besagt der Gebrauch des Kasus ein bestimmtes oder unbestimmtes Maß der Teilnahme des Gegenstandes (Genitivus partitivus) und stellt somit eine räumliche oder zeitliche

Grenze fest. Im zweiten Falle bleibt der Gegenstand außerhalb des Sachverhaltes der Aussage, wobei der Kontext entweder nichts anderes angibt, als daß der Sachverhalt der Aussage an der Grenze des Gegenstandes Halt macht ("G des Randes oder der Grenze"), oder es wird nebenbei angegeben, ob dieser Sachverhalt sich zum bezeichneten Gegenstand neigt (G des Zieles) oder im Gegenteil sich von ihm entfernt (G der Trennung), ihn ausschaltet, verdrängt (G der Negation).[4] Betrachten wir die einzelnen syntaktischen Varianten der beiden erwähnten Genitivarten.

G in Nominalsätzen: 1. *novostej, novostej!* ungefähr "welche Anzahl von Neuigkeiten!"; volkstümliche Redensarten *takix-to delov!* ungefähr "solch ein Ausmaß haben die Angelegenheiten"; *kakogo dela!* ungefähr "ein derartiges Ausmaß hat die Angelegenheit!"[5] Ein Ausruf des Grünzeugkrämers: *kapusty! ogurcov!* "(etwas von) Kohl! (etwas von) Gurken!"; 2. *"vody, vody!* [G] ... *no ja naprasno stradal'cu vodu* [A] *podaval"* (Puškin) "'Wasser, Wasser' ... aber vergebens reichte ich dem Leidenden Wasser"; *"spokojnoj noči! vsem vam spokojnoj noči!"* (Esenin) "gute Nacht! euch allen gute Nacht!"; *"limončika by!"* (A. Belyj) "wenn ein Zitronchen!"; *"ni golosa"* (Majakovskij) "keine Stimme". In allen Beispielen dieser Rubrik bleibt der Genitivgegenstand außerhalb des Sachverhaltes der Aussage, in welchem Verhältnis er auch zu ihm stehen mag. Der selbständig gebrauchte G besagt, wie wir aus den Beispielen ersehen, daß der Gegenstand in einem unbestimmten, aber in Blick genommenen Ausmaß sich entfaltet (1.) oder zu entfalten ist (2.). Welche von den beiden Möglichkeiten im gegebenen Falle gemeint wird, entscheidet die Situation.

Subjektgenitiv: 1. *ljudej* [G] *sobralos'* "es haben sich Leute angesammelt" – *ljudi* [N] *sobralis'* (dasselbe ohne Einstellung auf die Menge); *"šutok* [G] *bylo"* (Lermontov) "es waren (viele) Scherze" – *šutki* [N] *byli* (die Menge ist nicht angedeutet); 2. *nužno spiček* [G] "es sind Streichhölzer nötig" – *nužny spički* [N] (ohne Einstellung auf ihren tatsächlichen Mangel); *strašno smerti* [G] "es ist unheimlich vor dem Tode" – *strašna smert'* [N] "unheimlich ist der Tod" (im ersten Falle ist der Tod ein negativer "Held" der Aussage und bleibt also außerhalb ihres Sachverhaltes – ihre positiven "Helden" sind diejenigen, die vor dem Tod zurückschrekken, während im zweiten Falle der Tod der positive und einzige Held ist);

---

[4] Den häufigen Mangel an einer deutlichen Grenze zwischen den einzelnen syntaktischen Bedeutungen des G-s hat treffend F. Trávníček berücksichtigt (*Studie*, § 70).
[5] Šaxmatov (§ 47) hegt Zweifel über den Ursprung der letzten Wendung, doch hat Trávníček im entsprechenden čechischen *"jakého to zvuku!"* den partitiven G richtig erkannt (*Věty*, 16).

otveta [G] *ne prišlo* "es kam keine Antwort" – *otvet* [N] *ne prišël* "die Antwort kam nicht" (im ersten Falle ist der Gegenstand selbst wie aus dem Sachverhalt der Aussage gestrichen, im zweiten wird bloß die Handlung verneint).

Adverbaler G:

1. der partitive Objektgenitiv kommt vor in Verbindung a) mit den Zeitwörtern, die unmittelbar eine Quantitätsänderung (d.h. das Anwachsen oder Abnehmen) bezeichnen, z.B. *uspexi pridajut emu sil* "die Erfolge steigern seine Kräfte"; *pripuskaet ognja v lampe* "er macht die Flamme in der Lampe größer"; *nabiraet deneg* "er sammelt Geld"; *s každym dnëm ubavljajut xleba* "mit jedem Tage gibt man weniger Brot"; b) mit perfektiven Zeitwörtern, da ihr Aspekt die absolute Grenze der Handlung kennzeichnet (s. *Charisteria*, 76, Buslaev, 283 f.); z.B. *poel* [pf.] *xleba* [G] – *el* [impf.] *xleb* [A] "aß Brot", *vzjal* [pf.] *deneg* [G] – *bral* [impf.] *den'gi* [A] "nahm Geld", *nadelal* [pf.] *dolgov* [G] – *delal* [impf.] *dolgi* [A] "machte Schulden", *kupit'* [pf.] *baranok* [G] – *pokupat'* [impf.] *baranki* [A] "Kringel kaufen", *daj* [pf.] *mne tvoego noža* [G] "gib mir (ein wenig) dein Messer".[6] Die umgekehrte Hypothese von Peškovskij (266 f.), nach der manche Präfixe der Perfektiva sich ausschließlich mit dem G verbinden, ist unrichtig. Sofern es sich um Aktiva handelt, die sich mit dem partitiven G verbinden lassen, kommt, wenn nicht die Einschränkung des Gegenstandes ausgesagt wird, eine Fügung mit dem A zustande (*nakupil ujmu* "kaufte eine Unmenge ein"; *nagovoril kuču komplimentov* "sagte einen Haufen Komplimente"). Auch dem schwachregierten A entspricht ein G des geteilten oder eingeschränkten Ganzen: *èto proizošlo pjatogo janvarja* "es geschah am fünften Januar"; *šutoček našutili* "'man hat Scherze gescherzt'"; *poezdka stoit bol'šix deneg* "die Reise kostet viel Geld".

2. G der Grenze: "*Odnoj nogoj kasajas' pola*" (Puškin) "mit einem Fuße den Boden berührend", "*dostig ja vysšej vlasti*"(Puškin) "ich habe die höchste Macht erreicht"; G des Zieles: "*a on, bezumnyj, iščet buri*" (Lermontov) "und er, der Unvernünftige, sucht nach Sturm", "*svobod*

---

[6]   Übrigens ist der partitive Genitiv, der die Teilnahme des Gegenstandes am Sachverhalt der Aussage zeitlich einschränkt, ein im Verschwinden begriffener Archaismus. Z.B. das Krylov'sche "*dostali not, basa, al'ta* [G]" "verschafften sich (zeitweilig) Noten, einen Kontrabaß, eine Altgeige" wird heutzutage meistens mißverstanden. So nach Šaxmatov bedeutet hier der G "eine Gesamtheit oder eine unbestimmte Menge von gleichartigen Gegenständen" (§ 425). Thomson behauptet, ein solcher G der Zeiteinschränkung sei "in der häuslichen Sprache vieler Gebildeten noch heute vollkommen lebendig" (XXIX, 250); für die Umgangssprache der Kulturzentren gilt dies allerdings nicht.

xoteli vy" (Puškin) "Freiheiten wolltet ihr"; G der Trennung: *izbežal vernoj gibeli* "entging dem sicheren Verderben", *bojsja kary* "fürchte dich vor der Strafe"; G der Negation: "*ne poj, krasavica, pri mne ty pesen Gruzii pečal'noj*" (Puškin) "singe nicht du, Schöne, in meiner Gegenwart die Lieder des traurigen Georgiens", *ne čitaju gazet* "ich lese keine Zeitungen", *ne našël kvartiry* "fand keine Wohnung". Der G kennzeichnet in diesen Fällen das Nichtvorhandensein des Gegenstandes im Sachverhalte der Aussage, aber soweit auf diese Abwesenheit kein Nachdruck gelegt wird und im Gegenteil das Vorhandensein des Gegenstandes in der Wortumgebung oder in der außersprachlichen Situation, die der Aussage vorangeht, angezeigt ist, wird der G nach Aktiva vom A verdrängt; *prosit' deneg* [G] "um Geld bitten", *prosit' den'gi* [A] "um das Geld bitten" (um welches es sich schon gehandelt hat – Beispiel von Peškovskij);"*ja cel' svoju dostig*" (Lermontov) "ich habe mein Ziel erreicht". Der externe Charakter des Gegenstandes ist hier nicht angegeben und infolgedessen wird das Ziel in den Bereich der Aussage hineingezogen, es wird als von vornherein bekannt geschildert. Deshalb sagen wir *čelovek vpervye dostig poljusa* [G] "der Mensch hat zum ersten Mal den Pol erreicht" und nicht ... *poljus* [A]; *ja ne slychal ètoj sonaty* [G] "ich habe diese Sonate nicht gehört" – der Nachdruck liegt auf Unbekanntsein der Sonate für den Sprechenden; *ja ne slychal ètu sonatu* [A] – der Nachdruck fehlt und der Umstand, daß ich sie nicht gehört habe, wird infolgedessen zu einer Akzidenz, die die fragliche Sonate aus dem Sachverhalte der Aussage nicht imstande ist auszuschalten – die Gegebenheit der Sonate überwiegt: diese Bedeutungschattierung bringt hier der A im Gegensatz zum G.

G bei Adjektiven: 1. *polnyj myslej* [G] "voll von Gedanken" (eine Abart des partitiven G-s, vgl. *polnyj mysljami* [I], wo die quantitative, partitive Schattierung fehlt; 2. *dostojnyj priznanija* "würdig der Anerkennung" (eine Abart des G-s der Grenze), *slašče jada* "süßer als Gift", *ugovor dorože deneg* "das Abkommen ist teurer als Geld" (eine Abart des G-s der Trennung: die höhere Stufe drängt die niedrigere zurück).

G bei Fürwörtern: *čto novogo* "was Neues" (die Bedeutung ist partitiv).

Adnominaler G: wie schon oben festgestellt wurde, besagt der G, daß der bezeichnete Gegenstand aus dem Sachverhalte der Aussage ausgeschaltet oder hier nur teilweise vertreten ist. Diese Einstellung nicht auf den Gegenstand, sondern auf den angrenzenden Inhalt oder auf einen Teil des Gegenstandes zeugt vom metonymischen Wesen des G-s oder im Falle des partitiven G-s von einer besonderen Spielart der Metonymität und zwar von einer synekdochischen Wesensart ("geringere

Objektivisierung" nach der glücklichen Grimmschen Bestimmung). Dies
erweist sich besonders deutlich gerade beim adnominalen G, was mei-
stens aber in der Fachliteratur sonderbarerweise übersehen wird, wo-
durch zwischen dem adverbalen und adnominalen Genitivgebrauch eine
künstliche Kluft entsteht (s. z.B. Delbrück, 307 f.). Entweder schränkt das
Nomen, von dem der G abhängt, den Umfang des Genitivgegenstandes
direkt ein (*stakan vody* "ein Glas Wasser", *čast' doma* "ein Teil des
Hauses") oder es abstrahiert vom Gegenstande etwas von seinen Eigen-
schaften (*krasota devuški* "die Schönheit des Mädchens"), Äußerungen
(*slovo čeloveka* "das Wort des Menschen"), leidenden Zuständen (*raz-
grom armii* "die Zerstörung der Armee"), seiner Angehörigkeit (*imuš-
čestvo remeslennika* "das Vermögen des Handwerkers"), Umgebung
(*sosed kuzneca* "der Nachbar des Schmiedes"), oder es wird im Gegenteil
von der Eigenschaft ihr Träger oder von der Äußerung ihr Agens oder
Patiens durch das Nomen abstrahiert (*deva krasoty* "die Jungfrau der
Schönheit", *čelovek slova* "der Mensch des Wortes", *žertvy razgroma*
"die Opfer der Zerstörung").

Der adnominale Gebrauch entfaltet am vollkommsten und deutlichsten
die semantische Besonderheit des G-s und es ist kennzeichnend, daß er
der einzige Kasus ist, welcher sich auf ein reines, d.h. von einer verbalen
Bedeutungsnuance freies Dingwort beziehen kann. Wir können den
a d n o m i n a l e n G e b r a u c h d e s G-s als die typische Äußerung dieses
Kasus bezeichnen.

Diesem rein adnominalen Monopolgebrauch des G-s ist sein a d v e r -
b a l e r G e b r a u c h a l s d e r P u n k t d e r m a x i m a l e n K a s u s u n t e r -
s c h e i d u n g entgegengestellt. Dem A ist lediglich der G bei Verba aktiva
direkt entgegengesetzt, da der starkregierte A stets ein Aktivum voraus-
setzt. Die Zeitwörter, die die Entfernung des Agens vom Genitivgegen-
stande bezeichnen (*izbegat'* "vermeiden", *trusit'* "Angst haben" u.ä.),
können sich (wenigstens im Schriftrussischen) mit dem A nicht verbinden,
weil der Gegenstand, der die Abstossung hervorruft, als ein tätiger Faktor
und nicht als ein Handlungsobjekt gewertet wird. Das Zeitwort *lišat'*
"berauben" setzt den Patiens, der beraubt wird, dem Gegenstand, um
welchen der erstere beraubt wird, oder mit anderen Worten, dem Gegen-
stand, der aus dem Sachverhalt der Aussage ausgeschloßen ist, gegenüber:
der erste fungiert naturgemäß als Akkusativobjekt, der zweite als Genitiv-
objekt, die Anwesenheit der beiden ist unentbehrlich und die Stellung
des ersten Objekts vor dem zweiten differenziert notwendigerweise die
beiden, so daß auch in diesem Falle der Gegensatz der Kasus eigentlich
keine notwendige Voraussetzung der Unterscheidung ist, vgl. *lišil otca* [A]

syna [G], *a mat'* [A] *dočeri* [G] "beraubte den Vater um den Sohn und die Mutter um die Tochter". Wie Peškovskij richtig vermerkt (265 f.), neigen die G-e der Negation, des Zieles (und auch der Grenzen) zur Verwechselung mit dem A, und die Deutlichkeit des Gegensatzes wird nicht selten verwischt. Den allergrößten unterscheidenden Wert hat der Gegensatz des partitiven G-s gegenüber dem A (*vypil vina* [G] 'trank etwas Wein aus" – *vypil vino* [A] "trank den Wein aus"). Die belebten Wesen können bloß in Ausnahmsfällen als partitiver G Sg. fungieren (z.B. *otvedal kuricy* "kostete vom Huhn"), deshalb ist der Gegensatz des A-s und G-s bei den Nomina, die belebte Wesen bezeichnen, wenig belangvoll und ist in den meisten Paradigmen aufgelöst: bei den Namen der belebten Wesen erhält der A die Form des G-s. Die Verallgemeinerung dieses Kasussynkretismus auch auf den Plur. führt zur Aufhebung einer Bedeutungsunterscheidung: den Aussagen *kupil kartiny* [A] "kaufte Bilder" und *kupil kartin* [G] "kaufte (eine Anzahl) Bilder" entspricht, falls das Objekt ein belebtes Wesen ist, eine einzige Aussage *kupil lošadej* [A-G] "kaufte Pferde".[7]

Das Zusammenfallen des A-s mit dem G kündigt die Belebtheit des bezeichneten Gegenstandes an, während das Zusammenfallen des A-s mit dem N meistens den Bezeichnungen der unbelebten Gegenstände zwar eigen, doch für sie nicht eindeutig kennzeichnend ist (vgl. *mat'* [N-A] "Mutter", *myš'* [N-A] "Maus"). Im russischen Deklinationssystem ist es stets der Fall, daß, wenn ein Kennzeichen die Belebtheit oder Unbelebtheit angibt, so das Gegenteil durch das entgegengesetzte Kennzeichen nicht eindeutig angekündigt wird: im N kennzeichnen die Endungen des sog. Neutrums die Unbelebtheit des Gegenstandes (die einzigen Ausnahmen *suščestvo* "lebendes Geschöpf" und *životnoe* "Tierwesen" kündigen ihre Belebtheit unmittelbar durch den Stamm an), während die übrigen Nominativendungen gleicherweise in den Bezeichnungen belebter Wesen und unbelebter Gegenstände vorkommen; das Vorhandensein zweier Genitiv- oder zweier Lokalformen kennzeichnet die Unbelebtheit des Gegenstandes, wogegen das Nichtvorhandensein einer derartigen Spaltung nichts besagt (s. Kap. VII). Ähnlich steht es mit dem Gegensatz der Genera bei den Hauptwörtern: die meisten Kasus besitzen je eine Endung, die die Angehörigkeit des Wortes zu den Mask. ankündigt (z.B. G sg. *-a*, D *-u*, I *-om*, N Pl. *-a*. G *-ov*), während die übrigen

---

[7]   Im Polnischen fiel der A Plur. mit dem G bloß bei den Personenbezeichnungen zusammen, sodaß die Bedeutungsunterscheidung beinahe intakt bleibt, da der Gegensatz des A-s und des partitiven G-s bei dieser Namengattung nur in geringem Maße vorkommen könnte.

Endungen dieser Kasus die Zugehörigkeit zu den Fem. nicht bezeugen (z.B. G Sg. -*i*, D -*e* oder -*i*, I -*oju*, N Plur. -*i*, G -*ej* oder Null-Endung). Eindeutig sind die Hauptwörter der beiden Genera durch die Genusform der Eigenschaftswörter im Sg. voneinander geschieden. Die beiden Genera ihrerseits verhalten sich zueinander als eine merkmalhaltige Kategorie, welche besagt, das Wort könne nicht einen Mann bezeichnen (Fem.), gegenüber einer merkmallosen, die nicht eigentlich ankündigt, ob es sich um einen Mann oder um eine Frau handelt (sog. Mask.); vgl. *tovarišč* [Mask.] *Ivanova* [Fem.], *zubnoj vrač* [Mask.] "Genossin I. – Zahnärztin".

Der präpositionale G unterscheidet sich nicht seinem Bedeutungswesen nach von dem übrigen Genitivgebrauch. Auch hier werden durch die Ausschaltung eines Teiles oder des ganzen Gegenstandes die Grenzen dieses Gegenstandes und seiner Teilnahme an der Aussage, in kurzen Worten, die Umfangsverhältnisse angegeben, z.B. 1. *nekotorye iz nas* "einige von uns" (partitiver G); 2. *u, okolo, vozle reki* "neben dem Flusse" (G der Grenze); *do reki* "bis zum Flusse", *dlja slavy* "zwecks des Ruhmes" (G des Zieles); *iz ruž'a* (aus der Flinte), *ot reki* "vom Flusse"(G der Trennung), *bez zabot* "ohne Sorgen", *krome zimy* "außer dem Winter" (G. der Negation).[8]

---

[8] Wir ließen die Frage des G-s bei den Numeralien beiseite, da die Verbindungen mit den Numeralien überhaupt durch eine Reihe auffallender Besonderheiten ausgezeichnet sind, und ich hoffe diese Verbindungen bald speziell besprechen zu können. Falls das Gefüge Numerale + Nomen keines der kasuellen Merkmale ankündigt, wird das Zahlwort syntaktisch als substantivierte Quantitätsbezeichnung gewertet, während das mit ihm verbundene Nomen als partitiver G fungiert, der die quantitative Einschränkung des Gegenstandes gibt (*pjat'* [N], *sorok*, ebenfalls *skol'ko, neskol'ko věder* [G] "5, 40, wieviel, einige Eimer"); falls aber das Gefüge irgendein kasuelles Merkmal enthält, wird das Nomen zum Träger dieses Merkmals und das Zahlwort zu einem im Kasus übereinstimmenden Attribut (*trëx* [G], *pjati, soroka*, ebenfalls *skol'kix, neskol'kix věder* [G]; *trëm* [D], *pjati* usw. *vědram* [D]; *tremja* [I] *pjat'ju* usw. *vědrami* [I] usw.). Für die Numeralia von tausend ab und höher gilt das letztere nicht (*tysjača* [N], *tysjači* [G], *tysjače* [D] – – *věder* [G] "Tausend Eimer" usw.). In Verbindung mit dem N der Numeralia 2–4 steht das Nomen nicht im G Plur., sondern im G Sg. (*dva* [N], *tri, četyre vedra* [G] "2, 3, 4 Eimer"), als wäre hier durch die Kasusform nicht die Pluralität markiert, sondern nur der Umstand, daß der Umfang des bezeichneten Gegenstandes als einer Einheit (Sg.) mit dem Umfange seiner Teilnahme am Sachverhalte der Aussage nicht zusammenfällt. In diesem Sinne wäre die Bestimmung der allgemeinen Bedeutung des G-s zu erweitern, falls wir die Verbindungen mit den Numeralien einbeziehen wollten und von ihrer ganz besonderen Stellung in der Sprache absehen. Dann könnte man feststellen: das Zahlwort gibt an, daß der letztere Umfang den ersten übertrifft, aber der Kasus selbst besagt nur die Ungleichheit der beiden Umfänge; vgl. die allmähliche Stufenfolge der Sonderbedeutungen des G-s: *ni vedra* "kein Eimer", *polvedra* "ein halber Eimer", *poltora vedra* "anderthalb Eimer". Es ist kennzeichnend, daß bei derartigen Numeralien, die durch ihre grammatische Form die Angehörigkeit der aufgezählten Gegenstände zu den belebten Wesen, genauer zu den

V

Weder der Instrumental noch der Dativ kennzeichnen Umfangsver-
hältnisse. Diese Kasus sind nicht mit dem G, sondern mit dem N und
dem A in Korrelationsbeziehung. Wie der A so gibt auch der D die
Betroffenheit des bezeichneten Gegenstandes von einer Handlung an,
wogegen der I gleich dem N nichts darüber besagt, ob der Gegenstand
von einer Handlung betroffen ist oder nicht, noch ob er selbst eine
Tätigkeit ausübt, bzw. an einer Tätigkeit beteiligt ist oder nicht. Vgl.
strana upravljajetsja ministrami [I] "das Land wird von Ministern regiert"
– *ministry upravljajut stranoj* [I] "die Minister regieren das Land"; *oni
byli vstrečeny rebënkom* [I] "sie wurden vom Kinde begegnet" – *oni
vstrečali ego rebënkom* [I] "sie hatten ihn als Kind begegnet". Wie der A
so fungiert auch der D folglich als der merkmalhaltige Kasus der
Bezugskorrelation (die Bezugskasus) im Gegensatz zu den merkmal-
losen N und I. Das Vorhandensein der Gerichtetheit zum Gegenstand
wird auch durch den präpositionalen Gebrauch der beiden Bezugskasus
besagt, z.B. *v, na, za, pod, čerez, skvoz', po pojas* "in, auf, hinter, unter,
über, durch den Gürtel, bis zum Gürtel"; *k, navstreču, po potoku* "zum,
entgegen dem, längs dem Strom". Die Bedeutung der Gerichtetheit
bleibt auch in den Fällen aufrecht, wo ein derartiges präpositionales
Gefüge sich nicht auf ein Zeitwort, sondern auf ein Substantiv bezieht:
vxod v dom "Eingang ins Haus", *doroga v Rim* "Weg nach Rom",
ključ k dveri "Schlüssel zur Tür". Es wurde schon oben erwähnt: wenn
die allgemeine Bedeutung des N im Gegensatz zu derjenigen des A-s
nicht angibt, ob der bezeichnete Gegenstand von einer Handlung betrof-
fen wird, so deutet die spezifische Bedeutung des N-s an, daß die Aussage
von einer solchen Tätigkeit nichts weiß, und besonders deutlich äußert
sich das Nominativwesen, wenn der Gegenstand als an einer Handlung
Betätigter dargestellt wird. Dasselbe gilt auch für den Gegensatz I–D, und
namentlich die Hauptbedeutung des I hat Šaxmatov im Auge, wenn
er den wesentlichen Unterschied des I-s vom D darin sieht, daß der
erstere "eine vom Zeitwort unabhängige Vorstellung bezeichnet und
nicht ein Objekt, welches der Wirkung des verbalen Merkmales ausge-
setzt ist, sondern im Gegenteil eine Vorstellung, die zur Entfaltung dieses
Merkmals verhilft und seine Äußerung ändert oder bestimmt" (§ 444).
Worin liegt denn der Unterschied des I und D vom N und A? Zwei

---

Menschen ankündigen, stets durch die Form des Nomens die Mehrzahl besagt wird:
dvoe, pjatero druzej "zwei, fünf Freunde"; *dvoix, pjateryx druzej* [G]; *dvoim, pjaterym
druz'jam* [D] usw.

Termini von Pongs paraphrasierend (245), bezeichne ich den I und D als
Randkasus und den N und A als Vollkasus, und für den Gegensatz der
beiden Gattungen verwende ich im folgenden die Benennung Stellungs-
korrelation. Der Randkasus gibt an, daß das bezügliche Nomen im
gesamten Bedeutungsgehalte der Aussage eine periphere Stellung
einnimmt, wogegen ein Vollkasus nicht angibt, um welche Stellung es
sich handelt. Eine Peripherie setzt ein Zentrum voraus, ein Randkasus
setzt das Vorhandensein eines zentralen Inhaltes in der Aussage
voraus, welchen der Randkasus mitbestimmt. Dabei muß dieser Zentral-
inhalt nicht unbedingt sprachlich ausgedrückt sein. Z.B. die Romantitel
Ognem [I] *i mečom* [I] "Mit Feuer und Schwert", *I zolotom* [I] *i molotom*
[I] "Mit Gold und Hammer" setzen eine Handlung voraus, mit Hinblick
auf welche die Instrumentalgegenstände eine Werkzeugsrolle spielen; die
Überschrift *Ivanu Ivanoviču Ivanovu* [D] setzt etwas voraus, was für die
durch den D bezeichnete Person bestimmt ist und dieses Etwas, obwohl
es nicht ausgedrückt ist, gilt als der zentrale und der Adressat als der peri-
phere Inhalt der Aussage.

Ich betone, das für die Randkasus Spezifische liegt nicht darin, daß sie
das Vorhandensein zweier Punkte in der Aussage angeben, sondern nur
darin, daß sie den einen im Hinblick auf den anderen als peripher werten:
auch der A kennzeichnet das Vorhandensein zweier Punkte, und der eine
ist dem anderen untergeordnet, aber der A besagt nicht, daß dieser unter-
geordnete Punkt lediglich ein Nebeninhalt der Aussage ist, den sie ohne
Beeinträchtigung des Kerninhaltes entbehren könnte, so wie es bei den
Randkasus der Fall ist. Das Zeitwort *delaet* "macht" fordert verbindlich
Antworten auf die Fragen *kto* "wer" und *čto* "was", bzw. *ne delaet*
"macht nicht" Antworten auf die Fragen *kto* und *čego* [G]. Das Fehlen
des N und des A (bzw. des G) verleiht hier der Aussage einen elliptischen
Charakter. Doch die Fragen *čem* [I] *delaet, komu* [D] *delaet* entspringen
nicht dem Wesen der Aussage selbst, und sind mit ihrem Kerne nicht
unmittelbar verknüpft. Es sind sozusagen Nebenfragen. Vgl. auch *delo
delaetsja, sdelano* "die Arbeit wird, ist gemacht". – Die Frage nach dem
Agens (*kem* [I]) ist fakultativ; *on dal vsë, čto mog dat'* "er gab alles, was
er geben konnte"; *každyj den' on posylaet pis'ma* "jeden Tag sendet er
Briefe" – das Fehlen des D-s wird nicht als Lücke empfunden.

Der Sachverhalt solcher Aussagen wie *tečenie* [N] *otneslo lodku* "die
Strömung trieb das Boot ab"; *olenja ranila strela* [N] "den Hirsch ver-
wundete ein Pfeil"; *paxnet seno* [N] "es riecht das Heu" auf der einen
Seite und *tečeniem* [I] *otneslo lodku; olenja ranilo streloj* [I]; *paxnet senom*
[I] auf der anderen Seite, ist derselbe, doch der Bedeutungsgehalt ist

verschieden; in beiden Fällen ist der Träger der Handlung identisch, nur wird er in der Hierarchie der Bedeutungen im ersten Falle als das Subjekt, im letzteren als ein Bestimmungswort des Prädikats gewertet, die Instrumentalform schreibt dem Gegenstande eine Nebenstellung zu, wobei die Fügung des Zeitwortes mit dem I an sich nicht besagt, ob diese Nebenstellung dem Gegenstande bloß von der sprechenden Person verliehen ist, oder er auch wirklich nur eine Hilfsrolle spielt.[9] Vgl. *risunok nabrosan perom* [I] "die Zeichnung ist mit der Feder skizziert" – *risunok nabrosan xudožnikom* [I] "die Zeichnung ist vom Maler skizziert": im ersten Falle bedeutet der I ein bloßes Hilfsmittel, nämlich ein Werkzeug, im zweiten Falle den Urheber des Werkes, der aber im Vergleich mit dem Werke in die Peripherie der Aussage verdrängt ist und sozusagen als eine Voraussetzung der Gegebenheit gewertet wird. In den aktiven Wendungen genügt es, dem I einen N zur Seite zu setzen und der Instrumentalgegenstand erhält einen objektiven Hilfscharakter. Die Randstellung des Gegenstandes äußert sich hier als Gegensatz von Mittel und Urheber: *oxotnik* [N] *ranil olenja streloj* [I] "der Jäger verwundete den Hirsch mit einem Pfeil"; *saraj* [N] *paxnet senom* [I] "die Scheune riecht nach Heu".

Im Rahmen der allgemeinen Bedeutung des I-s sind drei semantische Typen zu unterscheiden.

1. Der I gibt irgend eine Bedingung der Handlung an. Dieser I d e r B e d i n g u n g, den schon die angeführten Beispiele erläutern, besagt die Handlungsquelle (*ubit vragami* "von den Feinden erschlagen"), die Triebkraft (*uvleč'sja sportom* "sich vom Sport hinreissen lassen", *tomit'sja bezdel'em* "vor Müssiggang vergehen"), das Werkzeug (*žat' serpom* "mit der Sichel ernten", *rasporjažat'sja den'gami* "über Geld verfügen", *upravljat' mašinoj* "eine Maschine lenken", *vladet' rabami* "Sklaven beherrschen"), den Modus (*idti vojnoj* "in den Krieg ziehen", wörtlich "mit Krieg gehen"), den Bewegungsraum (*idti lesom* "durch den Wald gehen"), die Zeit der Handlung (*putešestvovat' noč'ju* "in der Nacht reisen"). Solche Dubletten wie *švyrjat' kamnjami* [I] – *švyrjat' kamni* [A] "Steine werfen" hält Peškovskij fehlerhaft für "stilistische Synonyme" (269). In Wirklichkeit kennzeichnet auch hier der I eine Hilfs- oder Nebenrolle des Gegenstandes, und der A die Gerichtetheit der Handlung auf den Gegenstand. Hier macht sich also der Gegensatz des Mittels und des Zwecks, des Werkzeugs und des selbstgenügsamen Objektes geltend. Darum sagen wir: *čtoby probit' stenu, oni švyrjali v neë kamnjami* [I] "um die Mauer zu durchbrechen, warfen sie Steine auf sie", aber *on bescel'no*

---

⁹ Interessante Beispiele eines derartigen russischen I-s liefert Pedersen (134ff.).

švyrjal kamni [A] *v vodu* "zwecklos warf er Steine ins Wasser". Noch deutlicher ist der Gegensatz der Fügungen *govorit' rezkimi slovami* "in scharfen Worten sprechen" – *govorit' rezkie slova* "scharfe Worte sprechen": im ersten Falle wird vom Sprechenden der Redeinhalt, in letzterem die Rede an sich berücksichtigt. Der tautologische "I der Verstärkung" nach der üblichen Terminologie ist eine Art der Reduplikation, die die Intensität der Handlung betont (*krikom kričat'* "'mit Geschrei schreien'"), während der tautologische A das Objekt der Handlung aus ihrer Benennung sozusagen herausschält (*klič klikat'* "'einen Ruf rufen'"). Der I der Bedingung bezieht sich auf ein ausgedrücktes oder hinzugedachtes Zeitwort (*knutom ego!* "mit der Peitsche auf ihn!") oder auf ein Nomen mit Tätigkeitsbedeutung (*uvlečenie sportom* "Begeisterung für den Sport", *udar nožom* "ein Hieb mit dem Messer", *oskorblenie dejstviem* "tätliche Beleidigung", *doroga lesom* "Weg durch den Wald"). Die Ersetzung dieses I-s durch einen N bedeutet eine Auflösung der syntaktischen Perspektive und eine Zergliederung des Satzes in gleichberechtigte Abschnitte: *on udaril ego šaška* [N] *naotmaš'* "er schlug ihn, den Säbel mit der Hand von der Schulter ausholend"; "*komsomolec – k noge noga* [N]*! pleco* [N] *k pleču! marš!*" (Majakovskij) "– – Fuß an Fuß! Schulter an Schulter! Marsch!"

2. I der Einschränkung begrenzt "das Gebiet der Anwendung des Merkmals", welches im Prädikat bzw. im Attribut, auf welches sich dieser Kasus bezieht, ausgedrückt ist: *pomolodet' dušoj, jun dušoj, junyj dušoj* "geistig jung werden, g. jung, g. junger"; *junoša dušoj, on ne mog primirit'-sja s nespravedlivost'ju* "im Geist ein Jüngling, konnte er sich nicht mit der Ungerechtigkeit versöhnen". Die Randstellung äußert sich hier als Gegenüberstellung des Teilgebietes zum relevanteren Allgemeinen.

3. Der I der Betätigung meint denselben Gegenstand wie der bezügliche (ausgedrückte oder hinzugedachte) Vollkasus derselben Aussage und besagt, daß es sich um eine Sonderfunktion des Gegenstandes, um eine vorübergehende, gelegentliche (erworbene bzw. veräußerliche) Eigenschaft handelt. Der I wird dem Prädikat an- oder eingefügt. *On zdes' sud'ëj* "er fungiert hier als Richter", *budet sud'ëj* "wird Richter sein", *stal sud'ëj* "wurde Richter",[10] *on izbran sud'ëj* "er ist zum Richter erwählt", *ego naznačili sud'ëj* "man hat ihn zum Richter ernannt", *my znavali ego sud'ëj* "wir haben ihn als Richter gekannt", *sud'ëj on posetil nas* "als Richter hat er uns besucht", *ja ne vidal eë lica* [G] *takim ozabo-*

---

[10] In solchen Fügungen wie *stal sud'ëj* ist die Randstellung bloß semantisch, nicht aber syntaktisch fundiert: bei der Aussage *on stal* ist die Frage *kem, čem* [I] unentbehrlich.

čennym [I] "ich sah nie ihr Gesicht so besorgt". Falls aber eine ständige, urtümliche, unabschaffbare Eigenschaft des Gegenstandes gemeint wird, oder mindestens die Absicht nicht besteht, den episodischen Charakter dieser Eigenschaft zu kennzeichnen, paßt nicht der I. *Vse oni byli greki* [N] "sie alle waren Griechen"; *mladšij syn byl durak* [N] "der jüngste Sohn war ein Narr". Den Satz *bud' tatarinom* [I] "sei Tatare" empfinden wir als Ruf zur tatarischen nationalen Selbstbekennung, während *"bud' tatarin* [N]" im Puškinschen Epigramm bedeutet: falls du ein geborener Tatare bist, bleibt dir deine nationale Zugehörigkeit und es ist daran nicht zu rütteln. In den Scherzversen *"on byl tituljarnyj sovetnik* [N], *ona general'skaja doč', on robko v l'ubvi ej priznalsja, ona prognala ego proč'"* "er war Titularrat, sie Generalstochter, er erklärte ihr schüchtern seine Liebe, sie jagte ihn fort" wird der Rang des Titularrates als eine Umrahmung der Handlung aufgefaßt, er wird als etwas Ständiges empfunden und das, was ihm voranging, und das, was folgte, wird absichtlich im Dunkeln gelassen. Aber *on byl tituljarnym, potom nadvornym sovetnikom* [I] "er war Titular-, später Hofrat". Falls die Aufmerksamkeit des Sprechenden auf einen Zeitabschnitt konzentriert ist und dementsprechend die Aussage statisch eingestellt ist, weicht der I der Betätigung vor dem N. In ihrer stoffreichen Übersicht des prädikativen I und N in der Sprache Turgenevs vermerkt E. Haertel, "es gebe eine große Anzahl derartiger Sätze, in denen an Stelle des zu erwartenden I der N steht, z.B. solche mit *togda*, *v svoe vremja*, also mit einer zeitlichen Bestimmung, oder mit sonstigen Zusätzen, die die gegebene Aussage in das Gebiet des Akzidentellen verweisen" (106). Aber auch diese Belege zeugen von einer feinen, bedeutungsvollen Unterscheidung der beiden Kasus bei dem großen Stilisten. Ja, wofern nicht die Bestimmungen *togda* "damals", *v svoe vremja* "seiner Zeit" als Antithesebezeichnungen gegeben sind, dann enthalten sie eben die Forderung eines statisch anmutenden N-s: *"vy byli togda rebënok* [N]" "Sie waren damals ein Kind", *"v svoë vremja sil'nyj byl latinist"*, "war seiner Zeit ein tüchtiger Lateiner". Noch einige erläuternde Beispiele: *on vernulsja bol'noj* [N] "er kehrte krank zurück" (was er möglicherweise schon früher war) – *on vernuljsa bol'nym* [I] "er kehrte krank (erkrankt) zurück"; *ja uvidel dom, zapuščennyj i opustelyj* [N] "ich sah ein Haus, vernachlässigt und verwüstet" – *ja uvidel dom zapuščennym i opustelym* [I]: hier wird die Vernachlässigung und die Verwüstung deutlich einem anderen, früheren Zustande entgegengestellt. *"Eë sestra zvalas' Tat'jana* [N] " (Puškin) "ihre Schwester hieß Tatjana" – ... *Tat'janoj* [I]: im zweiten Fall kommt in der Kasusform die Namengebung zum Ausdruck, im ersten nur die Namengegebenheit; wir würden sagen: *sestra*

zvalas' Tanej [I], *a kogda podrosla, Tat'janoj* [I] "die Schwester wurde
Tan'ja, und als sie herangewachsen war, Tatjana genannt". Vgl. *sestru*
[A] *zvali Tat'janoj* [I] "man nannte die Schwester Tatjana" oder mit Zer-
störung der syntaktischen Perspektive: – – *zvali* (:) *Tat'jana* [N]. Dasselbe
in einem Satz bei Herzen: *Odin Parfenon* [A] *nazvali* (:) *cerkov'* [N] *sv.
Magdaliny* "Ein Parthenon nannte man die Kirche der hlg. Magdalene".
Šaxmatov sieht hier mit Unrecht einen "doppelten A" (§ 430).

Nicht weniger deutlich als die periphere Stellung einer zeitlich begrenz-
ten, also synekdochischen Bedeutung des Gegenstandes im Gegensatz
zu seiner breiteren Bedeutung, ist in der Werthierarchie der Aussage die
Randstellung einer metaphorischen Bedeutung des Gegenstandes gegen-
über seiner eigentlichen Bedeutung bei der Konstruktion mit dem I des
Vergleichs, dessen innere Verwandtschaft mit dem I der Betätigung
schon Miklosich richtig eingesehen hat (735): *u nego grud' kolesom* "seine
Brust ist wie ein Rad" (ist muskelig), *kazak bujnym sokolom rinulsja na
vraga* "der Kosak stürzte sich wie ein ungestümer Falke auf den Feind".
Sobald die bildliche Bedeutung als mit dem Gegenstande untrennbar
verknüpft angesehen wird und der Vergleich sich in eine Identifizierung
verwandelt, verliert der I seine Berechtigung: *kazak, bujnyj sokol* [N],
rinulsja na vraga "der Kosak, ungestümer Falke, stürzte sich auf den
Feind".

Die tautologischen Konstruktionen enthüllen deutlich die se-
mantischen Eigenheiten des I der Betätigung oder des Vergleichs (der
Unterschied der beiden ist hier aufgehoben). Eine Konfrontation solcher
Fügungen wie *sidnem sidel* "'saß als (wie) ein Sitzender' (Stubenhocker)"
oder *dožd' lil livnem* "der Regen goß wie (als) ein Regenguß" (in Strömen)
mit *krikom kričat'* u.ä. zeigt, daß in den beiden Fällen der I das Prädikat
verstärkt, indem er seinen Inhalt loslöst, aber im letzteren Falle wird die-
ser losgelöste Inhalt als Modus des Prädikats, im ersten aber als eine eng
mit dem Prädikat verknüpfte Eigenschaft des Subjekts geschildert (die
sog. Nebenprädikation). In solchen Wendungen wie *on ostalsja durak
durakom* "'er blieb Narr wie (als) Narr'" (ein vollkommener Narr), "*rož'
les lesom*" (Šaxmatov, *Sint.*, § 212[2]) "'das Korn ist ein Wald wie ein
Wald'" (ist ein wirklicher Wald) steigert das tautologische Gefüge von
N und I die besagte Eigenschaft, indem es sie gleichzeitig als Substanz (N)
und als Akzidenz (I) oder als Identifizierung (N) und als Vergleich (I)
darbietet. Peškovskij (244) findet sich nicht imstande, die tautologischen
Konstruktionen in solchen adversativen Sätzen wie *razgovory* [N] *razgo-
vorami* [I], *no pora i za delo* "Gespräche sind Gespräche, doch ist es Zeit
an die Arbeit zu gehen" aus der Instrumentalbedeutung zu erklären.

Aber gerade in diesen produktiven Fügungen äußert sich anschaulich die Gesamtbedeutung des I-s: der Gegenstand, der soeben durch den N genannt wurde, wird mittels des I-s sozusagen zur Seite geschoben und es wird ihm lediglich eine Randstellung im Sachverhalte der Aussage eingeräumt. Im Sprichworte *"družba* [N] *družboj* [I], *a služba* [N] *služboj* [I]"* "Freundschaft bleibt Freundschaft, doch Dienst bleibt Dienst" verdrängen einander die beiden Gegenstände in die Peripherie des Sachverhaltes der Aussage.

Wie wir uns aus den besprochenen Gebrauchsarten des I-s überzeugen konnten, kennzeichnet der I an sich nichts mehr als die bloße Randstellung; er nimmt zwischen den Randkasus dieselbe Stelle der merkmallosen Kategorie ein, die dem N zwischen den Vollkasus zukommt. Dementsprechend neigt der I ähnlich wie der N zur Rolle einer reinen "Lexikonform". Sofern sich diese Tendenz verwirklicht, wird der die Randstellung ankündigende I naturgemäß zu einem Adverbium. S. bei Šaxmatov (478) die zahlreichen Belege der Instrumentalia tantum, die sich als Adverbia behaupten: *opromet'ju* "hastig", *ukradkoj* "heimlich", *tajkom* "insgeheim", *dybom* "zu Berge", *blagim matom* "aus voller Kehle" usw.

Alles außer der Randstellung wird bei den Einzelverwendungen des I-s durch die reelle Bedeutung des Instrumentalgegenstandes und den Kontext, nicht aber durch die Kasusform gegeben. Lediglich die reelle Bedeutung der Instrumentalgegenstände legt nahe, daß in den Versen von Majakovskij *"morem bukv, čisl plavaj ryboj v vode"* "durch das Meer von Buchstaben und Zahlen schwimme wie ein Fisch im Wasser" *morem* ein I der Bedingung (namentlich des Weges) und *ryboj* ein I des Vergleiches ist. Der Anschluß dieses Randkasus an den Aussagekern ist ein derartig loser, daß wir ohne die reellen und formellen Bedeutungen der umgebenden Worte nicht imstande wären, festzustellen, worauf und auf welche Weise sich der I *žandarmom* in den folgenden Sätzen bezieht: *ona znavala ego žandarmom* "sie kannte ihn als Gendarm", *on znaval eë žandarmom* "er, als Gendarm, kannte sie", *on naletel žandarmom na detvoru* "er stürzte wie ein Gendarm auf die Kinder", *on prigrozil žandarmom brodjage* "er drohte dem Landstreicher mit Eingreifen eines Gendarms", *on byl naznačen žandarmom* "er wurde zum Gendarm ernannt", *on byl ubit žandarmom* "er wurde von einem Gendarm getötet". Bezeichnende Beispiele führt Potebnja an (506): einerseits *ona pletët kosy vtroe, devkoju* "sie flicht die Zöpfe dreifach, wie ein Mädel", anderseits *ženščina devkoju inače pletët kosy čem žënkoju* "das Weib flicht die Zöpfe als Mädel anders als als Frau" oder *devkoju* [I] *krasuetsja kosoju* [I], *a*

baboju[I] *ne svetit volosom* [I] "als Mädel prangt sie mit dem Zopf, aber als Frau glänzt sie nicht mit dem Haar".

Diese lose Art des Anschlusses äußert sich ausdrücklich auch beim präpositionalen Gebrauch des I-s. Hier zeigt sich dasjenige Verhältnis, welches Hjelmslev (129) als *relation sans contact* bezeichnet, also der präpositionale I bedeutet keine Berührung mit dem Gegenstande (*s, nad, pod, pered, za, meždu šarami* "mit, über, unter, vor, hinter, zwischen den Kugeln").

Die Gesamtbedeutung des D-s ist sehr deutlich, er kennzeichnet eine Randstellung wie der I und die Betroffenheit durch eine Handlung wie der A. Deshalb wird der Dativ als der Kasus des indirekten Objekts oder des Nebenobjekts definiert. Nach Šaxmatov "drückt der adverbale D solch eine vom Zeitwort abhängige Vorstellung aus, auf welche die Handlung des Zeitwortes gerichtet ist, ohne diese Vorstellung zu umfassen ... und ohne sie unmittelbar zu berühren" (§ 435). Peškovskij lehrt, der Dativ gebe nur den Adressaten an, er besage die bloße Gerichtetheit der Handlung ohne Berührung des Gegenstandes (267 f.).

Die geringere Innigkeit der Verbindung des Dativobjekts mit der ihm geltenden Handlung, im Vergleich mit dem Akkusativobjekt äußert sich vor allem darin, daß der D die von der Handlung unabhängige Existenz des Gegenstandes ankündigt, während der A darüber nichts besagt und ebenso gut ein äußeres wie ein inneres Objekt bezeichnen kann. Skalička schreibt in seinem Buche, welches viele interessante Anregungen für die allgemeine Grammatik enthält: "man kann nicht annehmen, daß z.B. zwischen den Verhältnissen der Zeitwörter zu den Substantiven in den Fällen wie čech. *učiti se něčemu* und *studovati něco* ein gründlicher Unterschied bestehe. Hier fühlt man schon eine gewisse Sinnlosigkeit des Dativs und Akkusativs. Und wenn man promiscue *učiti se něčemu* oder *učiti se něco* gebraucht, so fühlt man den Unterschied vielleicht nur im Stil: die Konstruktion mit dem Dativ ist pedantischer, "besser", als die mit dem Akkusativ. Eine gewisse Sinnlosigkeit des Dativs oder Akkusativs ist hier klar" (21). Eine derartige Verwischung der Bedeutungen ist für das čechische mit seinem der Zerrüttung nahen System der Kasusgegensätze kennzeichnend, aber im Russischen mit seinem stabilen Kasussystem ist das entsprechende Wortpaar *učit'sja* "lernen" mit D und *učit'* "lernen" mit A der Bedeutung nach sichtlich unterschieden. Man kann sagen *ja učus' francuzskomu jazyku* [D] "ich lerne die französische Sprache", da die französische Sprache unabhängig von meinem Lernen existiert, aber es wäre unmöglich zu sagen *ja učus' svoemu uroku* [D], sondern nur *ja uču svoj urok* [A] "ich lerne meine

Aufgabe", da meine Aufgabe ohne Verhältnis zu meinem Lernen über-
haupt nicht vorhanden ist. Auch in solch einem präpositionalen D wie
èto vedët ego k gibeli [D] "dies führt ihn dem Verderben nah" anstatt
vyzyvaet ego gibel' [A] "ruft sein Verderben hervor", wird das Dativob-
jekt als eine leise Metapher empfunden, ähnlich wie dasselbe Wort in der
Wendung *ego ždët gibel'* "auf ihn wartet das Verderben": das Verderben
wird hier als etwas Zweifelloses, im vorhinein Bekanntes und demzufolge
als etwas ideell Existierendes vorgestellt.

Gewöhnlich schreibt das gegebene Zeitwort selbst vor, ob das Objekt
semantisch als direktes oder indirektes gewertet werden soll, und falls
sich mit dem Zeitwort zwei Objekte verbinden lassen, schreibt es im
allgemeinen vor, welchem von den beiden eine Randstellung beizumessen
ist und welches als das unmittelbar von der Handlung Gemeinte gelten
soll. Im Satze *ja prepodaju rebjatam* [D] *istoriju* [A] "ich lehre den Kindern
Geschichte" fungiert die Geschichte als direktes Objekt, die Kinder als
Empfänger; umgekehrt im Satze *ja uču rebjat* [A] *istorii* [D] "ich lehre
die Kinder Geschichte" werden die Kinder als direktes Objekt meiner
Tätigkeit gewertet, während die Geschichte als bloßes Richtziel dieser
Tätigkeit aufgefaßt ist. Manchmal sind das direkte und indirekte Objekt
umkehrbar, sodaß der Gegensatz des D und A hier semantisch unzwei-
deutig klar ist: *poèt upodobil devušku* [A] *roze* [D] "der Dichter hat das
Mädchen mit der Rose verglichen" – ... *rozu* [A] *devuške* [D] "... die
Rose mit dem Mädchen"; *on predpočitaet brata* [A] *sestre* [D] "er zieht
den Bruder der Schwester vor" – ... *sestru* [A] *bratu* [D] "... die Schwester
dem Bruder": die Handlung (Vorziehen) meint den Akkusativgegenstand,
aber auch der Dativgegenstand ist von ihr betroffen, da sie im Hinblick
auf ihn geschieht. In seltenen Fällen wird ein Zeitwort sowohl mit einem
A, wie auch mit einem D zur Bezeichnung eines und desselben Sachverhal-
tes verbunden: solcher Art sind die Dubletten *(po)darit' kogo* [A] *čem* [I] –
(po)darit' komu [D] *čto* [A]; als direktes Objekt der Handlung wird im
ersten Falle der Beschenkte, im zweiten das Geschenk geschildert: der-
jenige, dem es bestimmt ist, wird dabei zum bloßen Adressaten, wäh-
rend das Geschenk aus einem Werkzeug zu einem selbstgenügenden Ge-
genstand wird. Ein Bruchstück eines Liedes, bei Greč zitiert, illustriert
treffend diesen Gegensatz: *"ne dari menja ty zlatom, podari liš' mne sebja"*
(155) "beschenke mich nicht mit Gold, sondern schenke mir dich selbst".
Hier wird das Gold entwertet und das ihm entgegengesetzte Geschenk als
ein Vollbild hervorgehoben.

"Der D der unmittelbaren reflexiven Bestimmung" (s. Nilov 143) ist
dadurch gekennzeichnet, daß der eigentliche A g e n s hier a l s e i n Emp-

fänger des Geschehens empfunden wird: eine Handlung, genauer
ein Zustand, wird als unabhängig von der Aktivität des Erlebenden er-
lebt (vgl. *bol'nomu* [D] *polegčalo* "dem Kranken wurde leichter" – *bol'noj
počuvstvoval sebja lučše* "der Kranke fühlte sich besser"; *mne* [D] *ne
spitsja – ja ne spl'ju* "ich schlafe nicht", *ja ne mogu spat'* "ich kann nicht
schlafen"; *čego mne* [D] *chočetsja – čego ja choču* "was will ich"), oder
eine Handlung, durch den Infinitiv ausgedrückt, wird als vorherbe-
stimmt, von vornherein vorgeschrieben oder abgelehnt geschildert, und
der Dativgegenstand wird entsprechend als der Empfänger des Befehls
oder des Verbots, oder der Warnung des Schicksals aufgefaßt (ein Sprich-
wort: "*byt' byčku* [D] *na verëvočke*" "das Ochslein wird mal am Strick-
chen sein"; aus einem Volksmärchen: "*nosit' vam* [D], *ne perenosit'*"
"tragen sollt ihr, nie genug tragen"; Lermontov: "*ne vidat' tebe* [D]
Tamary, kak ne vidat' svoix ušej" "es ist dir nicht gegönnt, Tamara zu
sehen, wie es dir nicht gegönnt ist, deine Ohren zu sehen"); die Schick-
salsgabe kann dabei als Wunsch oder Befürchtung des Sprechenden ge-
schildert werden: *vernut'sja by emu* [D] *zdorovym* "es sei ihm gegönnt,
gesund zurückzukehren", *deneg by nam* [D] *pobol'še* "es sei uns womöglich
mehr Geld beschieden" (die Handlung bleibt hier unausgedrückt); *ne
popast' by emu* [D] *v zapadnju* "daß er nur nicht in die Falle kommt".

Der sogenannte Dativus ethicus bestimmt ausdrücklich dem Emp-
fänger der Aussage deren Inhalt – der Hörer wird so aufgefaßt, als ob er
von ihrer Handlung betroffen wäre, als ob sie sogar mit Rücksicht auf
ihn stattgefunden hätte: *prišël on tebe* [D] *domoj, vse dveri nastež'* "kam
er dir nach Haus, alle Türen auf"; *tut vam takoj kavardak načalsja* "es
fing euch hier so ein Wirrwarr an".

Der D kann, ebenso wie der I, im präpositionslosen Gebrauch nur
ein solches Wort bestimmen, welches die Bedeutung des Geschehens
einbegreift. Deshalb können sie ein Substantiv nur dann bestimmen, 1.
wenn es ein Tätigkeitswort ist (*otvet kritiku* "Antwort einem Kritiker",
podarok synu "Geschenk dem Sohn", *ugroza miru* "Drohung dem Frie-
den", *torgovlja lesom* "Handel mit Holz" u.ä. – s. oben); 2. wenn es als
Prädikat verwendet wird, welches notwendig die Bedeutung des Fungie-
rens enthält (*russkaja pesnja – vsem pesnjam* [D] *pesnja* "das russische Lied
ist ein Lied, das alle Lieder übertrifft", wörtlich: ist allen Liedern – Lied,
ja vsem vam [D] *otec* "ich bin euch allen Vater", *on nam* [D] *ne sud'ja* "er
ist uns kein Richter", *on rostom bogatyr'* "er ist Recke von Wuchs"");
3. seltener als Apposition, die latent die Bedeutung des Geschehens
(Seins, Dauerns, Fungierens) mitenthält (*russkaja pesnja, vsem pesnjam*
[D] *pesnja, neslas' nad rekoj* "das russische Lied, ein Lied, das alle Lieder

übertrifft, schwebte über dem Fluß", *mat' dvux devic, vnuček Mixailu Makaroviču* [D][11] "die Mutter zweier Mädchen, die dem Michail Makarovič Enkelinnen waren" (das Verwandtsein wird im russischen sprachlichen Denken als eine Art Fungierens gedeutet, vgl. *obe prixodjatsja emu* [D] *vnučkami* [I]; *oxotnik, rostom bogatyr', vyšel na medvedja* "der Jäger, ein Recke von Wuchs, ging auf den Bären los"); endlich 4. wenn es als eingliedriger Nominalsatz fungiert, sozusagen ein Prädikat zur außersprachlichen Situation: *vsem pesnjam pesnja* "(das ist) ein Lied, das alle Lieder übertrifft", *kuma mne* "(das ist) meine Gevatterin", dasselbe völlig in Worten ausgedrückt – *èta ženščina prixoditsja mne kumoj; bogatyr' rostom* "(das ist) ein Recke von Wuchs", "*Čaplin požarnym*" "Chaplin als Feuerwehrmann". Aber der D oder der I kann nicht in derartigen Fällen ein Subjekt bzw. ein Objekt bestimmen. Man kann z.B. nicht sagen *vsem pesnjam pesnja neslas' nad rekoj* oder – – *prodolžaet vosxiščat' nas* "– – entzückt uns fortwährend" (auch nicht *bogatyr' rostom pošël na medvedja, vstretil bogatyrja* [A] *rostom* "traf einen – –"), aber wir sagen z.B. *pesn' pesnej* [G] *prodolžaet' vosxiščat' nas* "das Lied der Lieder entzückt uns fortwährend". – Der Genitivgegenstand bezeichnet hier jene Ganzheit (die Gesamtheit der Lieder), aus denen das Lied erkoren ist.

Die dativische Bedeutung des "entfernteren Objekts" macht sich in den Fügungen mit der Präposition *k* geltend. Vgl. solche Gegensätze wie *k lesu* "zum Wald" – *v les* "in den Wald" mit dem, was oben über den präpositionalen Instrumentalgebrauch gesagt wurde. Ähnlich *strel'ba po utkam* [D] "das Schießen auf Enten" zeugt vom Treffen weniger als *strel'ba v utok* [A]. Man kann sagen *oplakivat' pokojnika* [A] "den Verstorbenen beweinen" und *oplakivat' poterju* [A] "den Verlust beweinen" oder *plakat' po pokojniku* [D] "dem Verstorbenen nachweinen", keineswegs aber *plakat' po potere* [D].[12] Die Fügungen der vieldeutigen Präposition *po* mit dem D enthalten verschiedenartige Schattierungen der Bedeutung "Nebenobjekt". Markant ist der Gegensatz des Akkusativobjekts, auf welches die Handlung gerichtet ist, und des Dativobjekts, welches sie bloß gleitend streift: *xlopnul ego prjamo v lob* "schlug ihn direkt auf die Stirn" – *xlopnul ego druželeski po pleču* "er klopfte ihm freundschaftlich auf die Schulter"; *vyxožu na pole* "ich gehe aufs Feld" – *idu po polju* "ich gehe längs des Feldes". Die letztere Aussage ist anderseits entgegengesetzt einer solchen wie *idu polem* "ich gehe durch das

[11] Dieses Beispiel aus Dostoevskij wird von Peškovskij zitiert (290).
[12] Der Lokal nach *po* bei den Verben des Trauerns, den die Schulgrammatiken empfehlen, ist ein lebloser Archaismus.

Feld", wo der I kein Handlungsobjekt, sondern beinahe ein Hilfsmittel, ein Medium des Ganges, seine Einzeletappe auf dem Wege zu etwas anderem ist. Vgl. *idu polem v derevnju* "ich gehe durch das Feld nach dem Dorfe" oder *idu polem, potom lesom i lugom* "ich gehe durch das Feld, dann durch Wald und Wiese". Man kann nicht sagen *vozduxom* [I] *letit ptica*, sondern nur *po vozduxu* [D] – "in der Luft fliegt ein Vogel", da er außerhalb der Luft nicht fliegt. *Pogorel'cy postroili novyj posёlok* [A], *každyj po izbe* [D] "die Abgebrannten haben eine neue Siedlung aufgebaut, jeder je eine Hütte". Das Verhältnis des Randobjekts zum Vollobjekt äußert sich hier als ein Verhältnis des Teilinhaltes zu einer Ganzheit, an der es hauptsächlich gelegen ist. *Ja uznal ego* [A] *po neukljužej poxodke* [D] "ich erkannte ihn nach dem plumpen Gang" – hier sind zwei Objekte meiner Tätigkeit zu unterscheiden: ich bemerkte den plumpen Gang und infolgedessen erkannte ich den Menschen, was auch das Wichtigste war. *Ja po rassejannosti* [D] *zaper dver'* [A] "aus Zerstreutheit schloß ich die Tür" – auch hier zerlegt sich meine Tätigkeit in zwei Äußerungen: ich bekundete eine Zerstreutheit und infolgedessen, hier kommen wir zum Kern der Aussage, schloß ich die Tür. Es können dabei auch die Urheber der beiden Äußerungen verschieden sein: *po ego prikazaniju* [D] *ja pokinul komnatu* [A] "auf seinen Befehl verliess ich das Zimmer". Dem oben besprochenen Gegensatz *učus' francuzskomu jazyku – uču urok* entspricht der Unterschied zwischen *otmetka po francuzskomu jazyku* [D] "Zensurnummer für Französisch" – *otmetka za urok* [A] "Zensurnummer für die Aufgabe".

Bei der Besprechung des N und A stellen wir fest, daß die beiden Kasus einander maximal entgegengestellt sind, wenn sie als Subjekt und Objekt einer transitiven Handlung fungieren; als der angemessenste Träger der ersten Funktion erwies sich dabei das belebte Wesen und als der der zweiten der unbelebte Gegenstand. Der I ist den übrigen Kasus in der Bedeutung des Werkzeugs am schärfsten entgegengestellt. Das Werkzeug unterscheidet sich wesentlich einerseits von den Tätigkeitsobjekten (bzw. der I des Werkzeugs von den Bezugskasus), anderseits vom Subjekt der Tätigkeit (bzw. der I des Werkzeuges vom N). Die übrigen Spielarten des I können alle verhältnismässig leicht in andere Kasus transponiert werden (z.B. *medved' ubit oxotnikom* [I] "der Bär ist vom Jäger getötet worden" → *oxotnik* [N] *ubil medvedja* "der Jäger tötete den Bären"; *sosedi šli drug na druga vojnoj* [I] "die Nachbarn zogen in den Krieg gegeneinander" → – – *veli drug s drugom vojnu* [A] "– – führten Krieg miteinander"; *služil soldatom* [I] "diente als Soldat" → *služil v soldatach* [L Pl.]; *letit sokolom* [I] → *letit kak sokol* [N] "fliegt wie ein Falke"), wogegen der I

des Werkzeugs durch einen anderen Kasus bloß mittels einer scharf fühlbaren Metonymie, die dabei den Urheber der Handlung um seine tätige Rolle bringt, ersetzt werden kann: *ja pišu pis'mo perom* [I] "ich schreibe den Brief mit einer Feder" → *moë pero* [N] *pišet pis'mo* "meine Feder schreibt den Brief". Der I des Werkzeugs bei transitiven Zeitwörtern bezeichnet in der Regel einen unbelebten Gegenstand.

Aus allen Gebrauchsarten des D-s ist der D des Adressaten bei transitiven Zeitwörtern am deutlichsten den übrigen Kasus bedeutungsmäßig entgegengesetzt, und bis auf wenige Ausnahmen kann seine Bedeutung durch andere Kasus nicht wiedergegeben werden (*dat' knigu bratu* "das Buch dem Bruder geben", *pisat' pis'mo drugu* "einen Brief dem Freunde schreiben", *govorit' derzosti sosedu* "Frechheiten dem Nachbarn sagen"); vgl. *vernul otca* [A] *synu* [D] "gab den Vater dem Sohne zurück" oder *synu* [D] *otca* [A] und *otcu* [D] *syna* [A] "dem Vater den Sohn" oder *syna* [A] *otcu* [D]), während die anderen Spielarten des D-s ohne allzu wesentliche Sinnesänderungen durch andere Kasus ersetzt werden können (z.B. *ja udivilsja tvoemu pis'mu* [D] "ich staunte über deinen Brief" → *ja byl udivlën tvoim pis'mom* [I] "ich war über deinen Brief erstaunt"; *predpočitaju rozu rezede* [D] "ich ziehe die Rose der Reseda vor" → *okazyvaju predpočtenie roze pered rezedoj* [I] "ich gebe der Rose vor der Reseda den Vorzug"; *ja radujus' tvoej radosti* [D] "ich freue mich an deiner Freude" → *ja radujus' tvoej radost'u* [I] "ich freue mich über deine Freude" u. ä.). Als Träger des D-s des Adressaten fungiert meistens ein belebtes Wesen (vgl. Delbrück, 185, *Atti*, 144) und als derjenige des A-s ein unbelebter Gegenstand, besonders wenn es sich um den A des inneren Objekts handelt, und gerade dieser A ist dem D am schärfsten entgegengesetzt, weil der D nur ein äußeres Objekt zu bezeichnen imstande ist (ein belebtes Wesen als A des inneren Objekts ist eine seltene Ausnahme: *bog sozdal čeloveka* "Gott schuf den Menschen"; *ona začala, rodila mladenca* "sie empfing, gebar ein Kind").[13] Wenn wir also das System der Kasusgegensätze in seiner Zuspitzung betrachten, so zeigt sich eine Tendenz zu einer geradezu entgegengesetzten Verteilung des Belebten und Unbelebten zwischen den einzelnen Vollkasus einerseits und den Randkasus anderseits:

N belebt	A unbelebt
I unbelebt	D belebt

---

[13] Die Bezeichnung des inneren Objekts ist die Hauptbedeutung des A-s; aus dem parallelen Gegensatze N–I erweist sich die Hauptbedeutung des N-s als die Bedeutung des Mittelpunktes der Aussage. Sie wird im Satzsubjekte verwirklicht, wogegen in der Prädikatrolle der N mit dem I konkurriert.

Bezeichnend für die Verankerung dieser Verteilung im sprachlichen Denken ist das System der enthüllenden "schulgrammatischen Fragen": *kto* [N] *delaet, čto* [A] *delaet, čem* [I] *delaet, komu* [D] *delaet* "wer, was, womit, wem macht".

<div align="center">VI</div>

Im Lokal gleich wie im G ist im Unterschied zum D und A der Bezugsgegensatz aufgehoben. Gleich dem G kann der L einen Gegenstand, der von einer Handlung betroffen ist, bezeichnen (vgl. *priznajus' v ošibke* [L] "ich bekenne mich zum Fehler" – *priznaju ošibku* [A] "ich erkenne den Fehler an"; *sužu o sobytijax* [L] "ich urteile über die Ereignisse" – *obsuždaju sobytija* [A] "ich beurteile die Ereignisse"), gleicherweise aber einen Gegenstand, über dessen Betroffenheit von einer Handlung nichts besagt wird (vgl. *ploščad' Majakovskogo v Moskve* [L] "Majakovskij-Platz in Moskau" – *ploščad' Majakovskogo, Moskva* [N] "Majakovskij-Platz, Moskau"; *čudovišče o trëx golovax* [L] "das dreiköpfige Ungeheuer" – *čudovišče s trem' a golovami* [I] "das Ungeheuer mit drei Köpfen").

Ich sage oder schreibe *luna* "der Mond" und bezeichne damit bloß einen einzigen Gegenstand; aber sage ich oder schreibe ich *o lune* [L] "über den Mond", so ist der Hörer bzw. der Leser vorher benachrichtigt, daß zwei Gegenstände im Spiele sind, und zwar der Mond und eine Aussage über ihn, wobei in erster Linie und unmittelbar diese Aussage, und erst indirekt als Randgehalt der Mond gemeint wird. Dasselbe findet statt, wenn man hört oder liest – *na lune* [L] "auf dem Mond": es werden zwei Gegenstände gemeint – der Mond und etwas, was sich auf dem Monde befindet oder vorgeht, wobei das zweite sozusagen den Kern der Aussage ausmacht, und der Mond an sich sich wieder als ihr Randgehalt behauptet.

Es kann die Frage entstehen, ob dieser Unterschied nicht eher mit dem Gegensatz des präpositionalen und präpositionslosen Kasusgebrauches als mit der Verschiedenheit der Kasus verknüpft ist.[14] Es ist richtig, daß

---

[14] Die Fürwörter, die im Gegensatz zu den anderen Redeteilen durch ihre Wurzelmorpheme keine reellen, sondern formelle Bedeutungen ausdrücken, besagen öfters mittels verschiedener Wurzelmorpheme solche Bedeutungsunterschiede, die sonst durch Gegensätze der morphologischen oder syntaktischen Form wiedergegeben werden: das sind einerseits die Kategorien der Belebtheit und Unbelebtheit (Gegensatz der Wurzelmorpheme *k – č*: *kto* "wer" – *čto* "was", *kogo – čego* usw.), der Person (*ja* "ich", *ty* "du", *on* "er") und anderseits absonderlicherweise der Gegensatz der Angehörigkeit und Nichtangehörigkeit zu einer präpositionalen Fügung, die bei den Fürwörtern der dritten Person durch den Unterschied der Wurzelmorpheme *n'* und *j* folgerichtig ausgedrückt wird (*nego–ego, nemu–emu, neë–eë* usw.).

die russische Präposition einen Zusammenhang zweier Gegenstände, und zwar die indirekten, nach der alten Bestimmung Grečs "allerschwächsten, entfernten Verhältnisse" bezeichnet, welche die beiden Glieder deutlich unterschieden lassen. Doch ist die Fügung mit einer Präposition für den L im Gegensatz zum A, G, I und D nicht eine der syntaktischen Möglichkeiten, sondern die einzige und unentbehrliche Möglichkeit, ähnlich wie die präpositionslose Konstruktion für den N oder wie die Fügung mit dem Zeitworte (ausgedrückt oder hinzugedacht) für den A. Die Bedeutung des präpositionalen Gebrauchs fungiert mithin nicht als eine der Sonderbedeutungen des L-s, sondern als seine Gesamtbedeutung. Außerdem hebt der L den Regens in der Hierarchie der Bedeutungen der Aussage eindeutig hervor, was bei dem präpositionalen Gebrauch der Vollkasus (A, G) nicht der Fall ist (was den I und D betrifft, so kennzeichnen sie die Randstellung gegenüber dem Regens unabhängig davon, ob sie mit oder ohne Präposition verwendet werden). Der L kündigt seine eigene Randstellung gegenüber dem ausgedrückten oder hinzugedachten Regens an, indem er gleichzeitig die "geringere Objektivisierung" des Lokalgegenstandes in der Aussage und die vollkommene "Objektivisierung" des durch den Regens bezeichneten und durch den Lokalgegenstand umgrenzten Gehaltes anzeigt. Der Lokalgegenstand ist in der Aussage nicht in seinem vollen Umfange vertreten, der L ist also gleich dem G ein Umfangskasus. Er unterscheidet sich allerdings vom G dadurch, daß er auch den Umfang und zwar den vollen Umfang des Regensgehaltes angibt und sich somit als Randkasus auswirkt.

Rasskazy o vojne [L] "die Erzählungen über den Krieg, vom Krieg, aus dem Krieg", *rasskazyvajut o vojne* "man erzählt über den Krieg, vom Krieg": ist angegeben der Rahmen der Erzählungen bzw. des Erzählens, der Krieg dagegen ist bloß partitiv in der Aussage vertreten. *Ostrov na reke* "die Insel auf dem Flusse": der Umfang der Insel ist durch die Aussage umspannt, aber nicht der Umfang des Flusses. *Poduška ležit na divane* "das Kissen liegt auf dem Sofa": es ist das ganze Kissen, aber bloß die Oberfläche des Sofas ist in der Aussage beteiligt. *Bumagi zaperty v jaščike* [L] "die Papiere sind (liegen) in der Schublade eingeschlossen" – *bumagi zaperty v jaščik* [A] "die Papiere sind in die Schublade eingeschlossen worden": sie waren früher nicht dort, der Gegenstand ist hier also zeitlich nicht völlig umgrenzt. *Grešnik raskajalsja v svoej žizni* [L] "der Sünder bereute sein Leben": das Leben des Sünders erschöpft den Inhalt der Reue, nicht aber die Reue das Leben.

Die Präposition *pri* mit dem L bedeutet eine zeitliche Beschränkung (*pri Petre* "zur Zeit Peters"), die Zugehörigkeits-, die Einfluss- oder die

Wahrnehmungszone, innerhalb deren etwas stattfindet: *služil pri dvore*
"diente am Hofe", *on pri fabrike* "er ist der Fabrik zugehörig", *pri
gorode sloboda* "die Stadt hat einen Vorort", *skazal pri žene* "sagte in
Gegenwart (in Hörweite) der Frau".

Der L "der aufzuzählenden Merkmale" mit der Präposition *o* (vgl.
Nilov, 193, 195) enthält eine quantitative Beschränkung des Lokalgegen-
standes; die Gesamtheit der aufgezählten Merkmale ist für den Regens
bezeichnend und umfaßt erschöpfend seine Wesensart: *stol o trëx nožkax*
"der dreifüssige Tisch", *ruka o šesti pal'cax* "die sechsfingrige Hand",
allerdings *stol s tremja treščinami* [I] "der Tisch mit drei Ritzen", *dom s
dvumja trubami* "das Haus mit zwei Schornsteinen".

Der L ist also gegenüber dem N, I, A und D als Umfangskasus und
gegenüber dem N, A und G als Randkasus merkmalhaltig. Er ist sozu-
sagen der Antipode des absolut merkmallosen N: der stets präpositi-
onale und der stets präpositionslose Kasus erweisen sich als dia-
metral entgegengesetzt. Es ist bemerkenswert, daß die russische
grammatische Tradition von jeher (schon Meletij Smotrickij im XVII.
Jhd.) die Deklinations-Paradigmata, die naturgemäß mit dem N anfan-
gen, mit dem L schloss. Die übliche Entgegenstellung des N, A, G
(unsere Vollkasus) den übrigen Kasus (unseren Randkasus) war, abge-
sehen von den unhaltbaren Begründungen dieser Einteilung, im Grunde
richtig (vgl. Wundt,II, 62, 74 f.).

VII

In der Deklination mancher Namen von unbelebten Gegenständen glie-
dern sich G und L in je zwei getrennte Kasus, und zwar unterscheidet ein
Teil der Substantiva Sg. masc. mit einer Null-Endung des N-s zwei
Genitive – den G I, der auf ein betontes oder unbetontes -*a* endet, und
den G II, der auf ein betontes oder unbetontes -*u* endet; eine Anzahl teils
derselben, teils verschiedener Namen der gleichen Deklination unter-
scheidet zweierlei Lokale – den L I, der auf -*e* oder seinen unbetonten
Wechsellaut endet, und den L II, der auf ein betontes -*u* endet. Auch ein
Teil der Substantiva Sg. fem. mit einer Null-Endung des N-s unterscheidet
den L I, der auf ein unbetontes -*i*, und den L II, der auf ein betontes -*i*
endet.

Es wurde oftmals versucht, die Funktionen der beiden Abarten des
G und des L zu bestimmen, doch umfassen diese Bestimmungen meistens
nur einen Teil ihrer Bedeutungsbereiche. So setzt Bogorodickij (115) dem
G einen besonderen "Ausgangskasus" (z.B. *iz lesu* "aus dem Walde")

entgegen, und "im Bereiche des sog. Präpositionals" unterscheidet er einen "lokalen" (*na domu* "zu Hause") und einen "erläuternden" Kasus (*o dome* "über das Haus"); doch es bleibt unklar, weshalb der "Ausgangskasus" in der Fügung *iz tënnogo lesa* "aus dem dunklen Walde" verschwindet, wo die Schattierung des Ausganges in den Fügungen *čaška čaju* "eine Tasse Tee", *prošu čaju* "ich bitte um Tee" ist, und warum in den Fügungen *pri dome* "am Hause", *v vašem dome* "in ihrem Hause" anstatt des "lokalen" Kasus der "erläuternde" erscheint. Auch Durnovo führt keine genaue Grenze zwischen den beiden Abarten des G und des L an, indem er vermerkt, daß die Genitivform auf -*u* nach den Worten, die eine Quantität bezeichnen, am häufigsten ist, und indem er vom Präpositional einen Lokal (*na vozú* "auf dem Wagen", *na melí* "auf der Sandbank") unterscheidet, der "nach *v* und *na* in rein lokaler und zeitlicher Bedeutung" (247 ff) verwendet wird.

Eine größere Aufmerksamkeit schenkte der Frage des doppelartigen G-s bei den "Stoffnamen" Thomson (XXVIII, 108 ff.): "wenn die Masse räumlich begrenzt erscheint und selbst gewöhnlich eine bestimmte Form hat, so betrachten wir doch diese Merkmale als zufällig, weil sie vom subjektiven Standpunkt aus unwesentlich sind. *** Bei vielen maskulinen Stoffnamen wird die Genitivendung -*u* statt -*a* gebraucht, wenn sie den rein stofflichen Begriff bezeichnen." Der Forscher vergleicht in diesem Zusammenhange solche Fügungen wie *kupi syru* [G II] "kaufe Käse" – *vmesto syra* [G I] "statt Käse", *butylka mëdu* [G II] "eine Flasche Met" – *prigotovlenie mëda* [G I] "die Bereitung des Mets", *on kupil lesu* [G II] "er kaufte Wald" – *granica lesa* [G I] "die Grenze des Waldes". Am eingehendsten bestimmt die Verwendungsgrenzen der fraglichen Formen Šaxmatov (*Očerk*, 100 ff., 122 f.). Er stellt fest, daß die G-e auf -*u* von nicht zählbaren Worten mit einer Stoff-, Kollektiv- und Abstraktbedeutung gebildet werden und daß "die Individualisierung oder Konkretisierung der Stoffbegriffe" die Endung -*a* mit sich bringt; der Forscher führt Listen der Worte vor, die im L nach den Präpositionen *v* und *na* ein betontes -*u* oder -*i* erhalten, die übrigens meistens vermieden werden, wenn das Nomen von einem Attribute begleitet wird und seine Bedeutung sich dadurch individualisiert; dasselbe finde auch beim G der Abstrakta statt.[15]

---

[15] Die Frage wird auch im jüngsterschienenen stoffreichen Buche von Unbegaun zur Geschichte der russischen Deklination berührt; der Verfasser folgt dabei im Wesentlichen den Schlüssen Šaxmatovs und erklärt durch die Tendenz "vers l'adverbialisation" diejenigen Anwendungen des G II und L II, die Šaxmatov semantisch als Fehlen einer individualisierenden Bedeutung betrachtete (123).

Welche ist also die Gesamtbedeutung der sichtlich gleichlaufenden Gegensätze G I–G II und L I–L II? Die Nomina, welche den G II bzw. den L II besitzen, besitzen notwendigerweise auch den G I bzw. den L I. Der G II und der L II sind im Verhältnisse zu G I und zu LI merkmalhaltige Kategorien. Sie besagen im Gegensatze zu den merkmallosen G I und L I, daß der bezeichnete Gegenstand nicht als Gestalt, sondern als etwas Gestaltendes oder zu Gestaltendes im Sachverhalte der Aussage fungiert. Man kann dementsprechend den G II und den L II als Gestaltungskasus und ihr Verhältnis zum G I und L I als Gestaltungskorrelation bezeichnen.

Ein Massenobjekt oder das ihm grundsätzlich verwandte Abstraktum,[16] von dem eine bestimmte (*ložka percu* "ein Löffel Pfeffer", *funt goroxu* "ein Pfund Erbsen", *mnogo smexu* "viel Lachen") oder unbestimmte Dosis (*čaju!* "(etwas) Tee!", *smexu bylo* "es gab Lachen") oder ein Nulldosis (*net čaju* "es ist kein Tee da", *bez percu* "ohne Pfeffer", *bez smexu* "ohne Lachen") im Sachverhalte der Aussage beteiligt ist, wird erst durch die grenzverleihende Funktion der Aussage positiv oder negativ gestaltet.

In den Fällen, in denen ein Massenobjekt oder ein Abstraktum nicht als Stoff figuriert, sondern als eine dingliche Einheit, die als solche bestimmt, gewertet, gefühlsmässig behandelt wird, verliert der G II, der seinem Wesen nach von der Dinglichkeit des Bezeichneten absieht, seine Berechtigung. Dadurch sind Gegensätze wie die folgenden fundiert: *rjumka kon'jaku* [G II] "ein Gläschen Cognac", *skol'ko kon'jaku* "wieviel C.", *napilsja kon'jaku* "trank sich mit C. an", *ne ostalos' kon'jaku* "es blieb kein C. nach", *bez kon'jaku* "ohne C." – *zapax kon'jaka* [G I] "der Geruch von C.", *kačestvo kon'jaka* "die Qualität von C.", *krepče kon'jaka* "stärker als C.", *razgovor kosnulsja kon'jaka* "man berührte C. im Gespräch", *opasajus' kon'jaka* "ich fürchte mich vor C.", *ne ljublju kon'jaka* "ich habe C. nicht gern", *ot kon'jaka* "von C.". Freilich gibt es an der Grenze der beiden Kasusformen Schwankungsfälle, doch öfters werden auch diese Grenzvariationen semasiologisiert, z.B. *ne pil kon'jaka* [G I] "trank keinen C." d.h. hatte nicht gern, erkannte dieses Getränk nicht an – *ne pil kon'jaku* [G II] ist eher eine bloße Feststellung, die den Gegenstand nicht werten will; *količestvo kon'jaka* [G I] "die Quantität von C.": die Quantität erhält hier die semantische Schattierung einer Eigenschaft des Gegenstandes – *količestvo kon'jaku* [G II] besagt nur das Mass, eine reine Dosierung.

---

[16]   Über diese Gattungen, die als Abarten der Singularia tantum fungieren, s. Braun.

Wenn ein Massenobjekt oder ein Abstraktum durch die Aussage in einen der gleichartigen und hiermit zählbaren Gegenstände verwandelt wird, ist das Nomen kein Singulare tantum mehr, der Gegensatz Einzahl –Mehrzahl tritt in seine Rechte (*različnye čai* "verschiedenartige Tees", *vsjačeskie zapaxi* "allerlei Gerüchte") und der G II verliert seine Berechtigung: *net čaju* [G II], aber *v prodaže net ni kitajskogo, ni cejlonskogo čaja* [G I] "es ist im Verkauf weder China-, noch Ceylontee"; *cvety bez zapaxu* [G II] "Blumen ohne Geruch" – *v bukete ne bylo cvetov bez sladkogo ili gor'kogo zapaxa* [G I] "im Strausse gab es keine Blumen ohne süßlichen oder bitteren Geruch". Es gehört nicht zu unserer Aufgabe, die Einzelheiten des Gebrauches zu beschreiben, sondern nur die Gesamttendenzen anzudeuten.

Ein Gegenstand in der Eigenschaft eines Behälters, einer Anbringungsfläche oder eines Maßes umgrenzt und gestaltet hiermit den Sachverhalt der Aussage. Im präpositionalen Gebrauch besagen der G II und der L II, daß diese Funktion des Behälters oder Maßes die maßgebende, oder sogar die einzig in Frage kommende Eigenschaft des Gegenstandes ist. Mit den Präpositionen *o, pri* ist der L II nicht vereinbar (*govorit' o berege* [L I], *o króvi* "über Küste, über Blut sprechen", *izbuška pri lese* [L I] "ein Häuschen am Walde"), dementsprechend auch nicht der G II mit den Präpositionen *u, vozle* u.ä. (*u lesa* [G I] "beim Walde", *vozle doma* "neben dem Hause"), da diese Präpositionen nicht zur Bezeichnung einer gestaltenden Funktion des Gegenstandes dienen. Im Gegenteil kann sich der L II mit den Präpositionen *v, na* vereinigen (*v lesú* "im Walde", *v kroví* "im Blute", *na beregú* "auf der Küste", *na vozú* "auf dem Wagen") und ebenfalls der G II mit den Präpositionen *iz, s,* u.ä., so weit diese Präpositionen sich auf das Verhältnis der Gestaltung (des Enthaltens, des Maßes) beziehen. Der G II in der Bedeutung eines Behälters, Befindungsortes, Maßes ist eine unfruchtbare grammatische Bildung, und sein Gebrauch beschränkt sich auf einige erstarrte Gefüge wie z.B. *iz lesu* "aus dem Walde", *iz domu* "aus dem Hause", *s polu* "vom Boden", *s vozu* "vom Wagen", besonders in den Maßbezeichnungen: *s času* "von ein Uhr", *bez godu* "um ein Jahr weniger"; im Gegenteil ist der L II in der entsprechenden Bedeutung eine geläufige Form.

Falls der L mit der Präposition *v* nicht einen Behälter irgendwelcher Dinge in Betracht zieht, sondern ein Ding, das gewisse Eigenschaften enthält, so ist der L II naturgemäß nicht am Platze. Vgl. *skol'ko krasoty v lesu* [L II] "wieviel Schönes es im Walde gibt", *skol'ko krasoty v lese* [L I] "welche Schönheit dem Walde eigen ist"; *v stepí* [L II] *menja razdražaet moškara* "in der Steppe ärgern mich die Mücken" – *v stépi* [L I]

men'a razdražaet odnoobrazie "die Steppe ärgert mich mit ihrer Einför-
migkeit"; *no i v tení* [L II] *putnik ne našël spasenija* "aber auch im Schatten
fand der Wanderer keine Erlösung" (hier fungiert der Schatten als Be-
hälter des Wanderers) – *no i v téni* [L I] *putnik ne našel spasenija* "aber
auch der Schatten brachte dem Wanderer keine Erlösung" (der Schatten
als evt. Träger der Erlösung); *i v grjazí* [L II] *možno najti almaz* "auch im
Schmutz kann man einen Diamant finden" (der Schmutz umhüllt den
Diamant) – *i v grjázi* [L I] *možno najti svoeobraznuju prelest'* "auch am
Schmutz kann man einen eigentümlichen Reiz finden" (das heißt der
eigentümliche Reiz könne die Eigenschaft des Schmutzes sein).

Wird das Enthaltene als eine Akzidenz des Enthaltenden gewertet und
wird gerade das letztere in Blick genommen, so wird der L II nicht zuge-
lassen. Vgl. *na prudú* [L II] *baby bel'ë pološčut* "auf dem Teiche spülen
die Weiber Wäsche", *na prudu lodki* "auf dem Teiche sind Boote" – *sad
zapuščen, na prude* [L I] *rjaska* "der Garten ist verödet, auf dem Teiche ist
Wassermoos"; *ona pojavilas' v šelkú* [L II] "sie erschien in Seide" – *v
šëlke* [L I] *pojavilas' mol'* "in der Seide zeigten sich Motten", *v šëlke
jest' bumažnye volokna* "in der Seide sind Baumwollfäden vorhanden";
lepëški ispečeny na medú [L II] "die Fladen sind auf Honig gebacken" –
na mëde [L I] *pokazalas' plesen'* "auf dem Honig zeigte sich Schimmel".

Ist die Art des Enthaltens, die vom Kontext angegeben ist, für den
fraglichen Gegenstand ungewohnt, sodaß seine Teilnahme am Sachver-
halte der Aussage sich für uns kaum auf eine Rolle des einfachen Behäl-
ters oder Befindungsortes einschränken läßt und wir einen gewissen
Eigenwert des Gegenstandes empfinden, dann ist der L II nicht ange-
bracht. Vgl. *v lesú* [L II] *ležit tuman* "im Walde liegt ein Nebel" – *na lese*
[L I] *ležit tuman* "auf dem Walde liegt ein Nebel"; *v grobú* [L II] *mertvec*
"im Sarg ist eine Leiche" – *na grobe* [L I] *venok* "auf dem Sarg ist ein
Kranz", *v čanú* [L II] "im Kübel" – *na čane* [L I] "auf dem Kübel", *v
grjazí* [L II] "im Schmutz" – *na grjázi* [L I] *tonkij sloj snegu* "auf dem
Schmutz liegt eine dünne Schichte von Schnee"; *sidit voron na dubú* [L II]
"ein Rabe sitzt auf der Eiche" – *otverstie v dube* [L I] "eine Höhlung in
der Eiche"; *na valú* [L II] *našli ostatki ukreplenij* "auf dem Erdwall fand
man Reste von Befestigungen" – *v vale* [L I] *našli ostatki ukreplenij* "in-
nerhalb des Erdwalles fand man – –".

Bei manchen Nomina genügt es, daß ein Attribut erscheint, damit der
entsprechende Gegenstand außerhalb seiner Rolle des Behälters berück-
sichtigt werde. Auch in diesen Fällen tritt anstelle des L II der L I (bzw.
anstatt des G II der G I). *V grobú* [L II] "im Sarge", aber eher *v derevjan-
nom grobe* [L I], *v razukrašennom grobe* "im hölzernen, im verzierten

Sarge"; *v peskú* [L II] "im Sande" – *v zolotom peske* [L I] "im Goldsande";
na vozú [L II] "auf dem Wagen" – *na čudoviščnom voze* [L I] "auf einem
ungeheuren Wagen"; *ruki v kroví* [L II] "die Hände in Blut" – *ruki v*
čelovečeskoj króvi [L I] "die Hände in Menschenblut"; *svin'i kupajutsja v*
grjazí [L II] "die Schweine baden im Schmutz" – *bol'noj kupajetsja v ce-*
lebnoj grjázi [L I] "der Kranke badet im 'heilsamen Schmutz' (Schlamm)";
íz lesu [G II] "aus dem Walde" – *iz tëmnogo lesa* [G I] "aus dem dun-
klen Walde". Je ungewohnter das Attribut ist, desto mehr hebt es den
Gegenstand hervor und desto eher tritt der L II dem L I seine Stelle ab.
Vgl. *v rodnom krajú* [L II] "im Heimatland" – *v èkzotičeskom kraje* [L I]
"im exotischen Land".

<p style="text-align:center">VIII</p>

Die folgende Tabelle faßt das Gesamtsystem der russischen Ka-
susgegensätze zusammen, wobei innerhalb jedes Gegensatzes der
merkmalhaltige Kasus entweder rechts oder untern Platz findet:

$$(N \sim A) \sim (G\,I \sim G\,II)$$
$$\wr \qquad \wr \qquad \wr \qquad \wr$$
$$(I \sim D) \sim (L\,I \sim L\,II)$$

Es ist für alle diese Gegensätze charakteristisch, daß das Gekenn-
zeichnete eigentlich stets negativer Art ist: es setzt hierarchisch den
Gegenstand herab, schränkt auf irgend welche Weise die Fülle seiner
Selbstentfaltung ein. So wird durch die Bezugskasus (A, D) die Unselb-
ständigkeit des Gegenstandes angezeigt, durch die Umfangskasus (die
G-e und die L-e) die Einschränkung seines Umfangs, durch die Rand-
kasus (I, D und die L-e) seine periphere Stellung und durch die Gestal-
tungskasus (G II, L II) die Beschränkung seiner Funktion auf die des
Enthaltens oder des Enthaltenseins. Je mehr Korrelationsmerkmale der
Kasus in sich trägt, desto vielfältiger wird die Geltung des bezeichneten
Gegenstandes in der Aussage beschränkt und herabgedrückt, und eine
desto erheblichere Verwickeltheit des übrigen Sachverhaltes wird durch
diesen Kasus angezeigt.

Versuchen wir also das russische Kasussystem schematisch darzustel-
len. Wie schon oben vermerkt wurde, kennzeichnet der A einen "senk-
rechten" Stand, während der N nichts mehr als einen einzigen Punkt

(und zwar den Punkt der Projektion des Gegenstandes in die Aussage) angibt. Gleichartig ist das Verhältnis zwischen dem D und dem I, aber beide unterscheiden sich vom ersteren Paar durch Festlegung der Randstellung des bezeichneten Gegenstandes im Hinblick auf die Aussage. Diese periphere Stellung kann schematisch als die Lage des Punktes auf einem Segment dargestellt werden, wobei beim I die Stellung des Segmentpunktes gegenüber dem vermeintlichen Mittelpunkt (oben, unten oder in gleicher Höhe) eigentlich nicht angegeben wird. Der G setzt das Vorhandensein zweier Punkte voraus: es ist einerseits der Punkt der Projektion des gemeinten Gegenstandes auf den Plan der Aussage, anderseits die Grenze des Gegenstandes, die außerhalb des Sachverhaltes der Aussage bleibt; im Gegensatze zu den beiden Punkten, die der A angibt, sind die des G-s einander nicht übergeordnet, folglich können wir den G als einen Ausgangspunkt eines wagerechten Abschnittes schematisch darstellen. Das Schema des L-s unterscheidet sich nur dadurch, daß der Punkt auf ein Segment eingetragen wird, damit die periphere Stellung des Gegenstandes zum Ausdruck kommt. Der G II und der L II unterscheiden sich vom G I und L I dadurch, daß nicht der Gegenstand als solcher gekennzeichnet wird, sondern nur seine Berührung mit dem Sachverhalte der Aussage. Einer von beiden wird erst durch den anderen begrenzt. Unter dem Gesichtswinkel des bezeichneten Gegenstandes ist der Berührungspunkt bloß einer seiner Punkte, und wir geben ihn als Punkt auf einem wagerechten Abschnitte wieder und nicht als objektiven Grenzpunkt eines Abschnittes, wie es beim G I und L I der Fall war. Welche von den beiden Einheiten – der bezeichnete Gegenstand oder der Sachverhalt der Aussage – als gestaltend und welche als gestaltet fungiert, ist beim G II nicht besagt; beim L II gehört notwendig die gestaltende Rolle dem bezeichneten Gegenstande an, denn das Innensein des Sachverhaltes der Aussage ist hier durch die Randlage des Berührungspunktes gegeben.

Das Gesamtschema des Kasussystems:
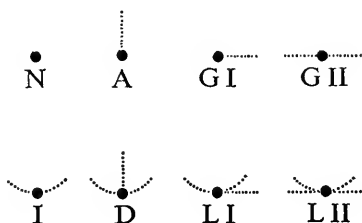
IX

Kein einziges der deklinierbaren Worte verwertet durch seine Kasusendungen das ganze System der russischen Kasusgegensätze. Bezeichnend sind die verschiedenartigen Äußerungen des Kasussynkretismus (vgl. Durnovo, 247 ff.). Eine gewisse Asymmetrie, die überhaupt als konstitutiver Faktor des Sprachsystems angesehen werden darf (vgl. Karcevskij *Travaux*), ist schon dem Gesamtsystem der russischen Kasus einverleibt: die merkmalhaltige Reihe der Umfangskorrelation wird auf einer anderen Grundlage gegliedert als die merkmallose – hier fungiert die Gestaltungs-, dort die Bezugskorrelation. Der Gestaltungsgegensatz ist meistens vermieden (oder historisch gesehen – hat nur ein geringer Teil der Substantiva die Spaltung des G, bzw. des L in zwei Kasus durchgeführt). Nichts destoweniger bleibt die Asymmetrie vorhanden, denn in den Umfangskasus (G, L) ist der Bezugsgegensatz aufgehoben, sodaß beispielsweise der G ebensogut dem A wie dem N entsprechen kann (*est' kniga* [N] "das Buch ist da" – *net knigi* [G] "das Buch ist nicht da"; *vižu knigu* [A] "ich sehe das Buch" – *ne vižu knigi* [G] "ich sehe das Buch nicht"). Diese Asymmetrie im Systembau wird durch den asymmetrischen Bau der Einzelparadigmata ergänzt und auf die ganze Deklination verallgemeinert (der russische Konjugationsbau bietet eine ähnliche Erscheinung). Das wird – ich betrachte die Frage im synchronischen Durchschnitt – mittels verschiedenartiger Formen des Kasussynkretismus erreicht.

Sind in einem Paradigma die Gestaltungsgegensätze oder mindestens einer von ihnen (G I–G II oder L I–L II) vorhanden, so ist einer der Bezugsgegensätze und zwar der des N und A aufgehoben.

sneg		snega	snégu
snegom	snégu	snege	snegú

smex		smexa	smexu
smexom	smexu	smexe	

raj		raja	
raem	ráju	rae	rajú

Unterscheiden sich der N und der A, so ist entweder der Unterschied A–G oder der entsprechende Unterschied D–L aufgehoben.

syn	syna	
synom	synu	syne

žena	ženu	ženy
ženoju	že	e

Werden die beiden Unterschiede zugleich aufgehoben, so verschmelzen die merkmalhaltigen Glieder der Bezugs- und der Umfangskorrelation, und die Asymmetrie des Systems wird hier – ein einziger Fall in der russischen Schriftsprache – einigermassen überwunden.[17]

ty	tebja
toboju	tebe

Schmelzen die Umfangskasus (G und L) in eine einzige synkretistische Form zusammen, so wird mindestens eine von den beiden Reihen der Stellungskorrelation, d.h. entweder die der Vollkasus oder die der Randkasus, zu einer einzigen Sonderform reduziert. Die Asymmetrie bleibt auch dann vorhanden, wenn dieser Vorgang in den beiden Reihen stattfindet.

pivnye		pivnyx[18]
pivnymi	pivnym	

slepye	slepyx
slepymi	slepym

te	tex
temi	tem

vy	vas
vami	vam

slepaja	slepuju
slepoju	slepoj

ta	tu
toju	toj

myš'	
myš'ju	myši

put'	
putëm	puti

vremja	
vremenem	vremeni

[17]   In den nordgroßrussischen Mundarten kommt noch eine andersartige partielle Ausgleichung der Asymmetrie vor: die Bezugskorrelation wird im Plural-Paradigma aufgehoben.

ruki	ruk
rukam	rukax

[18]   In den erwähnten nordgroßrussischen Mundarten wird in den entsprechenden Fällen eine symmetrische Lösung erreicht: kein Kasus kennzeichnet mehr als ein Korrelationsmerkmal.

	Vollkasus	bol'šie	bol'šix	Umfangskasus
	Randkasus	bol'šim		

Ebenso verteilten sich die Kasusformen des altrussischen Duals.

	N-A	druga	drugu	G-L
	I-D	drugoma		

Als Gegensätze, die in der russischen Deklination nicht auflösbar sind, behaupten sich die Gegensätze N–G, N–I, A–D. Die Verschmelzung der merkmalhaltigen Glieder aller drei Gegensätze findet in der volkstümlichen Deklination der Adjektiva und der meisten fem. Fürwörter statt, da in der Volksprache die Instrumentalendung -oju vollkommen durch -oj ersetzt ist. Alle Randkasus sind hier zusammengefallen und Stellungskorrelation sowie Umfangskorrelation sind ineinander aufgegangen.[19]

ta	tu
toj	

slepaja slepuju	
slepoj	

Die Verschmelzung der merkmalhaltigen Glieder einerseits und der merkmallosen Glieder aller drei erwähnten Gegensätze anderseits, bildet das einfachste von den russischen Paradigmen.

sorok
soroka

sto
sta

poltora
polutora

[19] Im Serbischen haben alle Randkasus des Plurals eine gemeinsame Form, während alle Unterschiede der Vollkasus beibehalten bleiben.

udari	udare	udara
udarima		

Im Čechischen gibt es im Gegenteil Plural-Paradigmata, die alle Unterschiede der Vollkasus abbauen, aber alle Unterschiede der Randkasus bestehen lassen.

znamení		
zname-nimi	zname-ním	zame-ních

Diese Besonderheit eines čechischen Einzelparadigmas wiederholt sich beispielweise im Giljakischen als Eigenschaft des gesamten Kasussystems:

1. təf [Haus]		
2. təfkir	3. təftox	4. təvux

(1. "Absoluter Kasus", der dem N, dem A und dem präpositionslosen G des Russischen entspricht; 2. I; 3. "aditiver Kasus", der im Wesentlichen dem russischen D entspricht; 4. "lokativisch-elativer Kasus", der dem L und dem präpositionalen G des Russischen entspricht.) Im Plural ist dasselbe Verhältnis, doch besteht hier die Tendenz, anstatt der Randkasus den absoluten Kasus zu gebrauchen (s. *Jazyki i pis'-mennost' narodov severa*, III, 197). Ein umgekehrtes Verhältnis zwischen den Deklinationen der beiden Numeri ist im čechischen Paradigma *paní* "Frau" zu beobachten: im Plural herrscht die oben angeführte Verteilung, während im Singular die Kasusunterschiede vollkommen aufgehoben sind.

Für die scharfe Gegensätzlichkeit des N-s (bzw. des A-s, soweit er mit dem ersten zusammenfällt) gegenüber den Rand- und Umfangskasus zeugen neben den angeführten Paradigmen folgende Erscheinungen:

1. defektive Fürwörter und zwar einerseits isolierte Nominativformen *nekto* "jemand", *nečto* "etwas", anderseits nominativlose Fürwörter – die verneinenden *nekogo* [G], *nečego* [G] (*nekomu* [D], *nečemu* [D] u.s.w.) und das reflexive *seb'a* [G-A], *sebe* [D], *soboju* [I], welches die Identität des unselbständigen Gegenstandes mit dem Hauptgegenstande kennzeichnet und hiermit keinen N besitzen kann (vgl. Polivanov, 87);

2. suppletive Fürwörter, deren N ein anderes Wurzelmorphem hat als die übrigen Kasus: *ja* [N] "ich" – *menja* [G-A], *my* [N] "wir" – *nas* [G-A], *on* [N] "er", *ego* [G-A] u.s.w.;

3. Substantiva, deren Nominalstamm sich vom Stamme der übrigen Kasusformen durch das Fehlen des "Verbindungmorphems" (s. Trubetzkoy, 14) unterscheidet: *vrem'a* [N-A] "Zeit" – *vremeni* [G-D-L] u.s.w.;

4. Substantiva, deren Betonung im N auf den Stamm, in den übrigen Kasus stets auf die Endung fällt: *gvózdi* [N-A] "Nägel" – *gvozdéj* [G], *gvozdjám* [D] u.s.w.

In der vorliegenden Untersuchung habe ich mich absichtlich in den Grenzen einer rein synchronischen Beschreibung gehalten, obwohl die Fragen der Umwandlungen des russischen Kasussystems sich unwillkürlich aufdrängen: die Sprache lässt einzelne Kasusformen mit Hilfe der grammatischen Analogie zusammenfallen und leistet den durch verschiedene Triebkräfte entstandene Homonymien der Kasusformen keinen Widerstand; oder sie verwendet im Gegenteil wirksam die Analogie, um alte Gegensätze aufrecht zu erhalten oder neue zu schaffen; am vollständigsten können die Grundtendenzen der russischen morphologischen Entwickelung durch folgerichtige Vergleichung einiger verwandten Systeme in Bewegung, ihrer Konvergenzen und Divergenzen, erläutert werden.

Steigen wir von der sprachlichen Synchronie zur vergleichend-historischen Kasuslehre empor oder versuchen wir das skizzierte Schema des modernen russischen Kasussystems und dasjenige des verbalen Baues in die zeitgemässe Untersuchung der Gesamtheit der russischen Redeteile und ihrer Wechselbeziehungen einzugliedern, oder suchen wir endlich nach den Grundsätzen einer Typologie der Kasussysteme, die trotz ihrer Vielheit so auffallende Übereinstimmungen in ihren Baugesetzen aufweisen, so bedarf auch alle diese Arbeit, um fruchtbar zu sein, einer sorgfältigen Unterscheidung der verschiedenen Grade der

sprachlichen Teilganzen, insbesondere zweier Stufen, nämlich des Wortes und Wortgefüges. Es ist ein unbestreitbares und dauerndes Verdienst Brøndals, diesen grundsätzlichen Unterschied nachdrücklich hervorgehoben zu haben. Die simplistische Vorstellung, eine selbständige Bedeutung gehöre lediglich einer Einheit an, die eines selbständigen Gebrauches fähig ist, und beispielsweise die meisten Kasus, von der Wortumgebung abstrahiert, seien nichts als "toter Stoff", hat mehrere morphologische Probleme entwertet und entstellt. Einige Fragen der Kasuslehre von dieser irreführenden Voraussetzung zu befreien wurde in dieser Studie versucht. Dem Problem des Bedeutens, welches schon auch in die Lautlehre rechtmässig eingedrungen ist, muß in der Formlehre ein gebührender Platz eingeräumt werden.

Geschrieben in Brno, 1935, und veröffentlicht in *TCLP*, VI (1936).

VERZEICHNIS DER ANGEFÜHRTEN LITERATUR

Atti del III Congresso internazionale dei linguisti, 1935 (M. Deutschbein, "Bedeutung der Kasus im Indogermanischen", 141 ff., Diskussion, 145 f.). – V. Bogorodickij, *Obščij kurs russkoj grammatiki* (1935⁵). – M. Braun, *Das Kollektivum und das Plurale tantum im Russischen* (1930). – V. Brøndal, *Morfologi og Syntax* (1932). – V. Brøndal, "Structure et variabilité des systèmes morphologiques", *Scientia* (1935), 109 ff. – K. Bühler, *Sprachtheorie* (1934). – F. Buslaev, *Opyt istoričeskoj grammatiki russkogo jazyka*, II: *Sintaksis* (1858). – B. Delbrück, *Vergleichende Syntax der indogermanischen Sprachen*, I (1893). – N Durnovo, "De la déclinaison en grand-russe littéraire moderne", *RES*, II, 235 ff. – O. Funke, *Innere Sprachform* (1924). – N. Greč, *Čtenija o russkom jazyke*, II (1840). – E. Haertel, "Untersuchungen über Kasusanwendungen in der Sprache Turgenevs", *AfslPh*, XXXIV, 61 ff. – L Hjelmslev, *La catégorie des cas*, 1 (1935). – E. Husserl, *Logische Untersuchungen*, II (1913²). – *Charisteria G. Mathesio quinquagenario...*, 1932 (R. Jakobson, "Zur Struktur des russischen Verbums", 74ff.). – S. Kacnel'son, *K genezisu nominativnogo predloženija* (1936). – S. Karcevskij, *Système du verbe russe* (1927). – S. Karcevskij, "Du dualisme aymétrique du signe linguistique", *TCLP*, I, 88 ff. – A. Marty, *Zur Sprachphilosophie. Die "logische", "lokalistische" und andere Kasustheorien* (1910) – F Miklosich, *Vergleichende Grammatik der slavischen Sprachen*, IV (1883). – I. Nilov, *Russkij padež* (1930). – H. Pedersen, "Neues und nachträgliches", *KZ*, XL, 129ff. – A. Peškovskij, *Russkij sintaksis v naučnom osveščenii* (1934⁴). – E. Polivanov, *Russkaja grammatika v sopostavlenii s uzbekskim jazykom* (1934). – H. Pongs, *Das Bild in der Dichtung* (1927). – A. Potebnja, *Iz zapisok po russkoj grammatike*, I–II (1888²). – A. Puchmayer, *Lehrgebäude der Russischen Sprache* (1820). – V. Skalička, *Zur ungarischen Grammatik* (1935). – M. Smotrickij, *Grammatiki slavenskija pravilnoe sintagma* (1618). – A. Šaxmatov, *Sintaksis russkogo jazyka*, I (1925). – A. Šaxmatov, *Očerk sovremennogo russkogo literaturnogo jazyka* (1925). – A. Thomson, "Beiträge zur Kasuslehre", *IF*, XXIV, 293 ff.; XXVIII, 107 ff.; XXIX, 249 ff.; XXX, 65 ff. – F. Trávníček, *Studie o českém vidu slovesném* (1923). – F. Trávníček, *Neslovesné věty v češtině*, II: *Věty nominální* (1931). – N. Trubetzkoy, *Das morphonologische System der russischen Sprache* (= *TCLP* V/2). – C. Uhlenbeck, "Zur casuslehre", *CZ*, XXXIX, 600 ff. – B. Unbegaun, *La langue russe au XVIe siècle*, I: *La flexion des noms* (1935). – F. Wüllner, *Die Bedeutung der sprachlichen Casus und Modi* (1827). – W. Wundt, *Völkerpsychologie*, II: *Die Sprache* (1922⁴).

NOTES ON GILYAK

1. INTRODUCTION

1.1 *Sources*. — Chinese records since the chronicles and topographies written under the Yüan dynasty (1271-1341) carry historical and anthropological information about the Gilyaks, designated there as 吉里迷 *Chi-li-mi* or 乞列迷 *Ch'i-lieh-mi*. There is an impressive tradition of valuable accounts from the *K'ai-yüan hsin chih* of the XII-XIV centuries until *Hsi-pe-li tung p'ien chi yao*, a report about Eastern Siberia compiled by Ts'ao T'ing-chieh in 1885 and printed in 1935.[1] The most instructive sources date from the fifteenth century, beginning with the Tyr inscription written soon after 1413.[2]

In the mid-seventeenth century, the Cossack accounts (*skazki*) of the first Russian expeditions to the Amur, led by I. Ju. Moskvitin, V. D. Pojarkov, and E. P. Xabarov, informed the Muscovites about the Gilyaks (*giljackie ljudi*) and their salient features.[3] A Pole, Adam Kamieński-Dłużyk, taken prisoner by the Russians in 1657 and sent to the Amur region, left a few ethnographic observations on the Gilyaks in his diary.[4] A map of Siberia made in Tobolsk in 1672 was perhaps the first to take

[1]. Cf. Sei Wada, "The Natives of the Lower Reaches of the Amur River as Represented in Chinese Records," *Memoirs* of the Research Department of the Toyo Bunko, No. 10 (Tokyo, 1938); Moritaka Takahashi, "Historical Sketch of the Gilyaks from Chinese Sources" (prepared for publication).

[2] See P. Popov, "O Tyrskix pamjatnikax," *Zapiski* Vostočnogo Otdelenija I. Rus. Arxeologičeskogo Obščestva, Vol. XVI (1906); K. Naitô, *Dokushi Zóroku* (Tokyo, 1929); *Očerki istorii SSSR*. Period feodalizma. IX-XV vv., Part I (Moscow, 1953), p. 751.

[3] Cf. M. I. Belov, *Russkie morexody v Ledovitom i Tixom Okeane* (Moscow, 1951), p. 51ff.; *Dopolnenija k Aktam istoričeskim*, Vol. III (Moscow, 1848), documents Nos. 12, 100, 102; N. P. Čulkov, "Erofej Pavlov Xabarov, dobytčik i pribyl'ščik XVII veka," *Russkij Arxiv*, XXXVI (1898), p. 178ff.; M. O. Kosven, "Materialy k istorii russkoj ètnografii XVII veka," *Sovetskaja Ètnografija*, 1955, No. 1, p. 136ff.

[4] A. Kamieński-Dłużyk, "Dyarusz więzienia moskiewskiego, miast i miejsc," *Warta*, ed. by N. Maryanski (Poznań, 1874).

account of the Gilyak people (*giljanskie ljudi*) and their territory (*giljan-skaja zemlja*).[5] The remarkable writings on Asian geography by N. G. Spafarij-Melesku, after his diplomatic journey to China in 1675-1678, pay attention both to the continental (Amur) Gilyaks and to their insular (Sakhalin) fellows.[6]

At the turn of the seventeenth century there appeared the first books by Western travelers briefly referring to the Gilyaks:[7] Nicolaas Witsen, *Noord en Oost Tartaryen* (Amsterdam, 1692); Philippe Avril, *Voyages en divers états d'Europe et d'Asie pour découvrir un nouveau chemin à la Chine* (Paris, 1693). Evert Ysbrandszom Ides, a Dutch traveler to China in Moscow service, published the account of his trip, *Driejaarige reize naar China*, first in Dutch (Amsterdam, 1704), then in German, English, and French. He notes the location of the Amur Gilyaks, and the *Populi Giliaki* figure on his map. From the seventeenth century, Japanese documents mention the Gilyaks, and, according to M. Takahashi, the first Japanese publication to cite the Gilyaks was a geography of Hok-kaido, *Matsumae-tô-gôchô*, 1700.

Throughout the eighteenth century, the Gilyaks were depicted in Chinese literature, but they remained beyond the horizon of Russian and Western European travelers to Asia. Gilyak is the only Paleosiberian language omitted in P. S. Pallas' *Linguarum totius orbis vocabularia comparativa* (SPb. 1787-1789). G. W. Steller's *Beschreibung von dem Lande Kamtschatka* (Frankfurt-Leipzig, 1774), p. 57, states that one shore of the lower Amur "von einer besonderen Nation bewohnet ist, die Giljacken genennet werden, und *** in sinesischem Gehorsam leben". The account of Jean de La Pérouse's journey in 1785-1788, *Voyage autour du monde*, III-IV (Paris, 1797), describes the Sakhalin population without distinguishing the Gilyaks from the Ainu natives. The same inadvertence is apparent in W. R. Broughton's *Voyage of Discovery to the North Pacific Ocean *** Performed in the Years 1795, 6, 7, 8* (London, 1804).

The first navigator to present many valuable observations about the Sakhalin Gilyaks and their way of life was Kruzenštern, who made his voyage around the world from 1803 to 1806 and published his travelogue

---

[5] See A. Titov, *Sibir' v XVII veke* (Moscow, 1890), p. 41 ff.; D. M. Lebedev, *Geografija v Rossii XVII veka* (Moscow, 1949), p. 25 ff.

[6] "Skazanie o reke Amure," in A. Titov, *Sibir' v XVII v.*, pp. 105-113; Ju. V. Arsen'ev, "O proisxoždenii Skazanija o velikoj reke Amure," *Izvestija* I. Rus. Geogr. Obščestva, Vol. XVIII, No. 4 (1882); N. G. Spafarij, *Opisanie pervyja časti vselennyja, imenuemoj Azii, v nej že sostoit Kitajskoe gosudarstvo s pročimi ego gorody i provincii* (Kazan', 1910).

[7] Cf. A. Andreev's survey in *Sovetskij Sever*, I (1938), p. 47 ff.

first in Russian[8] and then in numerous translations – German, Swedish, Dutch, English, Italian, and French. Almost at the same time, the Japanese traveler Rinzô Mamiya wrote a concise description of the insular and continental Gilyaks.[9]

Important exploratory work on the Amur and Sakhalin was done during the fifties by Russian and Western travelers, beginning with the 1849-1855 expedition of G. I. Nevel'skoj, which brought back the first detailed data about the Gilyaks;[10] several further accounts of trips to this area appeared in both the Occident and the Orient. Thus, *A Voyage down the Amoor with a Land Journey through Siberia and Incidental Notices of Manchooria, Kamchatka, and Japan* was published in New York, in 1860, by Perry McDonough Collins, the commercial agent of the United States for the Amur River, at the same time as *Kita-Ezo-Yoshi*, a detailed description of the Sakhalin Gilyaks by the writer and traveler Takeshirô Matsuura, appeared in Japan.

Père L. Furet's *L'Archipel Japonais et la Tartarie Orientale* (Paris, 1857) contains some ethnographic notes about the Gilyaks of the Baie de Joncquières on Sakhalin and a list of a hundred words in their vernacular, but since the author did not disclose the ethnic name of these natives, the vocabulary was overlooked by later students of Gilyak. At the same time as Père Furet, the English seaman, J. M. Tronson, R. N., observed the Amur natives and, after many vain efforts "to discover some trace of a written language amongst the Ghiliacks", recorded "some words in the Ghiliack tongue" in: *Personal Narrative of a Voyage to Japan, Kamtschatka, Siberia, Tartary, and Various Parts of the Coast of China* (London, 1859), p. 325. This collection, however, proves not to be a Gilyak vocabulary at all, but a list of Tungus words. In 1868 a Japanese traveler, Kansuke Okamoto, published *Kita-Ezo-Shinshi*, a description of the North Sakhalin aborigines, with more than a hundred Gilyak words recorded in the "kana" syllabary. Furet's and Okamoto's lists are the first two printed contributions to a Gilyak lexicon, since the Gilyak dictionary prepared in the fifties by the Russian explorer, K. I. Maksi-

---

[8] 1. Kruzenštern, *Putešestvie vokrug sveta v 1803, 4, 5 i 1806 godax*, 3 vols. (St. Petersburg, 1810-1814).

[9] Mamiya Rinzô, *Kita-Ezo-Zusetsu*, an account of a trip to Sakhalin in 1808, published in 1855; *idem, Tô-Tatsu-Kikô*, a report about an expedition to eastern Siberia, in particular to the Amur region, also printed in 1855.

[10] Cf. B. Polevoj, "Ètnografičeskie nabljudenija G. I. Nevel'skogo (1849 god)," *Sovetskaja Ètnografija*, 1955, No. 4; A. Smoljak, "Èkspedicija Nevel'skogo 1850-1854 gg. i pervye ètnografičeskie issledovanija XIX v. v Priamur'e, Primor'e i na Saxaline," *ibidem*, 1954, No. 3.

movič, and the four hundred entries of the Russian-Yakut-Gilyak-Tungus-Negidal dictionary collected at the beginning of the nineteenth century by a member of Kruzenštern's party, Lieutenant G. I. Davydov, lie unpublished in the Archives of the Russian Academy of Sciences.[11]

After several ethnographic sketches on the Gilyaks, N. Seeland wrote the first brief (and amateurish) survey of Gilyak sounds and grammatical forms, and of the lexical differences between the continental and insular dialects, with a few samples of Gilyak sentences.[12]

Substantial progress in Gilyak studies was achieved when the abundant anthropological and linguistic information, collected by the expedition of L. Schrenck and P. Glehn to the Amur region and Sakhalin, was processed and published.[13] The editor of the linguistic material, W. Grube, was the first qualified linguist to study Gilyak. The data collected by the expedition were, however, too inadequate for the editor to be able to draw reliable conclusions concerning the phonetics and grammar of the language, or to establish the exact forms of the numerous words recorded. Nonetheless, this first detailed dictionary of Gilyak provided the initial data for a discussion of the relationship between Gilyak and the surrounding languages. Thus, P. G. von Moellendorf used Grube's material to point out the structural connection of Gilyak with the Ural-Altaic type of languages, some morphological ties with Korean, a number of Chinese loanwords, close lexical ties with Eastern Tungus, and traces of a proximity to Ostyak-Samoyed (Sel'kup) — briefly, most of the questions of kinship and affinity which still preoccupy students of Gilyak.[14]

The basic need for the further development of Gilyak studies was, primarily, good recorded texts. This work was widely and remarkably performed by two political exiles to the Gilyak region, L. JA. Šternberg and B. Piłsudski. Of the rich folklore material collected by Šternberg,

---

[11]   See I. S. Vdovin, *Istorija izučenija paleoaziatskix jazykov* (Leningrad, 1954), p. 163; cf. *Dvukratnoe putešestvie v Ameriku morskix oficerov Xvostova i Davydova*, 2 parts (St. Petersburg, 1810-1812).

[12]   N. L. Zeland, "Zametka o giljackom jazyke," *Trudy* Ètnografičeskogo Otdela Obščestva Ljubitelej Estestvoznanija, Antropologii i Ètnografii pri Moskovskom Universitete, Vol. VII (1886), p. 185 ff.

[13]   L. v. Schrenck, *Reisen und Forschungen im Amur-Lande in den Jahren 1854-56*, Vol. III in 3 parts: Peoples of the Amur Region (St. Petersburg, 1881-1895); supplement to Vol. III: W. Grube, Linguistische Ergebnisse, part 1: Giljakisches Wörterverzeichniss nebst grammatischen Bemerkungen (St. Petersburg, 1892).

[14]   P. G. von Moellendorf, "The Ghilyak Language," *The China Review*, Vol. XXI (Hongkong, 1894), pp. 141-146. These questions were recently taken up again and developed in a stimulating paper by E. A. Krejnovič, "Giljacko-tunguso-man'čžurskie jazykovye paralleli," *Doklady i soobščenija* Instituta Jazykoznanija, Vol. VIII (1955), pp. 135-167.

only the first part of the first volume has appeared so far,[15] while a considerable part of his records, as well as his Gilyak dictionary and grammatical notes, still await publication.[16] A critical edition of Piɫ-sudski's splendid collection of Gilyak lyric songs was prepared in the 1930's, but unfortunately never appeared.[17]

While both of these field workers were much more concerned with anthropological questions than with the science of language, the inter-war period saw important new linguistic research in the Gilyak area. The most astute of the Russian scholars was E. Krejnovič. His notations of Amur Gilyak texts were the first linguistically exact and reliable records; therefore the still-awaited publication of his linguistic and folklore specimens and of his long-since completed dictionary, is an urgent necessity. Krejnovič's concise outline of Gilyak,[18] along with his monograph on its phonemic and morphophonemic pattern,[19] as well as his study on Gilyak numerals,[20] exhibit an exemplary capacity for objective observation. Finally, his responsible participation in the creation and pedagogical use of the Gilyak literary language demonstrated his high linguistic aptitude.[21] Step by step, Krejnovič overcame his methodological and theoretical incertitude, and during the thirties, only the pressure of Marr's bias diverted him from a thorough structural analysis and espe-

[15]   L. JA. Šternberg, *Materialy po izučeniju giljackogo jazyka i fol'klora*, Vol. I, Part I (St. Petersburg, 1908); cf. also his "Obrazcy materialov po izučeniju giljackogo jazyka i fol'klora," *Izvestija* I. Akademii Nauk, Vol. XIII (1900), pp. 387-434. Valuable lexical data are scattered throughout Šternberg's ethnographic studies; for a list of his Gilyak studies consult: R. Jakobson, G. Hüttl-Worth, and J. F. Beebe, *Paleosiberian Peoples and Languages: A Bibliographical Guide* (New Haven, Conn., 1957), # 2:163-2:176.
[16]   See *Pamjati L. JA. Šternberga* (Leningrad, 1930): p. 18.
[17]   Cf. B. Piɫsudski, "Poezya Giliaków," *Lud*, Vol. XVII (1911), pp. 95-123; *idem*, "*The Gilyaks and Their Songs*," *Folk-lore*, Vol. XXIV (1913), pp. 477-490. One Gilyak song, written down by Piɫsudski, appeared in C. H. Hawes's book, *In the Uttermost East* (New York, 1904), p. 260 f.
[18]   E. A. Krejnovič, "Nivxskij (giljackij) jazyk," *Jazyki i pis'mennost' narodov Severa*, Part III = Institut Narodov Severa, *Trudy po Lingvistike*, Vol. III (Leningrad, 1934), pp. 181-222.
[19]   *Fonetika nivxskogo jazyka* = same series, Vol. V (Leningrad, 1937). With an instructive description of Gilyak speech sounds, prepared in the Laboratory of Experimental Phonetics at Leningrad University by L. R. Zinder and M. I. Matusevič under L. V. Ščerba's guidance (pp. 105-130).
[20]   *Giljackie čislitel'nye* (Leningrad, 1932). Cf. also V. Z. Panfilov, *Nivxskie količest-vennye čislitel'nye*, published by the Institut Jazykoznanija (Leningrad, 1953).
[21]   For a list of Krejnovič's textbooks for Gilyak primary schools and his studies on the Gilyak language and customs see our Bibliography, # 2:73-2:88. Krejnovič's ethnographic papers are rich in lexical data, much more precise in the studies after his expedition to the Amur Gilyaks in 1931-32. "Oxota na beluxu u giljakov derevni Puir," *Sovetskaja Ètnografija*, 1935, No. 2, contains revealing information about the role of taboo in hunters' language.

cially from a sound historical interpretation of the facts which he himself had so skillfully discerned.

Krejnovič's records of the Amur dialect are apparently the most accurate Gilyak linguistic data available at present, and therefore it is primarily his material which is utilized and reinterpreted in my study. The value of Krejnovič's notations is particularly obvious when compared with previous accounts of Gilyak. The complaints "against the Gilyak language and its unsteady, so-to-say fluttering forms," made by the noted orientalist, Zaleman, on the basis of Šternberg's materials,[22] are quite justified, since the native informants who dictated their tales to Šternberg were instructed by him to separate words by artificial pauses (cf. Krejnovič's *Fonetika*, p. 15). Consequently, the intricate sandhi laws of Gilyak were destroyed, the consonantal alternations distorted, and the recorder of such dismembered speech naturally believed the choice of the alternant forms by the speaker to be quite arbitrary. Neither the sound pattern nor the grammatical system could be grasped under such conditions.

In Japan the linguistic study of Gilyak began with N. Akira's brief sketch of the Southern (Poronai) variety of insular Gilyak[23] and has developed during the last two decades: Takahashi's painstaking outline supplements a grammatical introduction to Sakhalin Gilyak with valuable folklore specimens and a large Gilyak-Japanese and Japanese-Gilyak vocabulary;[24] Takeshi Hattori, expert in Gilyak folklore and in such lexical problems as kinship terminology, fishing vocabulary, verbal taboo, and honorific expressions, contributed a summarizing synopsis of Gilyak to the Japanese *Introduction to the Languages of the World*.[25]

In the post-war development of Russian linguistics, an emphasis on the analysis of the Gilyak grammatical pattern may be noted. Efforts to specify the Gilyak type of incorporation in comparison with other Paleosiberian languages, from Meščaninov's deliberations to Panfilov's challenging essay,[26] actually resume Sapir and Kroeber's discussion in

[22] See V. Bogoraz, *Ètnografija*, Vol. III (1927), p. 277.

[23] Akira Nakanome, Grammatik der Nikbun Sprache (des Giljakischen)=*Research Review* of the Osaka Asiatic Society, Vol. V (1927).

[24] Takahashi Moritaka, *Giriyâku bunpô* (Tokyo, 1941): Cf. the list of his Gilyak studies in our Bibligraphy, # 2:185-2:189.

[25] Hattori Takeshi, "Giriyâku," *An Introduction to the Languages of the World*, Vol. II (Tokyo, 1955), pp. 753-775. For a list of his studies see our Bibliography, # 2:41-2:47.

[26] I. I. Meščaninov, *Novoe učenie o jazyke* (1936), *Obščee jazykoznanie* (1940), *Členy predloženija i časti reči* (1945), *Glagol* (1948); G. M. Korsakov, "Inkorporirovanie v paleoaziatskix i severo-amerikanskix indejskix jazykax," *Sovestkij Sever*, IV (1939); K. A. Novikova and V. N. Savel'eva, "K voprosu o jazykax korennyx narodnostej

The American Anthropologist, XII (1911) of the different kinds and degrees of incorporating processes. Attempts at a more accurate and comprehensive description of the morphological pattern are being undertaken.[27]

It is time to apply the devices of a consistent structural analysis to the puzzling problems of this peculiar language in its descriptive and genetic aspect.[28]

1.2 *Grammatical Essentials.* — A Gilyak sentence consists of *syntactic sections* in a fixed grammatical order. The sentence is an intonational unit, the section, a stress unit. Pauses are compulsory between sentences, optional between sections of a sentence, and inadmissible within a section. There are striking differences between intersectional and intrasectional laws of phonemic combination.

Example: /t'i/= personal pronoun, 2nd Pers. Sg., /pəf/ personal name, /oRla/ ~ /oRlaⁿ/ 'child', /r'o/ 'to carry', /-ra/ predicative suffix 2nd and 3rd Pers. Sg.: (1) /t'i pəv—oRlaⁿ—t'o-ra/ 'you carried Pəv's child. (2) /pəf orlaⁿ—t'o-ra/ 'your bear carried the child'. (3) /pəf—oRla r'o-ra/ Pəf's child carried (something)'.

Morphemes, the minimal grammatical constituents of a sequence, may be classified according to the place which they occupy in a syntactic section.

Gilyak distinguishes morphemes which never occur in an initial position (*suffixes*) from those which do occur initially (*roots*)[29] and, among roots, those which occur uniquely in initial position (*grammatical* [=pronominal] roots)[30] from those which may occur both in initial and non-initial position (*lexical* [=non-pronominal] roots).

Saxalina," *Učenye Zapiski* Leningradskogo Gosudarstvennogo Universiteta, No. 157 (1953); V. Z. Panfilov, "K voprosu ob inkorporirovanii," *Voprosy jazykoznanija*, 1954, No. 6.

[27] I had no access to Savel'eva's outlines: "Ličnye i vozvratnye mestoimenija v nivxskom (giljackom) jazyke," *Vestnik* Leningradskogo Universiteta, 1948, No. 7; "Sklonenie imen suščestvitel'nyx v nivxskom jazyke," Leningradskij Gosudarstvennyj Pedagogičeskij Institut imeni A. I. Gercena, *Učenye Zapiski* Fakul'teta Narodov Severa, No. 101 (1954); also Krejnovič and Savel'eva, "Ob imeni prilagatel'nom v nivxskom jazyke," *V pomošč' učitelju škol Krajnego Severa*, No. 6 (Leningrad, 1956).

[28] Cf. R. Jakobson, "Langues paléosibériennes," *Les Langues du Monde* (Paris, 1952), in particular a scrutiny of a few Gilyak sentences (p. 423ff.) [see below, pp. 98-102]: R. Austerlitz, "Gilyak Nursery Words," *Word*, Vol. XII (1956).

[29] The morphemes /-t'i-/~/-si-/ 'to put, to place', and /-p'i-/~/-fi-/ 'to reside, to be placed' occupy an intermediate place between verbalizing suffixes and verbal roots: they occur only after a nominal stem, just as suffixes do, but, on the other hand, they present initial fortes, just as roots do: /təf—t'i-/ 'to put in the house', /ŋo-vəj—si-/ 'to put under the barn' (/-vəj-/ 'under' is a nominal thematic suffix), /təf—p'i-/ 'to be in the house', /huru—fi-/ 'to be in the brush-wood', /pal-erqⁿ—p'i/ 'to be beside the mountain'.

[30] For grammatical roots used as prefixes, see below, § 2.4.

On the other hand, Gilyak distinguishes morphemes which occur uniquely in final position (*desinences*)[31] from those which occur in non-final positions (*thematic morphemes*) and, among thematic morphemes, those which occur only in non-final positions (*verbal thematic morphemes*) from those which may occur both in final and non-final position (*nominal thematic morphemes*).[32] By combining the two criteria and taking into account both the beginning and the end of the syntactic section, the suffixes may be divided into *desinential* and *thematic* suffixes. The latter together with the roots form the class of *thematic morphemes*. Furthermore, both nominal and verbal roots are divided into two types: lexical roots and grammatical (pronominal) roots.[33]

Examples of different types of roots: 1) lexical nominal root /mu/ 'boat', 2) grammatical nominal root /ɳəŋ/ 'we', 3) lexical verbal root /rəu-/ 'to teach', and 4) grammatical verbal root /ha-/ 'to do it'. The distributional rules which determine their position in the syntactic section are different for each of these four types of morphemes.

	Without a following morpheme:	*With a following morpheme:*	*With a preceding morpheme:*
1)	/mu/ 'boat'	/mu-ɣu/ 'boats'	/əz—mu/ 'master's boat'
		/mu-rox/ 'to the boat'	/pil—kar—mu/ 'very large boat'
		/mu—ɣəlmrʻ/ 'boat plank'	/aŋ—mu/ 'whose boat'
		/mu—se-u-/ 'to dry the boat'	
2)	/ɳəŋ/ 'we'	/ɳəŋ-ux/ 'from us'	. . . .
		/nəŋ—mu/ 'our boat'	
		/ɳəŋ—kʻu-/ 'to kill us'	
3)	. . . .	/rəu-ja/ 'teach'	/ɳəŋ—asq—rəu-ja/ 'teach our younger brother'
		/rəu—ɳivx/ 'teaching man'	/aŋ—təu—ɳivx/ 'whose teacher'
4)	. . . .	/ha-r/ 'while doing it' (2nd and 3rd Pers. Sg.);	. . . .
		/ha-t/ 'while doing it' (Plur. and 1st Pers. Sg.)	

[31] The rare use of the predicative desinence /ta/ ~ /ra/ after a case desinence in elliptic sentences is the only exception from the absolutely final position of desinences in the syntactic section. See Krejnovič, *Nivxskij jazyk*, p. 206: /ʈʻi aŋ-ux ɣe-ⁿ -ʈ-ɳa? kəuk-ux-ta./ 'From whom did you take it? It's from Kəuk'. (/-ux/ is the Ablative desinence).

[32] The relationship between two thematic suffixes in SE Gilyak, the nasal verbal suffix, and the nominal suffix /-ŋ/, which designates animate beings, remains an open question.

[33] The verbal roots are divided into two subclasses: verbal roots proper and adjective roots. Cf. /təu-/ 'to get accustomed'—/piu-/ '(to be) black'. These two subclasses, the verbal roots proper and the adjective roots, the latter occurring only before thematic morphemes (specifically adjective suffixes: /pui-la-/ 'black', /pil-jo-/ 'larger', /pil-kar-/ 'very large'; general verbal suffixes: /təi-ⁿ-pos/ [təibos] 'blue stuff', /təi-ⁿ-ʈ/ [təiḍ] 'being blue'; and nominal roots: /əɣr-qan/ 'black dog'), are not discussed in this paper.

A *simple* section contains one morpheme, a *complex* section, more than one. Only a nominal root may be used as a simple section: /ral mγe-ra/ 'the frog paddled', /ɲi os-t xa-inə-ŋan/ 'I, after having got up, had been prepared to shoot'. The root with the following thematic suffixes, if any, is called a *stem*; the root with all following suffixes (thematic and desinential), if any, is called a *word*. A *monothematic* section contains one stem, and a *polythematic* section, more than one. For example, /vi-ⁿ-ku-inə-ŋan/ [viguinəŋan] 'as soon as one is prepared to order the start of a journey' is a monothematic section (root /vi-/ 'to go'; thematic suffixes: causative /-ku-/, compulsorily preceded by the verb-signal /-ⁿ-/, and the projective /-inə-/; desinence: antecedent /-ŋan/). Five stems are included in the polythematic section, /pəi—mu—meɳ—vo—ɲivx/ 'aviator', literally 'a man /ɲivx/, holding /vo-/ the rudder /meɳ-/ of a flying /pəi-/ boat /mu/'. A word may figure either as a monothematic section or as a component of a polythematic section.[34]

Within a polythematic section, each word is subordinated to the word which immediately follows: thus /pəi-/ is the attribute of /mu/, and /vo-/ of /ɲivx/, /meɳ/ is a direct object of /vo-/ and /mu/ an attributive object of /meɳ/.[35]

Finally, the noun may function as an apposition: /ətik—so/ 'crucian', literally 'grandmother-fish'; /ŋafq—vax/ 'stone used to measure the depths of the sea', literally 'friend-stone'; /aŋx—q'otr'/ 'female-bear'.

Since in Gilyak the subject precedes the predicate, they naturally cannot be parts of one section: /oʀla r'o-ra/ 'the child carried', /oʀlaⁿ—t'o-ra/ [oʀlad'ora] 'carried the child'; /ikim oʀla/ 'Ikim is a child'. Since within a section the preceding word is subordinated to the following one, paratactic words cannot be parts of one section. That explains such current Gilyak constructions as /pos-ko oxt-γoⁿ—ke-/ 'to buy both cloth and powder' (see Krejnovič, *Nivxskij jazyk*, p. 199). The conjunction is a thematic suffix in Gilyak.

Briefly, the fusion of two words into one syntactic section takes place always and only when the stem of the subordinated word is immediately followed by the subordinating word.

1.3 *Phonemic Essentials.* — Of the two basic varieties of Gilyak, the NW dialect is used by some $\frac{4}{5}$ of this people, namely, by the continental Gilyaks, concentrated for the most part around the lower reaches of the

---

[34] In this paper a hyphen is used to separate the morphemes within a word, and a dash, to separate stems within a polythematic section.

[35] Only the grammatical verbal root presents an exception from this rule: cf. a SE Gilyak sample (Krejnovič, *Fonetika*, p. 30) /hu-n—tleu-la-n—t'ir'/ 'this white hill'.

Amur River, and by their fellow tribesmen on the west coast of Sakhalin, while the rest of the insular Gilyaks speak the SE dialect. In this study, mainly the data of the NW dialect will be interpreted. The phonemic transcription used here utilizes mostly the Latin characters adapted for Gilyak in 1931 by E. A. Krejnovič and his native assistants and used in the regional schools and publications until the end of the thirties. For the fortis (voiceless) counterpart of the Gilyak lenis (voiced) constrictive /r/ the symbol r' is chosen in agreement with the Krejnovič alphabet, since the plosive fortis sounds are similarly rendered by p', t', etc., and since both the aspiration of these plosives and the voicelessness of the corresponding constrictives implement one and the same relevant feature, their fortis character, manifested, as Ščerba and his disciples, Zinder and Matusevič, disclosed in their phonetic investigations of Gilyak, by a more forceful air stream.[36]

The componential analysis of Gilyak phonemes enables us to resolve them into the following bundles of distinctive features.[37]

	t	t'	r	r'	p	p'	v	f	ţ	ţ'	z
vocalic vs. non-vocalic	−	−	−	−	−	−	−	−	−	−	−
consonantal vs. non-cons.	+	+	+	+	+	+	+	+	+	+	+
grave vs. acute...............	−	−	−	−	+	+	+	+	−	−	−
compact vs. diffuse...........	−	−	−	−	−	−	−	−	+	+	+
nasal vs. oral	−	−	−	−	−	−	−	−	−	−	−
flat vs. plain	O	O	O	O	O	O	O	O	O	O	O
strong vs. weak	−	+	−	+	−	+	−	+	−	+	−
continuant vs. abrupt	−	−	+	+	−	−	+	+	−	−	+
strident vs. mellow	O	O	O	O	O	O	O	O	O	O	O

	s	k	k'	γ	x	q	R	n	m	ņ	ŋ
vocalic vs. non-vocalic........	−	−	−	−	−	−	−	−	−	−	−
consonantal vs. non-cons.	+	+	+	+	+	+	+	+	+	+	+
grave vs. acute...............	−	+	+	+	+	+	+	−	+	−	+
compact vs. diffuse...........	+	+	+	+	+	+	+	−	−	+	+
nasal vs. oral	−	−	−	−	−	−	−	+	+	+	+
flat vs. plain	O	O	O	O	O	O	O	O	O	O	O
strong vs. weak	+	−	+	−	+	O	O	O	O	O	O
continuant vs. abrupt	+	−	−	+	+	−	+	O	O	O	O
strident vs. mellow	O	−	−	−	−	+	+	O	O	O	O

[36] According to the later Krejnovič correction to the Gilyak alphabet, ţ' (and not c) is used here for the aspirated counterpart of ţ. The constrictive corresponding to the uvular plosive /q/ received no symbol in the Gilyak practical alphabet and is rendered in this study by R, in agreement with the international usage. In the phonetic transcription R' renders the fortis variant of the uvular constrictive.

[37] For the definition of the features see my Selected Writings, I, pp. 484-486.

	l	j	i	(w)	u	ə	e	o	a	h	#
vocalic *vs.* non-vocalic	+	+	+	+	+	+	+	+	+	−	−
consonantal *vs.* non-cons.	+	−	−	−	−	−	−	−	−	−	−
grave *vs.* acute...............	○	−	−	+	∓	+	−	+	+	○	○
compact *vs.* diffuse...........	○	−	−	−	−	−	+	+	+	○	○
nasal *vs.* oral	○	○	○	○	○	○	○	○	○	○	○
flat *vs.* plain	○	○	○	+	+	−	○	+	−	○	○
strong *vs.* weak	○	−	+	−	+	○	○	○	○	+	−
continuant *vs.* abrupt	○	○	○	○	○	○	○	○	○	○	○
strident *vs.* mellow	○	○	○	○	○	○	○	○	○	○	○

This table requires a few elucidations.

The phoneme /w/ is put into parentheses, because at present it exists only in the SE dialect, whereas in the NW dialect /w/ has merged with /v/ (cf. § 2.8).

Gilyak phonemes with the vocalic feature and without the consonantal feature may be divided into vowels, devoid of phonemic laxness, and semivowels, endowed with this feature. Vowels are syllabic, semivowels are non-syllabic. NW Gilyak has only one semivowel, /j/.

Gilyak has only one phoneme which is both vocalic and consonantal, the liquid /l/, and only one phoneme which is neither vocalic nor consonantal, the glide /h/.

Consonants — phonemes with the consonantal feature and without the vocalic feature — are divided into nasals and orals or obstruents. Vowels and obstruents present the maximum contrast; all transitional types — semivowels, liquid, and nasals are sonorants.

The binary opposition of compact (genetically forward-flanged) and diffuse (backward-flanged) is clear-cut in Gilyak: any Gilyak vowel and consonant is either compact or diffuse, and any diffuse vowel or consonant has its compact counterpart. The division of vowels into compact (wide) and diffuse (narrow) is morphophonemically supported by the unproductive, but distinct, principle of vowel harmony, dividing all vowels into two corresponding and mutually alternating series — /o/, /a/, /e/ and /u/, /ə/, /i/. Both the grave (genetically peripheral) and the acute (genetically medial) consonants (nasals as well as obstruents) are divided into compact and diffuse series. The series of acute compact consonants includes the pre-palatal stops /ţ/, /ţʿ/ and the nasal /ŋ/, as well as the post-alveolar "somewhat hushing" constrictives /z/ and /s/ (see Zinder and Matusevič, pp. 116, 118f.). The acute diffuse consonants are represented by the dentals /t/, /tʿ/, /n/ and the corresponding constrictives, optionally flaps, the voiced lenis /r/ and the voiceless fortis /rʿ/.

The opposition strong *vs.* weak is implemented in vocalic phonemes as

syllabic /i/ and SE /u/ *vs.* non-syllabic /j/ and SE /w/ (cf. /qlai-/ 'to speak' —/qlaj/ 'trap'), in the plosive obstruents as aspirated fortes *vs.* non-aspirated lenes (cf. /pʻu-/ 'to go out'—/pu/ 'to ripen', /kʻeŋ/ 'sun'—/keŋ/ 'whale', /tʻəx/ 'forehead'—/təx/ 'grip', /ṭʻo/ 'fish'—/ṭo/ 'shore'), and in the constrictive obstruents as voiceless fortes *vs.* voiced lenes (cf. /fi-/ 'to bore'—/vi-/ 'to go', /xe-/ 'to put on'—/ɣe-/ 'to take', /rʻa-/ 'to roast'— /ra-/ 'to drink', /su-/ 'to untwist'—/zu-/ 'to wash'). This opposition of strong and weak obstruents is valid only for the initial phoneme of the word. Only in the initial position are aspirated and non-aspirated plosives, as well as the prevocalic /h/ and zero (♯), (e.g., /hif/ 'birch-bark' —/if/ 'he') mutually opposed; in the other positions there is no /h/, medially plosives are pronounced without aspiration, while they are slightly aspirated in final position (cf. Austerlitz, p. 263). As to the voiceless and voiced constrictives, their distribution in non-initial positions is conditioned uniquely by their phonemic environment: the non-initial constrictive is voiceless before a plosive and at the end of a syntactic section, and voiced in all other positions (cf. /təf/ 'house', /təf—kəlmrʻ/ 'house plank', /təv—rʻə/ 'house door', /təv—lət-/ 'to make a house', /təv—əlx-/ 'to open the house'; /os/ 'root', /os-t/, /oz-rʻ/, /oz-ŋan/,—different forms of the verb /os-/ 'to rise', /-oz-u-/ 'to raise'; /oxt/ 'powder', /haɣs/ 'clothes', /velɣ/ 'harpoon', /eRa/ < Gold /exan/ 'cow', /ṭas/ < Rus. /čas/ 'hour', Loc. /ṭaz-ux/). Only when the constrictive is preceded by the initial plosive is there some fluctuation. In this position, compact constrictives are voiceless: [ṭRʻarʻ] 'firewood', [ṭRʻa] 'money', [txəvrʻp-] 'to forget', [tʻxə-] 'top', [pxə-] 'to return', [-ksu-] ~ [-ɣsu-] 'not to have done'. When the prefixed 2nd Sg. pronoun /ṭʻi/ or the reflexive pronoun /pʻi/ loses its vowel, the following voiced constrictive becomes voiceless. Cf. [qaRʻ] 'chief dog in the bear festival'—[ṭʻRʻaRʻ] 'your dog', and [qʻaRʻ] 'spear'— [ṭʻRʻaRʻ] 'your spear', [zu-] 'to wash'—[pʻsu-] 'to wash oneself'. But diffuse (dental and labial) constrictives after prefixed pronouns offer some traces of a distinction between voiced and voiceless: cf. [tʻəx] 'forehead'— [tʻrʻəx] 'your forehead', [təx] 'grip'—[tʻrəx] 'your grip', [pʻaRʻ] 'window' —[ṭʻfaRʻ] 'your window', [paRʻ] 'stone'—both [ṭʻfaRʻ] and [ṭʻvaRʻ] 'your stone' are possible.

   In the series of grave compact (velar) obstruents, Gilyak distinguishes /q/ and /R/ from /k/ and /ɣ/. For their articulatory differences see the instructive observations of Zinder and Matusevič (pp. 115, 121). The two uvulars, the affricate /q/ and the markedly fricative /R/, with their typical, snoring rattle, are strident in contrast to the mellow /k/ and /ɣ/. Uvulars occur only in a syllable with a compact vowel (/o/, /a/, /e/). The imme-

diately prevocalic uvulars are further limited: they appear uniquely before grave compact vowels (/o/ or /a/);[38] the strong velars in this position are always uvular ([qʿa], [ʀʿa], [qʿo], [ʀʿo]), while the weak velars are usually uvular. Only a few "words *** of foreign origin, ceremonial, or affective" (Austerlitz, p. 263) present an initial [k] and its alternant [γ] before /a/ and /o/: /ka/ 'steel' (< Gold /gan/), /kaskazi-/ 'to be plain, forward' (cf. Gold /kas/ 'straight'), /kok/ 'an idol of the god protecting twins' or 'the knob on the lid of a pot', /kon/ 'an animal with unusually long hair'. Thus the phonemic opposition strident *vs.* mellow is represented only by the pair /q/-/k/ and their constrictive alternants /ʀ/-/γ/: /qa-/ 'to drift with the stream' — /ka/ 'steel'. SE /jasqam-/ 'to take away' — /jaskam-/ 'to teach' (Krejnovič, *Fonetika*, p. 96), /taqrʿ/ 'on the other side' — /takrʿ/ 'in which direction', /loʀi/ 'crane' — /loγi-/ 'slightly open' (Austerlitz, p. 263). The fortis voiceless uvular contrictive [ʀʿ] and the corresponding fortis aspirated uvular plosive [qʿ] in such instances as the alternant forms [ʀʿa-] ~ [-qʿa-] 'to shoot' are simply contextual variants (allophones) of the phonemes /x/ and /kʿ/. But the same [ʀʿ] and [qʿ] in a non-initial position, e.g., in [taʀʿ] 'epidemic' or [asqʿ] 'younger sibling' are contextual variants of the phonemes [ʀ] and [q], because in non-initial positions, [ʀʿ], [ʀ] or [qʿ], [q] are in complementary distribution, whereas the difference between strident and mellow is distinctive: cf. /taʀ/ 'epidemic' and /asq/ 'younger sibling' with /tax/ 'remnants of fat' and /ask/ 'spider'.

After nasals, any plosive undergoes voicing, compulsory only in prevocalic position. The voicing of aspirates is incomplete (cf. Zinder and Matusevič, pp. 109, 111). In certain positions the NW dialect drops the nasal. Besides the prevocalic nasal, generally preserved, only the immediately postvocalic nasal in monosyllabic roots and desinences remains intact. When within a syntactic section the final nasal of a morpheme (or the nasal of a one-phoneme morpheme) is lost, the initial plosive of the following morpheme becomes voiced. This voicing is compulsory for the non-aspirates, and in intervocalic position also for the aspirates. Thus, the voicing of a plosive signals that a nasal phoneme precedes. This signal, redundant when the preceding nasal is actually pronounced, becomes phonemically relevant when there is no other vestige of the nasal phoneme. This relevant signal may be transcribed as /ⁿ-/: /eʀa/ 'cow' /eʀaⁿ—ṭu-/ [eʀaḍu] 'to wash the cow', /eʀaⁿ—tʿa-/ [eʀadʿa-] 'to

---

[38] In combination with /v/ and /l/ an initial velar is strident before any compact vowel: cf. /qvalx-/ 'to drag', /qves/ 'pole', /qlai-/ 'to talk', /qlaj/ 'trap', and /kvər/ 'intestine', /k'lu-/ 'to fear'.

roast the cow', /qan-kuⁿ-tox/ [qangudox] 'to the dogs', /vi-ⁿ-ṭ/ [viḍ] the nominalized form of the verb 'to go'. As a matter of fact, it is the opposition voiced *vs.* voiceless which underlies the nasality feature in Gilyak.

Only when /ⁿ-/ is preceded by a plosive does the following obstruent in the section keep its plosiveness without undergoing voicing: /it-ⁿ—ṭif/ 'the uttered word'.

2. CONSONANTAL INTERCHANGE: ITS ROLE, LIMITS, AND ORIGIN

2.1 *Gilyak Plosives and Their Constrictive Alternants.* — Aspirated plosives (fortes) alternate with voiceless contrictives (fortes), and non-aspirated plosives (lenes) with voiced constrictives (lenes).

Diffuse acute alternants: /tʿ/ ~ /rʿ/, /t/ ~ /r/.

Diffuse grave alternants: /pʿ/ ~ /f/, /p/ ~ /v/.

Compact acute alternants: /ṭʿ/ ~ /s/, /ṭ/ ~ /z/.

Compact grave alternants: /kʿ/ ~ /x/, /k/ ~ /γ/.

In view of the existence of assimilated loanwords with [ka] instead of the usual Gilyak [qa], an opposition of initial mellow /k/ and strident /q/ and of their constrictive alternants /γ/ and /ʀ/ is to be distinguished.

2.2 *Consonantal Alternations after a Nominal Stem.* — A) After a nominal stem with a final vowel, semivowel, or plosive only the constrictive alternants of the initial obstruents occur: e.g., /-ku/ ~ /-γu/ (plural suffix)—/kip-γu/ 'handles'; /vəks-/ 'to throw'—/e—vəks-/ 'to throw the comb', /kip—vəks-/ 'to throw the handle'; /kʿerqo-/ 'to fish, to angle' (one of the exceptional transitive verbs with an initial stop)—/ṭʿo—xerqo/ 'to catch a fish by angling'; /ṭʿŋaj/ 'image'—/ṭʿo—sŋaj/ 'fish image'; /rʿə/ 'door'—/ɲo—rʿə/ 'barn door'; /kəŋ/ 'to freeze' (intransitive verb), /kəŋ—ṭoŋʀ/ 'frozen head'—/ŋə—γəŋ—ṭoŋʀ/ 'otter's frozen head'; /ṭʿaŋ/ 'white'—/ɲ(< ɲi)— saŋ—qan/ 'the white dog of mine'; /kəlmrʿ/ 'board'—/qoj—γəlmrʿ/ 'larch board'; /ra-/ 'to drink'—/ṭʿaj—ra-/ 'to drink tea'.

B) After a nominal stem with a final constrictive, (1) the following nominal stem preserves the same initial obstruent that appears at the beginning of a syntactic section: e.g., /təf—ṭʿnaj/ 'house image', /təv—rʿə/ 'house door'; (2) in any other morpheme, only the plosive alternants of the initial obstruents occur: e.g., /təf-ku/ 'houses', /təf—pəks-/ 'to leave the house'.

2.3 *Grammatical Alternations of Initial Consonants.* — At the beginning of a syntactic section a constrictive (except the dialectal, western /v/ from /w/) unambiguously signals that the given word cannot be an intransitive verb.

Krejnovič was the first to point out that in one and the same root the initial obstruent alternates according to the grammatical function of this root: in contradistinction to the nouns and intransitive verbs with an initial plosive at the beginning of a section, intransitive verbs in the same position have an initial constrictive, and often only the alternation of constrictives and plosives differentiates a transitive verb from the corresponding intransitive verb or noun, e.g., /vəks-/ 'to throw' *vs.* /pəks-/ 'to disappear'; /rəu-/ 'to teach' *vs.* /təu-/ 'to get accustomed'; /rʿa-/ 'to roast' (trans.) *vs.* /tʿa-/ 'to be roasted, to roast' (intrans.); /zo-/ 'to bend' (trans.) *vs.* /ʈo-/ 'to bend (oneself)', (cf. /ʈo/ 'curved seashore'); /fuf-/ 'to saw' *vs.* /pʿuf/ 'the saw'; /rʿaf-/ 'to hook' *vs.* /tʿaf/ 'the hook'; /safq-/ 'to eat with chopsticks *vs.* /ʈʿafq/ 'chopsticks'; /xes-/ 'to tell' *vs.* /kʿes/ 'information'; /fu-/ 'to extract, melt' (trans.) *vs.* /pʿu-/ 'to come out, drip'; /rayrʿ-/ 'to watch' *vs.* /tayrʿ-/ 'opposite side', also "a door made of twigs at the edge of the water, through which a sacrifice is thrown into the sea from troughs, eyes facing the door";[39] /rʿu-/ 'to trudge behind someone' *vs.* /tʿu/ 'dogsledge'; /ru-/ 'to bend' *vs.* /tu/ 'joint'; /rʿa-/ 'to hack' *vs.* /tʿə/ 'ice-hole' (about the variation a/ə see Krejnovič, *Fonetika*, p. 97).

2.4 *Consonantal Alternations after a Pronominal Stem.* — After a nominal stem which is the grammatical object, the transitive verb 'to be with' appears in the form /—xrə-/ ~ /—kʿrə-/ : /ŋa—xrə-/ 'to be with an animal', /ʈxəf—kʿrə-/ 'to be with a bear'. The initial consonant of the verb is somewhat modified after a preposed pronominal object: /iyrə-/ 'to be with someone else', /pʿiyrə-/ 'to be alone [literally: with oneself]', /uyrə-/ 'to be with one another'. The prepositive element /pʿi/ endows this and other verbs with a reflexive meaning (cf. /-xu-/ ~ /-kʿu-/ 'to kill': /pʿix-/ (< */pʿixu-/) 'to kill oneself'); it is used also in combination with nouns: /ʈxəf/ 'bear'—/pʿizyəf/ 'one's own bear'.

The personal pronouns /ŋi/ 'I', /ʈʿi/ 'you (2nd Pers. Sg.)', and the corresponding plural forms are used adverbally (/ŋix-/ 'to kill me'), adnominally (/ŋizyəf/ 'my bear'), and also autonomously (/ŋi ra-ⁿ-ʈ/ 'I drink', etc.), whereas the reflexive pronoun is mostly prepositive. The reflexive pronoun /pʿi-/ once was directly opposed to another prepositive pronoun /i-/ ~ /e-/ 'someone (or something)'. Cf. the South Sakhalin Gilyak pronoun /i/ ~ /e/ 'that one, he, it' in Takahashi's vocabulary (pp. 184, 189). When preposed to the verb, it signals the transitive voice and the absence of a definite object: cf. /ŋa—xu-/ 'to kill the animal', /liys—kʿu-/ 'to kill the wolf', /ix-/ (< */i—xu-/) 'to kill someone'. The prepositive

---

³⁹   E. Krejnovič, *Sovetskaja Ètnografija*, 1934, No. 5, p. 79.

pronoun /u-/ 'each other' signals the reciprocal voice: cf. /ux—mu-/ 'to fight each other' (literally 'to kill each other—to die'); /iɲ-/ 'to eat something', /uɲ-/ 'to practice cannibalism' (literally 'to eat each other'). After all the pronouns mentioned, the initial consonant of the postpositive stem undergoes the same rules of alternation between plosives and constrictives as after a nominal stem: cf. /irlə-/ 'to pull something' and /ki—rlə-/ 'to pull footwear'. The prepositive pronoun (or, to speak more precisely, the grammatical prepositive nominal root) is, however, more firmly and closely joined to the following stem and thus becomes a kind of prefix. Reflexes of this fusion may be observed in the vowel pattern of all syntactic sections beginning with a pronoun. First, there is a tendency to drop the vowel of the pronoun or of the following morpheme; second, a manifestation of vowel harmony: the diffuse /i/ of the pronoun changes into the corresponding compact /e/ before a compact vowel; cf. /ɲi/ 'I, – allative case /ɲerx/ (< */ɲi-rox/) but /ki/ 'footwear' – allative /ki-rox/; /ɲzu-/ 'to wash me' (/zu-/ 'to wash, clean')—/ki—zu-/ 'to clean the footwear'; /ɲzif/ < */ɲi—zif/ 'my track' (/ṭif/ 'track') – /ki—zif/ 'footwear track'; /ɲesŋaj/ 'my image' (/ṭ'ŋaj/ 'image') – /ki—sŋaj/ 'the footwear image'.

After a prepositive pronoun, the initial consonants of the transitive verb are treated like the internal consonants of a morpheme. In such a position, a voiceless (strong) constrictive does not occur before vowels or constrictives. It becomes voiced, both after a voiced constrictive and before a voiced constrictive or a sonorant. Cf. /ṭ'olŋi—zfə-/ 'to harness a reindeer' and /izvə-/ 'to harness (someone or something)', /ṭaqo—rxop-/ 'to touch a knife' and /erʀop-/ 'to touch (something)', /t'ə—xra-/ 'chisel an ice-hole' and /eɣra/ 'to chisel (something)', /ŋa—xrə-/ 'to be with an animal' and /iɣrə-/ 'to be with someone', /ma—smo-/ 'to like dried fish' and /ezmo-/ 'to like (something)', /k'u—xlu-/ 'to fear a bullet' and /iɣlu-/ 'to fear (something)'. A voiceless constrictive preceded by another constrictive or by a sonorant changes into a weak (non-aspirated) plosive: cf. /kəp—sʀa-/ 'to dislike the bird-cherry', and /esqa-/ 'to dislike (something)', /mlət—r'if-/ 'to sit on a bench', and /ir'p/ 'to sit (on something)', /ṭ'o—sef-/ 'to spear a fish' and /esp-/ 'to spear (something)'; /eri—nr'ə-/ 'to see a river' and /intə-/ [ində], 'to see (something)'.

While in the Slavic languages suffixes are tied to the preceding morpheme more closely than prefixes to the following morpheme, so that the combination of root and suffix follows the laws of a simple word, and the combination of prefix and root is like a compound, in Gilyak, on the contrary, the combination of root and prefix is closer than that of root and

suffix. Therefore we use no hyphen to separate such pronominal prefixes from the following morpheme.

The final vowel of the prepositive pronoun

1) is retained before a cluster (e.g., /n̦izɣəf/ 'my bear', /n̦iɣlu-/ 'to fear me');

2) becomes non-syllabic when there is no adjacent consonant (e.g., /țez—opu-/ 'to gather twigs' and /jopu-/ (< */i—opu-/) 'to gather (something)', West. /vopu-/ (< /wopu-/ < */u—opu-/) 'to gather together'; /pʿarʿk—ai-/ 'to kill a dolphin' and /jai-/ 'to kil (someone), /vai-/ 'to fight', literally 'to kill each other'; /kʿotr—orʿ-/ 'to meet a beaɪ', /jorʿ-/ 'to meet (someone)', /vorʿ-/ 'to meet each other'; /ŋafq—alx-/ 'to open one's heart to a friend' and /jalx-/ 'to open one's heart (to someone)', /valx-/, East. /walx-/ 'to have a heart-to-heart talk', /valɣ—lu/ 'love song' (/lu/ 'song'); /n̦ivɣ—avi-/ 'to marry a Gilyak' and /javi-/ 'to marry (someone)', /vavi-/ 'to marry each other');

3) disappears in other positions (e.g., /ŋɣi/ 'my footwear', /n̦ar-/ʿ 'to feed me', /pʿarʿ-/ 'to feed oneself', /pʿʀa-/ 'to shoot oneself').

The pronouns of the third person, /if/ in the Amur dialect and /jan̦/ in the Sakhalin dialect, are by their origin complexes with the prepositive pronoun /i-/ as their first component. These complexes figure only in the absolutive case of the 3rd person pronoun, while in cases with a desinence, the stem is simply /i-/ (cf. in the Amur dialect, the Instrumental /iɣirʿ/, the Allative /erx/, and the case of the second subject /jax/). The unsuitability of the extremely short form for autonomous use finds many analogues. It is noteworthy that the homonymous /i/ 'river' is similarly replaced in the Amur dialect by /eri/ (< /er—i/, probably 'running river').

2.5 *The Evolution of Transitive Verbal Forms.* — The process of the fusion of the prepositive pronoun /i-/ (or /e-/) and the verb can be clearly traced:

*/i—xlu-/ > /iɣlu-/ 'to fear something'
*/i—əs-/ > /jəs-/ 'to call someone'
*/i—həjm-/ > /jəjm-/ 'to know something'[40]
*/i—zu-/ > /zu-/ 'to wash someone or something'
*/i—lət-/ > /lət-/ 'to do something'.

The common denominator of all the Gilyak transitive verbs before this merger was the compulsory presence of a prepositive object. If the object was not explicitly named, it was expressed by the pronoun /i-/. After the fusion, however, there arose the possibility of an objectless use of transi-

---

[40]　Cf. /vətək/ 'his father' (/if/ 'he', /ətək/ 'father') and /vaq/ 'his cap' (/haq/ 'cap').

tive verbs, as, for instance, /lət-/. Then /i-/ in such forms as /iɣrə-/ ceased to act as a pronominal object and was reinterpreted as a prothetic vowel which in the absolute use of the verb signaled its transitivity in contradistinction to corresponding intransitive verbs and nouns: e.g. /ivrə-/ 'to tidy'—/prə/ 'hut, tent' (cf. /pʿivrə/ 'one's own hut'); /izvi-/ 'to prepare something' (a taboo expression meaning the preparation of the ritual bear dish)—/ṭvi-/ 'to be ready'; /ix-/ (< */i—xu-/) 'to kill' (cf. /ŋa—xu-/ 'to kill an animal', /ves—kʿu-/ 'to kill a raven')—/kʿu/ 'lethal weapon, arrowhead', later 'bullet' (cf. /kʿu-s/ with the instrumental suffix /-s/ 'arrow shaft'); /je-/ 'to boil (something)'—/he-/ 'to be boiled'; /juɪʿ-/ 'to follow' —/urʿ-/ 'to be suitable'; /jət-/ 'to steal up, to hunt'—/ət/ 'kind of duck' (literally 'the hunted one'); /jarʿ-/ 'to feed'—/arʿ/ 'bundle of food, share'; /jorʿ-/ 'to meet'—/orʿ/ 'flap'.

The alternation of the initial phonemes in the absolute forms of transitive and intransitive verbs is nearly compulsory in contemporary Gilyak: if the intransitive form begins with a cluster, the absolute form of the corresponding transitive verb requires, in strictly synchronic terms, a prothetic /i-/; if the intransitive form begins with a vowel, the absolute form of the corresponding transitive verb requires a prothetic /j/; if the intransitive form begins with /h/, the absolute form of the corresponding transitive verb substitutes /j/ for the /h/; if the intransitive form begins with a single plosive, the absolute form of the corresponding transitive verb requires a constructive alternant and loses the prothetic phoneme unless the vowel of the verbal root is dropped; if the intransitive form begins with a sonorant, the absolute form of the corresponding transitive verb begins with the same phoneme (e.g., /lu-/ 'to sing' and /lu/ 'song', /ŋa-/ 'to pursue' and /ŋa/ 'animal', /mos-/ 'to grind' and /mos/ 'porridge').

On the other hand, the thematic suffix /-u-/ is productive and widely used either as the only sign of a transitive action (in such cases as /lərk-u-/ 'to float' and /lərk-/ 'to swim' or as a merely concomitant, auxiliary device in other cases, such as /se-u-/ 'to dry (something)' and /ṭʿe-/ 'to get dry'). This suffix, however, is far from being a constant mark of transitive verbs.

It is obvious that originally transitivity was compulsorily expressed by the prepositive use of a definite object or of the indefinite object /i-/ 'someone or something'. This prepositive pronoun was lost when followed by one prevocalic consonant.[41] Before this loss, Gilyak had no phonemic

[41] *Mutatis mutandis* a similar grammatical alternation of initial plosives and constrictives, which is likewise due to a phonetic loss of original prefixes, may be observed in some other languages. The Celtic analogue is discussed by Alf Sommerfelt, in *Studies Presented to Yuen Ren Chao* (see below, p. 97). Also some West Atlantic languages in Africa, particularly Biofada and Ful, present remarkable parallels to the

opposition of initial plosives and constrictives. A constrictive and the homorganic plosive were two contextual variants (allophones) of the same obstruent phoneme. Originally constrictives figured only after a vowel, semi-vowel, or plosive of the same syntactic section: /t'o—r'a-/ 'to roast fish', /xaj—r'a-/ 'to roast a pigeon', /həjk—r'a-/ 'to roast a rabbit', */i—r'a/ 'to roast something' (at present, /r'a/), but /ius—t'a/ 'to roast a pike', /qan—t'a/ 'to roast a dog', intransitive /t'a/ 'to roast, to be roasted'.

The verbs borrowed from Gold were adapted to this Gilyak pattern; e.g., Gold /siŋgərə-/ 'to torture': Gilyak /ŋa—siŋr-u-/ 'to torture an animal', /siŋr-u-/ ($<$ */i—siŋr-u-/) 'to torture (someone)', /txəf—t'iŋr-u-/ 'to torture a bear', /t'iŋr'-/ 'to torment oneself'; Gold /sokto-/: Gilyak /t'oxt-/ 'to get drunk'; Gold /koŋgoro-/: Gilyak /xoŋguro-/ ($<$ */i—xoŋguro-/) 'to roll'.

The pronoun /i-/ before the verbal stem originally signaled that the given verb is transitive and that it has no prepositive substantive which would designate the goal of the action. This explains Krejnovič's example (*Fonetika*, p. 61) of the different treatment of the initial verbal consonant in the constructions /xor^n—ta—ņivx/ [xor-da-ņivx], 'the man who beat Xor' and /xor za—ņivx/ 'the man beaten by Xor', where /za-/ ($<$ */i—za-/) signals that Xor is not the goal of the beating. Cf. /təv—ərp—ņivx/ 'the man who closed (or is closing) the house' and /xor jərp-^{n}—təf/ 'the house closed by Xor'; /p'xu—ņivx/ 'the man who killed (or is killing) himself' and /p'i iɣ-^{n}—t'o—ņi-ja/ 'eat fish killed by yourself'.

2.6 *Transitive Verbs with an Initial Plosive.* — The three exceptional Gilyak verbs which are cited by Krejnovič as having an initial plosive in their absolute form, are easily explained: all three of them present a univerbation of original complexes "noun+verb."

1. /pota-/ 'to dry some fish' $<$ */poti-a/: /poti/ 'a hole made in a fish

---

Gilyak development: cf. A. Klingenheben, "Die Präfixklassen des Ful," *Zeitschrift für Eingeborenen-Sprachen*, Vol. XIV (1923-24), and "Die Permutationen des Biafada und des Ful," *ibidem*, Vol. XV (1924-25). With a few minor deviations, Biafada offers the same pairs of alternants as Gilyak: t ~ r, p ~ f, b ~ w, č ~ s, k ~ h, and g ~ ɣ. In Ful the interchange is essentially identical: d ~ r, p ~ f, b ~ w, ṭ ~ s, ḍ ~ j, k ~ x, same pairs of alternants as Gilyak: t~r, p~f, b~w, č~s, k~h, and g~ɣ. In Ful the interchange is essentially identical: d~r, p~f, b~w, ṭ~s, ḍ~j, k~x, g~ɣ; only the fortis t has no constrictive alternant. According to Klingenheben, in these languages the plosive alternants of cinstrictives result from the phonetic influence of prefixes subsequently lost. Gilyak differs from the African patterns by confining the difference between opposite grammatical categories to the alternation of the initial phonemes, at least in a certain number of examples, whereas in Ful and Biafada, the alternation seems to be constantly accompanied by distinctive suffixes, e.g., in Ful, Personal Sg. /damu-d'o/ 'dwarf'—Plural /ramu-b'e/, /tus-d'o/ 'brave man'—/sus-b'e/, etc.

in order to string it on a stick for drying', /-a-/ 'to dig across, to make'; the literal meaning of the complex was 'to make a hole in a fish before drying it'.

2. /kiurˁ-/ 'to pad footwear with grass' < */ki—ur-/ 'to adjust footwear'.

3. /kˁerˁqo/ 'to fish with a hook' < */kˁe-erˁq—qo-/: /kˁe/ 'fishing net', /erˁq-/ 'toward', /qo-/ 'to string, to take on a hook'; the complex literally meant 'to take on the hook for the net'.

These complexes were also used for designating the tool: /kˁerˁqo-s/ 'fishhook', /kiurˁ/ 'grass for padding footwear'. The composition of these three verbal complexes was no longer realized, and, like many other Gilyak complexes, they changed into simple words. Subsequently they were used as transitive verbs; e.g., /ləγi—vota-/ 'to dry salmon', /t'o—xerˁqo-/ 'to angle for fish' and even /ki—γiurˁ-/ 'to pad footwear with grass', an obvious tautology from the historical point of view.

The initial stop in the absolute form proves that the use of these complexes as transitive verbs is posterior to the change of */i—zu-/, */i—lu-/ into /zu-/, /lu-/. Before this change, the reinterpretation of /pota-/ etc. as simple transitive verbs would have given rise to such absolute forms as */i—vota-/, */i—γiurˁ-/ and later */vota/, */γiurˁ-/. The three verbs in question reveal that the constrictiveness of the initial obstruent in the absolute form of transitive verbs is a near constant, and that this morphophonemic rule is no longer productive; whereas the constrictiveness of the initial obstruent after vowels and plosives remains compulsory: cf. /ləγi—vota-/ 'to dry salmon', /rᶜək—vota-/ 'to dry a goby'.

The univerbation of such complexes as /kˁə-v-/ 'to chop' (literally 'to keep the axe') from /kˁə/ 'axe' and /ev-/ ∼ /-vo-/ ∼ /-po-/ 'to keep' must have occurred earlier, since the absolute form is /xəv-/ < */i—xəv/.

2.7 *Alternation of Initial Obstruents.* — A similar alternation of initial plosives and constrictives can be observed in the cognate Gilyak words /taf/ (Amur /təf/) 'house' and /raf/ 'the little house erected in the cemetery for the deceased kinsman after the cremation of his body'.[42] Obviously /raf/ goes back to */i—raf/ 'someone's house'. The indefinite pronoun replaced the name of the dead kinsman, since this name was taboo for the Gilyaks.[43]

[42] Cf. the description of this ritual by L. v. Schrenck, *Reisen* und *Forschungen* ***, Vol. III, Part III, pp. 761-776, with a reproduction of this funeral house, and E. Krejnovič, "Roždenie i smert' čeloveka po vozzrenijam giljakov," *Ètnografija,* Vol. IX-X, No. 1-2 (1930). p. p. 107.
[43] Cf. L. Šternberg, "Saxalinskie giljaki," *Ètnografičeskoe Obozrenie,* Vol. XVII, No. 2 (1893), p. 24; D. Zelenin, *Tabu slov u narodov vostočnoj Evropy i severnoj Azii,* Part II

Possibly of the same origin is the alternation of the initial plosive and constrictive in the nouns /kʻal/ 'clan' and /xəl/ 'the special ritual dish in which the meat of the killed bear is served at the bear festival'. The capture and killing of the bear is carved on this wooden dish.[44] The bear is considered as a powerful kinsman of his killers and is worshiped in order to secure the prosperity of the clan; in the life of the clan, the bear festival plays an amazing role, and the whole ceremony insistently stresses its connection with the clan.[45] It is tempting to surmise that /xəl/ < */i—xəl/ 'someone's clan', since the Gilyaks avoid naming the bear. Cf. /ŋəŋ vi-t als—pʻe-ke uzi-mi-rox ṭəu—lət-ṭ-ra/ 'while we were gathering berries, he (= a bear) made a noise from the heart of the forest' (Krej-novič, *Nivxskij jazyk*, p. 215).

To the roots /ta-/ or /tə-/ and /tu-/ of the demonstrative pronouns (/tə-/, /tu-/ 'this', /taqrʻ/ 'there', /tuŋk/ 'here', /tuŋs/ 'as much') there are correlative roots /rʻa-/ and /rʻu-/ of the interrogative and indefinite pronouns (/rʻa-/ 'which', /rʻaqrʻ/, /rʻaŋk/, /rʻa-in/ 'where', /rʻaŋs/ 'how much /rʻu/ 'who, what'. These interrogative and indefinite pronouns evidently originated from demonstrative pronouns with a prefixed indefinite pronoun /i-/: /rʻa/ < */i—rʻa-/, etc. We would expect /tʻ/ as a plosive alternant of /rʻ/ but the usually stressless position of such pronouns in the sentence may be responsible for the loss of aspiration; cf. the lack of aspiration in the non-initial syllables. The original prefixation of /i-/ in the interrogative pronouns is corroborated by the comparison of the demonstrative pronouns /a-/ 'that', /hə-/ 'this', /aɣrʻ/ 'any more' and the interrogative pronouns /ja-ʀo-/ 'what', /jaɣrʻ-/ 'what more', /jarʻ/ 'why'.

Gilyak nouns designating direction and frequently occurring in adverbial use consist of two components. The first signals the direction: 'up' is always expressed by a front vowel, 'down', by a back vowel. The second component is /-krʻ/ (after compact [wide] vowels usually /-qrʻ/) or /-mi/, which in separate use means 'inside, space.' The former indicates an immediately observable position while the latter designates a more remote location, inaccessible to immediate observation. If a form ending in /-krʻ/ begins with a plosive, the corresponding form in /-mi/ changes this plosive into a constrictive. Cf. /qo-qrʻ/ 'the foot of a hill, seen from its top'

(Leningrad, 1930), p. 143 f.; J. G. Frazer, *Aftermath* (New York, 1937), p. 280ff.; *idem*, *Taboo and the Perils of the Soul* (London, 1919), p. 349 ff.

[44] Cf. the description of such dishes by V. Cincius in *Jazyki i pisʻmennost' narodov Severa*, Part III (Leningrad, 1934), pp. 184-186.

[45] See A. Zolotarev, *Perežitki totemizma u narodov Sibiri* (Leningrad, 1934), p. 16, L. Šternberg, Semʻja i rod u narodov severo-vostočnoj Azii = Institut Narodov Severa, Naučno-issledovatelʻskaja Associacija, *Materialy po ètnografii*, Vol. III (1933), p. 41.

and /ʀo-mi/ (< */i—ʀo-mi/) 'the foot of a hill in general'; /kˤɪ-krˤ/ 'top, location over the observer' and /xi-mi/ 'summit'; /kˤe-qrˤ/ 'the upper part of a settlement (visible from its lower part)' and /xe-mi/ 'the upper part of a river (remote from its lower part)'; /tˤa-qrˤ/ 'the direction from this shore to the sea or the river' and /rˤa-mi/ 'the direction toward the sea or river'. Quite similarly, forms with a final /-krˤ/ or /-qrˤ/ and an initial vowel or /h/ have a counterpart with a final /-mi/ and an initial prevocalic /j/: /a-qrˤ/ 'the lower part of a settlement' —/ja-mi/ (< */i—a-mi/) 'the lower part of a river' (cf. the names of two neighboring river villages on Sakhalin – /a—wo/ 'the lower village' and /kˤe—wo/ 'the upper village'); /he-qrˤ/ 'this, nearest shore' —/je-mi/ (< */i—he-mi/) 'the direction from the sea toward the shore, from a lower place toward a higher one'.

2.8 *Nouns with an Initial Obstruent.* — In the overwhelming majority of Gilyak nominal roots the initial obstruent is a plosive. Even the initial constrictive of nouns borrowed from a Tungus language has become a plosive in Gilyak: Gold /saman/—Gilyak /ţˤam/ 'shaman', Gold /xala/—Gilyak /kˤal/ [qˤal] 'clan', etc. According to Krejnovič's sound surmise (*Fonetika*, p. 54), foreign nouns which have preserved their initial constrictive in Gilyak are to be explained as later borrowings: /seta/ 'sugar', /sikə/ 'jacket', /xo/ [ʀˤo] 'battle', /xaza/ [ʀˤaza] 'scissors' from Gold /seata/, /sikə/, /xo/, /xaʒa/.

As to the relatively rare native nouns with an initial constrictive, they are, in regard to the origin of this constrictive, confined to some few classes:

1) The initial constrictive results from a combination with a prepositive /i-/, e.g., /raf/, /xəl/, /ɣo-mi/; perhaps to the same class belong such kinship terms as /rˤaŋq/ 'wife', /ranrˤ/ 'sister', and SE /ruvŋ/, NW /ruf/ 'brother', used, as Šternberg asserts, autonomously side by side with the forms /tuvŋ/, /tuf/, etc. (*Sem'ja*, pp. 68f., 74f.). As a rule such terms required an adnominal object answering the question, 'whose relative is meant?' and the general concept was expressed with the help of an indefinite pronominal object; e.g., */i—ranrˤ/ 'someone's sister'.

2) An initial constrictive occurs in nouns of onomatopoetic origin: /ral/ 'frog' (cf. Lat. *rana* "ab sua dicta voce"), /xaj/ [ʀˤaj] 'pigeon', /zaq/ 'tomtit'; onomatopoetic names of birds are quite common in Gilyak: cf. /qarˤ/ 'raven', /auŋk/ 'kind of duck', /kex/ 'gull', /kəxkəx/ 'swan', /ţaxţax/ 'starling', /teoteo/ 'snipe', /tutut/ 'turtle dove', /tarkraʀˤ/ 'capercailzie'.

3) In NW Gilyak /w/ > /v/ and the initial /v/ of some nouns, intransitive verbs, and suffixes reflects the original /w/ preserved in the Sakhalin

dialect: cf. NW /vo/, SE /wo/ 'village'; NW /vət/, SE /wat/ 'iron'.

4) In some nouns the constrictive which is now initial seems to have been originally preceded by a plosive; it is probable that /rʿə/ 'door' < */kʿrʿə/, cf. Grube, p. 18, *näx-ktö* 'Augen-Thür=Augenlid'; perhaps /rə/ 'ice' < */kʿrə/, cf. the corresponding transitive verb /—xra-/ ~ /—kʿra-/ 'to chisel (ice)'.

5) The initial constrictive is preserved in nouns which were substantivized forms of transitive verbs, e.g., NW /xav-ţ/ [Rʿavḍ], SE /xavnt/ 'snowstorm' from the transitive verb /xaf-/ 'to sweep on snow', cf. SE /kʿavi/ 'snow'. The relationship between these two nouns is the same as between SE /ŋavnt/ 'scrotum' from the verb /ŋaf-/ 'to envelop'. and /ŋavi/ 'package'.

2.9 *Early Stages of the Gilyak Consonantal Pattern.* — The conclusion suggests itself: originally the initial obstruent of a word, whether verb or noun, was a plosive. Within a syntactic section the plosive changed into a constrictive after the final vowel or plosive of the preceding morpheme. Krejnovič attempted to deduce both variants, the plosive and the constrictive, from an original affricate, but this arbitrary assumption is contradicted by linguistic experience: the existence of affricates in a phonemic pattern implies the presence of both stops and constrictives, while the presence of stops is a universal and implies neither affricates nor constrictives.[46]

At present, the non-initial obstruents of a Gilyak morpheme are divided into plosive and constrictive phonemes, whereas the initial obstruents, both plosives and constrictives, in addition, appear in two phonemically distinct varieties – strong and weak: the strong and weak plosives are opposed to each other as aspirated fortes *vs.* non-aspirated lenes, and the strong and weak constrictives as voiceless fortes *vs.* voiced lenes. Before the rise of a phonemic distinction between initial plosives and constrictives (/ţosq-/ 'to be broken' *vs.* /zosq-/ trans. 'to break'), the difference between initial plosives and constrictives was a contextual (combinatory, allophonic) variation, cf. /ţʿo/ 'fish' — /tu—so/ 'lake fish', while the difference between initial fortes and lenes was a phonemic distinction, cf. /ţʿo/ 'fish' — /ţo/ 'shore' and /tu—so/ 'lake fish' — /tu—zo/ 'lake shore'. Inversely, the difference between non-initial plosives and constrictives in a morpheme was phonemic, e.g., /pək/ 'cuckoo' — /pəx/ 'color', while in this position there is no phonemic distinction between fortes and lenes: the difference between non-aspirated and aspirated plosives or between

---

[46]   Cf. my *Selected Writings*, I, p. 626.

voiced and voiceless constrictives is contextual; cf. the Absolutive case /pəx/ and the Allative /pəx-tox/ with the Ablative /pəγ-ux/.

Briefly, within a Gilyak root, the obstruents were differently treated in the initial, strong position and the non-initial, weak position. In each of these positions, two varieties of obstruents, a stronger and a weaker one, were phonemically distinguished. Quite similarly, the Danish consonantal system distinguishes strong and weak positions in the word, and, furthermore, a stronger and a weaker variety of obstruents in each position, implementing these categories in the same way as Gilyak did. Both in modern Danish and in old Gilyak, the weak obstruents in the strong position are implemented like the strong obstruents in the weak position.[47]

Phoneme	*Positions*	
	Strong	*Weak*
strong /kʿ/		
weak /k/	[kʿ]	
	[k]	[k]
		[x]

The historical analysis of the Gilyak consonantal pattern has revealed the late provenance of the phonemic distinction "plosive *vs.* constrictive" in the strong position, and the question arises whether this distinction should not be considered a secondary acquisition in the weak position also. Could it not be assumed that originally the difference between plosives and contrictives was a mere allophonic variation also for the non-initial obstruents? Such dialectal fluctuations as /ɲeʈ/ ∼ /ɲes/ 'a plank', /ətki—la/ ∼ /ərki—la/ 'fair wind', /aʈik/ ∼ /asik/ or /əʈik/ ∼ /əsik/ 'grandmother' could be cited.

Since there occur frequent changes of complexes into indecomposable words (cf., for example, /mxos/ 'ten fish' from /mxo—ʈʿo/), one could venture to explain the different treatment of obstruents in such instances as /lət-/ 'to do' and /lər-/ 'to follow along' by deriving the latter from *\/lə-ru-/. But in many cases there are no clues which would enable us to suspect an original complex; cf., for example, /paq-/ 'short'—/paʀ-/ 'red', /nok-/ 'to be narrow'—/nox-/ 'to smell', /jat-/ 'to skin'—/jarʿ-/ 'to feed', /jot-/ 'to sew'—/jorʿ-/ 'to meet', /ŋat-/ 'to measure'—/ŋarʿ-/ 'to equal'. Therefore, the past of the Gilyak consonantal pattern, anterior to the "Danish" stage, remains for the time being beyond our knowledge.

[47] Cf. R. Jakobson, C. G. M. Fant, M. Halle, *Preliminaries to Speech Analysis* (Massachusetts Institute of Technology, 1952), p. 5f.

2.10 *The Initial Obstruent of Suffixes and the Difference between the Postverbal and Postnominal Positions.* — Like the internal obstruents of all Gilyak morphemes, the initial obstruents of suffixes present no phonemic distinction between fortes and lenes. Such instances as /tʻxə/ ∼ /rʻxə/ 'surface', although mostly postposed to nominal roots and signifying 'above, on', are nonetheless autonomous nouns.

If within a syntactic section a nominal thematic morpheme ends in a stop, vowel, or liquid, then the initial obstruent of the following morpheme (whether a root or a suffix and whether nominal or verbal) is always a constrictive. If within a syntactic section a nominal thematic morpheme ends in a constrictive or nasal, then (1) the initial obstruent of the following root (whether nominal or verbal) is now a plosive with a few exceptions and was formerly always plosive; (2) the initial obstruent of the following suffix (whether thematic or desinential) is without exception a plosive. For example, the Allative desinence /-tox/ ∼ /-rox/: /təf-tox/ 'to the house', /qan-tox/ [qandox] 'to the dog', /mot-rox/ 'to the pillow', /ʈo-rox/ 'to the shore', /kəj-rox/ 'to the sail', /pal-rox/ 'to the forest'; the thematic suffix of the Plural /-ku/ ∼ /-ɣu/: /təf-ku/, /qan-ku/ [qan-gu], /mot-ɣu/, /ʈo-ɣu/, /kəj-ɣu/, /pal-ɣu/.

Whatever the final phoneme of a verbal thematic morpheme, the initial obstruents of the following morpheme (whether a root or a suffix and whether nominal or verbal) present a phonemic distinction between plosives and constrictives. Thus, in predicative verbal forms the suffix /-ta/ is used for the Plural and the 1st Pers. Sg., and /-ra/ for the 2nd and 3rd Pers. Sg.: cf. /ra-ta/ and /ra-ra/ from /ra-/ 'to drink'. But as soon as the same predicative suffix is preceded by a nominal morpheme, the alternation of the initial plosive and constrictive becomes automatic: /mxo—mu/ 'ten boats' /mxo—mu-ra/ 'it's ten boats', /ʈʻi-ra/ 'it's you (2nd Pers. Sg.)', /sək-ra/ 'it's all'; /if iɣlu-ⁿ-ʈ-ra/ [if iɣluḓra] 'he is the frightened one' (the thematic suffix /ʈ/ is a substantivizer of verbal stems); /otʀ-ta/ 'it's muck'; /iv-ⁿ-ta ennaz-ⁿ-ʈ/ [ivda ennazḓ] 'it's he who stole', /nosk ur-la-ⁿ-kan-ta/ [nosk urlaganda] 'Nosk is a good dog'. The suffix /-ke/ signaling simultaneity always has a plosive after verbal stems, but displays the alternation /-ke/ ∼ /-ɣe/ after nominal and pronominal stems, according to their final phoneme. The thematic suffixes of deverbative nouns — the instrumental or modal suffix /-s/ and the locative suffix /-f/ — are constrictives independently of the final phoneme of the verbal root: /puʈi-s/ 'broom', /təʈ-s/ 'scraper', /ʈʻev-s/ 'spit', /kʻuv-s/ 'hoop', /ver-s/ 'width', /kal-s/ 'length', /tan-s/ 'cutting', /unɣur—ṇu-s/ 'the tool to look at the shadows mirror'; /pʻət-f/ 'place of splintering, a cleft', /kʻər-f/ 'place for

traveling, haul', /lər-f/ 'place to walk along bank of a stream', /muɣv—ət-f/ 'the place where the day is caught noon'.[48] The suffix /-f/ is possibly related to the verbal morpheme /fi-/ ~ /pʻi-/ 'to reside'.

Some suffixes, however, are separated from the preceding verbal morpheme by a special nasal suffix. In this case, the initial obstruent of the subsequent suffix is always a plosive and, like all Gilyak plosives after a nasal, voiced. In the Amur dialect the nasal consonant itself is omitted in this position, and only the voicing of the following plosive signals the presence of a nasal phoneme: /ra-^{n}-ku-/ [ragu] 'to make someone drink', /ra-^{n}-kin/ 'in spite of drinking', /ra-^{n}-par/ [rabar] 'drank', /ra-^{n}-ta/ [rada] 'let's drink', /ra-^{n}-tox/ [radox] 'as concerns drinking', /ra-^{n}-ṭ/ [raḍ] 'drinking' – the nominalized verbal form.

Since a verbal thematic morpheme always requires a postpositive morpheme, their junction is closer than that of the nominal thematic morpheme (potentially final) and the postpositive morpheme. Therefore, after a verbal root or suffix, the initial obstruent, just like non-initial obstruents within any kind of morpheme, presents a phonemic distinction between plosiveness and constrictiveness, whereas after a nominal morpheme, this distinction is restricted at the beginning of roots and completely suspended at the beginning of suffixes.[49]

[48] Cf. also /xa-/ ~ /-kʻa-/ 'to shoot' and /kʻas/ 'shaman's drum', literally 'shooting tool, bow': The names of the bow and its parts are often used to designate the shaman's drum and its components; "the shaman when praying points his drum, like a bow, at the evil spirits"; the roles of the drum and the bow in shaman performances are interchangeable; some ethnographers even assume that the drum was substituted for the original bow (see particularly L. Potapov, "Luk i strela v shamanstve u altajcev," *Sovetskaja Ètnografija*, 1934, No. 3, p. 64ff.; cf. E. Emsheimer, "Zur Ideologie der lappischen Zaubertrommel," *Ethnos*, 1944, No. 3-4. The present Gilyak name /puṇ-ṭ/ [puṇḍ] 'bow' is apparently related to the root /vuṇ-/ which we find in the reduplicated nominalized form *vungvunt* 'aufspannen', noted by Grube, p.106. The name /puṇ-ṭ/ 'the bent one', with an assimilation of /ŋ/ to /ṭ/, seems to replace the tabooed name of the bow: the name of a weapon is usually taboo, and Gilyak very frequently resorts to the nominalized form of a verb to replace the prohibited noun.

[49] In further studies on Gilyak, I hope to examine the morphophonemic laws of reduplication, the vowel alternations (wide ~ narrow and vowel ~ zero) with reference to the make-up of the numerals, the petrified complexes in the vocabulary as clues to the earlier structure of Gilyak, and the present phonemic and grammatical patterns.

TEXTE GUILYAK

Commencement d'un conte en guilyak de l'Amour :*

    rál[1]-ge[2]   ŋaγr[3]-ke[2].   ŋaγr[3]   vi[4]-ror[5]   p'rə[6]-r[7]
Grenouille ensemble, rat ensemble. — Rat après avoir navigué venant
    ral-   k'éz[8]-ḍ[9]: "ŋafq[10]-á[11]! ŋafq-á! ṇ[12]-at[13]   kəp-
(à la) grenouille dit: "Camarade! Camarade! Moi donc (des) merises
ram[14]-la[15]-v[16]- nr'ə[17]-ḍ[9]-rá[18]. pət[19]   úγr[20]-u[21]-t[7] vi-nə-té[22]!".
abondant endroit je vois. Lendemain ensemble faisant navigons!".
hoRa[23]-t[7]   q'o-tot[5]   oz[24]-ŋán[25]   mú-γir'[26] vi-ḍ.
Ainsi étant après avoir dormi venant de se lever par bateau vont.
    ral   mγe[27]-rá[28] ŋaγr' meṇ[29]- vo[30]-ra[28];   ral   əvṇ-
Grenouille rame,   rat gouvernail tient; grenouille (la) rame
tlə[31]-ŋán[26] kélγel[32]   ha[33]-r' paR[34]-la[15]- goR[35] par'k hélqelq[36]-t[9]***
venant de tirer à dos se trouvant rouge ventre seul brille-brille***

"La grenouille et le rat. — Après avoir fait un voyage en bateau, le rat est venu dire à la grenouille: "Mon camarade, j'ai aperçu un endroit plein de merises. Allons y ensemble demain". Les voilà le lendemain partis de bonne heure (*littéralement selon la formule épique usuelle*: à peine levés après le sommeil) en bateau. La grenouille ramait, le rat maniait le gouvernail; soudain la grenouille qui a tiré la rame tombe sur le dos et on ne voit que son ventre rouge qui brille…"

1. *r* est la constrictive correspondant à *t* (voir p. 81 sqq); les substantifs autochtones commencent d'ordinaire par une occlusive et non par une constrictive, mais *ral* "grenouille (cp. lzt. *rana*) est une onomatopée.

2. Suffixe énonçant la participation simultanée de deux sujets ou objets à la même action; après voyelle ou occlusive les suffixes des sub-

stantifs commencent par une constrictive, après constrictive par une occlusive sourde et après sonante (latérale ou nasale) par une occlusive voisée.

3. *ŋaɣrʿ* "rat", probablement substitut du nom tabou – "voyant" (cp. *ŋax* "œil"). La consonne *r* comme toutes les constrictives dans les syllabes non-initiales est sourde (*rʿ*) en position finale ou devant les occlusives sourdes, voisée dans toutes les autres positions.

4. *vi-* "aller (surtout en bateau ou en traîneau)"; *v* (remontant probablement à *w*) est l'unique constrictive qui peut figurer à l'initiale des verbes intransitifs.

5. L'une des trois "formes neutres" du verbe (v. note 7) – forme exprimée pour la deuxième et troisième personne du singulier par la désinence redoublée *-rorʿ* (< *ro-ro* < *-jto-jto*, pour la première personne ainsi que pour le pluriel par *-tot* (< *-to-to*), et dénotant l'idée d'antériorité.

6. *pʿrə-* "venir", "arriver", probablement < *pʿi-rə-* "s'établir", cp. *ra-* "établir-installer", et *tə-f/ta-f* "maison" dont l'occlusive initiale correspond à la constrictive de la même série dans le verbe transitif (voir p. 89 et pour *-f* note 16).

7. L'une des trois formes "neutres" du verbe (v. note 5) exprimée pour la deuxième et troisième personne du singulier par la désinence *-rʿ* (< *ro* < *jto*, *j* < *i-*, v. note 17) et pour la première personne ainsi que pour le pluriel par la désinence correspondante *-t* (< *to*, cp. *ro-/-to-* "aider"); cette forme relègue au second plan l'action énoncée et étant suivie d'une forme verbale cardinale elle ne signale que le simple fait de la subordination. Le guilyak distingue les formes verbales qui n'admettent pas qu'un autre verbe leur soit surordonné (formes cardinales), celles qui l'exigent (formes subordonnées et celles qui l'admettent sans l'exiger (formes neutres).

8. *xes-* "dire à quelqu'un", verbe transitif concevant l'interpellé comme un complément direct et commençant comme à peu près tous les verbes transitifs simples dans l'emploi absolu par une constrictive (par contre le substantif de la même racine *kʿes* "communication, nouvelle" commence par l'occlusive correspondante); au lieu de la constrictive on trouve l'occlusive correspondante après la constrictive et généralement après la sonante finale d'un complément direct; l'occlusive sourde aspirée correspond à la constrictive sourde, et l'occlusive non-aspirée (voisée après les sonantes) à la constrictive voisée. Dans l'emploi absolu des verbes transitifs la consonne initiale a été précédée de *i-* (v. note 17) qui s'amuit devant toute consonne prévocalique après avoir changé l'occlusive originaire en constrictive (v. note 14).

9. *ḍ* (ou *ṭ* après occlusive) – suffixe de la forme verbale substantivée
signalant que le mot attributif n'est ni épithète ni prédicat subordonné
la forme en question peut fonctionner comme forme prédicative cardinale
(v. note 7), comme sujet ou comme complément; -*ḍ* < -*n*-*ṭ* (cp. -*nd* dans
le dialecte du Sud-Est), -*n*- – suffixe thématique verbal, -*ṭ* – suffixe sub-
stantivant qu'on retrouve sous la forme -*s* dans les déverbatifs.

10. *ŋafq* "beau-frère", par généralisation "compagnon, camarade"

11. -*á*- désinence du vocatif.

12. *ɲi* "moi" perd sa voyelle devant un postposé possédant tout au plus
une consonne prévocalique (v. note 8).

13. -*at* – suffixe affirmatif.

14. A l'intérieur d'un complexe l'occlusive initiale se change en
constrictive après l'occlusive ou la voyelle finale de tout thème nominal
antéposé (v. note 2), ici *tam* "grand, nombreux" > *ram* après le complé-
ment nominal *kɔp* "merisier".

15. -*la*- – suffixe signalant que le thème attributif détermine un objet
et non une action.

16. -*f* (ici sonorisé devant la sonante *n*) – suffixe de lieu issu probable-
ment du verbe transitif -*fi*- "se trouver, résider"; *tamlaf* "lieu où il y a
quelque chose d'abondant".

17. -*nrʿə*- "voir, apercevoir" – après un complément direct, autrement
ində-. La voyelle *i*- dans cette dernière forme est originellement un
pronom signifiant "quelqu'un d'autre"; mais ce pronom n'est plus senti
comme composant autonome et à l'intérieur du mot la constrictive sourde
prévocalique est intolérable: étant précédée d'une autre constrictive sourde
ou d'une nasale elle se change en une occlusive non-aspirée; celle-ci se
sonorise ensuite dans *ində*- sous l'influence de la nasale précédente (voir
note 2).

18. -*ta* – désinence d'une des formes verbales neutres (v. note 28)
étant adjointe à un thème nominal (y compris le thème verbal substantivé
comme dans le cas donné) elle obéit aux lois d'alternances régissant les
suffixes nominaux (ici la constrictive *r* après une occlusive; v. note 2)
et signale que le nom fonctionne comme prédicat.

19. Étant extraposé, détaché du reste de la phrase, le cas absolu
fonctionne comme complément circonstanciel; là où l'extraposition n'est
pas évidente on recourt aux suffixes des cas indirects, par ex., loc. *pɔt-uɨ*
"demain".

20. Au lieu de nos adverbes modaux le guilyak emploie des verbes; ainsi
-*xrə*-/-*kʿrə*- "être ensemble avec quelqu'un" – après un complément direct
autrement *iɣrə*- (sur *i*- v. note 17); la même racine fusionnée avec *u*

:ien pronom réciproque) veut dire "être l'un et l'autre ensemble";
ntérieur du mot *x* se sonorise devant une constrictive (v. note 3).

1. *-u-* – suffixe thématique signalant le verbe transitif.

2. *-nə-te* – suffixe complexe de l'optatif (*-nə-* suffixe thématique de
)ect ingressif: "être prêt à").

3. *ho-ʀa-* "être ainsi" (v. note 20): racine pronominale *hu-/ho-* suivie
)uffixe résultatif *-ʀa-*.

4. *os-* "se lever", cp. *os* "racine, base" et *-oz-u-/joz-u-* "lever, élever",
' < *i-* devant voyelle (v. note 17).

5. Forme verbale subordonnée exprimée par la désinence *-ŋan*
ŋa-na; ŋa-* "ensuite", *na-* "à l'instant", v. note 22 sur le suffixe *-nə-*)
gnalant que l'action donnée a été immédiatement suivie d'une autre.

5. *-ɣirʿ* (v. note 2) suffixe de l'instrumental remontant au thème verbal
-/iɣrʿ-* (< *i-ɣirʿ-*, v. note 18) "posséder, user".

7. *mɣe-* "ramer" peut-être < *mu-ɣe-* "bateau prendre".

3. L'une des trois "formes neutres" du verbe: forme exprimée par la
nence *-ra* (< *jta*, v. note 7) pour la deuxième-troisième personne du
ulier et par *-ta* pour la première personne et pour le pluriel et ènonçant
série d'actions accessoires.

). *meṇ* "rame courte servant de gouvernail"; la sonante finale de
ains noms a été probablement suivie autrefois d'une voyelle et dans
cas-là contrairement à la règle (v. notes 2 et 8) on trouve à l'initiale
-nante du postposé une constrictive, par ex. *meṇ* "rame-gouvernail"
meṇi?*) – pluriel *meṇ-ɣu, meṇ-vo-* "rame-gouvernail tenir".

). *-vo-/-po-* "tenir" après le complément direct, autrement *ef- < e-vo-*:
nt *o, a, e,* les préfixes pronominaux *i-, u-* (v. notes 17, 20) se changent
:-, o-*. On découvre en guilyak de nombreuses traces de l'harmonie
alique "horizontale" (compacte/diffus) qui est répandue aussi dans les
;ues luorawetlan et dans une partie des langues toungouzes: guil. *ʈʿi*
" *ʈʿizɣəf* "ton ours", *ʈʿesɣa* "ton argent"; *mi-* "deux"—*mim <*
nu "deux bateaux", *mevor* "deux filets"; *xuvi* "portion de nourriture
r les chiens"—*ṇxuvi < ṇi-* "une portion", *ʈxovi < ʈe-* "trois portions".

1. *-rlə-/-tlə-* (v. note 8) "tirer" après un complément direct, autrement
(v. note 17).

2. *kel* "dos", *kel-ɣel* "à dos" – réduplication de la racine avec dissimi-
)n des consonnes; le guiliak ainsi que les langues luorawetlan fait un
e usage de la réduplication; v. K. Bouda (*Ungarische Jahrbücher*,
p. 404 sqq.) sur un phénomène analogue dans les langues yénis-
nnes.

3. Racine anaphorique (v. note 23).

34. Thème prédicatif *paʀ'*- "être rouge"; autre variante vocalique de la même racine – *pǝx* "couleur"; le verbe transitif correspondant – *vǝɣvǝx*- "embellir, améliorer, guérir" (v. note 8).

35. *qoʀ'* "ventre" vraisemblablement < *qo-ʀo* – réduplication de la racine *qo*, cp. *qo-* "faire mal"; la sonorasation de l'occlusive est due à la consonne nasale actuellement amuie – suffixe thématique qui terminait l'épithète préposée (v. note 9).

36. Aspect intensif exprimé par la réduplication du thème *hel-q-*; le phonème *h* ainsi que l'aspiration des occlusives n'est admis qu'à l'initiale.

THE PHONEMIC AND GRAMMATICAL
ASPECTS OF LANGUAGE IN THEIR INTERRELATIONS

A brilliant pioneer of the structural trend in linguistics, Edward Sapir was one of the first to emphasize that "our present tendency to isolate phonetics and grammar as mutually irrelevant provinces is unfortunate", for "there are likely to be fundamental relations between them and their respective histories". More than a quarter of a century separates us from this postulate and a great deal that has been done in international linguistic thinking to connect the study of speech sounds and of grammatical structure.

Formerly the internal analysis of linguistic entities had been hindered by the methodological premise of the neogrammarians — "*die Wirksamkeit der einzelnen Faktoren isoliert zu betrachten*". At first glance our statement may seem to be self-contradictory. Does it not mean that analysis resolving language into its elements was made impossible by the neogrammarian tendency to break up language into separate factors? Is it not really a *contradictio in adjecto*? Not at all! Because a structural analysis is essentially different from a mechanistic decomposition which takes into account neither the interrelation of the parts nor their relation to the whole.

As modern structural thinking has clearly established, language is a system of signs, and linguistics is part of the science of signs, or SEMIOTIC (Saussure's *sémiologie*). The ancient definition of the sign — "*aliquid stat pro aliquo*" — has been resurrected and proposed as still valid and productive. Thus the essential property of any sign in general, and of any linguistic sign in particular, is its twofold character: every linguistic unit is bipartite and involves two aspects — one sensible and the other intelligible — or, in other words, both a *signans* (Saussure's *signifiant*) and a *signatum* (*signifié*). These two constituents of any linguistic sign (and of any sign in general) necessarily presuppose and require each other.

But as long as linguists consistently applied the isolating method postulated by the neogrammarian school, these two aspects of linguistic

phenomena, the sensible and the intelligible, were envisaged quite uniquely as entirely independent and closed domains. Thus the unity of the sign was disregarded. The study of speech sounds cut off from their significant function inevitably lost its intimate connection with linguistics as a semiotic discipline and threatened to become merely a branch of physiology and of acoustics, whereas the strictly linguistic problem of meaning was either forgotten in the search for their psychological background or mistaken for the extrinsic "realm of non-linguistic objects" (according to Charles Morris' terse formulation).

An analysis of any linguistic sign whatever can be performed only on condition that its sensible aspect be examined in the light of its intelligible aspect (the *signans* in the light of the *signatum*) and vice versa. The indissoluble dualism of any linguistic sign is the starting point of present-day linguistics in its stubborn struggle on two fronts. Sound and meaning — both these fields have to be thoroughly incorporated into the science of language: speech sounds must be consistently analyzed in regard to meaning, and meaning, in its turn, must be analyzed with reference to the sound form. We can and must resolve a complex linguistic sign into its constituent signs. We can and must finally obtain the smallest linguistic units, but we have to remember that any linguistic and in general semiotic analysis resolves more complex semiotic units into smaller but still semiotic units. Any such unit, even the ultimate, must be twofold and comprise both a *signans* and a *signatum*.

In linguistic analysis, when breaking down a speech sequence into ever smaller and simpler units, we begin with an UTTERANCE. The minimum utterance is a SENTENCE. A SENTENCE consists of WORDS as its minimal actually separable components. The various borderline cases — we hold with Sapir — do not impair the validity of this real and tangible entity.

In breaking up the speech sequence still further we arrive at the smallest linguistic unit charged with its own meaning. For this ultimate meaningful unit I would like to use the term "morpheme" coined by Baudouin de Courtenay and adopted in this sense by Slavic and many American linguists. However, in its modified French use "morpheme" denotes only one of the two subclasses of the category in question, namely the simple affixes as opposed to the radicals; in Noreen's terminology it is applied not only to simple but also to complex grammatical units; and finally, Hjelmslev confesses to a utilization of the same term in quite a different meaning. Therefore, to avoid misunderstandings and terminological controversies in this address intended for an international forum, I prefer to apply a less ambiguous label for the ultimate grammatical units

of expression. Let us call them simply MINIMUM FORMAL UNITS (or FORMAL MINIMUMS).

These minimums must be investigated in terms of ORDER GROUPS and SUBSTITUTION GROUPS (in keeping with the mathematical group theory), e.g. the Latin inflectional affix -*mus*, forming an order group with the preceding stem, is commutable with a set of other affixes and hence carries the meaning of the first person as opposed to -*tis*, the meaning of the plural in opposition to -*o*, that of the active as against -*mur*, etc. Consequently, the conceptual counterpart of the formal unit -*mus* is a bundle (Bally's *cumul*) of SEMANTIC MINIMUMS. Some of these bundles can be carried by various *formal minimums*, cf. for instance the various endings of the same case in different declensions. This discrepancy between the formal units and the semantic units, this asymmetric dualism of *signans* and *signatum*, particularly striking in the classic type of the Indo-European languages, has been rightly pointed out as a pertinent structural trait of the linguistic sign. But the asymmetry does not mean a lack of correspondence between these two aspects, and the mutual solidarity of the forms and their semantic functions remains quite evident. The SEMANTIC MINIMUMS of a given language can be stated only with reference to their formal counterparts, and vice versa, the MINIMAL FORMAL UNITS cannot be determined without reference to their semantic counterparts. This fact does not invalidate Buyssens' assertion that the "phonic content" of these formal units may be ignored: "It is enough that the phonic combinations are distinct." To ascertain this distinctness is sufficient for making up a list of grammatical meanings in a given language, of their oppositions, conceptual fields, and their configurations.

The MINIMUM FORMAL UNITS are resolvable into smaller linguistic units. This statement seems to contain a contradiction since any linguistic unit is *per definitionem* twofold and since at the same time we define the "formal minimum" as the smallest unit charged with its own meaning. What is the semiotic value of phonemes, the smaller units into which we resolve the formal minimum? It is a lower level of SEMIOSIS: the phoneme participates in the signification, yet has no meaning of its own. The semiotic function of a phoneme within a higher linguistic unit is to denote that this unit has another meaning than an equipollent unit which *ceteris paribus* contains another phoneme in the same position.

In its turn the phoneme, like a chord in music, can be broken up into smaller simultaneous components: therefore in 1932 I proposed (see my *Selected Writings*, I, p. 231 ff.) to define the phoneme as a set (or as Bloomfield formulates it, a bundle) of DISTINCTIVE FEATURES (Saussure's

éléments différentiels). For example, the French phoneme *b* can be substituted (in such a series of words as *bu, pu, vu, mu*, etc.) by the phonemes *p, v, m*, etc.; it is voiced in contrast to *p*, plosive in contrast to *v*, oral (non-nasal) versus *m*, etc. Analyzing in this way the differential value of the French phoneme *b* we establish its linguistic content: voicing, plosivity, orality, etc. All differences of phonemes in any language can be resolved into simple and undecomposable binary oppositions of distinctive features. Hence all phonemes of any language can be fully dissociated into further indivisible distinctive features. The pattern of phonemes (or as Sapir says, "the system of symbolic atoms") can be reduced to a net of few distinctive features (a system, one might term it, of primary particles): the parallel to the recent development of physical concepts is complete. When ascertaining thus the intrinsic composition of a phoneme, we apply strictly SEMIOTIC CRITERIA, just as for the higher units: the *signans* is envisaged in relation to its *signatum*.

In this way improvement in the methods of phonemics removes the barrier which has kept apart the study of speech sounds and the proper science of linguistic signs as "mutually irrelevant" areas. But again, *mutatis mutandis*, it is fitting to repeat what was said above about grammatical meanings: in setting up the phonemic pattern of a language the meanings of the formal units distinguished by phonemes may be ignored. It is enough to establish that these meanings are distinct.

If the study of word structure were confined, on one hand, to the inventory of grammatical meanings and, on the other, to the repertory of phonemes and of underlying distinctive features, then we would be justified in stating that for an examination of the sound aspect of a given language, the meanings as such do not matter, for only the fact that they are distinct is pertinent. And we would be right in saying that for the study of the conceptual aspect, the expression of the meanings in itself remains irrelevant, provided that they are expressed distinctly. But these uttermost extremes by no means exhaust linguistic matter.

If our inquiry is concerned with the phonemes of a given language and we attempt to draw up the net of their actual combinations, we must inevitably take into account the grammatical entities: the combinations of phonemes are different at the beginning, within, and at the end of a word. The combinations at the juncture of two formal units — for instance, of a prefix or suffix and the adjacent parts of a word — differ from the internal combinations, and also the laws of clustering at prefix and suffix junctures can be dissimilar (for instance, Russian admits a hiatus only at the juncture of a radical with a prefix or with another

radical — a word with a prefix is conceived as a kind of compound). Functionally different formal units are often denoted by different phonemic configurations (in Slavic languages, for instance, suffixes are clearly distinguished from radicals by their phonemic contours). The radicals of different parts of speech (for instance, of nouns and verbs, or of nouns and pronouns) can be differentiated by the length and composition of the phoneme sequence. In Gilyak, phoneme combinations which are usual in propria, particularly in personal names, do not occur in common words. Thus an overall inventory of phoneme combinations is a fiction, because every class of grammatical units and every position within these units has its own roster of phonemic combinations.

What has been said of the combinations is more or less applicable also to single phonemes and, lastly, even to distinctive features. The phonemes and their components are not distributed indifferently throughout the extent of a word (or of a smaller formal unit). Besides the word-differentiating function they can assume another, supplementary role, that of BORDER MARKS. The presence of a certain phoneme (or of a certain distinctive feature) at a certain place in a speech segment may signal a boundary between words (or smaller formal units) or, on the contrary, the absence of a boundary. Such "negative marks" (as Trubetzkoy called them) are very common and important.

In Bohemian Czech, an opposition of voiced and unvoiced consonants is possible only within the word, and specifically only when a vowel, a liquid, a nasal, or a *v* follows. At the end of the word there are no significant oppositions of voiced and unvoiced consonants, regardless of what follows. Hearing a voiced consonant followed by a vowel, a liquid, a nasal, or a *v*, we know that this voiced consonant is not a final. In short, it is a negative border mark. If a suffix begins with a nasal (or with a vowel, liquid, or *v*), the final voiced consonant of the radical preserves its voicing: *lid-mi, křiž-mo*. But in the imperative, the final voiced consonant of the root becomes unvoiced in this position: *hot'-me* (from *hod'-it*), *leš-me* (from *lež-et*). The verbs *tuž-it* and *tuš-it* have the same imperative form *tuš-me*. The abolition of the voiced/voiceless opposition before the ending of the imperative denotes that in Czech (as well as in Polish and Russian) the endings of the imperative are not suffixes but autonomous enclitic particles before which the laws of the word-end operate. On the other hand, the final consonant of prepositions follows in this respect the laws of the word-interior, the only difference being that within a word an unvoiced consonant followed by a sibilant vibrant deprives the latter of its usual voicing (*křeči* > *křeči*) while at the end of the preposition (and of

any autonomous word) an unvoiced consonant followed by a sibilant vibrant becomes voiced (*k řeči · g řeči*). Thus the diversity of sandhi laws denotes a gradation of the SYNTAGMES (in Saussure's sense of the word) according to the degree of their coalescence (cf. for instance, French word groups where liaison is obligatory, where it is optional, and where inadmissible).

The different grammatical classes of formal units can be characterized by a different utilization of phonemes and even of distinctive features. For instance, of the twenty-three consonants in spoken Czech only eight phonemes are used in inflectional suffixes. Three of these appear in nominal endings and six in verbal; *m* is the only consonant that occurs in both of these classes. Only an insignificant percentage of English phonemes participate in inflectional suffixes: there occur only four consonantal phonemes — *z*, *d*, *n*, and *ŋ*. Both the vowels of all these suffixes and the unvoiced variants of the suffixes -*z* and -*d* are automatically conditioned by the preceding phonemes and have no distinctive value. Any other consonantal phoneme signals that it does not belong to an inflectional suffix.

Some phonemic oppositions can be suppressed in certain grammatical categories; for instance, of the morae capable of bearing the word-accent in ancient Greek, only the one which is farthest from the word-end can be accented in the finite verbs. Thus significant oppositions of place of accent are impossible in this case, and an accent on a mora closer to the word-end signals that the word is not a finite verb. Compare W. A. Grootaers' reference to the prosodic differentiation of nouns and verbs in southern Chinese dialects.[1]

Certain categories of phonemes are found to be specialized for definite grammatical functions. Such is the tendency of Semitic languages, particularly of Hebrew, to use vowels for inflectional and not for lexical purposes, or the tendency of Gilyak in the Far East or of Ful in the Sudan to utilize the contrast of plosive and constrictive consonants specially for grammatical oppositions.

In languages with vowel harmony certain of the vocalic distinctive features are inherent only in the roots: for instance, in Turkic languages the opposition back *vs.* front (partly also rounded *vs.* unrounded) or in Tungus and in some other languages in the Far East, the opposition high *vs.* low. (I use here articulatory notions instead of the corresponding acoustic concepts only because the articulatory terminology is still more common and familiar). In dealing with phonemes of such languages we must take into consideration that only in roots are the distinctive features

[1]   *Actes du Sixième Congrès International des Linguistes* (Paris, 1949), p. 233 f.

in question autonomous, while in the suffixes they are mere positional variants serving to cement the word. In short, an attempt to confine oneself to a simple inventory of the distinctive features and of their simultaneous and successive configurations without any grammatical specification of their use would be an artificial projection of different layers upon one plane.

If different phonemic elements are differently selected and used in different grammatical categories, this fact is pertinent for the comprehension of the phonemic elements of a language in their hierarchic interrelations and cannot be disregarded in a careful study of the phonemic structure. The languages belonging to the two types of vowel harmony mentioned can contain in their vocalic pattern the same oppositive pairs of distinctive features; for instance, back *vs.* front, rounded *vs.* unrounded, high *vs.* low, and they can even present a completely identical inventory of vowel phonemes; but the arrangement of these externally similar systems, the interrelation, and particularly the hierarchy of the listed discriminatory means in the languages of these two types are essentially different if in one of them only the opposition high *vs.* low and in the others all but this opposition can differentiate the meanings of the suffixes.

Any intended comprehensive study of a phonemic pattern inevitably runs into the problem of partial patterns mutually distinguishing and specifying the diverse grammatical categories of the given language. The limit between phonemics proper and the so-called MOR(PHO)PHONEMICS is more than labile. We glide from one to the other imperceptibly.

And conversely: if the goal of our investigation is to determine the grammatical meanings of a given language, it is perfectly true that we can make up a catalogue of these meanings taking into account only one single fact of their phonic counterparts — the fact of their distinctness. However, there are degrees of distinctness. In the Russian forms gen. /gr'ibá/, dat. /gr'ibú/, loc. /gr'ib'é/, nom.plur. /gr'ibí/, the different stressed vowels convey the different meanings of grammatical cases and numbers, but the common trait of these endings (-*a*, -*u*, -*e*, -*i*) — the fact that a formal unit may consist of one vowel — is the characteristic mark of inflectional suffixes which distinguishes them both from derivational suffixes and from radicals — in short, from formal units which can never consist of one vowel. Independently of its individual, namely diminutive, meaning, the suffix -*ok* (/gr'ibók/) denotes by its sound composition that it does not belong to inflectional suffixes, because these do not admit other stops than *t*. Of Russian radicals only the pronominal radicals can

consist of one single consonant (for example, *k*-, *č*-, *t*-, *n*-, *v*-). In this respect they resemble inflectional suffixes which also can consist of one consonant. The pronominal roots differ from all other roots by the fact that their meaning is not lexical but grammatical. In other words, the affinity of these two categories also in the semantic aspect is beyond doubt.

Thus, as we progress from a mere catalogue of the grammatical meanings which occur in a given language to an analysis of their arrangements and mutual connections, we must pay still greater attention to the phonemic composition of the diverse formal units, and especially to the repertories of phonemes and phonemic clusters specific for the single classes of those units. *Mutatis mutandis*, we again have to state that the study of a grammatical pattern inevitably leads up to the problem of the phonemic means utilized for the expression of the diverse grammatical categories of the given language.

The boundary between morphology proper and mor(pho)phonemics has proved to be vacillating. As soon as word grammar proceeds (in the terms of de Groot and Reichling) from the "structure of meaning" to the "form structure",[2] we find ourselves in the domain of morphophonemics, because a purely formal analysis of paradigms means nothing other than the disclosure of the phonemic similarity and distinctness of different paradigms, their members and components. Whatever we analyze, the sound or the meaning, if our analysis is linguistic, we necessarily discover with Bonfante and Pisani that the phonemic and grammatical structures present simply two aspects of one and the same indissoluble totality and are necessarily and intimately co-ordinated.[3] And let us add with J. Lotz that the two structures present many striking similarities.[4]

Bonfante's reference to "artistic unity" permits us to offer an example from poetic language. Rhyme is usually defined as correspondence in terminal sounds, but at the same time it always matters whether the rhyming elements are merely homophonous or whether they are grammatically identical — whether the rhyme links identical formal units or different formal units but belonging to words of one and the same word-class. Do the rhyming words have similar or different syntactic functions? The rhyme technique of diverse poets and poetic schools can be grammatical or antigrammatical, but it cannot be agrammatical. This means that the relation between the phonemic and grammatical structure of the rhyme

---

[2]   *Actes* ***, p. 22.
[3]   *Actes* ***, pp. 227, 249.
[4]   Actes ***, p. 244 ff.

always remains pertinent. In distichs built on grammatical parallelism (e.g. in the Karelian folk epos) besides a similarity in the grammatical and partly lexical meaning of the juxtaposed words and in their syntactic function, a concomitant but still important factor is their sound correspondence (or, on the contrary, a lack of sound correspondence). Again the solidarity of the grammatical and phonemic aspects is clearly manifest. Both rhyme and grammatical parallelism necessarily and simultaneously present both of these aspects, but with the difference that in rhyme the emphasis is on the phonemic structure and in parallelism the predominant role belongs to the grammatical aspect. Rhyme is primarily, but not exclusively, a phonemic phenomenon of poetic language; and on the other hand parallelism is first a grammatical device.

To sum up, neither does the autonomy of these two linguistic aspects mean independence, nor does their co-ordinate interdependence imply a lack of autonomy.

Every language has a system of distinctive features and of rules governing their arrangement into bundles and sequences, all these means serving to discriminate words of different meaning. This system is governed by autonomous phonemic laws; and let us say with Kury-łowicz: "the phonemic changes, first and foremost, consist in creating new relations between the members of the phonemic system".[5] It is obvious that there are sound changes which reshape the phonemic pattern of a given language without regard to the grammatical pattern. For instance, two phonemes can coalesce independently of their position in the word; or a distinctive feature may disappear or yield its place to another in all positions.

On the other hand, there may be changes in the pattern of grammatical concepts which affect their use only, but not the expression of these concepts; and vice versa, there may be changes in the expression of grammatical concepts with no shifts in the latter themselves.

That phonemic changes can affect the grammatical pattern is out of doubt. First, a paradigm can undergo essential reshaping. In various Indo-European languages sound changes have led to a displacement of the boundary between the nominal stem and the ending. The loss of final *ŭ* and *ĭ* established a new interrelation between the case endings of Slavic languages, for it created a zero ending opposed to the others: nom. *nós* ~ gen. *nós-a*.

Secondly, the difference between two forms can disappear, for instance between the second and third person singular of the Slavic aorist as a

[5]   *Actes* * * *, p. 242 ff.

result of the loss of final consonants in primitive Slavic (-*s* in the 2nd pers., and -*t* in the 3rd).

Thirdly, sound changes can (as D. M. Jones and H. Velten bring to mind) create an alternation which subsequently may be utilized by the language to convey in a new fashion an actual grammatical opposition;[6] cf. the "umlaut plurals" developed with particular consistency in Lithuanian Yiddish: *tog* ~ *teg*, etc. (Sapir).

Fourthly, a sound change can even lead to the emergence of a new grammatical category; for instance, sound changes introduced into Gilyak a new morphological entity, the objectless form of transitive verbs. Formerly in this language, the transitive verb was either preceded by an object or, if the object was not named, by the indefinite pronoun *i*. There were no constrictive phonemes in Gilyak, except that in intervocalic position, stops were replaced by constrictive variants. This happened also to the initial stops of transitive verbs after the pronominal object *i*. Then the initial *i* of these complex forms was phonetically lost, and the constrictives found themselves at the absolute beginning of the word: *i-tɔu-*, "to teach somebody" · *i-rɔu-* (*r* in Gilyak is the constrictive corresponding to *t*) ⪢ *rɔu-*. Thus there arose at the beginning of the word an opposition of stops and constrictives, both became autonomous phonemes, and the initial constrictive of verbal forms came to signalize the objectless use of transitive verbs: the transitive verb without object (*rɔu-* "to teach") found its place in the Gilyak grammatical system (cf. above, p. 85 ff.)

Of course, Hoenigswald is right in asserting that the loss of suffixes through sound change is a well-known and frequent event.[7] But on the other hand, it is well to recall (as Bonfante, Holt, Martinet, Pisani do) that a mere sound change is not enough for a grammatical upset.[8] A phonemic impetus can contribute to the loss of a grammatical category only if in the given grammatical pattern a tendency for such a shift is already present. Otherwise, either the language reshapes the affected suffixes in order to save the endangered grammatical distinction, or "a phoneme of morphological value resists sound laws" as Pottier states, upholding Wilhelm Horn's thesis.[9]

The topic which in its time filled the works of the neogrammarians — the problem of the permanent struggle between sound laws and analogical levelling — once again is the order of the day. Two conceptions of this

[6] *Actes* ***, pp. 240 ff., 260.
[7] *Actes* ***, p. 235.
[8] *Actes* ***, pp. 227, 235 ff., 247 f., 249.
[9] *Actes* ***, p. 250 ff.

struggle have replaced each other in the history of linguistics. According to the first, grammatical analogy is an irregularity, an infraction of rigid sound laws. The opposite point of view, which found its pointed expression in Saussure's work, holds grammatical analogy to be a salutory counterweight against the destructive force of blind and fortuitous sound changes. As a matter of fact, neither the sound changes nor the action of grammatical analogy can be conceived in terms of "burglary" (*cambriolage*). In the system of language we discern two levels: the grammatical pattern of meaningful elements and the underlying phonemic pattern of mere discriminatory marks. The sound changes, or, more broadly, the phonemic arrangements or rearrangements, are aimed at the pattern of discriminative marks, whereas analogy seeks to adjust or readjust the grammatical pattern itself.

As far as the so-called conflicts between sound changes and grammatical analogy are concerned, they are simply phonemic changes grammatically limited, or in other words, phonemic changes affecting not the general sound pattern but only the special sound pattern of certain grammatical categories. If in a language we usually find phonemic configurations and respective changes peculiar to the word-interior or to the word-border, also the inside and outside of smaller formal units may present differences in phonemic treatment. Thus the unstressed vocalism of Russian distinguishes the phonemes *u, i, a*, but after the "soft" (palatal and palatalized) consonants, the unstressed *a* has changed into *i*. Only the inflectional suffixes preserve this *a* as supported by analogy with *o* and *a* in the same suffixes when stressed: nom. and gen. /pól'-a/, cf. /žil'j-ó/, /žil'j-á/; dat. pl. /ustój-am/, cf. /kraj-ám/ (but *pojas* is /pójis/, etc.). It is not obligatory for analogical levelling to intervene only after the completion of the sound change: the passage of the unstressed *a* to *i* after soft consonants is still a living process in Moscow Russian, and at the same time the inflectional suffixes preserve *a* in this position; in other words, this change in the combinations "soft consonant plus unstressed vowel" simply does not extend to the juncture of inflectional suffixes.

Grammatical limitations on sound changes can be found also apart from "analogical levelling"; for instance, in the endings of Russian inflected words the final consonants are depalatalized (/dást/, /idút/, /rvalás/, /dám/, /stalóm/, etc.; in the infinitive ending, /-t'/ is only a positional variant of the form /-t'i/, while everywhere else final consonants preserve their palatalization (cf., for instance, such isolated forms as /jést'/, avós'/, /fpr'ám'/; or nouns with zero ending like /pút'/, /lós'/, /s'ém'/; and even the adverbialized form of the "reflexive" verb, e.g.,

/kapašás'/). For further examples see the stimulating studies of Michel Lejeune[10] and Marcel Cohen.[11]

Consequently the problem of phonemic differentiation of diverse grammatical layers confronts us both in the synchronic and diachronic aspects. The grammatical and the phonemic structures mutually readjust each other. The relative internal autonomy of both patterns does not exclude their perpetual interaction and interdependence. As we have already mentioned, the reshaping of the phonemic pattern may give new stimuli to the grammatical system which the latter can either adopt or reject. Conversely, the grammatical processes sometimes successfully offer innovations to the phonemic system and even serve to engender new phonemes. In Byelorussian the use of the opposition palatalized vs. non-palatalized in grammatical alternations (rv-ú ~ rv'-óš , vr-ú ~ vr'-óš) calls into being a new pair tk-ú ~ tk'-óš and introduces a new phoneme, the palatalized /k'/, which formerly was a mere positional variant of the phoneme /k/. In White Russian, on the model of pairs like l'ac'-iš/ ~ /l'ač-ú/, analogical levelling builds corresponding voiced pairs, such as /hl'a3'-iš/ ~ /hl'aǯ-ú/, and enriches the phonemic pattern by a new phoneme, the voiced hushing affricate ǯ .

To conclude: using the multifarious suggestions contained in the answers to the questionnaire, our report has tried to give a summary survey of one of the pivotal issues raised by the Committee of the Congress. Our limitation has been the word-grammar, as the reference to "morphology" in the title of the formulated question suggests (cf. H. Frei's criticism).[12] Our intention was to avoid as much as possible equivocal and ambiguous terms, as well as terminological discussion, and to seek out the gist of the problem. Our answer has been: both synchronic and diachronic study show an intimate link of solidarity and interdependence between the two autonomous structures — the phonemic and the grammatical. The recent progress of phonemic studies on the one hand, and of semantic research in grammatical concepts on the other, brings us close to the INTERSECTION of these two fields, to the problem of grammatical form. The technics of cataloguing the "grammatical processes" is now highly developed, yet the next urgent task is to undertake an explicit structural analysis of these processes.

[10] "Le langage", *Encyclopédie française*, I (1937).
[11] "Catégories des mots et phonologie", *TCLP*, VIII (1939).
[12] *Actes ****, p. 233.

COMPARATIVE SLAVIC GRAMMAR

The autonomy of the word and the distinctness of word boundaries are preserved both in Protoslavic and in the modern Slavic languages; and there is a clear-cut difference between the treatment of affixes on the one hand, and proclitic conjunctions or enclitic particles on the other. The root plus derivational and inflectional suffixes forms a simple word. A root preceded by another root or by a prefix produces a complex word. Prepositions are phonemically treated as prefixes. Derivational suffixes remain an extremely productive means for neology in Slavic languages. Prefixes play only a derivational role, but prefixation as such has an important part in the building of Slavic verbal aspects. Alternations of phonemes are relevant auxiliary means in Slavic inflection; pivotal are prosodic alternations both in Protoslavic and in those Slavic languages which maintain in their word structure such distinctive features as pitch, quantity, or place of accent; as a result of the loss of the 'jers', alternations of vowel and zero as well as zero desinences occupy a great place in all Slavic languages. Autonomous alternations of different vowels in the root are in part the residue of Indo-European or Protoslavic processes, and in part essential innovations of separate Slavic languages, e.g., Ukrainian, Polish, Czech. In desinences vocalic alternations conditioned by the stem-end (a characteristic feature of late Protoslavic) remain, in spite of all analogic changes, a pertinent factor in the morphologic structure of modern Slavic languages. Due to various palatalization processes, the alternations of the last stem-consonant are partly inherited from Protoslavic, partly developed in the separate Slavic languages. There is still a pronounced tendency (particularly striking in Russian) to differentiate the alternations used in declension and those used in conjugation.

Protoslavic preserved the Indo-European system of cases (Nom., Acc., Instr., Dat., Gen., Loc.), losing only the ablative which merged with the genitive – the latter took over the ablative desinence for *o*-stems. The use of *m* in the Instr. and Dat. desinences links Slavic with the Baltic and Germanic area. The nominal declension exhibits a strong influence

from the pronominal, an interaction of different paradigms, and a tendency to identify paradigms with genders. The impulse to unify the declension continues in separate Slavic languages. All of them tend to eliminate the prepositionless use of the Loc. and of the Dat. of destination. The substitution of the possessive Gen. for the original possessive adjective is widespread. Western and Eastern Slavic languages developed a predicative Instrumental. Bulgarian and Macedonian, for the most part, have lost declension (as well as the suffixal comparative forms of the adjectives) and developed instead a postpositive article. Distinction of single cases, weakened both formally and functionally in Sorbian, Czech, Slovenian, and Serbocroatian, is firmly held in the other Slavic languages and even enriched by two new cases (Gen. 2 and Loc. 2) in Russian, and the general meanings of the cases remain here distinctly delimited (e.g., the persistence of the Gen. of negation perfectly fits the general meaning of the genitive as a purely restrictive case). The vocative form is preserved in all Slavic languages except Russian and Slovenian.

A sharp distinction between the singular and the plural unvaryingly goes through the whole Slavic inflection, whereas the dual, still vital in the Slavic medieval world, died out but for Slovenian, Sorbian, and Slovincian. Residues of the old nominal dual serve to denote nouns after numerals from 'two' to 'four' in Russian and Serbocroatian, and after all numerals in Bulgarian which, along with declension, lost the clear-cut Slavic difference between the substantivized numerals from 'five' and the lower numerals consistently adjectivized. Slavic substantives and adjectives still strikingly distinguish masculine, feminine, and neuter in the singular; in the plural, however, these distinctions are lost by Russian and Bulgarian and tend to weaken also elsewhere. The difference between the animate and inanimate started for the Acc. Sg. M. in late Protoslavic and became generalized for some other cases in Western Slavic languages, and for the Acc. Pl. in Russian. Bulgarian, Western Slavic languages (particularly Polish and Sorbian), and Ukrainian tend to promote a new, personal gender.

For the adjectives Protoslavic developed a new, definite form which distinguishes more clearly their declension from that of the substantives. In Serbocroatian and Slovenian the difference between the definite and indefinite forms is more or less preserved and marked by prosodic alternations; Bulgarian and Macedonian have reduced the use of the definite form, whereas Byelorussian, Ukrainian, and Western Slavic languages tend to eliminate the indefinite doublet; Russian has changed it into a purely predicative, indeclinable form.

The Protoslavic verb had been more essentially reshaped than the noun. Only the forms of the present tense closely continue an Indo-European prototype; the forms of the aorist are perceptibly refashioned, while the forms of the Slavic imperfect have nothing in common with the Indo-European stock. Neither the form nor the function of the Indo-European perfect find correspondence in the Slavic languages. Besides two sets of simple forms – the sequential past (the so-called 'aorist') and the synchronic past (the so-called 'imperfect'), Slavic created new, compound pasts: the retrospective past (inadequately called the 'perfect'), and three pluperfects corresponding to the aorist, the imperfect, and the perfect. Protoslavic abolished the Indo-European subjunctive and innovated a compound conditional. The Indo-European optative was re-formed into an imperative, whereas the old imperative disappeared completely. The middle voice became obsolete and its functions were partly assumed by the Slavic (and Baltic) construction with the enclitic Acc. of the reflexive pronoun which had been generalized for all persons; besides, a periphrastic passive was developing, with verbal adjectives changed into participles. The nominal forms of the verb, the infinitive and supine, are due to a convergent development in the Slavic and some other Indo-European dialects. Partly paralleled by the Baltic languages, Protoslavic developed a system of coupled verbs of perfective (denoting the completion of a process) and imperfective (without such denotation) aspect; of the imperfective verbs a few couples denote the opposition of determined (characterizing the process as an uninterrupted whole) and undetermined aspect. The future was usually expressed by either the present of perfective verbs or different periphrastic constructions with imperfective verbs. Various types of impersonal constructions were developed with a zero-subject and a verb in 3rd pers. Sg. or Pl. as predicate. Conjugation drew upon two stems, one full and another truncated, chiefly regular in their alternation (depending on the vocalic or consonantal onset of the desinence) – a feature which has persisted for the most part to the present time.

This rich set of verbal forms (in Old Church Slavonic an imperfective verb had up to 236 forms, without counting the compound ones) persisted fundamentally through the Middle Ages. Later, most of the Slavic languages generalized the original 'perfect' as the only past; the imperfect and the aorist have been kept only in Sorbian on the one hand, and in Bulgarian, Macedonian, and Serbocroatian on the other. These same Southern Slavic languages stabilized the use of the verb *xъtěti* 'want' for the compound future and generalized this construction for the

perfective verbs as well, somewhat dampening (as Sorbian also does) the opposition of the aspects. Bulgarian and Macedonian have developed the richest pattern of finite forms with a consistent opposition of direct and indirect narration. Fundamentally, the Protoslavic pattern of aspects, voices, and moods is preserved in all Slavic languages. The imperative becomes (especially in Russian and Ukrainian) a bare stem, agglutinating autonomous suffixes phonemically treated as particles. The supine remained only in Low Sorbian and Slovenian. The infinitive is lost in Bulgarian and Macedonian. Participles tended at an early date to do away with declension and to become gerunds – in the Eastern and partly also in the Western Slavic area they even lost gender and number.

Enclitics traditionally followed the first accented word, but in languages with free stress the inflected enclitics were attracted by the governing word and then completely eliminated in the whole Eastern Slavic area, except for Western Ukrainian dialects: in the reflexive verbs the pronoun became an inseparable suffix; the other pronominal enclitic forms, richly developed in Protoslavic, were lost; the auxiliary verb as used in the 3rd pers. Sg. Neutr. of the compound forms was generalized (in the conditional *by* and in the pluperfect *bylo* became mere particles); in the 'perfect' the pres. 3rd pers. zero-form of the auxiliary verb *byti* 'be', when used for all persons, changed the 'perfect' into a simple form. Subsequently the present of *byti* was likewise omitted in its other functions and the use of the correlative verb *iměti* 'have' essentially reduced; the abolishment of the copula favored asyndeton; finally, in personal constructions the use of pronouns, which was pleonastic for the Slavic pattern, became normal and their omission, which was normal for the Slavic pattern, became elliptic.

Word order underwent some alterations in the separate development of the Slavic languages. Particularly the verb tends to a medial position in the sentence and the place of attributes depends on regional changes in the system of definite and indefinite adjectives. Generally, word order is still based on the same principles as in Protoslavic: there is one fundamental pattern and a set of usual deviations each of which possesses a distinct semantic or stylistic value. In the spoken Slavic languages hypotaxis is weakly developed and less used than coordination. The evolution of Slavic languages shows an extreme instability of conjunctions and relative pronouns.

RUSSIAN CONJUGATION

> We have seen that when forms are partially similar, there
> may be a question as to which one we had better take as
> the underlying form, and that the structure of the language
> may decide this question for us, since, taking it one way,
> we get an unduly complicated description, and, taking
> it the other way, a relatively simple one.
>
> (L. Bloomfield, *Language*, 13.9)

0.1. Our purpose is the strictly synchronic formal analysis of the con-
jugational pattern of present-day Standard Russian, with two limitations:
1) only simple verbs (with unprefixed one-root stems) are treated here;
and 2) the systematic analysis is confined to the purely verbal categories
(the finite forms and the infinitive), while the comprehensive description
of the gerunds and the participles proper, as classes transitional to the
adverbs and to the adjectives, is left for a future study. However, the
same principles of classification would apply to all the verbs in all their
forms.

0.2. In our transcription of Russian grammatical forms, the prefix is
separated from the following morpheme by a plus (+), the stem from
the desinence by a dash (—), and within a desinence, its constituent
suffixes are divided from each other by a hyphen (-). The sign $\sim$ denotes
alternation.

Throughout this paper, all Russian verbs are shown phonemically in
italic type, whereas bare verbal components are in morphophonemic
transcription and roman type. The acute accent (′) on a bare affix
indicates that it is regularly stressed, the grave accent (`) signifies that the
affix never carries the stress, and the absence of accent mark means that
the affix in question may be either stressed or unstressed. As to the
acute accent and the absence of accent mark on bare stems, see 2.61-2.

FUNDAMENTAL NOTIONS

1.1 *Stem and desinence*. – Any Russian inflectional form comprehends a
stem and a *desinence*. The desinence may be *zero* (cf. 2.122).

1.2. *Components of the desinence.* – A desinence may consist of one or more suffixes.

According to their relative position suffixes are either *non-terminal*, which must be followed by another suffix, including zero suffix (cf. 2.111, 2.121), or *free*, which may occur in final position.

Desinences containing a non-terminal suffix are called *complex* desinences, as opposed to simple desinences.

1.21. *Consonantal and vocalic desinences.* The desinences are classified, according to their initial phoneme, as either *consonantal* or *non-consonantal*. The latter class includes, in addition to desinences beginning with (or consisting of) a vowel, one element consisting of zero in alternation with a vowel (cf. 2.122). For simplicity, the conventional term *vocalic desinences* instead of 'non-consonantal' will be used. This dichotomy is the pivotal principle of the Russian conjugational pattern.

1.3. *Stem alternations.* A Russian verbal stem may present alternating variants within one and the same paradigm.

The following alternations take place:

a) Omission of one or two final phonemes (cf. 2.21-3).
b) Concomitant change of that which precedes the omitted phoneme (cf. 2.24).
c) Mutation of the stem consonant before consonantal desinences (cf. 2.3).
d) Modification (softening) of the stem consonant before vocalic desinences (cf. 2.4–2.42).
e) Insertion of a vowel within the stem (cf. 2.5).
f) Removal of the stress from the stem to the desinence and vice versa (cf. 2.61-2) accompanied by automatic alternations[1] of stressed and unstressed vowels.

1.31. *Full-stem and truncated stem.* If one of the alternants differs from the other by the omission of its final phoneme, the shorter form is called *truncated stem* and the longer is termed *full-stem*.

1.32. *Basic form of the full stem.* In presenting and analysing full-stems, we use *morphophonemic* transcription. If certain phonemic constituents of the given full-stem as compared with cognate forms appear in different alternants, we take as basic[2] the alternant which appears in a position where the other alternant too would be admissible.

---

[1] See L. Bloomfield, *Language* 13.4. (New York, 1933).
[2] Cf. Bloomfield's stimulating remarks about the 'theoretical basic form' (or 'artificial underlying form'), *op. cit.*, 13.9.

E.g., in the alternation of the two forms – 1 Sg. Pres. *smatr'*—*ú* ~ 2 Sg. *smótr'*—*i-š* – the variant *o* is to be assigned to the full-stem smotr'e— 'look at' as the basic alternant because it alone occurs under stress, the only position where both the phonemes *o* and *a* are phonemically[3] permitted. In the alternations of Inf. *p'éč* ~ M. Sg. Preterit *p'ók* ~ F. Sg. Pret. *p'ik*—*l-á* (or 1 Sg. Pres. *p'ik*—*ú*), the basic vowel is to be looked for again in the stressed position. Furthermore, *o* is not admitted between two soft consonants of a stem, whereas both *o* and *e* occur between a soft and a hard consonant (cf. *p'ók* and *s'ék*, M. Sg. Pret. from s'ék— 'chop'); hence p'ok— 'bake' is the full-stem. In the alternation of M. Sg. Pret. *žók* (or Inf. *žé*—*č*) ~ F. Sg. Pret. *žg*—*l-á* (or 1 Sg. Pres. *žg*—*ú*), the zero-vowel is the basic alternant belonging to the full-stem *žg*— 'burn', because a stem may either contain or lack vowels only before syllabic desinences, such as —*l-a* or —*u*. As for the final consonant, it must be the voiced *g* which appears before vowels or before *l*, in which position the unvoiced *k* may also occur.

In the alternation 1 Sg. Pres. *p'ik*—*ú* ~ 2 Sg. *p'ič*—*ó-š*, the consonant *k* is the basic alternant, because before the suffix —u both *k* and *č* are morphophonemically[4] admissible (cf. *p'ik*—*ú* and *rič*—*ú* from ričá— 'roar'), whereas *k* does not occur before the suffix —*ó*-.

In the alternation M. Pret. *p'ók* ~ F. *p'ik*—*l-á* (or *v'ó*—*l* ~ *v'i*—*l-á* from v'od— 'conduct'), the basic form of the stem is the unaccented one, because the stress on the stem appears here only in the monosyllabic form where it is phonemically indispensable, whereas in F. Pret. both possibilities are given (*p'ik*—*l-á* and *str'íg*—*l-a* from str'íg— 'shear').

1.33. *Significance of full-stems.* – The truncation or the modification of a given full-stem completely depends upon the following desinence, just as the choice among alternating desinences is fully determined by the preceeding stem. Thus, given the full-stem, it is as a rule possible to predict the exact form of the whole conjugational paradigm in regard to the stem, the desinence, and also the place of the stress.

TYPES OF FULL-STEMS

1.4. *Stem Finals.* Full-stems end either in a nonsyllabic phoneme (consonant or semivowel *j*) or in a vowel. The former are called *closed* (cf. 2.22) and the latter *open full-stems* (cf. 2.21).

1.41. One type of closed full-stems appears intact only in such positions where open full-stems undergo truncation, while the other type remains intact under at least some of the same conditions as the open full-stems. The first sub-class may be termed *narrowly closed* and the other, *broadly closed* (cf. 2.221-222).

---

[3] According to Bloomfield's terminology, *automatically*, 13.4.
[4] According to Bloomfield's terminology, *grammatically*, 13.4.

1.42. Full-stems are called *soft* if their last consonant is soft[5] and *hard* if the last consonant is hard.

1.5. *Number of syllables.* Full-stems (as well as desinences) with a zero vowel are called *nonsyllabic*; all others are *syllabic* (cf. 2.5). The latter may be divided into *monosyllabic* and *polysyllabic* (cf. 2.42 and 62).

1.6. *Place of stress.* When, in the accentual alternation, the basic form of the stem is never stressed (cf. 1.32), or when the stress alternates between two different syllables of the stem in the finite forms, we label such full-stems *unaccented* as opposed to *accented full-stems* (cf. 2.62).

Accented full-stems are either stems with a *removable accent* which under certain conditions is moved from the stem to the desinence, or stems with an *irremovable accent* which is bound to the stem (cf. 2.61).

1.7. *Productivity.* Patterns of full-stems capable of building new verbs in present-day Standard Russian are called *productive* as opposed to the *unproductive* patterns (cf. 2.7).

GENERAL RULES

2.1. *Distribution of verbal desinences.* All the Preterit Finite forms and the Infinitive are built up on consonantal desinences, all the Present Finite forms and the Imperative on vocalic desinences.

The Present Gerund and both Participles (Active and Passive) likewise use vocalic desinences, while in the Preterit Gerund and Active Participle the desinences are consonantal. Only in the Preterit Passive Participle do consonantal and vocalic desinences alternate: when the full-stem is narrowly closed (cf. 2.221) or ends in a, o, u, r, the desinence is consonantal: —n[6] ∼ —t; otherwise it is vocalic: —ón ∼ —in.

2.11. CONSONANTAL DESINENCES.

2.111. *Preterit.* The non-terminal suffix —l- denoting the Preterit tense is followed by a suffix indicating the Gender or the Plural number – Masc. zero, Fem. -a, Neut. -o, Plur. -i. The suffix —l- before -i becomes —l'-, because the initial *i* (or a zero alternating with *i*) of any verbal suffix softens the preceding consonant (cf. 2.122). After such consonants which stay intact before the preterite desinence the suffix —l- drops if not followed by a vowel (*p'ók ∼ p'ik—l-á, n'ós ∼ n'is—l-á*).

2.112. *Infinitive.* —t' ∼ —t'i ∼ —č. The alternant —č is substituted

---

[5] To Russian 'soft' consonants phonemically there belong the palatalized (e.g. *t'*, *p'*, *r'*) and the 'palatal' (including prepalatal *č*, palato-alveolar *š*, *ž*, and the palatal semivowel *j*).
[6] When the full-stem ends in *a* or *uj*.

for —t' after a stem ending in a velar, which in this case is dropped (e.g., *p'é—č* 'bake' appears instead of *p'ék—t'*); **in verbs with unaccented stems** (see 2.62) **—t' when preceded by a consonant acquires an i** (e.g., n'is—t'í 'carry'); in all other positions there figures merely —t'.

2.12. VOCALIC DESINENCES.

2.121. *Present.* **The first (non-terminal) suffix, consisting of a single vowel, denotes the Present Tense; the second (free) suffix indicates either the Person and the Number (1 Sg. -u, 1 Pl. -m, 2 Sg. -š, 2 Pl. -t'i) or the Person only (3 Pers. -t). Before the vocalic suffix -u the non-terminal single-vowel suffix cannot occur** (likewise before the vocalic suffix -a or the Present Gerund; cf. 2.21). Elsewhere the first suffix regularly appears.

In the 3 Pl. (as well as in the Present Participle proper before its specific suffix -šč-) the first suffix is —u ∼ —á, and in all other Finite forms of the Present —i ∼ —ó. The difference in question assumes a functional value only in the third person forms where it serves to distinguish the numbers: 3 Sg. *p'j—ó-t*, 3 Pl. *p'j—ú-t*, from p'j— 'drink'. As mentioned, both doublets of this tense suffix (that of the 3 Pl. and that of the other Finite forms) are subject to alternations according to the accent.

If unstressed, the Present desinences begin with a high vowel (thus with —ù- for the 3 Pl., with —ì- for the other Finite forms).[7]

The stressed Present desinences begin with an unrounded vowel (thus with —á- and with —í-) **in soft open full-stems,**[8] **and with a rounded vowel otherwise** (thus with —ú- and with —ó-).

E.g. 3 Pl. *pláč—u-t*, 3 Sg. *pláč—i-t* from pláka— 'weep'; *úč—u-t*, *úč—i-t* from uči— 'teach'; *xran'—á-t*, *xran'—í-t* from xran'í— 'keep'; *v'is'—á-t*, *v'is'—í-t* from v'is'é— 'hang'; *mič—á-t*, *mič—í-t* from mičá— 'moo'; *taj—á-t*, *taj—í-t* from tají— 'conceal'; *talkn—ú-t*, *talkn'—ó-t* from talknú— 'give a push'; *rv—ú-t*, *rv'—ó-t* from rvá— 'tear'; *kuj—ú-t*, *kuj—ó-t* from ková— 'forge'; *griz—ú-t—*, *griz'—ó-t* from gríz— 'gnaw'.

2.122. *Imperative.* **The Imperative Sg. has zero alternating with —i when the preceding consonant is soft (cf. 2.111). The alternant —i occurs after two consonants or after a stem not having an irremovable accent** (2.61-2).

Examples without —i after single consonant and irremovable accent: trónu— 'touch', Imp. *trón'*; pláka— 'weep', *pláč*. Examples with —i after two consonants: kr'íknu— 'shout', *kr'íkn'—i*; jézd'i— 'drive, go', *jézd'—i*. Examples with —i after stems not having fixed accent: krád— 'steal', *krad'—i*, cf. 1 Sg.

---

[7] In unstressed, i.e. weak position, the suffix in question admits only high (diffuse), i.e. weakest vowels; hence this statement may be labeled 'the rule of intensity attraction'.

[8] Since the soft consonants are characterized by a sharpened acuteness, and since unrounded vowels versus rounded are acute versus grave, the formulated rule may be labeled 'the rule of acuteness attraction'.

Pres. *krad—ú*; s'id'é— 'sit', *s'id'—i*, cf. *s'iž— ú*; rub'i— 'cut', *rub'— i*, cf. *rubl'—ú* (so, too, the corresponding compound verbs with the prefix vɪ: *ví+krad'—i, ví+s'id'—i, ví · rub'—i*).

However, **the group j—i is admitted only if the full stem itself ends in ji—.**

E.g. tají— 'conceal', *taj—i*; poji— 'give to drink', *paj i*. But stojä— 'stand', – *stój*; p'j— 'drink', *p'éj*.

The Inclusive (hearer and speaker included) **has no special form but uses without pronoun the 1 Plur. from verbs of 'Perfective' or 'Determinate' Aspect.**[9]

Both Plural forms, Non-inclusive and Inclusive, add to the corresponding Sg. form the suffix of the 2 Plur. -t'i.

The peculiar sandhi laws (phonemic palatalization before palatalized consonants in such forms as *gráp'—t'i* 'rob', *sláf'— t'i* 'praise', *v'er'—t'i* 'believe') show distinctly that their desinence can be interpreted only as a zero suffix followed by the plural suffix -t'i. Cf. this zero suffix followed by the 'reflexive' suffix -sa in such forms as *znakóm'— sa* 'make the acquaintance', *vís'—sa* 'rise above', *zabót'—sa* 'take care', differing strikingly from the similar clusters *zabi— t-ca* 'forget oneself', *skr'ib'—ó-t-ca*, 3 Sg. Pres. from *skr'is— t'i-s* 'scratch'.[10]

2.21. *Open full-stems.* **Open full-stems remain intact before a consonantal desinence and lose their final phoneme before a vocalic desinence.** E.g. l'ožá— 'lie', F. Pret. *l'iža l-a* ∼ 3 Pl. Pres. *l'iž— á-t*; poro— 'rip', *paró—l-a* ∼ *pór'— u-t*; dv'inu— 'move', *dv'inu— l-a* ∼ *dv'in— u-t*; govor'i— 'say', *gavar'i—l-a* ∼ *gavar'— á-t*.

This rule is an implication of the more general law that any morpheme which ends in a vowel loses that vowel before a suffix beginning with a vowel (e.g., the Participial Preterit suffix -ši drops its vowel before a vocalic declensional suffix: -š-ij, -š-àja, -š-òvo, etc.).

2.22. *Closed full-stems.* – All closed full-stems remain intact before a vocalic desinence.

2.221. *Narrowly closed full-stems.* – **Full-stems in j v n m drop their terminal phoneme before a consonantal desinence.** They are the only stems which, while preserving the same number of syllables, are regularly closed before vocalic and open before consonantal desinences.

E.g. d'élaj— 'do', 3 Pl. Pres. *d'élaj—u-t* ∼ F. Pret. *d'éla—l-a*; stán— 'become', *stán—u-t* ∼ *stá—l-a*; živ— 'live', *živ—ú-t* ∼ *ži—l-á*.

---

⁹   That is, of any 'marked' (marqué, merkmalhaltig) aspect. Cf. R. Jakobson, "Signe zéro" (below, p. 211ff.).

¹⁰   See R. Jakobson, "Zur Struktur des russischen Verbums" (above pp. 3ff.).

2.222. *Broadly closed full-stems.* – All other closed full-stems (in k, g, t, d, s, z, b, r) stay intact both before vocalic desinences and before at least part of the consonantal desinences. **The terminal velars of closed full-stems are dropped only before the Infinitive desinence; the terminal dental stops only before the Preterit desinence;** full-stems in s z b r are never truncated.

E.g. p'ok— 'bake': M. Pret. *p'ók*, F. *p'ik—l-á* ~ Inf. —*p'é—č*; str'íg— 'shear': *str'ík*, *str'íg—l-a* ~ *str'í—č*; m'ot— 'sweep': *m'ó—l*, *m'i—l-á* ~ *m'is—t'í*; klád— 'put': *klá—l*, *klá—l-a* ~ *klás—t'*; n'os— 'carry': *n'ós*, *n'is—l-á*, *n'is—t'í*; v'oz— 'convey': *v'ós*, *v'iz—l-á*, *v'is—t'í*; t'r— 'rub': *t'ór*, *t'ór—l-a* (as to the Inf., see 3.1).

2.23. *Deeper truncation.* **If the stem-suffix -nu— does not denote momentariness and is preceded by a consonant, this suffix is omitted in Preterit forms.**

E.g. gásnu— 'be extinguished' ~ M. Sg. Pret. *gás*, F. *gás—l-a*; iščéznu— 'disappear' ~ *iščés*, *iščéz—l-a*.

Before j— the group vá, if preceded by a, is omitted in the Present, and the stress falls on the following syllable.

E.g. daváj— 'give': Imp. *daváj* ~ 1 Sg. Pres. *daj—ú*, 3 Pl. *daj—ú-t* ~ F. Pret. *davá—l-a*, Inf. *davá—t'*.

2.24. *Concomitant changes.* **Before dropped a— the group ov is regularly replaced by uj—; in a non-initial syllable the stress is transferred from á— to új—, otherwise to the following vowel** (but for the Imp. cf. 2.122).

E.g. s'étova— 'mourn' ~ 1 Sg. Pres. *s'étuj—u*, Imp. *s'étuj*; darová— 'grant' ~ *darúj—u*, *darúj*; ková— 'forge' ~ *kuj—ú*, *kúj*; pl'ová— 'spit' *pl'uj—ú*, *pl'új*.

Before the dropped j— the vowel o in monosyllabic stems and zero in nonsyllabic stems are replaced by i.

E.g. mój— 'wash' ~ F. Pret. *mí—l-a*; p'j— 'drink' ~ *p'i—l-á*.

Before the dropped nasal, zero in nonsyllabic stems is replaced by á.

E.g. žm— 'press' ~ F. Pret. *žá—l-a*; žn— 'reap' ~ F. Pret. *žá—l-a*.

2.3. *Convergence of final consonants in closed full-stems.* **All terminal dentals and labials of the broadly closed full-stems coalesce into s before the infinitive desinence.** It is the only consonant admitted in this position.

E.g. no's— 'carry' ~ Inf. *n'is—t'í*, gríz— 'gnaw' ~ *gris—t'*, m'ot— 'sweep' ~ *m'is—t'í*, v'od— 'conduct' ~ *v'is—t'í*, gr'ob— 'row' ~ *gr'is—t'í*.

2.4. *Softness and hardness of the last consonant.* An open full-stem can end in any of the five Russian vowel phonemes i, e, a, o, u, and they are

dropped before a vocalic desinence. The last consonant of an open full-stem is soft (palatal or palatalized) before i— and e—, hard before u— and ó—, hard or palatal (but never palatalized) before a—. Closed stems may end in j, otherwise only in hard consonants.

E.g. l'iši— 'deprive', v'er'i— 'believe', kiše— 'swarm', v'el'é— 'order'; gnú— 'bend', kolo— 'stab'; pr'ata— 'hide', žda— 'wait', stučá— 'knock'; znaj— 'know', tr'as— 'shake'.

2.41. *Soft full-stems.* **If the last consonant in the full-stem is soft, it preserves its softness through the whole paradigm, and only in 1 Sg. Pres. the softening is 'substitutive'** (as far as the given consonant admits it) Substitutive softening,[11] a familiar concept in Russian linguistics, consist. of a shift from a velar or dental to a palatal consonant (k or t — č, x s — š, g d z — ž, zg zd — žǯ, sk st — šč) or the addition of palatalized l' to any labial (p b f v m — pl' bl' fl' vl' ml').

E.g. m'et'i— 'mark'; 1 Sg. Pres. *m'eč— u*, 3 Pl. *m'et'— u-t*; msti— 'revenge oneself'; *mšč—ú, mst'—á-t*; s'id'e— 'sit'; *s'iž— ú, s'id'— á-t*; jézd'i— 'drive': *jéžǯ—u, jézd'— u-t*; v'is'é— 'hang'; *v'iš—ú, v'is'—á-t*; groz'i— 'menace': *graž—ú, graz'— á-t*; kup'i— 'buy': *kupl'— ú, kúp'—u-t*; l'ub'i— 'love': *l'ubl'—ú, l'úb'—u-t*; graf'i— 'draw lines': *grafl'— ú, graf'—á-t*; stáv'i— 'station': *stávl'—u, stáv'— u-t*; šum'é— 'make a noise': *šuml'— ú, šum'—á-t*.

2.42. *Hard full-stems.* **If the last consonant in the full-stem is hard, it becomes soft in the following cases only:**

A. **A consonant followed by a— or o— in a polysyllabic stem is softened before any vocalic desinence; the softening is 'substitutive'** (as far as the given consonant admits it).

E.g. pláka— 'weep': 1 Sg. Pres. *pláč— u*, 3 Sg. *pláč—i-t*, 3 Pl. *pláč—u-t*, Imp. *pláč*; skaka— 'jump': *skač— ú, skáč—i-t, skáč—u-t, skač—í*; iska— 'look for': *išč—ú, íšč—i-t, íšč—u-t*, Imp. *išč—í*; brízga— 'sprinkle': *brížǯ—u, brížǯ—i-t*, etc.; paxa— 'plow': *paš—ú, páš—i-t*, etc.; pr'ata— 'hide': *pr'áč—u, pr'áč—i-t*, etc.; gloda— 'gnaw' *glaž—ú, glóž—i-t*, etc.; p'isa— 'write': *p'iš—ú, p'íš—i-t*, etc.; máza— 'smear': *máž—u, máž—i-t*, etc.; sípa— 'scatter': *sipl'—u, sípl'—i-t*, etc.; ora— 'plow': *ar'—ú, ór'—i-t*, etc.; kolo— 'stab': *kal'—ú, kól'—i-t*, etc.

B. **Otherwise, the consonant undergoes a 'bare' softening before any vocalic desinence which does not begin with —u; the velars, however,**

---

[11] If a hard consonant becomes merely palatalized without other changes in its character, students of Russian call it 'neperexodnoe smjagčenie' *(bare softening)*, while a concomitant change in the basic place of articulation (shift from velar or dental to palatal) or a change of one phoneme into a cluster (epenthesis of a palatalized consonant) is labeled 'perexodnoe smjagčenie' *(substitutive softening)*. The following sets are found: k (k') č, sk (sk') šč, tk tk' —, g (g') ž, zg (zg') žǯ, x (x') š, t t' č, st st' šč, d d' ž, zd zd' žǯ, s s' š z z' ž, p p' pl', b b' bl', f f' fl', v v' vl', m m' ml', n n' —, r r' —, l l' —.

undergo 'bare' softening only before Imperative desinences and 'substitutive' softening elsewhere.

E.g. monosyllabic full-stems in a—: žda— 'wait': *žd—ú, žd'—ó-t, žd—ú-t, žd'—í*, etc.; rva— 'tear': *rv—ú, rv'—ó-t, rv—ú-t, rv'—í*, etc.; lga— 'lie': *lg—ú, lž—ó-t, lg—ú-t, lg'—í*, etc. Full-stems in u—: tonu— 'drown': *tan—ú, tón'—i-t, tón—u-t, tan'—í*, etc. Closed full-stems: pas— 'tend': *pas—ú, pas'—ó-t, pas—ú-t, pas'—í*, etc.; p'ok— 'bake': *p'ik—ú, p'ič—ó-t, p'ik—ú-t, p'ik'—í*, etc.; b'er'og— 'spare': *b'ir'ig—ú, b'ir' iž—ó-t, b'ir'ig—ú-t, b'ir'ig'—í*, etc.

2.5. *Inserted vowels.* – A vowel is inserted within a nonsyllabic full-stem before a nonsyllabic desinence and, if the stem ends in r, before any consonantal desinence. The inserted vowel is é in the Infinitive, ó elsewhere.

E.g. žg— 'burn': M. Pret. *žók*, F. *žg—l-á* Inf. *žé—č*; t'r— 'rub': *t'ór, t'ór—l-a·*

2.61. *Full-stems with removable and irremovable accent.* In all Finite forms and in the Infinitive the stress falls on the same syllable of the accented full-stem, with the limitation that in open and broadly closed full-stems the stress moves from their final or only syllable to the first or only syllable of the vocalic desinence.

In our transcription of full-stems the acute accent marks the syllable which in Finite forms is the only accentable one.

E.g. sáxar'i— 'sugar': 1 Sg. Pres. *sáxar'—u*, 3 Pl. *sáxar'—u-t*, M, Pret. *sáxar'i—l*, F. *sáxar'i—l-a*, Pl. *sáxar'i—l'-i*; carápnu— 'scratch': *carápn—u, carápn—u-t, carápnu—l, carápnu—l-a, carápnu—l'-i*; v'el'é— 'order': *v'il'—ú, v'il'—á-t, v'il'é—l, v'il'é—l-a, v'il'é—l'-i*; krád— 'steal'— *krad—ú, krad—ú-t, krá—l, krá—l-a, krá—l'-i*; str'íg— 'shear': *str'ig—ú, str'iž—ó-š, str'ík, str'íg—l-a, str'íg—l'-i*; but on the final (or only) syllable of narrowly closed stems the stress remains irremovable: rugáj— 'scold': *rugáj—u, rugáj—u-t, rugá—l, rugá—l-a, rugá—l'-i*; d'én— 'put'— *d'én—u, d'én—u-t, d'é—l, d'é—l-a, d'é—l'-i*.

2.62. *Unaccented full-stems.* – This type presents two varieties: A) verbs with open polysyllabic full-stems stress either the simple desinence or the preceding vowel if the desinence is complex (cf. 1.2); B) the other verbs stress their last (or only) accentable syllable, with the limitation that all but the narrowly closed full-stems draw the stress back from the Neut. and Plur. Preterit desinences (cf. 1.32).

In our morphophonemic transcription the absence of an acute accent denotes an unaccented full-stem.

E.g. 1) open polysyllabic full-stems: xoxota— 'guffaw': Imp. *xaxač—í*, 1 Sg. Pres. *xaxač—ú* ~ 2 Sg. *xaxóč—i-š*, 3 Pl. *xaxóč—u-t*, and M. Pret. *xaxatá—l*, F. *xaxatá—l-a*, Pl. *xaxatá—l'-i*; var'i— 'cook': *var'—í, var'—ú, vár'—i-š, vár'—u-t, var'i—l, var'i—l-a, var'i—l'-i*; 2) open monosyllabic full-stems: žda—

'wait': *žd'—i, žd—ú, žd'—ó-š, žd—ü-t, ždá -l*, F. *žda -l-á*, Neut. *ždá l-a*, Pl. *ždá—l'-i*; narrowly closed stems: pliv 'swim': *pliv—i, pliv—u, pliv' ó-š, pliv—ú-t, plí—l*, F. *pli l-á*, but N. *pli l-a*, Pl. *pli l'-i*; kl'an 'curse': *kl'in'—i, kl'in—ú, kl'in ó-š, kl'in ü-t, kl'a l, kl'i—l-á*, but *kl'á l-a, kl'á—l'-i*; l'j— 'pour': *l'éj* (cf. 2.122), *l'j ü, l'j ó-š, l'j ü-t, l'i—l, l'i l-á*, but *l'i—l-a, l'i—l'-i*; broadly closed stems: tr'as 'shake': *tr'is' i, tr'is—ú, tr'is'—ó-š, tr'is—ü-t, tr'ás, tr'is l-á, tr'is l-ó, tr'is l'-i*, Inf. *tr'is—t'i*; v'od 'conduct': *v'id'—i, v'id ü, v'id' ó-š, v'id u-t, v'ó l, v'i l-á, v'i l-ó, v'i—l'-i, v'is—t'i*; b'er'og 'spare': *b'ir'ig' t, b'ir'ig u, b'ir'iž ó-š, b'ir'ig—ú-t, b'ir'ók, b'ir'ig l-á, b'ir'ig l-ó, b'ir'ig l'-t, b'ir'é é* (cf. 2.111).

2.7. *Productivity.* Productive (cf. 1.7) are all existing verbal types with a polysyllabic accented full-stem, when it ends in a high vowel (i, u) or when the prevocalic alternant of the stem ends in a 'mobile' j (cf. 2.221 and 2.24).

E.g. xaltúr'i 'turn out potboilers', buz'i 'make a racket'; bl'ofnú 'bluff'; šámaj 'eat': 3 Pl. Pres. *šámaj u-t ~* F. Pret. *šáma l-a*; v'igžel'aj 'waver': *v'igžil'áj u-t ~ v'igžil'a l-a*; xant'ej 'become caddish': *xant'éj u-t ~ xant'é l-a*; tr'est'irova 'combine into a trust': *tr'ist'iruj u-t ~ tr'ist'irava l-a*; m'it'ingova 'assemble': *m'it'ingúj u m'it'ingava l-a*.

2.8. *Conclusions.* The rules formulated above and printed in boldface enable the student glancing over a bare inventory of full-stems to deduce their whole conjugational pattern with all the pertinent alternations in stem, desinence, and accent. If these few introductory rules are added, then a dictionary listing verbs only as full-stems would suffice to supply the reader with a complete knowledge of their inflection; and these rules could be presented in a popular form for teaching purposes. If the full-stem is not listed, two verbal forms are needed to set it up in its basic shape – F. Pret. and some of the Pres. forms except I Sg. (the most practical for this operation is 3 Pl.). Some few additional elementary rules would be necessary to master the spelling. And finally, a small number of 'unpredictable' irregularities have to be specially learned.

EXCEPTIONS

3.1. *Single deviating forms.*

xot'é— 'want', 2 and 3 Sg. Pres. *xóč—i-š, xóč—i-t* (instead of the expected *xat'—i-š, xat'—i-t*).

b'ežá— 'run', 1 Sg. Pres. *b'ig—ú*, 3 Pl. *b'ig—ú-t*, Imp. *b'ig'—i* (instead of *b'iž—ú*, etc.).

kl'an— 'curse', Inf. *kl'ás—t'* (instead of *kl'á—t'*).

id— 'go', Inf. *i—t'i* (instead of *is—t'i*; the Preterit forms are suppletive).

m'r— 'die', p'r— 'push', t'r— 'rub', Inf. *m'ir'é—t'*, *p'ir'é—t'*, *t'ir'é—t'* (instead of *m'ér—t'*, *p'ér—t'*, *t'ér—t'*).[12]

sípa— 'scatter', krápa— 'trickle': Imp. *síp'*, *kráp'* (instead of *sípl'—i*, *krápl' —i*).

3.2. *Discrepancy between the prevocalic and the preconsonantal stem-shape.*

The expected consonantal alternation does not take place in four verbs: ará— 'shout' ~ 3 Pl. Pres. *ar—ú-t*; sosá— 'suck' *sas—ú-t*; stona— 'groan' ~ *stón—u-t*; žážda— 'thirst' ~ *žažd—u-t*.

The distribution of hard and soft consonants (cf. 2.41-2) and of rounded and unrounded Present suffixes (cf. 2.12) deviates from the pattern in four verbs: spa— 'sleep' ~ *sp'—á-t*; r'ov'é— 'roar' ~ *r'iv—ú-t*; sm'ejá— 'laugh' ~ *sm'ij—ú-t-ca*; ržá— 'neigh' ~ *rž—ú-t*.

In four verbs the 'substitutive softening' of t gives šč in place of the regular č: kl'ev'eta— 'calumniate' ~ *kl'iv'éšč—u-t*; ropta— 'grumble' ~ *rópšč—u-t*; skr'ežeta— 'grit' ~ *skr'ižéšč—u-t*; tr'ep'eta— 'palpitate' ~ *tr'ip'éšč—u-t*.

Two verbs present a quite irregular interchange of consonants: slá— 'send' ~ *šl'—ú-t*; jéxa— 'drive, go' ~ *jéd—u-t*.

Irregular vowel alternation takes place in three verbs: molo— 'grind' ~ *m'él'—u-t*; poj— 'sing' ~ F. Pret. *p'é—l-a*; br'éj— 'shave' ~ *br'í—l-a*.

Irregular alternation 'vowel ~ zero' appears in four verbs: zva— 'call' ~ *zav—ú-t*; bra— 'take' *b'ir—ú-t*; dra— 'tear' ~ *d'ir—ú-t*; tolok— 'pound' ~ *talk—ú-t*.

Four verbs do not follow the usual stress pattern: rod'í— 'bear' ~ F. Pret. *rad'í—l'á*, N. *rad'í—l-a*, Pl. *rad'í—l'-i* (Perfective Aspect); pr'ad— 'spin' ~ *pr'í—l-á*, *pr'á—l-a*, *pr'á—l'-i* (cf. 2.62); l'éz— 'climb' ~ 3 Pl. Pres. *l'éz—u-t* (cf. 2.61); dn'ová— 'spend the day' ~ *dn'új—u-t* (cf. 2.24).

Five verbs present a multiple discrepancy between the prevocalic and the preconsonantal stem-shape: 3 Pl. Pres. *gón'—u-t* ~ F. Pret. *gna—l-á* 'drive'; st'él'—u-t ~ *stla—l-á* 'spread' (beside the regular *st'il'í—l-a*); *l'ág—u-t* ~ *l'íg—l-á* 'lie down'; *s`ád—u-t* ~ *s'é—l-a* 'sit down'; *búd—u-t* ~ *bi—l-á* 'be'.

3.3. *Anomalous verbs.* Two verbs—jés—t' 'eat' and dá—t' 'give'— have anomalous paradigms in Present and Imperative: *jé—m*, *jé—š*, *jés—t*, *jid'—í-m*, *jid'—í-t'i*, *jid'—á-t*, Imp. *jé—š*; *dá—m*, *dá—š*, *das—t*, *dad'—í-m*, *dad'—í-t'i*, *dad'—ú-t*, *dáj*.

Written in Hunter, NY, fall 1948, and printed in *Word*, IV (1948).

12 The prefixed verb with closed full-stem (u)+šíb— 'bruise' forms the Infinitive from an open full-stem (u)+šib'í—.

SHIFTERS, VERBAL CATEGORIES, AND
THE RUSSIAN VERB

1. SHIFTERS AND OTHER DUPLEX STRUCTURES

1.1   A message sent by its addresser must be adequately perceived by its receiver. Any message is encoded by its sender and is to be decoded by its addressee. The more closely the addressee approximates the code used by the addresser, the higher is the amount of information obtained. Both the message (M) and the underlying code (C) are vehicles of linguistic communication, but both of them function in a duplex manner; they may at once be utilized and referred to (= pointed at). Thus a message may refer to the code or to another message, and on the other hand, the general meaning of a code unit may imply a reference (*renvoi*) to the code or to the message. Accordingly four DUPLEX types must be distinguished; 1) two kinds of CIRCULARITY – message referring to message (M/M) and code referring to code (C/C); 2) two kinds of OVERLAPPING – message referring to code (M/C) and code referring to message (C/M).

1.2   M/M) "REPORTED SPEECH is speech within speech, a message within a message and at the same time it is also speech about speech, a message about a message," as Vološinov formulates it in his study of this crucial linguistic and stylistic problem. Such "relayed" or "displaced" speech, to use Bloomfield's terms, may prevail in our discourse, since we are far from confining our speech to events sensed in the present by the speaker himself. We quote others and our own former utterances, and we are even prone to present some of our current experiences in the form of self-quotation. for instance by confronting them with statements by someone else: "Ye have heard that it hath been said*** But I say unto you***" There is a multiplex scale of linguistic processes for quoted and quasi-quoted speech; *oratio recta*, *obliqua*, and various forms of "represented discourse" (*style indirect libre*). Certain languages, as for instance Bulgarian (s. Andrejčin). Kwakiutl (s. Boas), and Hopi (s.

Whorf), use particular morphological devices to denote events known to the speaker only from the testimony of others. Thus in Tunica all statements made from hearsay (and this covers the majority of sentences in the texts aside from those in direct discourse) are indicated by the presence of /-áni/, a quotative postfix used with a predicative word (Haas).

1.3   C/C) PROPER NAMES, treated in Gardiner's "controversial essay" as a very knotty problem of linguistic theory, take a particular place in our linguistic code: the general meaning of a proper name cannot be defined without a reference to the code. In the code of English, "Jerry" means a person named Jerry. The circularity is obvious: the name means anyone to whom this name is assigned. The appellative *pup* means a young dog, *mongrel* means a dog of mixed breed, *hound* is a dog used in hunting, while *Fido* means nothing more than a dog whose name is *Fido*. The general meaning of such words as *pup, mongrel*, or *hound*, could be indicated by abstractions like puppihood, mongrelness, or houndness, but the general meaning of *Fido* cannot be qualified in this way. To paraphrase Bertrand Russell, there are many dogs called *Fido*, but they do not share any property of "Fidoness". Also the indefinite pronoun corresponding to names such as Jean, Jan, Joan, June, etc. – the "what's-her-name" or "what-do-you-call-her" or "how-d'ye-call-her" – includes a patent reference to the code.

1.4   M/C) A message referring to the code is in logic termed an AUTO-NYMOUS mode of speech. When we say, *The pup is a winsome animal* or *The pup is whimpering*, the word *pup* designates a young dog, whereas in such sentences as *"Pup" is a noun which means a young dog*, or more briefly, *"Pup" means a young dog* or *"Pup" is a monosyllable*, the word *pup* – one may state with Carnap – is used as its own designation. Any elucidating interpretation of words and sentences – whether intralingual (circumlocutions, synonyms) or interlingual (translation) – is a message referring to the code. Such a hypostasis – as Bloomfield pointed out – "is closely related to quotation, the repetition of speech", and it plays a vital role in the acquisition and use of language.

1.5   C/M) Any linguistic code contains a particular class of grammatical units which Jespersen labeled SHIFTERS: the general meaning of a shifter cannot be defined without a reference to the message.

Their semiotic nature was discussed by Burks in his study on Peirces' classification of signs into symbols, indices, and icons. According to

Peirce, a symbol (e.g. the English word *red*) is associated with the represented object by a conventional rule, while an index (e.g. the act of pointing) is in existential relation with the object it represents. Shifters combine both functions and belong therefore to the class of INDEXICAL SYMBOLS. As a striking example Burks cites the personal pronoun. *I* means the person uttering *I*. Thus on one hand, the sign *I* cannot represent its object without being associated with the latter "by a conventional rule", and in different codes the same meaning is assigned to different sequences such as *I, ego, ich, ja* etc.: consequently *I* is a symbol. On the other hand, the sign *I* cannot represent its object without "being in existential relation" with this object: the word *I* designating the utterer is existentially related to his utterance, and hence functions as an index (cf. Benveniste).

The peculiarity of the personal pronoun and other shifters was often believed to consist in the lack of a single, constant, general meaning. Husserl: "Das Wort 'ich' nennt von Fall zu Fall eine andere Person, und es tut dies mittels immer neuer Bedeutung." For this alleged multiplicity of contextual meanings, shifters in contradistinction to symbols were treated as mere indices (Bühler). Every shifter, however, possesses its own general meaning. Thus *I* means the addresser (and *you*, the addressee) of the message to which it belongs. For Bertrand Russell, shifters, or in his terms "egocentric particulars", are defined by the fact that they never apply to more than one thing at a time. This, however, is common to all the syncategorematic terms. E.g. the conjunction *but* each time expresses an adversative relation between two stated concepts and not the generic idea of contrariety. In fact, shifters are distinguished from all other constituents of the linguistic code solely by their compulsory reference to the given message.

The indexical symbols, and in particular the personal pronouns, which the Humboldtian tradition conceives as the most elementary and primitive stratum of language, are, on the contrary, a complex category where code and message overlap. Therefore pronouns belong to the late acquisitions in child language and to the early losses in aphasia. If we observe that even linguistic scientists had difficulties in defining the general meaning of the term *I* (or *you*), which signifies the same intermittent function of different subjects, it is quite obvious that the child who has learned to identify himself with his proper name will not easily become accustomed to such alienable terms as the personal pronouns: he may be afraid of speaking of himself in the first person while being called *you* by his interlocutors. Sometimes he attempts to redistribute

these appellations. For instance, he tries to monopolize the first person pronoun: "Don't dare call yourself I. Only I am I, and you are only you." Or he uses indiscriminately either *I* or *you* both for the addresser and the addressee so that this pronoun means any participant of the given dialogue. Or finally *I* is so rigorously substituted by the child for his proper name that he readily names any person of his surroundings but stubbornly refuses to utter his own name: the name has for its little bearer only a vocative meaning, opposed to the nominative function of *I*. This attitude may persevere as an infantile survival. Thus Guy de Maupassant confessed that his name sounded quite strange to him when pronounced by himself. The refusal to utter one's own name may become a social custom. Zelenin notes that in the Samoyede society the name was taboo for its carrier.

1.6   *Jim told me "flicks" means "movies"*. This brief utterance includes all four types of duplex structures: reported speech (M/M), the autonymous form of speech (M/C), a proper name (C/C), and shifters (C/M), namely the first person pronoun and the preterit, signaling an event prior to the delivery of the message. In language and in the use of language, duplicity plays a cardinal role. In particular, the classification of grammatical, and especially verbal, categories requires a consistent discrimination of shifters.

2.   ATTEMPT TO CLASSIFY VERBAL CATEGORIES

2.1   In order to classify the verbal categories two basic distinctions are to be observed:

1) speech itself (^{s}), and its topic, the narrated matter (^{n});

2) the event itself (E), and any of its participants (P), whether "performer" or "undergoer".

Consequently four items are to be distinguished: a narrated event (E^n), a speech event (E^s), a participant of the narrated event (P^n), and a participant of the speech event (P^s), whether addresser or addressee.

2.11   Any verb is concerned with a narrated event. Verbal categories may be subdivided into those which do and those which do not involve the participants of the event. Categories involving the participants may characterize either the participants themselves (P^n) or their relation to the narrated event ($P^n E^n$). Categories abstracting from the participants

characterize either the narrated event itself (E^n) or its relation to another narrated event (E^nE^n). For categories characterizing only one narrated item – either the event (E^n) itself or its participants (P^n) themselves – the term DESIGNATORS will be used, while those categories which characterize a narrated item (E^n or P^n) with respect to another narrated item (E^nE^n or P^nE^n) will be termed CONNECTORS.

Designators indicate either the quality or the quantity of the narrated item and may be termed QUALIFIERS and QUANTIFIERS respectively.

Both designators and connectors may characterize the narrated event (*procès de l'énoncé*) and/or its participants either without or with reference to the speech event (*procès de l'énonciation*) ($../E^s$) or its participants ($../P^s$). Categories implying such a reference are to be termed SHIFTERS; those without such a reference are NON-SHIFTERS.

With regard to these basic dichotomies any generic verbal category can be defined.

2.2 P^n) Among categories involving the participants of the narrated event, GENDER and NUMBER characterize the participants themselves without reference to the speech event – gender qualifies, and number quantifies the participants. E.g. in Algonquian, verbal forms indicate whether the performer on the one hand, and the undergoer on the other, are animate or inanimate (Bloomfield, 1946); and the singleness, duality, or multiplicity of performers as well as undergoers is expressed in Koryak conjugation (Bogoraz).

2.21 P^n/P^s) PERSON characterizes the participants of the narrated event with reference to the participants of the speech event. Thus first person signals the identity of a participant of the narrated event with the performer of the speech event, and the second person, the identity with the actual or potential undergoer of the speech event.

2.3 E^n) STATUS and ASPECT characterize the narrated event itself without involving its participants and without reference to the speech event. Status (in Whorf's terminology) defines the logical quality of the event. E.g. in Gilyak, the affirmative, presumptive, negative, interrogative, and negative-interrogative statuses are expressed by special verbal forms (Krejnovič). In English the assertive status uses the "do"-combinations which in certain conditions are optional for an affirmative assertion but compulsory for a negative or questioned assertion. On aspects which quantify the narrated event see examples in 3.3.

2.31 $E^n E^s$) TENSE characterizes the narrated event with reference to the speech event. Thus the preterit informs us that the narrated event is anterior to the speech event.

2.4 $P^n E^n$) VOICE characterizes the relation between the narrated event and its participants without reference to the speech event or to the speaker.

2.41 $P^n E^n / P^s$) MOOD characterizes the relation between the narrated event and its participants with reference to the participants of the speech event: in Vinogradov's formulation, this category "reflects the speaker's view of the character of the connection between the action and the actor or the goal".

2.5 $E^n E^n$) There is no standardized name for this category; such labels as "relative tense" cover only one of its varieties. Bloomfield's (1946) term "order" or rather its Greek model "taxis" seems to be the most appropriate. TAXIS characterizes the narrated event in relation to another narrated event and without reference to the speech event, thus Gilyak distinguishes three kinds of independent taxis – one requires, one admits, and one excludes a dependent taxis, and the dependent taxes express various relationships with the independent verb – simultaneity, anteriority, interruption, concessive connection, etc. A similar Hopi pattern is described by Whorf.

2.51 $E^n E^{ns} / E^s$) EVIDENTIAL is a tentative label for the verbal category which takes into account three events – a narrated event, a speech event, and a narrated speech event (E^{ns}), namely the alleged source of information about the narrated event. The speaker reports an event on the basis of someone else's report (quotative, i.e. hearsay evidence), of a dream (revelative evidence), of a guess (presumptive evidence) or of his own previous experience (memory evidence). Bulgarian conjugation distinguishes two semantically opposite sets of forms: "direct narration" ($E^{ns} = E^s$) *vs.* "indirect narration" ($E^{ns} \neq E^s$). To our question, what happened to the steamer Evdokija, a Bulgarian first answered: *zaminala* "it is claimed to have sailed", and then added: *zamina* "I bear witness; it sailed." (Cf. H. G. Lunt on the systematic distinction made in the Macedonian verbal pattern between "vouched for" and "distanced" events.}

2.6   The interrelation of all these generic categories may be illustrated by the following over-all scheme:

	P involved		P not involved	
	Designator	*Connector*	*Designator*	*Connector*
Qualifier:	Gender		Status	
Quantifier:	Number		Aspect	
		Voice		Taxis
Shifter:	Person		Tense	
Shifter:		Mood		Evidential

With special regard to the opposition shifters *vs.* non-shifters, we condense this model into a simpler table:

	P involved		P not involved	
	Designator	*Connector*	*Designator*	*Connector*
Non-shifter:	P^n	P^nE^n	E^n	E^nE^n
Shifter:	P^n/P^s	$P^nE^n\ P^s$	$E^n\ E^s$	E^nE^{ns}/E^s

3. THE GRAMMATICAL CONCEPTS OF THE RUSSIAN VERB

3.1 Let us list and classify the grammatical concepts expressed by the Russian verbal forms. This list amends and complements our studies of 1932 and 1939. As was pointed out in these papers, one of two mutually opposite grammatical categories is "marked" while the other is "unmarked". The general meaning of a marked category states the presence of a certain (whether positive or negative) property A; the general meaning of the corresponding unmarked category states nothing about the presence of A, and is used chiefly, but not exclusively, to indicate the absence of A. The unmarked term is always the negative of the marked term, but on the level of general meaning the opposition of the two contradictories may be interpreted as "statements of A" *vs.* "no statement of A", whereas on the level of "narrowed", nuclear meanings, we encounter the opposition "statement of A" *vs.* "statement of non-A".

When referring to a pair of opposite grammatical categories, we always qualify them as "marked *vs.* unmarked" in that order. Likewise, in referring to classes, first the designators and then the connectors are mentioned. Within each of these classes, categories involving P are listed before categories confined to E. Finally it is appropriate to treat the shifters before the corresponding non-shifters.

All verbal categories are dealt with except participles, a hybrid class which grammatically pertains both to the verb and to the adjective.

3.2 PERSON: a) personal (signaling that $P^n = P^s$) *vs.* impersonal; b) within personal: first person (signaling the addresser) *vs.* second person (signaling any imaginable P^s and more narrowly the addressee); c) within 2nd person: inclusive (signaling the participation of the addresser) *vs.* exclusive (without such an indication). Imperative and hortative use this distinction: cf. *otdoxnem* and *otdoxni*, *otdoxnemte* and *otdoxnite*.

3.21 GENDER: a) subjective (signaling the presence of P^n) *vs.* neuter; b) within subjective: feminine (signaling that P^n is not male) *vs.* masculine (which does not specify sex): *Vošel staršij vrač, ženščina let soroka.*
   NUMBER: plural (signaling the plurality of P^n) *vs.* singular.

3.3 TENSE: preterit *vs.* present.

3.31 STATUS is expressed in Russian on a syntactical, but not on a morphological level: cf. *Ne on... Ne pojdet... On li? ... Pojdet li?*
   ASPECT: a) perfective (concerned with the absolute completion of E^n) *vs.* imperfective (noncommittal with respect to completion or noncompletion): cf. impf. *pet'* 'to sing' and pf. *spet'* 'to complete singing'; impf. *dopevat'* 'to be in the final stage of singing' and pf. *dopet'* 'to complete the final stage of singing'; impf. *zapevat'* 'to be in the initial stage of singing' and pf. *zapet'* 'to complete the initial stage of singing'. The preterit signals that of two events, E^n precedes E^s, while the present implies no sequence; consequently a perfective verb in the preterit cannot be used for a reiterated completion, since only the last completion in the temporal sequence is expressed by the perfective aspect: *Inogda on pogovarival* (impf.) *o reformax* (the pf. *pogovoril* could not be used); *To vystrel razdavalsja* (impf.), *to slyšalis' kriki* (perfective preterits *razdalsja, poslyšalis'* could not be substituted for these imperfective forms). Only if the repetitive event is summed up and its final completion is stated, the perfective preterit may be used: *Za vse èti dni on ponagovoril o reformax.* In the present, where no temporal sequence is grammatically involved, each completion is absolute, and the perfective is used: *Inogda on pogovorit o reformax; To vystrel razdastsja, to kriki poslyšatsja.* The perfective preterit signals the temporal antecedence of E^n (in relation to E^s) and its completion. The perfective present does not indicate whether E^n precedes E^s or not, and when used in its narrowed,

nuclear meaning, it intimates that E^n does not precede E^s, and thus its envisaged completion is posterior to E^s: futurity is the most usual meaning of the perfective present, e.g. *Oni zakričat* 'They are expected to raise a cry'.

b) within imperfective: determinate (signaling the integrity, unbrokenness of E^n) *vs.* indeterminate, e.g. *exat' – ezdit'*.

c) within imperfective and indeterminate: iterative (signaling a formerly reiterated or habitual and later irrevocable E^n) *vs.* non-iterative: *On pljasyval* 'He used to dance but later ceased to' – *On pljasal* 'He danced'.

d) within imperfective: inceptive (signaling the inception of E^n) *vs.* non-inceptive.

e) within inceptive: perfectivized ("future") *vs.* non-perfectivized. Both varieties of the inceptive are expressed by periphrastic forms combining the infinitive of an imperfective verb with the present forms of the auxiliary verb "to be". The non-perfectivized inceptive uses the imperfective form of the auxiliary verb, while the perfectivized inceptive resorts to the corresponding perfective forms. The imperfective present form is expressed by a zero form ($\neq$), opposed to the imperfective preterit *byl* etc. on the one hand, and to the perfective present *budu* etc. on the other hand. The non-perfectivized inceptive simply states the act of starting: *Oni kričat'* 'they are about to cry'; the perfectivized inceptive anticipates the completion of the starting act: *Oni budut kričat'* 'they are expected to cry'. The relation between these two forms is similar to the usual relation between *Oni kričat* and *Oni zakričat*. [It has been objected that such forms as *Oni kričat'* are mere elliptical constructions ($=$ *Oni stali* or *načali kričat'*) allegedly confined to the terminal position in a sentence and to infinitives rendering an exterior, palpable action. The belief that a finite verb is omitted in such expressions has long ago been correctly discarded by Šaxmatov, and vainly would one endeavor to replace the zero form of the auxiliary verb "to be" by some preterits in proverbs like *Ljudi molotit'*, *a on zamki kolotit'* 'People are about to thresh, while he is about to break locks'. Neither the restrictive references to "a final position" and to "a concrete action", nor the old attempts to call in question the use of the second person in this type of constructions take into account such current turns of speech as *Ty filosofstvovat'*, *da vsë bez tolku* 'You are about to philosophize, yet still it makes no sense at all'.]

3.4 MOOD: a) conditional (signaling events which could happen in the speaker's view without having actually happened) *vs.* indicative.

Cf. *Žil by on na vole, ne znal by pečali* 'If he lived in freedom, he would

know no sorrow' and *Žil on na vole, ne znal pečali* 'He lived in freedom and knew no sorrow'; *Žit' by emu na vole, ne znat' by pečali* 'If he could live in freedom, he would know no sorrow' and *Žit' emu na vole, ne znat' pečali* 'May he live in freedom and know no sorrow'; *Žit' by emu na vole!* 'May he live in freedom!'

b) injunctive (signaling the E^n as imposed upon the participant) *vs.* indicative.

There are two basic varieties of the injunctive: either it figures as a pure appeal (address-form) or it is transposed into a declarative statement.

Two appeal forms of the injunctive are to be distinguished: hortative (signaling a participation in the E^n) *vs.* imperative. The latter calls for a participation in the E^n, while the former adds a coaxing note. The perfective and determinate verbs express these categories by univerbal forms while the other verbs use periphrastic forms to indicate the inclusive person. E.g. in the hortative, the perfective verb *napisat'* and the corresponding imperfective *pisat'* present the paradigm: addresser *napišu-ka, budu-ka pisat'*, addressee *napiši-ka, piši-ka*, addressees *napišite-ka, pišite-ka*, addresser-addressee *napišem-ka, budem-ka pisat'*, (attenuated appeal: *davaj-ka pisat'*), addresser-addressees, *napišemte-ka, budemte-ka pisat'* (attenuated *davajte-ka pisat'*). The imperative offers the same paradigm as the hortative, but without the particle *ka* and without the exclusive addresser form (1Sg.): in the imperative the addressee is always involved whether in singular or in plural and whether with or without addresser's participation, whereas the hortative involves the addressee and/or the addresser. Only the hortative of the determinate verbs lacks the 1Sg. form.

The declarative form of the injunctive contains no distinctions of grammatical person or number and syntactically may be applied to each of the so-called "three persons" in both numbers. When used in a conditional clause, it means a counterfactual assumption of the speaker: *Pobegi* (or *begi*) *on, emu by ne sdobrovat'* 'Had he set out running (had he run), it would have turned out badly for him'. In an independent clause this form of imperfective verbs means a compulsion upon the P^n assumed by the P^s: *Vse otdyxajut, a on begi* 'Everybody is resting, while he has to run'. The corresponding perfective form means an action performed by P^n but so surprising for P^s that it seems counterfactual: *Vse otdyxajut, a on (ni s togo, ni s sego) pobegi* 'Everybody is resting, while he (all of a sudden) sets off running'. When such a narrative injunctive is built from imperfective verbs, it resorts to a periphrastic imperative form: *Vse otdyxajut, a on (ni s togo, ni s sego) davaj bežat'*

'Everyone is resting, while he (all of a sudden) is running'. Thus the narrative injunctive of a perfective verb uses its imperative addressee form ("2Sg."), while the narrative injunctive of an imperfective verb uses the imperative addressee form of the auxiliary verb *davaj*. Only the imperfective verbs when used in independent clauses express the difference between the two varieties of a declarative injunctive: assumptive *begi*; and narrative *davaj bežat'*.

3.41   VOICE: reflexive *vs.* non-reflexive. In contradistinction to the latter, the "reflexive" restricts the participation in the narrated event. The non-reflexive verb corresponding to the reflexive verb may syntactically be transitive or intransitive. The transitive admits two primary P^n – a subject and a direct object, and the reflexive form excludes the second of them. Cf. *Sonja myla posudu* 'S. washed the dishes' and *Sonja mylas'* 'S. washed herself' or *Posuda mylas'* 'The dishes were washed'. The grammatical subject is the only primary participant admitted by the intransitive verb. As a rule, the corresponding reflexive form excludes the subject and is used only in impersonal constructions (cf. *Ja tjaželo dyšu* 'I breathe heavily' and *Tjaželo dyšitsja* 'it's difficult to breathe'); or in a few cases, the sphere of action undergoes a substantial restriction (cf. *Parus beleet* 'A sail shows white' and *Parus beleetsja vdali* 'A sail glimmers white in the distance'; *zvonju* 'I ring' and *zvonjus'* 'I ring at the door').

3.5   EVIDENTIAL is expressed in Russian only on a syntactical level. Cf. such particles as *de, mol*, and the devices used by the various forms of direct and indirect speech.

3.51   TAXIS: a) dependent (signaling an E^n concomitant with another, principal E^n) *vs.* independent. A tense in a dependent taxis functions itself as a taxis: it signals the temporal relation to the principal E^n and not to the E^s as tense does in an independent taxis.

   The relation preterit *vs.* present is changed into an opposition definable in Whorf's terms as sequential (signaling the temporal contact between the two E^n). Imperfective preterit gerund: *Vstrečav ee v rannej molodosti, on snova uvidel ee čerez dvadcat' let* 'After having repeatedly met her in his early youth, he saw her again twenty years later'; *Nikogda ne vstrečav ego ran'še, ja včera poznakomilsja s nim* 'Having never met him before, yesterday I made his acquaintance'. Imperfective present gerund: *Vstrečaja druzej, on radovalsja* or *raduetsja* 'when meeting friends, he was (is) delighted'; *On umer rabotaja* 'He died while working' (both

events are closely connected in time). There is a similar relation between the preterit and present form of the perfective gerund – *vstretiv* and *vstretja*. It is hardly possible to substitute the latter form for the former in such a sentence as *Vstretiv ee v rannej molodosti, on snova uvidel ee čerez dvadcat' let* 'After having met her once in his early youth, he saw her again twenty years later' or *nikogda s nej bol'še ne videlsja* 'never saw her again'. One can say *Pročitav* (or *pročtja*) *knigu, on zadumalsja* 'Having read the book, he lapsed into thought', but *pročtja* could not be used in the sentence *Pročitav knigu, on vposledstvii často govoril o nej* 'When he read a book, later on he often spoke about it'. Examples of the perfective present gerund: *vstretja vas, ja* (one may add *pri ètom*) *ne poveril* (or *ne xotel verit'*) *svoim glazam* 'Having met you, I did not believe (did not want to believe) my eyes': both events are nearly simultaneous. If the principal verb precedes such a gerund, the latter may express the resultant of the first of two closely contiguous events: *On vnes predloženie, vstretja* (*pri ètom*) *rjad vozraženij* 'He introduced a proposal which met with a number of objections'; *Ona upala, povredja sebe* (*pri ètom*) *rebro* 'She fell and thereby hurt a rib'. Only a few verbs build a perfective present gerund, and even in their paradigms there is a tendency to replace such forms by the preterit form and in this way abolish the distinction between sequential and concursive in the perfective gerunds: *On zažeg spičku, osvetiv* (substituted for *osvetja*) *komnatu* 'He struck a match and thereby lighted up the room', but *On zažigal spičku, každyj raz osveščaja* (and not *osveščav*) *na mig komnatu* 'Each time he struck a match, he lighted up the room for a second'.

In the Moscow speech of my generation the sequential is split into two purely tactic forms – consequential (signaling an internal connection between the two E^n) *vs.* non-consequential (without implying internal connection): *Nikogda ne vstrečavši akterov, on ne znal, kak govorit' s nimi* 'Since he had never met actors, he did not know how to approach them'; *Nikogda prežde ne vstrečav akterov, on slučajno poznakomilsja s Kačalovym* 'Having never before met actors, he became acquainted with K.'; *Vstretivši ego, ona gusto pokrasnela* 'She blushed scarlet, because of having met him', *Vstretiv Petra, on vskore stolknulsja ešče s neskol'kimi znakomymi* 'Shortly after having met Peter, he ran into some other friends'. It is easier to substitute forms like *vstretiv* for forms like *vstretivši* than vice versa. One may say, *Snjavši* (or *snjav*) *pal'to, ja počuvstvoval pronizyvajuščij xolod* 'When I took off my coat, I (consequently) felt a piercing cold'. But the form *snjavši* is scarcely possible in a sentence like *Snjav pal'to, ja sel za stol* 'After having taken off my coat, I sat down at the

table'. Thus the alleged synonymity of such forms as *sxvatja, sxvativ, sxvativši* or *poxalturja, poxalturiv, poxalturivši* is actually invalid.

3.6 Among all verbal forms, it is the infinitive which carries the minimal grammatical information. It says nothing either about the participant of the narrated event or about the relation of this event to other narrated events and to the speech event. Thus the infinitive excludes person, gender, number, taxis and tense.

To a lesser extent than in the infinitive, the concurrence of verbal categories undergoes restrictive laws.

Gender and marked number (plural) are mutually exclusive.

Person and gender are mutually exclusive.

Person implies number.

Person and marked tense (preterit) are mutually exclusive.

P-designators and marked taxis (gerund) are mutually exclusive.

Among marked aspects, 1) perfective, determinate and iterative, 2) perfective, iterative and inceptive are mutually exclusive, and only determinate and inceptive are compatible: e.g. *On bežat'* and *On budet bežat'*.

Inceptive excludes marked tense (preterit), marked (non-indicative) mood and marked taxis (gerund).

Iterative excludes present and injunctive (correlated with the present).

Conditional and present are mutually exclusive.

Except for the appeal forms of the injunctive, marked (non-indicative) moods and person are mutually exclusive.

The appeal forms exclude the opposition personal *vs.* impersonal and imply the opposition inclusive *vs.* non-inclusive.

Marked (non-indicative) mood and marked taxis (gerund) are mutually exclusive.

Aspect and voice are the only categories compatible with all verbal categories whatsoever. Among aspects, however, only the pairs perfective *vs.* imperfective and determinate *vs.* indeterminate embrace all verbal categories. The pair inceptive *vs.* non-inceptive is confined to the present, whereas the opposition iterative *vs.* non-iterative excludes only the present and the injunctive. Cf. *My živali v stolice* 'We are no longer living in the capital, as we used to in the past'; *Esli by on ne žival v stolice, on skoree privyk by k derevne* 'If he had never lived in the capital as he used to, it would be easier for him to get accustomed to the country'; *Živavši podolgu v stolice, on ne mog svyknut'sja s provinciej* 'Having formerly spent long intervals in the capital, he could hardly adjust himself to the province'; *Emu privelos' živat' podolgu v derevne*

'Only in the past he had occasion to spend long intervals in the country'; *V ètom gorode nam ne živat'* 'Nevermore are we to live in this city as we used to'; *Na čužbine ne živat' – toski ne znavat'* 'He who has not spent a lot of time in foreign lands, has not experienced nostalgia'.

For the non-transitive verbs the voice opposition reflexive *vs.* non-reflexive is usually confined to the unmarked person (impersonal) of the unmarked aspect (imperfective).

4. THE GRAMMATICAL PROCESSES OF THE RUSSIAN VERB

4.1   Any Russian inflected form comprehends a stem and a desinence. Stems are prefixed or unprefixed (simple). In our examples a desinence is separated from a stem by a dash, a prefix from the following morpheme by a plus, and morphemes within a simple stem or desinence are separated from each other by a hyphen, e.g. /ví+rv-a—l-a-s/.

A stem may include a stem-suffix, e.g. /rv-á—t,/, or be unsuffixed, e.g. /grís—t,/. A verbal stem may present two alternants – the full-stem and the truncated stem, differing from the former ordinarily by the omission of the final phoneme, e.g. /znáj—/:/zná—/; /rvá—/:/rv—/. Full stems are divided into closed stems ending in a non-syllabic, /znáj—/, /star,-éj—/, /gríz—/, and open stems, ending in a syllabic, /rvá—/, /dú-nu—/ (for a detailed account see our paper of 1948).

Three types of desinential morphemes are to be distinguished; an "initial suffix" which is never preceded by another desinential suffix, e.g. /rv-a—*l*-á/ or /rv-a—*l*-á-s/, /rv,—ó-m/ or /rv,—ó-m-sa/; a "final suffix" which does occur without being followed by another suffix, e.g. /rv-a—l-*á*/, /rv,—ó-*m*/; a "postfix" which may be added to a final suffix, e.g. /rv-a—l-á-*s*/, /rv,—ó-m-*sa*/, /rv-á—f-*ši*/. If a desinence consists of one suffix, the latter is at once initial and final, e.g. /rv—ú/, /griz,—á/. The desinences are divided into consonantal and vocalic. The consonantal desinences begin with a consonant /gríz-l-a/ or consist of one consonant /zná—f/. The vocalic desinences begin with a vowel /griz,—ó-š/ or consist of one vowel /griz—ú/ or of a zero alternating with a vowel /znáj—#/:/griz,—í/.

Different verbal categories make use of unsimilar grammatical processes.

4.2   Person, gender, and number employ the final desinential suffixes. When person is expressed, the distinction between the two numbers and between the first and second person is conveyed by the same suffixes at

once, while the "third person" is rendered by the final, and its number by the initial suffix /gar,—i-t/: /gar,—á-t/. This is the only exception to the utilization of final suffixes by the designators characterizing the participants of the narrated event. With this separate expression of number and "third" person, compare the pronominal pattern: while suppletion is used in the pronouns of the first and second person (/já/ and /mí/, /tí/ and /ví/), the "third person" is expressed by the root and the difference of gender and number by the desinences: /ón—∅/, /an—á/ and /an,—í).

4.3 To signal tenses, vocalic desinences are used for the present, and consonantal ones for the preterit, znáj—u/: zná—l-∅/; /znáj—a : /zná—f/: /rv,—ó-m/: rv-á —l,-i/. Vocalic desinences distinguish the present and the injunctive mood, correlated with the present indicative, from all other verbal forms – preterit as well as infinitive. The latter uses a one-suffix consonantal desinence which ends in zero alternating with a vowel (/zná—t, : /n,is—t,í).

4.31 Aspects are differentiated by modifications in the stem (stem-suffixes or prefixation) and by periphrastic forms. The pair determinate *vs.* indeterminate is distinguished by the alternation of two unprefixed stems: either an open full-stem is opposed to a closed full-stem ending in /-aj-/, /-áj-/, or an unsuffixed stem is opposed to a suffixed stem. /b,iž-á—/: /b,ég-aj—/, /l,it,-é—/: /l,it-áj—/, /kat,-i—/: /kat-áj—/, /n,ós—/: /nas-í—/. The two unprefixed stems of the pair iterative *vs.* non-iterative are distinguished by the suffix /-ivaj—/ or /-váj—/ in the iterative form, e.g. /p,ís-ivaj—/: /p,is-á—/, /čít-ivaj—/:/čit-áj—/, /zna-váj—/: /znaj—/. If a prefix is added to an iterative *vs.* non-iterative or determinate *vs.* indeterminate pair, then unless the lexical meaning of the pair diverges, the relation between its members changes into the opposition perfective *vs.* imperfective. Determinate and indeterminate become perfective and imperfective respectively, while iterative changes into imperfective and non-iterative into perfective, cf. /pr,i+n'ós—/: /pr,i+nas,-i—/; /ví+p,is-a—/:/vi+p,ís-ivaj—/. In other pairs, perfective *vs.* imperfective, a prefixed stem is opposed to an unprefixed one or an open full-stem to a closed one ending in /-aj—/, /-áj—/, e.g. /na+p,is-á—/:/p,is-á—/, /r,iš-í—/:/r,iš-áj—/, /p,ix-nú—/:/p,ix-áj—/, /at+r,éz-a—/:/at+r,iz-áj—/. If both members of a perfective *vs.* imperfective pair have open stems, the stem-suffix /-nu—/, /-nú—/ signals the perfective verb, e.g. /kr,ík-nu—/:/kr,ič-á—/, /max-nú—/:/max-á—/.

The inceptive aspect combines the infinitive of the given verb with the perfective and imperfective present of the verb "to be".

4.4   Among the connectors, the non-shifters are expressed by means of postfixes. The marked voice joins a postfix to the final desinential suffix of the corresponding unmarked voice; the reflexive adds the postfix /-s/ or its automatic variants /-sa/, /-sá/ and /-ca/, e.g. /fstr,éč—u-s/, /fstr,ét,—i-š-sa/, /fstr,ét,—i-t-ca/. The correlative form of the preterit gerund adds the postfix /-ši/ to the non-correlative forms, e.g. /fstr,ét,-i— f-ši/:/fstr,ét,-i—f/. But before a second postfix, namely in the preterit gerund of reflexive verbs, the opposition correlative *vs.* non-correlative is abolished: the form /fstr,ét,-i—f-ši-s/ is the only one existing.

Hence of two successive postfixes the antecedent is redundant.

The shifters pertaining to the class of connectors, namely the moods, use enclitic particles, "annexes", in Whorf's terminology, instead of desinential suffixes and postfixes. The combination of such annexes with the preceding verbal morpheme undergoes the rules of external sandhi, whereas the combination of ordinary suffixes is governed by the laws of internal sandhi. In the injunctive moods, at the contact of annexes with the preceding morpheme, there appear clusters otherwise inadmissible within one word, as for instance /p,t,/, /f,t,/, /p,s/, /f,s/, /t,s/, /s,s/, /p,k/, /f,k/, or distinctions like /m,t,/:/mt,/, /m,s/:/ms/, /m,k/:/mk/. Cf. /pa+znakóm,—≠- t,i/ and /pa+jd,—ó-m- t,i/, /pa+znakóm,—≠- sa/ and /pra+jd,—ó-m- sa/, /pa+znakóm,—≠- ka/ and /pa+jd,—ó-m- ka/. A space separating the hyphens and dashes from such annexes in our transcription symbolizes their particular character. In the indicative /v,il,—í-t,i/ there usually figures the close variant of /í/ due to the subsequent palatalized consonant of the same word, while in the imperative /v,il,—í- t,i/, sometimes – within the explicit code of standard Russian – we may observe a more open variant of /í/, as in the word group /pr,i+v,i—l-í t,ibé/, since the laws of internal sandhi do not work here. While the injunctive forms deal with fixed particles, the conditional operates with the movable particle /bi/ and its optional contextual variants /b/, /p/.

The particle /ka/ is specifically hortative, while the two other particles used by the injunctive – the 2Pl. /t,i/ and the reflexive /s/ or /sa/ are merely changed from a suffix and postfix into annexes. All these particles may be strung together and each one, or two, or all three of them, may be appended to both annex-less injunctive forms which can also be used separately. One of these forms is the verb stem with the desinential suffix —≠ (substituted by /—i/, /—í/ after a cluster and after a stem which has no fixed stress on its root or stem-suffix), e.g. /fstr,ét,—≠/, /kr,íkn,—i/, /s,id,—í/, /ví+s,id,—i/. In the whole Russian verbal pattern,

it is the only example of a zero as the basic alternant of a desinence. The other annex-less form is identical with the 1Pl. of the perfective present but differs from the latter syntactically (absence of pronoun), semantically (it means 'let me and thee') and paradigmatically: /fstr,ét,—i-m/ is opposed to /fstr,et,—i-m- t,i/ as "singular addressee" *vs.* "plural addressee", and to /fstr,et,—i-m- ka/ as imperative *vs.* hortative. Cf. the maximal accumulation of grammatical morphemes in /pa-+ v,id-áj—i-m-ti - s - ka/. Also the 1Sg. of the perfective present is utilized in injunctive forms but only jointly with the annex /ka/.

A few periphrastic forms of injunctive moods combine the infinitive of a verb with injunctive forms of auxiliary verbs: /búd,—i-m/, /búd,—i-m- t,i/, /búd,—i-m- ka/, /búd,—i-m—t,i- ka/, /da-váj—#/, /da-váj—#- t,i/, /da-váj— #- ka/, /da-váj—#- t,i - ka/.

4.5 In sum, aside from a few periphrastic forms used by the imperfective verbs, the expression of the Russian verbal categories roughly exhibits the following pattern:

The P-designators (designators of the participants), whether shifters (person) or non-shifters (gender and number), make use of the final desinential suffixes.

The E-designators (designators of the event) deal with word-components anterior to the final suffix. The shifters (tense) employ initial desinential suffixes, while the non-shifters (aspect) go farther back; they ignore the desinence and operate with the stem – its suffixes and prefixation.

The connectors widely use units posterior to the final suffix. The non-shifters (voice and taxis) deal with the postfixes, while the shifters (mood) tend to reduce the desinence to zero and to replace the usual desinential suffixes by autonomous annexes, partly by changing the former into the latter, partly by adding new, purely modal particles.

REFERENCES

L. Andrejčin, *Kategorie znaczeniowe konjugacji bulgarskiej* (Cracow, 1938).
E. Benveniste, "La nature des pronoms", *For Roman Jakobson* (The Hague, 1956).
L. Bloomfield, *Language* (New York 1933).

L. Bloomfield, "Algonquian", *Linguistic Structures of Native America* (New York, 1946).

F. Boas, *Kwakiutl Grammar* (Philadelphia, 1947).

V. Bogoraz (W. Bogoras), "Chukchee", *Handbook of American Indian Languages*, II (Washington, 1922).

A. W. Burks, "Icon, Index, and Symbol", *Philosophy and Phenomenological Research*, IX (1949).

K. Bühler, *Sprachtheorie* (Jena, 1934).

R. Carnap, *Logical Syntax of Language* (New York, 1937).

A. H. Gardiner, *The Theory of Proper Names* (London, 1940).

M. R. Haas, *Tunica* (New York, 1941).

E. Husserl, *Logische Untersuchungen*, II (Halle a. d. S., 1913).

R. Jakobson, "Zur Struktur des russischen Verbums", *Charisteria Guilelmo Mathesio* (Prague, 1932) [see above, pp. 3-15].

R. Jakobson, "Signe zéro", *Mélanges Bally* (Geneva, 1939) [see below, pp. 211-219].

R. Jakobson, "Russian Conjugation", *Word*, IV (1948) [see above, pp. 119-129].

E. A. Krejnovič, "Nivxskij (giljackij) jazyk", *Jazyki i pis'mennost' narodov Severa*, III (Leningrad, 1934).

O. Jespersen, *Language; its Nature, Development, and Origin* (New York, 1923).

H. G. Lunt, *Grammar of the Macedonian Literary Language* (Skopje, 1952).

B. Russell, *An Inquiry into Meaning and Truth* (London, 1940).

V. V. Vinogradov, *Russkij jazyk* (Leningrad, 1947).

V. N. Vološinov, *Marksizm i filosofija jazyka* (Leningrad, 1930).

B. L. Whorf, "The Hopi Language, Toreva Dialect", *Linguistic Structures of Native America* (New York, 1946).

D. K. Zelenin, "Tabu slov u narodov vostočnoj Evropy i severnoj Azii", II, *Sbornik Muzeja Antropologii i Ètnografii*, IX (1930).

THE RELATIONSHIP BETWEEN GENITIVE
AND PLURAL IN THE DECLENSION
OF RUSSIAN NOUNS

The Moscow linguistic school inaugurated by F. F. Fortunatov gave to international science several outstanding investigators equally expert in the Slavic field and in the general theory of language. The classification of grammatical categories, and in particular the comparative interpretation of number and case, was for them as well as for their master a most arresting topic. I am happy to touch upon a facet of this problem in a paper humbly dedicated to Olaf Broch, one of the greatest and most original representatives of this illustrious pleiad.[1]

To provide the entity named by a noun, e.g. *dráma*, with a quantitative characteristic, Russian uses A) syntactic and or B) morphological devices. A) A cardinal numeral or its pronominal equivalent (*skól'ko* 'how much', *stól'ko* 'as much', *mnógo* 'much', *málo* 'little', *ból'se* 'more', *mén'se* 'less') may be combined with the noun. B) Each of the two categories inherent in any form in the noun declension – number and case – encompasses a quantifier. The plural indicates that more than one unit is contemplated, whereas singular is non-committal: *interés k drámam* (Pl.) is 'an interest in (the) dramas', while *interés k dráme* (Sg.) may mean 'an interest in the drama, in a drama, or in dramas'. In the pair of grammatical numbers, the plural is the marked opposite of the singular.[2]

The genitive focuses upon the extent to which the entity takes part in the message. The context indicates whether the amount is measured (*skól'ko drám* 'how many dramas', *pját' drám* 'five dramas'), extended (*drám!* 'there are a lot of dramas', *nasmotrét's'a drám* 'to have seen enough of dramas'), or reduced. Thus po*čitál dram* means 'read a little

---

[1] The Latin or Latinized spelling form of Slavic examples is in italics; transcription of spoken language in roman type. The forms transcribed phonemically are in slants, while no marks enclose the specimens of morphophonemic transcription. The transcribed desinences are preceeded by a dash, stem suffixes by a hyphen.

[2] Cf. R. Jakobson, "Zur Struktur des russischen Verbums", *Charisteria Gvilelmo Mathesio oblata* (Prague, 1932). [See above, p. 9.]

from dramas', *kosnúlsja drám* 'touched upon dramas', *ždál drám* 'waited for dramas', *xotél drám* 'wanted dramas' – the entity is intended without having been realized; *izbegál drám* 'avoided dramas' – the entity is repelled, and a similar reduction to zero appears in the genetivus negationis: *ne ljubíl drám* 'did not like dramas', *né bylo drám* 'there were no dramas'. The adnominal genitive signals that not the entire entity is considered, but merely its part or property or only an action performed or undergone by this entity: *konéc drám* 'the end of dramas', *realízm drám* 'the realism of dramas', *vlijánie drám* 'the influence of dramas', *výbor drám* 'the selection of dramas'. The nominative is an unmarked case, and the genitive is opposed to this "zero-case" by one single mark: the genitive is a mere quantifier.[3]

In GPl both the case and the number are quantifiers. One could represent both of them by plus and their unmarked opposites by minus: a lucid scheme results.

$$
\begin{array}{cc}
G & Pl \\
+ & + \\
\hline
- & - \\
N & Sg
\end{array}
$$

The distinction between this twofold quantifier and its doubly unmarked counterpart occupies a particular place in the Russian declensional system and is expressed differently from all other relations within the same pattern.

As a rule, one of these two forms is distinguished from the other by having a zero desinence, and this desinence does not occur in the other forms of the Russian declension.

In the NSg, nouns have either the desinences –a, –o or the zero desinence –$\#$.

If a noun has a zero-desinence in the NSg, the desinence of the GPl is –ov or –ej. The desinence –ej occurs after the palatalized obstruents, nasals, and liquids (/t'/, /d'/, /s'/, /z'/, /p'/, /b'/, /f'/, /v'/; /n'/, /m'/, /r'/, /l'/) and after the palatal obstruents (/č/, /š/, /ž/); –ov appears after any other phoneme (/t/, /d/, /s/, /z/, /c/, /p/, /b/, /f/, /v/, /k/, /g/, /x/; /n/, /m/; /r/, /l/; /j/). Examples: /put'–éj/, /žilud'–éj/, /lós'–ij/, /máz'–ij/, /cip'–éj/, /galub'–éj/, /v'érf'–ij/, /čirv'–éj/, /kan'–éj/; /car'–éj/, /karal'–éj/; /nač–éj/,

[3] Cf. R. Jakobson, "Beitrag zur allgemeinen Kasuslehre", *Travaux du Cercle Linguistique de Prague* (1936) [see above, p. 37 ff.]; E. Pauliny, *Struktúra slovenského slovesa* (Bratislava, 1943), Ch. IV.

/miš–éj/, /naž–éj/; /kat–óf/, /v'íd–af/, /čis–óf/, /grúz–af/, /čir'ip–óf/, /grib–óf/, /kr'ik–af/, /bag–óf/, /dúx–af/; /bl'in–óf/, /dam–óf/; /m'ir–óf/, /stal–óf/; /baj–óf/.

Usually nouns with the desinences –a, –o in NSg have a zero desinence in GPl /dir–á/ ~ /dír/, /l'ip–a/ ~ /l'íp/, /úl'ic–a/ ~ /úl'ic/, /bán'–a/ ~ /bán'/, /stáj–a/ ~ /stáj/, /s'im'j–á/ ~ /s'im'éj/; /l'ic–ó/ ~ /l'íc/, /slóv–a/ ~ /slóf/, /z'irn–ó/ ~ /z'ór'in/, /akóšk–a/ ~ /akóšik/, /kap'j–ó/ ~ /kóp'ij/, /ružj–ó/ ~ /rúžij/, /žil'íšč–a/ ~ /žil'íšč/.

There are a few exceptions: nouns without zero desinences in their declension: A) some nouns with –o in NSg and –ov, –ej in GPl, namely forms with /-ik a/ or /-k–ó/ in NSg (/pl'éč-ik a/ ~ /pl'éč-ik -af/, /ač-k-ó/ ~ /ač-k-óf/, also /dr'éf-k-a/ ~ /dr'éf-k-af/, /óblak-a/ ~ /ablak-óf/, several nouns with /-c-a/ and /-j-a/ in NSg (/kal'én-c-a/ ~ /kal'én-c-af/, /plát'-j-a/ ~ /plát'-j-af/, and /pól'-a/ ~ /pal'-éj/, /mór'-a/ ~ /mar'-éj/; B) about twenty nouns with –a in NSg and –ej in GPl, e.g. /júnaš-a/ ~ /júnaš-ij/, /nazdr'-á/ ~ /nazdr'-éj/, /dól'-a/ ~ /dal' éj/, /t'ot'-a/ ~ /t'ot'-ij/.[4] On the other hand, instead of the expected –ov, some twenty nouns have a zero desinence both in NSg and in GPl, e.g. /aršin/, /saldát/, /túrak/, /glás/, /čulók/. In the pair NSg. /vólas/ ~ GPl/valós/ both forms with a zero desinence are differentiated by the place of stress.

In a series of nouns, the numbers are distinguished not only by inflectional suffixes but also by a special stem suffix. In such nouns the GPl has a zero desinence despite a similar desinence of the NSg: /bajár'-in/ ~ /bajár/, /dvar'in'-in/ ~ /dvar'án/, /južán'-in/ ~ /južán/, /gaspad'-in/ ~ /gaspót/, /xaz'áj-in/ ~ /xaz'áj-if/; /ščin-ók/ ~ /ščin'-át/, /t'il'-ón-ak/ ~ /t'il'-át/. But the collective suffix -≠j- is ordinarily followed in GPl by the desinence –ov: /z'át'/ ~ /z'it'-j-á/ ~ /z'it'-j-óf/, /brát/ ~ /brát'-j-a/ ~ /brát'-j-af/, /stúl/ ~ /stúl'-j-a/ ~ /stúl'-j-af/, /d'ér'iv-a/ ~ /d'ir'év'-j-a/ ~ /d'ir'év'-j-af/. Four nouns with the -≠j- suffix, however, have a GPl with a zero desinence: /kn'ás'/ ~ /kn'iz'-j-á/ ~ /kn'iz'-éj/, /drúk/ ~ /druz'-j-á/ ~ /druz'-éj/, /muš/ ~ /muž-j-á/ ~ /muž-éj/, /sín/ ~ /sin-av'-j-á/ ~ /sin-av'-éj/.

Thus with very few exceptions, each noun has no more, and usually no less, than one form with a zero desinence: either the NSg or the GPl.

The GPl desinences –ov and –ej were generalized in the declension of those nouns which have a zero desinence in NSg. The historical tendency to differentiate the GPl and the NSg by confronting a zero and a non-zero desinence is herewith documented.

---

[4] See *Grammatika russkogo jazyka*, I (Moscow, Akademija Nauk SSSR, 1953), pp. 161 f., 166, 168.

The relation between GSg and NPl may be visualized by a similar scheme:

$$
\begin{array}{cc}
\text{G} & \text{Sg} \\
+ & - \\
\hline
- & + \\
\text{N} & \text{Pl}
\end{array}
$$

One of the two quantifiers carries the case mark and the other the number mark. Russian declension exhibits a clear tendency to express this distinction by a mere difference in the place of wordstress.

In the declension of nouns with a non-zero desinence in the NSg, the desinences of GSg and NPl coincide with each other and may be differentiated, if at all, merely by the place of stress. Only the nouns ending in -ik-o, or -k-o have different desinences: –a in GS and –i in NPl (/kaľós’ -ik-a/ ~ /kaľós’-ik’-i/, /az’ir-k-á/ ~ /az’ir-k’-í/). The overwhelming majority of nouns ending in /–o/ and /–a/ opposes the final stress of GSg to the retracted stress of the NPl, e.g. /s’il-á/ ~ /s’ól-a/, /kaľis-á/ ~ /kaľós -a/; /graz-í/ ~ /gróz-i/, /gub-í/ ~ /gúb-i/, /duš-í/ ~ /dúš-i/, /visat-í/ ~ /visót-i/, /skarlup-í/ ~ /skarlúp-i/, /skavarad-í/ ~ /skóvarad-i/. Only a small number of such nouns has a final stress also in NPl, e.g. /suščistv-á/, /astrij-á/; /m’ičt-í/, /xval-í/, /stat’j-í/, /bulav-í/. Most of the nouns in –o, with initial stress in the singular, change its place in the plural: /d’él-a/ ~ /d’il-á/, /stád-a/ ~ /stad-á/, /mór’-a/ ~ /mar’-á/, /z’érkal-a/ ~ /z’irkal-á/, /krúživ-a/ ~ /kruživ-á/, /óblak-a/ ~ /ablak-á/, /óz’ir-a/ ~ /az’ ór-a/; cf. on the other hand GSg and NPl /kr’ésl-a/, /z’éľj-a/, /čúčil-a/ etc. The middle stress of nouns in –o (as /karít-a/) is fixed, and likewise any type of stress on the stem of nouns in –a: both GSg and NPl /bán’-i/, /kómnat-i/, /varón-i/.

Among the nouns with a zero desinence in the NSg, the feminines end in an unstressed –i both in GSg and in GPl, and the stress falls on the same syllable of the stem, e. g. /nóč-i/, /lóšid’-i/,/ kravát’-i/. A considerable and ever-growing number of masculines substitutes a stressed –a for the usual –i desinence of NPl.[5] All masculines which have acquired the stressed –a desinence in NPl, have an unstressed –a in GSg (except the fixed final stress in /rukav-á/), e.g. /lúg-a/ ~ /lug-á/, /xútar-a/ ~ /xutar

---

[5] See L. Beaulieu, "L'extension du pluriel masculin en –á, –ᴙ en russe moderne", *Mémoires de la Société de Linguistique de Paris*, XVIII (1913); S. Obnorskij, *Imennoe sklonenie v sovremennom russkom jazyke*, II (Leningrad, 1931), p. 2 ff.: he lists more than two hundred nouns with the new desinence in NPl.

–á/, /t'ét'ir'iv–a/ ~ /t'it'ir'iv–á/, /učit'il'–a/ ~ /učit'il'–á/. The productivity of this pattern is demonstrated by its particularly wide use in modern loan-words, e.g. /v'éks'il'–a/ ~ /v'iks'il'–á/, /kandúktar–a/ ~ /kanduktar–á/. All other accentual varieties of this declension have –a in GSg, but –i in NPl, unless a particular stem suffix is used in the plural (/muž-j-á/, /t'il'–át–a/).

The –a declension shows a gradual extension of stress alternation in GSg and NPl. The observer cites such recent forms of NPl as *bědý*, *viný*, *dugí*, *žený*, *svěčí*, *vdový*, *sirotý*, *sud'í*, where "toward our time there occurred a shift of stress from the desinence to the stem and this was an adaptation to the pattern of nouns with mobile stress": GSg /b'id–i/ ~ NPl /b'éd–i/, leveled after such pairs as /gar–í/ ~ /gór–i/. This develop-ment is all the more revealing, since "the NPl of nouns with mobile stress has not been affected by the nouns with fixed stress".[6] The recent change of the fixed initial stress in such instances as NSg *mésto*, GPl and NPl *mésta* into a mobile type — GSg *mésta* ~ NPl *méstá* is another manifesta-tion of the same drift.[7]

The NA dual form ending in –a (as *rukavá*), the collective singulars like *gospodá*, *storožá*, and the early extended use of the stressed desinences /–ám/, /–ám'i/, /–áx/ in the oblique cases of the plural may have contri-buted to the rise of the desinence /–á/ in NPl of the masculine declension, but can hardly have induced this change and its continuously progressing expansion. Jagić was the first to raise the question, "whether the analogy of the neuter desinence *a* did not work here", since "the difference between *gólosa* and *golosá*, *pógreba* and *pogrebá*, *ókoroka* and *okoroká* vividly recalls a similar difference in the neuter: *slóva* and *slová*, *pólja* and *poljá*, *mórja* and *morjá*, *zérkala* and *zerkalá*, *déreva* and *derevá*."[8] Thirty years ago Bulaxovskij shrewdly answered Jagić's question: "On the analogy of the relations GSg *óblaka* : NAPl *oblaká*, GSg *téla* : NAPl *telá*, the masculines set up GSg *bérega* : NAPl *beregá*, GSg *góroda* : NAPl *gorodá*".[9] Yet if this analogical change had been stimulated only by the tendency to tie the distinction of both forms "to a difference in the place of stress",

[6] Obnorskij, *o.c.*, p. 387 f.

[7] L. Vasil'ev, "K istorii zvuka *ě* v moskovskom govore v XIV–XVII vv.", *Izvestija Otd. rus. jaz. i slov. I. Ak. Nauk*, X, No. 2 (1905), p. 209; Chr. S. Stang, *La langue du livre Učenie i xitrost' ratnago stroenija pexotnyx ljudej* (Oslo, 1952), p. 35.

[8] I. V. Jagić, "Kritičeskie zametki po istorii russkogo jazyka", *Sbornik Otd. rus. jaz. i slov. I. Ak. Nauk*, XLVI, No. 4 (1889), p. 114.

[9] L. Bulaxovskij, "Zametki po russkoj morfologii", *Slavia*, VI (1928), p. 645; *idem*, "Intonacija i količestvo form dualis imennogo sklonenija v drevnejšem slavjanskom jazyke", *Izvestija Akademii Nauk SSSR*, Otd. lit. i jaz., V, No. 4 (1946), p. 301.

a simple shift of the stress from the stem to the desinence, without substitution of the final vowel, would suffice. This change of the desinence was spurred by the possibility of confining the difference between the forms of GSg and NPl to a mere stress alternation.[10]

Furthermore, *ceteris paribus* stress alternation is now used in the Russian declension only by quantifier cases, namely to distinguish locative II from locative I in feminines (/t'in'–í/ ~ /t'én'–i/, /gr'iz'–í/ ~ /gr'áz'–i/) and from genitive II in masculines (/l'is–ú/ ~ /l'és–u/, /sn'ig–ú/ ~ /sn'ég –u/).[11]

Russian is not the only Slavic language which displays the tendency to restrict the distinction of certain quantifiers to an alternation of full desinence and zero or to a prosodic alternation. Thus a purely prosodic distinction of NSg and GPl on the one hand, and of NPl and GSg on the other, has been developed in the –a declension of Serbocroatian nouns. Each of these two pairs is distinguished by the opposition of a short and long vowel in the desinence: NSg *dúša* (desinence /–a/) ~ GPl *dúšâ* (/–a:/); NPl *dúše* (/–e/) ~ GSg *dúšê* (/–e:/). In other Serbocroatian declensions the same quantitative opposition (alone or combined with other prosodic oppositions) distinguishes the genitive of two numbers: GSg *ùdâra* (/–a/) ~ GPl *ùdârâ* (–a:); *sèla* ~ *sêlâ*, *pòlja* ~ *póljâ*; *stvâri* (/–i/) ~ *stvárî* (/–i:/).

A quantitative opposition (likewise controversial as to its origin) differentiates GSg from NPl of the Slovak neuters: GSg *slova* (/–a/) ~ NPl *slová* (/–a:/). GPl is distinguished from NSg by a zero desinence: *slov* ~ *slovo*.

---

[10] NPl in –a implies GSg in –a, and GSg in –i implies NPl in –i. Nouns have the same inventory of desinences in GSg and NPl (–a, –i), while the repertory of their GPl desinences corresponds to NSgMasc suffixes of nouns (–#) and possessive adjectives (-ov, -ej).

[11] See R. Jakobson, "Beitrag ...", VII. [Above, p. 60 ff.]

МОРФОЛОГИЧЕСКИЕ НАБЛЮДЕНИЯ НАД СЛАВЯНСКИМ СКЛОНЕНИЕМ

(СОСТАВ РУССКИХ ПАДЕЖНЫХ ФОРМ)

I. *ДОКЛАД НА IV. МЕЖДУНАРОДНОМ СЪЕЗДЕ СЛАВИСТОВ (МОСКВА, 1958)*

1

Настоящий доклад посвящен светлой памяти обоих моих москов-
ских учителей в области русского языкознания – Николая Николае-
вича Дурново, впервые широко поставившего вопрос о падежном
синкретизме в русском склонении,[1] и Дмитрия Николаевича Уша-
кова. Это он в начале своего курса по исторической морфологии
предлагал слушателям определить происхождение яркой диалектной
формы *трюф лошадёф*, присовокупляя, что по существу, история
склонения это сплошной пример грамматической аналогии: вся
наша задача в том и состоит, чтобы вскрыть ее действие и дать ему
надлежащее объяснение.

Теперь общеизвестно, что интерпретация изменений языка пред-
варительно требует точного описания его строя в каждый данный
момент развития. "Le linguiste qui veut comprendre cet état doit-il faire
table rase de tout ce qui l'a produit et ignorer la diachronie," согласно
заостренной формулировке Ф. де Соссюра: "L'intervention de l'histoire
ne peut que fausser son jugement."[2] Именно для того, чтобы уяснить
себе исторический процесс и усвоить правила игры аналогий, мы
сперва должны временно закрыть глаза на прошлое.

Под этим углом зрения здесь будет в дискуссионном порядке
подвергнута анализу система склонения в современном русском
литературном языке.

В дальнейшем мы пользуемся следующими сокращениями:

---

[1] N. Durnovo, "De la déclinaison en grand-russe littéraire moderne", *Revue des Études Slaves*, II (1922).

[2] F. de Saussure, *Cours de linguistique générale*, 2e éd. (Paris, 1922). Ср. Курс общей лингвистики, перевод А. М. Сухотина (Москва, 1933).

И(менительный падеж), Р(одительный падеж), Д(ательный падеж), В(инительный падеж), Т(ворительный падеж), П(редложный падеж); ед(инственное) ч(исло), мн(ожественное) ч(исло); м(ужской) р(од), с(редний) р(од), ж(енский) р(од); од(ушевленный предмет), неод-(ушевленный предмет).

2

1. Традиционные обзоры склонения сводятся к следующим типам описей: 1) перечень наличных падежей; 2) перечень комбинаторных значений, свойственных каждому данному падежу в различных контекстах, в которых он встречается; 3) перечень падежных форм, сгруппированных в парадигмы: каждая парадигма указывает, что с данной совокупностью падежных окончаний вступает в комбинацию определенный ряд грамматических основ. Дополнительно к этому перечню некоторые обозреватели (напр. Trager) перечисляют все окончания, которыми располагает в русской системе склонения каждый отдельный падеж.[3] Все названные виды регистрации дают необходимый подготовительный материал для грамматического анализа.

2. Одним из основоположных понятий в развитии современного языкознания была проблема инвариантности, впервые осознанная в казанской школе, на исходе семидесятых годов, одновременно и параллельно с успехами той же идеи в мировой математике. Если в лингвистике первый этап этих новых исканий дал начало учению о фонеме, т.е. об инварианте в плоскости звуковых вариаций, то теперь назрела настоятельная необходимость установить и истолковать инварианты грамматические. Издавна справедливо разграничивая две грамматических области – синтаксис и морфологию – и сверх того принципиально отмежевывая грамматику от лексики, языкознание все еще не поставило с надлежащей остротой и последовательностью топологический вопрос о тех свойствах каждой данной морфологической категории, которые остаются неизменными при всех наличных вариациях, или точнее – вопрос об инвариантном отношении между двумя противоположными морфологическими категориями, не зависящем от их появления в той или иной лексической и синтаксической обстановке.

3. Каждый падеж в своем многообразном применении обнаруживает ряд более или менее разнородных значений. Различия между

[3] G. L. Trager, "Russian Declensional Morphemes", *Language*, XXIX (1953).

всеми этими частными, комбинаторными значениями определяются
либо грамматическим либо лексическим составом словосочетания.
Ср. с одной стороны семантические различия между Р. приглаголь-
ным и приименным или между Т. в активных и пассивных кон-
струкциях, с другой же стороны те варианты в падежном значении,
которые обусловлены лексическим значением главного или упра-
вляемого слова. Исключительно с семантическим типом управляю-
щего глагола связано различие между т.н. Р. удаления, цели,
границы и т.д. (*берéчься нóвшеств – желáть нóвшеств, избежáть
бéрега – коснýться бéрега*); характер управляющего и управляемого
существительного разнообразит комбинаторные значения при-
субстантивного Р. - Ср. Р. субъекта: *любóвь герóя* и *желáние герóя*;
Р. объекта: *убийство герóя* и *желáние слáвы*. В некоторых сочетаниях
значение присубстантивного Р. остается двусмысленным, напр.
пóиски сестрú, где выбор между Р. субъекта и объекта не может
быть сделан слушателем без помощи более емкого словесного
контекста или фактической ситуации.

Каково бы ни было разнообразие семантических вариаций,
зависящих от чисто синтаксических и лексических условий, все же
единство падежа остается реальным и ненарушимым. Характерно,
что грамматический параллелизм в русской народной поэзии
нередко сопоставляет две формы одного и того же падежа, раз-
личающиеся и по своему окончанию, и по комбинаторному значению,
так что единственным связующим элементом является общность
падежной категории. Таково же сопоставление двух Т., различных
и по внешней форме, и по своей функции, в Слове о полку Игореве:
"растѣкашется мыслію [Т. орудия] по древу, сѣрымъ вълкомъ
[Т. уподобления] по земли."

В каждом падеже все его частные, комбинаторные значения могут
быть приведены к общему знаменателю. В отношении к прочим
падежам той же системы склонения каждый падеж характеризуется
своим инвариантным общим значением, собственной "значи-
мостью", согласно удачной передаче соссюровского термина valeur
в переводе А. М. Сухотина (см. выше, примеч. 2).

При всем богатстве комбинаторных вариантов в семантике
русского Р., морфологический инвариант легко поддается извлече-
нию: Р. сохраняет в любой вариации свое общее значение, отли-
чающее его от И. и В. падежей. В Р. постоянно налицо установка на
пределы участия означенного предмета в содержании высказывания.
Р. всегда сигнализует степень объективирования предмета в данном

контексте, и только контекст подскажет, уточнит, каковы же собственно эти пределы. Наличие может быть измерено (*ско́лько, сто́лько-то новосте́й*), повышено (*новосте́й!* или *наслу́шались новосте́й*), ограничено (*послу́шали, косну́лись новосте́й*), сведено к потенциальному состоянию (*жда́ли, хоте́ли, иска́ли новосте́й*) или к нулю (*не слыха́ли новосте́й, не́ было новосте́й*); наконец, оно может быть отклонено, отвергнуто (*избега́ли, пуга́лись новосте́й*). Присубстантивный Р. оповещает, что трактуется не весь или не самый предмет, а лишь его часть, свойство, действие, состояние или смежные предметы (*обры́вки, занима́тельность, влия́ние, возникнове́ние, переда́ча, исто́чник, слу́шатель новосте́й*).

4. Т. различных имен в одном и том же контексте служит характерным образчиком многообразной вариации комбинаторных значений:

о́н	е́л	ребёнком	икру́
о́н	е́л	пуда́ми	икру́
о́н	е́л	ло́жкой	икру́
о́н	е́л	доро́гой	икру́
о́н	е́л	у́тром	икру́
о́н	е́л	гре́шным де́лом	икру́

Тем не менее Т. во всех своих вариантах обнаруживает общий признак: периферийная, побочная роль в содержании высказывания приписывается данному предмету. Если этот общий признак отличает Т. от И., В. и Р. падежей, то с другой стороны он объединяет Т. с Д. и П. падежами. Но Д., в отличие от Т., сигнализует (подобно В.) объект, на который направлена деятельность; П. в свою очередь отличается от Т., обозначая (подобно Р.) предел участия данного предмета в содержании высказывания.[4]

Только в некоторых формах афазии значение грамматической категории утрачивает единство и сводится к отдельным контекстуальным значениям. Такие афазики располагают только ограниченным репертуаром готовых стереотипных контекстов и не в состоянии строить новые контексты. Стихи Маяковского с Т. падежом в новых, совершенно непривычных оборотах понятны лишь потому, что и поэт и читатель, владеющий русским языком, подсознательно владеют и общими значениями русских падежей, в частности

---

[4] По вопросам более подробного разбора русских падежных значений отсылаем к нашей работе 1936 года (см. выше, стр. 23-71). Она вызвала оживленную, содержательную дискуссию, которой мы надеемся посвятить отдельную статью.

значением Т.: "Никто не мешал *могилами* спать кудроголовым волхвам" (Человек); "Столиц сердцебиение дикое ловил я, *Страстною площадью* лежа" (Люблю); "За зевакой зевака, штаны пришедшие *Кузнецким* клёшить" (Хорошее отношение к лошадям).

5. Русская система падежей (как и всякая развитая падежная система) обнаруживает ряд изоморфных отношений. Например, Т : И = Д : В = П : Р. В каждом из таких отношений падеж, сигнализирующий данный признак, противопоставлен падежу, лишенному подобной сигнализации. В результате анализа падежных значений обнаруживается, что эти значения разлагаются на меньшие дискретные инварианты – п а д е ж н ы е п р и з н а к и.

6. Если ограничить разбор русского склонения шестью первичными падежами и оставить покамест в стороне те два падежа, которые Пешковский называет "добавочными" (потому что "формы составляющие звуковую характеристику этих падежей, образуются от сравнительно немногих основ"),[5] то отчетливо выступают те три измерения, на которых базируется эта падежная система:

1) Признак направленности в В. и Д. противопоставлен отсутствию такового в И. и Т.; назовем В. и Д. н а п р а в л е н н ы м и падежами.

2) Признак объемности в Р. противопоставлен отсутствию такового в И. и В., и тот же признак в П. противопоставлен его отсутствию в Т. и Д.; назовем Р. и П. о б ъ е м н ы м и падежами в отличие от прочих, н е о б ъ е м н ы х падежей – И., В., Т. и Д.

3) По признаку периферийности Т., Д. и П. противопоставлены лишенным этого признака И., В. и Р.

Таким образом И. является всецело б е с п р и з н а к о в ы м падежом по отношению к прочим, п р и з н а к о в ы м падежам, т.е. трем однопризнаковым – В., Р., Т., и двум двупризнаковым – Д. (направленность и периферийность) и П. (объемность и периферийность).

7. Грамматический анализ заставляет отвергнуть пережиток дососсюровских, противосистемных воззрений в доктрине самого Соссюра, продолжавшего утверждать, что только число падежей подлежит определению: "Par contre leur succession n'est pas ordonnée spatialement, et c'est par un acte purement arbitraire [!] que le grammairien les groupe d'une façon plutôt que d'une autre" (см. выше, примеч. 2). Структурный подход к падежной системе вскрывает ее строго

---

[5] А. М. Пешковский, *Русский синтаксис в научном освещении*, изд. 4-е (Москва, 1934).

закономерный иерархический характер с беспризнаковым И. как исходным падежом, между тем как по взгляду, унаследованному Соссюром, от младограмматической догматики с ее культом изолированных фактов, "le nominatif n'est nullement le premier cas de la déclinaison, et les termes pourront surgir dans tel ou tel ordre selon l'occasion."

8. Падежи направленные (В., Д.) и объемные (Р., П.) условно назовем определенными в противоположность падежам неопределенным, т.е. лишенным как направленности, так и объемности (И., Т.).

В. и И., которые сводятся к противопоставлению падежа, сигнализирующего объект процесса, падежу, не содержащему такой сигнализации, нередко называются – особенно в романском языкознании – падежами *прямыми* в отличие от прочих, именуемых *косвенными*. В иной терминологии, восходящей к классической традиции, под прямым падежом разумеется только И.; мы же следуем за теми, кто обозначает одинаковым термином также В., т.е. падеж т.н. прямого дополнения. Это словоупотребление представляется нам менее искусственным чем наименование И. и В. "грамматическими" падежами в противовес прочим падежам, прозванным "конкретными" или же "функциональными".

9. При всей плодотворности фонологического опыта для разысканий в других языковых планах нельзя автоматически прилагать фонологические критерии к грамматическим элементам, которые в отличие от фонологических, чисто различительных средств наделены собственным значением. Фонемы сами по себе ничего не означают: пара /t/ : /d/ соотнесена с прочими противопоставлениями согласных по глухости и звонкости внутри той же языковой системы; названные фонемы, принадлежа двум грамматическим единицам иначе одинаковым, напр. *творе́ц* : *дворе́ц*, являются знаком их различия. "Это шествуют творяне, Заменивши Д. на Т.", по меткому слову поэта Хлебникова. Но в применении к морфологическому плану легко может подать повод к недоразумениям тезис Соссюра – "pris isolément ni *Nacht* ni *Nächte* ne sont rien: donc tout est opposition" (см. выше, примеч. 2) Конечно, отношение *Nacht* : *Nächte* предполагает наличие противопоставления грамматических категорий единственности и множественности в коде немецкого языка, но поскольку такое противопоставление дано, форма *Nächte*, взятая в отдельности, сама по себе означает "более одной ночи", тогда как ни /t/, ни /d/ сами по себе, воистину, "ne sont rien".

Некоторыми языковедами (в особенности Куриловичем[6] и de Groot'ом)[7] было высказано мнение, что в тех словосочетаниях, где нет возможности выбора между двумя падежами, единственно допустимый падеж лишен морфологической значимости и выполняет исключительно синтаксическую функцию. Мысль о том, что в контекстах, не допускающих падежного противопоставления, падежи семантически "ne sont rien", является характерным примером фонологической контрабанды в грамматических исследованиях. В ходячей пословице "на воре шапка горит" глагол подразумевается, даже и не будучи досказан: он для нас всецело предопределен контекстом и следовательно "избыточен", соответственно теории информации, но в то же время он полностью сохраняет свое словарное и грамматическое значение. Грамматическое значение В. четко выступает в чередованиях с Д. (*простú его́ : простú ему́*), с Т. (*швыря́л ка́мни : швыря́л камня́ми*), с Р. (*вы́пил во́дку : вы́пил во́дки*; *жа́ль де́вушку : жа́ль де́вушки*), или наконец с И. (*пришéльцев гра́бят : пришéльцы гра́бят*, где только различие падежных форм информирует слушателя этой фразы, которое из двух слов подчинено другому); но то же значение объекта, охватываемого действием, сохраняется за В. падежом и в тех случаях, когда данный глагол не допускает иного падежа, кроме В., напр. *убúл лисúцу, допúл во́дку, жúл недéлю, проéхал версту́*. Конечно, семантическая разница между словосочетаниями *достúчь Антáрктики* и *завоевáть Антáрктику* связана с различием значений обоих глаголов, но если глагол *достúчь* требует непременно родительного, а *завоевáть* винительного падежа, то в этом распределении управляемых падежей снова отражается семантическое противопоставление неполного овладения полному. Из двух греческих глаголов любви – один, ἔραμαι, управляет только родительным, тогда как другой, φιλέω, требует винительного: это синтаксическое правило нераз приводилось как яркий пример чисто условного, семантически бесодержательного употребления падежей. Между тем первый глагол в противоположность другому выражает любовное томление, неполное обладание предметом вожделения, и родительный падеж дополнения строго соответствует такому глагольному значению. Подобным образом Р., как единственно допустимый падеж при супине, напр. в старо-

---

[6] J. Kurylowicz, "Le problème du classement des cas", *Biuletyn Polskiego Towarzystwa Językoznawczego*, IX (1949).

[7] A. W. de Groot, "Classification of Cases and Uses of Cases", *For Roman Jakobson* (The Hague, 1956).

славянских текстах, семантически вторит целевому, всего лишь потенциальному характеру действия, выраженного супином, и полная синтаксическая обусловленность Р. в этом сочетании отнюдь не снимает его собственного падежного значения, т.е. установки на степень объективации.

10. Вслед за регистрацией комбинаторных (синтаксически или лексически обусловленных) значений каждого падежа должна быть произведена дальнейшая операция – морфологический анализ падежных значений, который открывает лежащую в их основании систему минимальных единиц грамматической информации, т.е. падежных признаков, и по общности признака объединяет падежи в классы.

Точно так же регистрация падежных парадигм ставит на очередь обследование их схожих черт и расхождений, определение инвариантов русского склонения, т.е. общих законов, лежащих в основе всего многообразия современных парадигм, и наконец неизбежно выдвигает краеугольный вопрос: возможно ли установить изоморфность отношений между морфологическими категориями, с одной стороны, и их выражением, с другой?

3

1. В русском языке различаются два основных вида склонений, субстантивный и адъективный, и промежуточные типы – парадигмы неличных местоимений и притяжательных прилагательных (см. 3.8). От общих правил, лежащих в основе этих склонений, несколько отступают собственно-личные (первого и второго лица) местоимения с примыкающим к ним возвратным местоимением и числительные (количественные, собирательные и соответствующие прономинальные).

2. Различение женского и неженского (мужско-среднего) рода имеет место только в ед.ч., различение м. и с.р. – только в прямых падежах ед. числа.

В русском склонении последовательно размежеваны парадигмы мн. и ед.ч., а в пределах последнего различаются "женские" и "неженские" типы склонения, причем последние подразделяются по форме прямых падежей на "мужские" и "средние" типы. Слова, изменяющиеся по родам, т.е. и номинальные и прономинальные прилагательные с примыкающим к ним по форме анафорическим местоимением т.н. "третьего лица" *он, оно, она*, обнаруживают

полное соответствие между родом и типом склонения: женского рода все слова, принадлежащие к "женскому" типу склонения; мужского рода все слова, принадлежащие к "мужскому" типу склонения; среднего рода все слова, принадлежащие к типу "среднему".

Несколько сложней отношение между грамматическим родом и типом склонения у слов, не изменяющихся по родам, т.е. номинальных и пропоминальных существительных. Слова женского или т.н. общего, т.е. факультативно женского рода могут принадлежать исключительно к "женскому" типу склонения, а слова среднего рода исключительно к "среднему" типу. Существительные, обозначающие лица мужского пола, сохраняют мужской род и в тех немногих случаях, когда они принадлежат к "среднему" или "женскому" типу склонения (*подмастёрье*; *слуга́*, *судья́*; *о́н* – *кру́глый сирота́*; *я́ слы́шал*). К какому бы типу склонения ни принадлежали производные формы с суффиксами эмоциональной оценки, образованные от существительных м.р., они сохраняют тот же род: *до́м*, *доми́шко*, *доми́ще*, *доми́на*.

3. Ни одна парадигма не различает всех шести первичных падежей. Из этого числа в основных типах русского склонения насчитывается от пяти до трех раздельных падежных форм, а в одной из парадигм количественных числительных всего лишь две формы.[8]

Степень устойчивости различных падежных противопоставлений далеко не одинакова. В этом отношении они образуют строго закономерную иерархию.

Абсолютным постоянством отличается разделение необъемных падежей на периферийные и непериферийные, т.е. различие 1) между Т. и И., 2) между Д. и В. Следующим по постоянству является противопоставление Д. и Т. падежей.

С другой стороны, в современном русском склонении В. и Д., т.е. два направленных падежа, не могут оба одновременно отличаться от всех прочих падежных форм. Собственной формой наделен либо один из двух, либо ее нет ни у того ни у другого.

В парадигмах без собственной формы В. падежа он совпадает либо с И. (синкретизм прямых падежей) либо с Р. (синкретизм падежей определенных), причем 1) чередование обеих возможностей в пределах иначе одинаковой парадигмы мн.ч. или м.р. служит различению неодушевленности и одушевленности, 2) в номинальных

---

[8]   О несклоняемых существительных иностранного происхождения см. B. Unbegaun, "Les substantifs indéclinables en russe", *Revue des Études Slaves*, XXIII (1947).

формах ж. и с. рода В. всегда совпадает с И., а в местоимениях всех трех лиц – всегда с Р. независимо от рода, числа и одушевленности или неодушевленности.

В парадигмах без самостоятельной формы Д. падежа последний неизменно совпадает с П. ввиду вышеотмеченной устойчивости различия между Д. и Т. Иными словами, непериферийные падежи допускают выбор между двумя видами синкретизма, тогда как у периферийных падежей сокращение в числе форм совершается в первую очередь путем синкретизма обоих определенных падежей. Система периферийных падежей в этих случаях сведена к противопоставлению двух форм – определенного падежа (П.-Д.) и неопределенного (Т.), между тем как в тех севернорусских говорах, где совпали Т. и Д. в парадигмах множественного числа (*рука́м, больши́м*), периферийные падежи наряду с непериферийными могут свестись к противопоставлению объемного падежа (П.) и необъемного (Д.-Т.). Точно так же парадигмы двойственного числа в первоначальной славянской, в частности древнерусской, грамматической системе различали всего три синкретических единицы: общей форме объемных падежей (Р.-П.) противопосталялись две формы падежей необъемных, а именно общая форма прямых падежей (И.-В.) и соответственно общая форма двух периферийных падежей (Д.-Т.). Слияние всех трех периферийных падежей наблюдаемое в сербских парадигмах мн.ч., русскому языку совершенно чуждо.

4. Пятипадежная система в современном русском языке сводится к двум основным разновидностям:

Разряд 1.1

И.		Р.
Т.	Д.	П.

(Пунктиром обозначены альтернирующие совпадения: И.-В. и Р.-В.).

α) "неженский" тип субстантивного склонения существительных в его основной разновидности (т.н. 1 склонение: И. *кула́к*, од., Р.-В. *кулака́*; И.-В. *кула́к*, неод., Р. *кулака́*; И.-В. *окно́*, Р. *окна́*):[9]

---

[9] Латинским шрифтом без скобок мы пользуемся для морфонологической транскрипции морфем или их сочетаний, подставляя в случаях автоматического чередования фонемы тот альтернант, который появляется в обстановке независимой дифференциации, например, –ovo на основании подударных альтернантов: ср. /étava/, /tavó/, /inóva/. Образчики пофонемной транскрипции выделены диагоналями, а примеры фонетического письма даны в квадратных скобках.

⌗/o		a
om	u	e

β) адъективная парадигма м. и с.р. (*злой, злое*; о парадигмх промежуточных между α и β см. 3.8):

oj/ojo		ovo
im	omu	om

γ) субстантивные парадигмы мн.ч. (*дела, леса, усы, мячи, черты*; об альтернирующих окончаниях И. и Р. см. 4.5, 6).

i/a		⌗/ov/ej
am'i	am	ax

Разряд 1.2

И.	В.	Р.
Т.		П.

Сюда относится только "женский" тип субстантивного склонения (*жена, судья*).

a	u	i
oj(u)		e

5. Четырехпадежная система либо модифицирует одну из двух разновидностей пятипадежной системы путем слияния Р. с П. (синкретизм объемных падежей) либо сочетает обе названных разновидности, лишая как Д. так и В. их самостоятельной формы.

Разряд 2.1

И.		
Т.	Д.	П.

Адъективная парадигма мн.ч. (И. *злые*, од., П.-Р.-В. *злых*; И.-В. *злые*, неод., П.-Р. *злых*; о парадигмах промежуточных между адъективной и субстантивной парадигмой мн.ч. см. 3.8).

iji		
im'i	im	ix

β) Отклоняющаяся от обычных норм парадигма местоимений *вы* и *мы* (с суплетивной основой в И. последнего слова).

Разряд 2.2

i		
am'i	am	as

И.	В.	
Т.		П.

Такой синкретизм всех трех косвенных определенных падежей находит себе выражение в адъективном склонении ж.р. (*злáя*; о парадигмах промежуточных между адъективной и соответствующей субстантивной см. 3.8).

Разряд 2.3

aja	uju	
oj(u)		oj

И.	Р.	
Т.	П.	

Этот тип сводит как периферийные, так и непериферийные падежи к противопоставлению падежа определенного неопределенному. Он представлен двумя аномальными парадигмами с суплетивным И. Это во-первых, местоимение третьего лица ж.р. (И. *онá*, Р.-В. *её*, Т. *éю*, П.-Д. *éй*), а во-вторых, собственно личные местоимения *я* и *ты* – оба общего, т.е. факультативно женского рода, а также лишенное И. падежа, но всецело схожее с ними и по структуре косвенных падежей, и по своему роду возвратное местоимение (ср. *тьı́ себя́ молоду́ю пожалéй*).

—	a	
oj(u)	e	

6. В трехпадежной системе В. совпадает с И., а Д. и П. с Р.

Разряд 3

И.	Р.	
Т.		

Сюда относятся две близких парадигмы субстантивного склонения –

α) побочная парадигма "женского" типа (*ночь, лошадь*), к которой помимо существительных ж.р. относится большинство количественных числительных (*пять, десять*):

#		i
ju		

β) побочная парадигма "неженского" типа, к которой принадлежит одно существительное м.р. с нулевым окончанием (*путь*) и небольшое число существительных среднего рода с окончанием -о и с наращением в косвенных падежах (*имя, семя*):[10]

#/o		i
om		

В трехпадежной системе В. может совпадать единственно с И., потому что совпадение с Р. упразднило бы неотъемлемое различие между Д. и В. (ср. 3.3).

7. В порядке исключения находит себе место в русской морфологии двухпадежная система, сводящая склонение к противопоставлению падежей прямого и косвенного.

Разряд 4

И.		Р.

Этот тип представлен числительными *сорок* (с нулевым окончанием) – *сорока* и *сто* (с окончанием -о) – *ста*, а также еще более прихотливым образчиком *полтора–полутора*.

8. Формы прямых падежей следуют основным субстантивным парадигмам, а формы косвенных падежей адъективным парадигмам – 1) в притяжательных прилагательных с словообразовательным суффиксом -#j-/-еj-: bož-еj-# (*божий*), bož-#j-a (*божья*), bož-#j-u (*божью*), bož-#j-i (*божьи*), bož-#j-ovo (*божьего*); к этой группе примыкает порядковое прилагательное *третий*;[11] 2) в прономиналь-

---

[10] Уже Р. Кошутић справедливо усматривал в этом окончании автоматический безударный альтернант ударного -о. Граматика руског језика, I (Петроград, 1919).

[11] Притяжательные прилагательные с суффиксами -ov-, -in-, следуют субстантивному образцу не только в прямых падежах, но и в тех формах, где

ных прилагательных (*чей, чьё, чья; весь, всё, вся; сам, само, сама;*
3) в прономинальных существительных за исключением слов
женского (*она*) или общего (*я, ты*) рода. Особенностью третьей
группы является полная или частичная супплетивность именительной
формы (*он, оно – его; кто – кого; что – чего*). Это местоименное
склонение представляет несколько особенностей в начальном
гласном окончания: 1) вместо -о в окончаниях ж.р. после мягких
согласных и /j/ появляется -е: *чьею, чьей; моею, моей; всею, всей;*
2) начальному -i адъективных окончаний в отдельных местоимениях
соответствует -е: мн.ч. *теми, тем, тех; всеми, всем, всех;* Т. м.р.
тем, всем.

К этому смешанному типу склонения относятся также собиратель-
ные и прономинальные числительные, с тою разницей, что адъектив-
ные формы следуют парадигме мн.ч., а субстантивной формой И.
служит средний род ед.ч. (*пятеро, трое, сколько – пятерых, тройх,*
скольких; уклоняется *оба, обе – обоих, обеих*). Наконец к тому же
смешанному типу примыкает еще более аномальное склонение
количественных числительных *два, три, четыре* с особенностями и
в начальном и в конечном гласном окончаний: *двух, трёх, четырёх;*
двумя, тремя, четырьмя.

Для склонения простых местоимений и простых числительных
характерен переход ударения на все реальные окончания, причем в
двусложных окончаниях ударение падает на последний слог, кроме
двусложных окончаний Т. на ju и m'i с обязательным ударением
на первом слоге: *того, моего, самого, одного; тому, моему, самому,*
одному; десятью, двумя, но *одною, моею, всею, одними, моими,*
всеми.[12]

4

1. Падежные окончания могут быть либо нулевые (-#) либо
реальные, т.е. состоящие из одной фонемы или большего числа
фонем.

Реальные окончания подразделяются на однофонемные и поли-
фонемные. Полифонемные падежные окончания содержат либо две

однофонемному окончанию существительных соответствует трехфонемное
окончание в адъективном склонении, т.е. в Р. и Д. неженской парадигмы
(Р. *мельникова, сестрина,* Д. *мельникову, сестрину*). Из трех однофонемных
окончаний этой субстантивной парадигмы, здесь удержаны два, а в фамилиях
с тем же суффиксом все три (П. *Мельникове, Ильине*).

[12] Систему ударения в русском склонении мы предполагаем рассмотреть особо.

либо три фонемы. Однофонемные и двухфонемные падежные окончания односложны, трехфонемные всегда двухложны.

В двухфонемных окончаниях слоговая обычно предшествует неслоговой фонеме; только если с трехфонемным окончанием чередуется равнозначное двухфонемное окончание, идентичное с его последними двумя фонемами, то в таком двухфонемном окончании слоговая следует за неслоговой фонемой: Т. -oju/-ju (*ночью*) и в единичных случаях -am'i/-m'i (*людьми, лошадьми, детьми*); ср. *тремя* и *четырьмя*.

Таким образом однофонемные окончания всегда состоят из одной слоговой фонемы, двухфонемные содержат одну слоговую и одну неслоговую фонему, а трехфонемные – две слоговых фонемы и одну неслоговую. В трехфонемных окончаниях неслоговая фонема всегда занимает место между двумя слоговыми.

2. В падежных окончаниях как однофонемных, так и полифонемных находят себе применение все русские слоговые фонемы. Но из общего числа тридцати трех неслоговых фонем, бытующих в московской норме русского литературного языка, всего лишь четыре – /j/, /v/, /m'/ и /x/ – выступают в падежных окончаниях. Из них первые три появляются и в превокальном и в конечном положении, а /x/ только в конечном. Единственно в склонении личных местоимений, самом иррегулярном из всех склонений, а именно в Р. мн.ч. *нас*, *вас*, фонема /s/ служит заменой обычного /x/. В окончании -ov фонема /v/ автоматически утрачивает звонкость в русском литературном языке. Правда, и [m'], и [m] фигурируют в падежных окончаниях – ср. с одной стороны *столами, злыми, ими, двумя*, с другой же стороны *столом, столам, злым, злом, злому, ему, им, двум*, но в морфологическом аспекте здесь нет противопоставления двух фонем, так как 1) в конце грамматических окончаний современный русский литературный язык не допускает мягких согласных (ср. *дамь > дам, сънъмь > сном, идуть > идут*);[13] 2) внутри морфемы не бывает мягких губных перед /u/: следовательно в независимой позиции падежные окончания знают только мягкую разновидность губного носового и напротив, только твердую в тех северорусских говорах, где либо формы Т. мн.ч. заменены формами Д. мн.ч., либо вместо новообразований *двумя, тремя*, усвоивших /m'/ под влиянием окончаний -am'i, -im'i, наблюдается обратное воздействие формы *двума*: *деньгамы, злымы* или *злыма, с вамы*.

---

[13]　Окончание инфинитива не в счет: в этой морфеме за согласным следует ⌗ в альтернации с фонемой /i/ (*знать, несть–нести*).

3. По числу фонем падежные окончания распределяются следующим образом.

Нулевое окончание встречается только в И. ед.ч. (*стол, бой, конь, мышь*) и Р. мн.ч. существительных (*слов, копий, рук, стай, дынь*), а также в И. м.р. тех номинальных (*лисий, сестрин*) и прономинальных прилагательных (*мой, сам*), которые в прямых падежах пользуются субстантивными окончаниями (ср. 3.8). Если в парадигме одного из двух чисел встречается нулевое окончание, то в другом числе того же слова не бывает форм с нулевым окончанием, за очень редкими исключениями (И. ед.ч. и Р. мн.ч. *чулок, солдат*). В парадигме одного из двух чисел, за сравнительно малочисленными исключениями, каждое существительное наделено одной падежной формой с нулевым окончанием (*стол – столов, бой – боёв, конь – коней, мышь – мышей*; *слово – слов, копьё – копий, рука – рук, стая – стай, семья – семей, дыня – дынь*).[14]

4. Закономерно разграничено употребление однофонемных окончаний, с одной стороны, и полифонемных, с другой.

Из всех падежей только Т. всегда наделен полифонемным окончанием. В ед.ч. оно всегда содержит две обязательных фонемы: -om, -im, em, -oj(u) (ср. *рукой, рукою*), -ej(u) (ср. *моей, моею*), -ju. Т. мн.ч. характеризуется трехфонемным окончанием (-am'i, -im'i, -em'i, -um'a, -om'a), в единичных случаях лишенным начального гласного (*людьми, лошадьми, четырьмя*).

В адъективном склонении есть только полифонемные окончания.

Субстантивные окончания прямых падежей содержат не более одной фонемы. В субстантивном склонении ед.ч. все определенные падежи (В., Д., Р., П.) характеризуются однофонемными окончаниями.

Во мн.ч. всех склонений и в ж.р. адъективного склонения реальные окончания всех определенных падежей содержат по две фонемы: Д. мн.ч. -am, -im, -em, -um, -om; Р. мн.ч. -ov, -ej; П. мн.ч. -ax, -ix, -ex, -ux, -ox; общее окончание падежей в прилагательных ж.р. -oj.

Во всех падежах адъективного склонения, кроме П., окончания м.р. отличаются по числу фонем от окончаний мн.ч.: трехфонемным во мн.ч. окончаниям неопределенных падежей соответствуют двухфонемные окончания в ед.ч. (И. -iji : -oj, Т. -imi : -im). Напротив, окончания определенных падежей насчитывают по две фонемы во мн.ч., по три в ед.ч. (Р. -ix : -ovo, Д. -im : -omu), за исключением П. (-ix : -im).

---

[14] Вопрос о соотношении субстантивных форм И. ед. ч. и Р. мн. ч., а также Р. ед. ч. и И. мн. ч. подробно рассмотрен автором выше, стр. 148-153.

5. Полифонемные окончания всегда содержат -j- в прямых падежах (-oj, -ojo, -aja, -uju, -iji), сверх того, j последовательно входит в полифонемные окончания косвенных падежей во всех парадигмах, по которым склоняются слова женского и общего (факультативно женского) рода: -oj, -oj(u), -ju.

Губная носовая фонема появляется единственно в окончаниях периферийных падежей. Она всегда налицо в полифонемных окончаниях Т. и Д., поскольку это не противоречит предыдущему правилу о -j- во всех полифонемных окончаниях женского типа склонений: Т. -om, -im, -em, -am'i, -im'i, -em'i, -um'a, -om'a; Д. -am, -im, -em, -um, -om.

Если полифонемные окончания трех периферийных падежей разнятся в начальном гласном, то та же носовая примета входит и в окончание П. (*злым, злому, злом*), в противном случае П. характеризуется собственной согласной приметой: -x- (*столами, столам, столах; злыми, злым, злых; теми, тем, тех*).

Если Р. располагает собственным полифонемным окончанием, то оно содержит -v-. С этой фонемой и ее автоматическим глухим альтернантом может соседить единственно /o/ (-ov, -ovo) или его автоматические альтернанты (ср. /krajóf/, /sarájaf/; /zlóva/, /samavó/, /jivó/, /s'in'iva/). Односложная группа -ov после мягкого или шипящего согласного последовательно уступает место сочетанию -ej (*копей, степей, ночей, вещей, вшей, грошей, ножей*), сохраняясь после всех прочих согласных и /j/ (*чинов, отцов, боёв*).

Таким образом носовая фонема служит приметой периферийных падежей, а шумные щелинные согласные приметой объемных падежей: -x- – предложного, а -v- – родительного. В тех северно-русских говорах, которые заменили конечное /x/ в П. конечным /v/ или точнее, его автоматическим глухим альтернантом /f/, напр. *на зеленыф лугаф*, губной щелинный стал приметой обоих объемных падежей.

6. Если Д. или В. ед.ч. наделен самостоятельным окончанием, то его единственной или последней фонемой всегда бывает /u/: *слону, злому, тому*; *жену, злую, ту*. Иными словами, в шестипадежной системе конечное /u/ принадлежит единственно направленным падежам, не разделяется ими ни с какими иными падежами и служит таким образом приметой направленных падежей.

Только окончание -e может служить в субстантивном склонении специфическим знаком П. и отличать его от всех прочих падежей.

Самостоятельному окончанию В. ед.ч. соответствует конечное -a

в И.; если же В. лишен самостоятельного окончания, то для И. характерно нулевое окончание, альтернирующее с -о (*слóн, винó*; *нóчь, пýть, врéмя*; *сóрок, стó*; об И. ед.ч. адъективного склонения см. 4.8), или же форма И. супплетивна (*я – меня*).

Реальному окончанию И. ед.ч., -о или -а, соответствует, за небольшим числом исключений, нулевое окончание Р. мн.ч.; если же И. ед.ч. наделен нулевым окончанием, то в Р. мн.ч. мы обычно находим реальное окончание -ov в закономерной альтернации с -ej (ср. 4.5).

Однофонемным окончанием Р. является -i, если синкретизм определенных падежей имеет место только в периферийном ряду, т.е. Д. = П., а не в основном ряду, т.е. В. ≠ Р. (*жены́, нóчи, путú́*), в остальных же случаях Р. оканчивается на -а (*слонá, коня́, тебя́, сорокá*).

7. Большей частью однофонемные окончания Р. ед.ч. и И. мн.ч. либо тожественны, либо различаются только просодически – по ударности и безударности. Р. падежу ед.ч., оканчивающемуся на -i, всегда отвечает -i в И. падеже мн.ч. (*страны́ – стрáны, рóзы – рóзы, нóчи – нóчи, путú́ – путú́*), кроме одной парадигмы (*úмени – именá*). За исключением этого редкого типа, И. падежу мн.ч. на -а соответствует -а в Р. ед.ч. (*местá – мéста, óкна – окнá, копы́та – копы́та; вечерá – вéчера*).

Только существительные мужского типа склонения большей частью противопоставляют окончанию Р. ед.ч. -а И. падеж мн.ч. не на -а, а на -i (*чáса – часы́, гвоздя́ – гвóзди, рáка – рáки, попá – попы́*). В то время как обычно падежные окончания опознаются по внутренним аттрибутам своих фонем, И. и Р., принадлежащие разным числам, дифференцируются преимущественно иными средствами – либо разноместным ударением, либо противопоставлением реального окончания нулевому (к интерпретации этого различия средств ср. примечание).[15]

Окончания И. мн.ч. -а и Р. мн.ч. -ov являются единственными родовыми показателями среди обычно внеродовых форм мн.ч.: в русском литературном языке И. мн.ч. на -а и Р. мн.ч. на -ov не могут быть образованы от существительных ж.р. Кроме того, различный род существительных ед.ч. передается и их косвенным падежам мн.ч., поскольку с ними согласуются формы *обóими,*

---

[15] Под влиянием следующего мягкого согласного /а/ в этих формах спорадически уступает место фонеме /i/.

обе́ими и т.п.,; ср. *обо́их дне́й* и *обе́их ноче́й* (но в нелитературной разговорной речи обыкновенно *обо́их ноче́й*).

8. В прямых падежах адъективного склонения окончание начинается и заканчивается тем гласным, из которого состоит однофонемное окончание соответствующей формы субстантивного склонения: -о, -ojo; -а, -aja; -u, -uju; -i, -iji. В И. м.р. ╪ субстантивной формы повторяется в конце адъективного окончания, тогда его начальной фонемой служит под ударением /о/: *борзо́й* (о безударном положении см. 4.9).

В субстантивном склонении окончания всех периферийных падежей мн.ч. начинаются с -а-; в адъективном склонении окончания всех падежей мн.ч., а также Т. ед.ч. начинаются с -i-, и лишь у немногих прономинальных прилагательных с -е-. Кроме названных, все полифонемные окончания косвенных падежей начинаются с -о- (-om; -ovo, -omu, -om; -oj(u), -oj), альтернирующего в Р. мн.ч. существительных и в склонении местоимений ж.р. с -е- (*госте́й*; *все́й, все́ю*).

Характерно, что Т. всегда выделяется среди прочих косвенных падежей той же парадигмы либо бо́льшим числом фонем либо иным начальным гласным. В мн.ч. трехфонемное окончание Т. противостоит двухфонемному окончанию прочих косвенных падежей; в ж.р. прилагательных факультативная третья фонема отличает Т. от двухфонемных окончаний остальных косвенных падежей; в субстантивном сконении обязательные две фонемы отмежевывают окончание Т. ед.ч. от однофонемных окончаний других косвенных падежей ед.ч. и сближают его с двухфонемным типом соответствующих форм мн.ч.; наконец начальным гласным своего окончания Т. падеж прилагательных м.р. отступает от других косвенных падежей ед.ч. и совпадает с падежными формами мн. числа.

9. Согласно традиционному московскому произношению, в падежных окончаниях после мягких согласных и /j/ безударными альтернантами ударных /о/ и /а/ являются:

1) в открытом конце слога всегда /а/ (*мо́ре, зе́лье, и́мя, ба́ня, ку́ча, сва́я; мо́ря, зе́лья, зве́ря, жи́теля, пла́ча, кра́я; пе́рья, ру́жья, бра́тья; зло́е, зла́я*);

2) перед /j/ всегда /i/ (*ба́нею, ба́ней, ку́чей, сва́ей; си́нею, си́ней, горя́чей*);

3) в прочих положениях /а/, если форма принадлежит субстантивному типу склонения (*мо́рем, зе́льем, зве́рем, пла́чем; сара́ев,*

бра́тьев; *ба́ням, ку́чам, свая́м, е́лям, жи́телям*; *ба́нями, ку́чами* и т.д.;[16] *баня́х, куча́х* и т.д.), но обычно /i/, если форма принадлежит адъективному склонению (*си́него, горя́чего*; *си́нему, горя́чему*; *си́нем, горя́чем*).

В открытом конце слова безударное /a/ служит закономерным альтернантом ударных /o/ и /a/. В субстантивном склонении, где полифонемные окончания чередуются с однофонемными, эта альтернация, автоматическая в однофонемных окончаниях, распространяется и на начальные гласные полифонемных окончаний, тогда как в адъективном склонении, где нет однофонемных окончаний, и где, кроме того, нет форм с ударяемым окончанием после мягких согласных, начальные гласные полифонемных окончаний остаются вне действия такой альтернации.

В адъективном окончании И. м.р. ударному /o/ соответствует безударное /i/ в любом положении (*ста́рый* /stárij/, *бо́рзый* /bórzij/, тогда как в прочих формах того же склонения ударному /o/ соответствует безударное /i/ только после мягких согласных и /j/ (Р. ж р. *ка́рей* /kár'ij/, *короткошее́й* /karatkašéjij/ но *ста́рой* /stáraj/, *бо́рзой* /bórzaj/). Вероятно, в И. м.р., помимо книжного влияния и, может быть, аналогии с безударным окончанием мягких основ, сказалась и параллель stár-# : stár-i, stár-im# : stár-im'i, stár-ij# : stár-iji.

5

1. Остается включить в круг анализа оба "добавочных" падежа (ср. 2.6). Как ни ограничен круг неод. существительных с нулевым окончанием И. падежа, различающих в ед.ч. два родительных и два предложных падежа (Р. I *снега́* – Р. II *снегу́*; П. I *снеге́, тени́* – П. II *снегу́, тени́*), есть все основания согласиться с недавними выводами П. С. Кузнецова, что "современный русский язык располагает не одним родительным падежом, как считает школьная грамматика, а двумя различными падежами", и что соответственно возникает "вопрос о необходимости для современной русской грамматики разграничения двух падежей в пределах предложного".[16]

Для сравнительной хатактеристики значений каждой из этих двух пар позволим себе привести следующий отрывок: "Долго не было снегу́, заждались снега́ ребята. Зато сколько снегу́ намело в январе.

---

[16]   П. С. Кузнецов, *Историческая грамматика русского языка*: *Морфология* (Москва, 1953).

Снéгу кругом! Набрали снéгу ребята, вылепили снежную бабу.
Брюллов не любил снéга, пугался снéга. Земля в снегу наводила
тоску. Вороны чего-то искали в снегу, но корму в снегý не было.
Художники чего-то ищут в снéге, но живописности в снéге нет, –
утверждал Брюллов. Раздраженно говорил он о снéге: цвет снéга
напоминает молоко."

Различие значений межсу П. II и П. I в одном и том же контексте
(*ищут чего-то в снегý* – *ищут чего-то в снéге*) отчетливо выступает:
снег – носитель искомого свойства (П. I) – противопоставлен снегу,
как просто месту поисков. Впрочем Ebeling высказал сомнение,
встречаются ли Р. I и Р. II в одинаковых контекстах, и пришел к
заключению, что различие обоих падежей поэтому "лишено зна-
чения".[17] Эти два падежа однако встречаются в тожественных
словосочетаниях, как напр. [количественный] *недостáток чáю* –
[качественный] *недостáток чáя*, где только разница падежных
окончаний осведомляет слушателя или читателя о семантическом
различии между обоими примерами, т.е. отсутствием надлежащего
количества и внутренним изъяном.

Поскольку Р. или П. распадается на два падежа, первый Р. или П.,
в противоположность второму Р. или П., наделяет предмет свой-
ством или состоянием, вытекающим из направленного на данный
предмет действия. Так снег выступает в Р. I как предмет томитель-
ного ожидания, неприязни, страха или как носитель оптического
свойства, а в П. I как предмет художественных исканий и тема
разговора. Отношение Р. I к Р. II и П. I к П. II следует сопоставить
с отношением Д. к Т., т.е. с противопоставлением сигнализованной
направленности действия на предмет отсутствию подобной сигнали-
зации. Собственно, каждый из четырех падежей Р. I, П. I, В. и Д.,
в отличие от Р. II, П. II, И. и Т., наделяет предмет свойством или
состоянием, вытекающим из направленного на предмет действия,
и соответственно может быть назван падежом наделительным.
Одинаковая грамматическая трактовка предметных свойств и
результатов действия сказывается и в наличии предикативных форм
у прилагательных и у причастий страдательных, но не у причастий
действительных (*мёртв* и *убит*).

2. Таким образом все восемь падежей русского склонения соста-
вляют трехмерную систему:

---

[17]   C. L. Ebeling, "On the Meaning of the Russian Cases", *Analecta Slavica* (Amster-
dam, 1955).
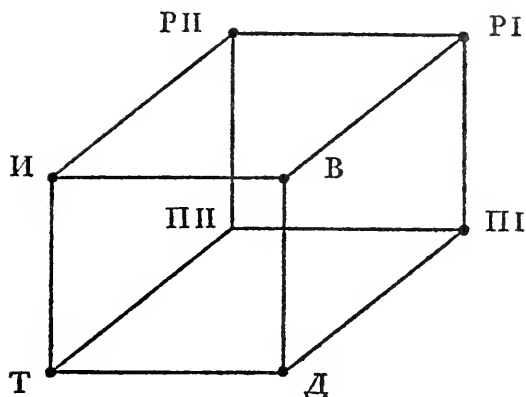
Редкое сочетание признаков объемности и направленности находит себе место и в древнеиндийской падежной системе, но последняя обнаруживает иную иерархию обоих признаков: в отложительном падеже, который противопоставлен родительному и местному как направленный, а винительному и дательному как объемный, объемность определяет направленность, так что отложительный падеж сигнализует направление от предмета в отличие от В. и Д., сигнализующих направление к предмету. Противопоставление периферийности и непериферийности снято в отложительном падеже, и таким образом все возможные двухпризнаковые сочетания в древнеиндийских падежах использованы – направленность и периферийность в дательном, объемность и периферийность в местном, направленность и объемность в отложительном, но ни один падеж не сочетает всех трех признаков, тогда как русский П. I – падеж трехпризнаковый (объемный, периферийный, наделительный).

3. Что касается до разверстки максимального инвентаря русских падежных форм, то в существительных ж.р., различающих П. I и П. II, оба этих падежа вместе с Р. и Д. оканчиваются на -i, но П. II противопоставляет ударное окончание безударному окончанию трех остальных падежей. В существительных м.р., различающих два П. и два Р., П. II вместе с Р. II и Д. оканчиваются на -u, но П. II противопоставляет ударное окончание безударному окончанию двух остальных падежей. В обоих примерах чисто просодическая дифференциация окончаний снова, как и в случае с Р. мн.ч., связана с объемными падежами (ср. примеч. 8).

6

1. Так как падеж – категория, прежде всего, морфологическая, синтаксический разбор употребления падежей не исчерпывает их интерпретации; проблема синтаксической вариации падежных значений неразрывно сопряжена с проблемой инвариантной значимости каждого падежа в отношении к остальным падежам морфологической системы, а также с проблемой точной связи между падежами и прочими морфологическими категориями данного языка.

С другой стороны, изучая фонологическую сторону языка, мы неизбежно принимаем во внимание грамматические единицы, в пределах которых действуют те или иные звуковые законы, различаем звуковые явления, наблюдаемые внутри и на стыке слов, в конце и в начале слова, оговариваем звуковые особенности междуморфемного шва по сравнению с внутренним составом морфем. Далее встает вопрос о различиях в звуковом строе между отдельными классами грамматических единиц – между корневыми морфемами и разного рода аффиксами, между основами и флексиями (окончаниями). Как основы, так и окончания каждой части речи обнаруживают характерные отличия в своем внешнем строении, которые должны быть последовательно выделены. Например, надлежит установить специфический отбор фонем и фонемосочетаний в русских флексиях вообще и флексиях спряжения и склонения порознь. Флексии склонения в свою очередь разделяются на несхожие по своей звуковой характеристике окончания субстантивные и адъективные, с другой же стороны именно фонологическими признаками деления всех флексий склонения служат такие грамматические категории как число и род (последний в определенном соотношении с типом склонения). Структурный анализ звукового состава различных окончаний отдельного падежа в сопоставлении с иными падежами тех же парадигм нередко позволяет выделить общие фонологические черты данного падежа, напр. Т. (ср. 4.8),[18] или класса падежей.

Особую важность приобретает вопрос о падежном синкретизме, т.е. об упразднимых различиях между падежными флексиями и о

---

[18] С наибольшей четкостью и последовательностью творительный фонологически противопоставлен дательному: если Д. кончается слоговой фонемой, Т. кончается или начинается неслоговой фонемой; если же Д. кончается неслоговой фонемой, Т. кончается слоговой фонемой (обязательной или факультативной).

порядке подобных упразднений. Наряду с полным синкретизмом требует тщательного обследования также синкретизм частичный, где сходство окончаний ограничивается либо одинаковым числом фонем (напр. во всех парадигмах мн.ч. реальные окончания падежей определенных содержат по две фонемы), либо общностью одной из фонем (напр. в любой парадигме мн.ч. все окончания периферийных падежей начинаются с одного и того же гласного, а в прочих типах склонения все полифонемные окончания периферийных падежей содержат одну и ту же неслоговую фонему; все полифонемные окончания косвенных падежей в женских типах склонения заключают -j-, а в остальных типах склонения все полифонемные окончания Т. и Д., т.е. необъемных периферийных падежей, содержат губную носовую фонему).

Вопрос о том, как функционируют фонемы в пределах той или иной морфологической категории, напр. падежных флексий вообще или же в данном числе, в парадигмах данного грамматического рода, в данном классе падежей или просто в данном падеже, связывает воедино фонологию с морфологией. Выделяя в разнообразных полифонемных окончаниях известного падежа или падежного класса общую примету ("marque" или "consonne caractéristique de ces désinences", как говорил уже Meillet),[19] специфичную для одного падежа или класса падежей, мы превращаем исследование грамматической формы собственно в разбор ее фонологического состава. Открывается связь между падежом и его отличительной фонемой (напр. -v- как показатель Р. падежа, -x- как показатель П. падежа) и наконец связь между составными элементами падежного значения и фонемами или составными элементами фонем: -m'- (в автоматической альтернации с /m/) выступает как примета падежного признака периферийности, а щелинность, общий аттрибут -v- и -x-, служит приметой падежного признака объемности. Фонология и грамматика оказываются неразрывно связаны целой гаммой переходных, межрайонных проблем, а главное, нераздельностью речевого звука и значения (ср. выше, стр. 103-114, наши общелингвистические замечания 1948 г.).

2. При сравнительном консерватизме совокупности русских падежных значений, особенно поучительна многофазная перестройка системы падежных форм, выясняемая историей русского и праславянского языков. Преобразование и перераспределение падеж-

[19] A. Meillet, *Le slave commun* (Paris, 1923).

ного синкретизма, полного и частичного, требует синтетического обзора и внутреннего истолкования.

Звуковая характеристика падежей и падежных классов частью восходит к глубокой древности; напр. губная носовая примета периферийных падежей диалектически существовала уже в индоевропейскую эпоху наряду с другим диалектным вариантом -bh-, обнаруживая с последним общий характерный знак – лабиальность.

Многие особенности в звуковом облике падежных окончаний оказываются, напротив, новшествами, и для понимания их места и роли необходимо проследить, как именно реагировала система падежных форм на радикальные звуковые изменения в вокализме – на утрату носовых, на исчезновение интонационных и количественных различий и на падение слабых глухих: в каких направлениях была использована грамматическая аналогия для перелицовки этой системы? В частности, какие аналогические изменения обособили звуковой строй падежных окончаний от всех остальных русских форм? Таково напр. появление безударной фонемы /a/, фонетически реализуемой в виде [ə], в тех положениях, где вне субстантивных падежных флексий, эта фонема автоматически уступает место альтернанту /i/. Ср. /d'ikar'óm/ – /l'ékar'am/, но /b'ir'óm/ – /vib'ir'im/ (ср. 4.9).

Какие звуковые изменения, происшедшие лишь в ограниченных грамматических условиях, преобразовали звуковой состав флексий вообще и звуковую характеристику отдельных падежей? Так утрата мягкости согласных в конце флексий (ср. 4.2) ограничивает консонантизм флексий по сравнению с основами. Фонетическое изменение сочетания /ogó/ в /ovó/ получило широкое распространение только в окончании Р. падежа и было перенесено по аналогии и в формы без конечного ударения. Стимулом к такой экспансии, если не к самому изменению, была, надо думать, возможность обобщения -v- в роли приметы Р. падежа.

3. Сравнение звуковой структуры русской системы падежных окончаний с инославянскими типами дает много показательных примеров и конвенгертного, и дивергентного развития. Так напр., из трех чешских неслоговых фонем, встречаемых в падежных окончаниях, -m-, как и в русском, служит приметой падежной периферийности; -h- с автоматическим конечным альтернантом /x/ специфицирует объемные падежи *zlého, somech, ženách, zlých, těch*); -v- функционирует как показатель одушевленности (*králoви, králové*). В сербском языке -m- является общей приметой всех полифонемных

окончаний Т. падежа (*ударом, мачем, женом нашим, нашом, новим, новом*), а в мн.ч. и в адъективном склонении м.р. постоянной приметой всех периферийных падежей (Т.-Д.-П. мн.ч. *ударима, женама, новим*; Т. м.р. *новим*, Д. *новому*, П. *новом*). Назальность гласного в однофонемных окончаниях и назальность согласного в полифонемных окончаниях объединяет все формы польского Т. (*głową, nocą, tą, złą; dworem, tym, złym, dworami, złymi*).

Звуковой облик падежных флексий в их бытии и становлении получает новую, более полную интерпретацию в свете сравнительных славянских разысканий.

II. *SUMMARY:*

MORPHOLOGICAL INQUIRY INTO SLAVIC DECLENSION (STRUCTURE OF RUSSIAN CASE FORMS)

I. Any interpretation of changes in the grammatical pattern implies a synchronic description of its successive historical stages; the present study is based on a strictly synchronic approach.

II. In analyzing cases or some other morphological category we face two distinct and interconnected questions: the morphological INVARIANT, "intension", general meaning of any case within the given declensional system must be distinguished from the contextual, syntactically and/or lexically conditioned variants, "extension", actual application of the case in question.

The six primary cases of the Russian declension are grouped into classes each of which is characterized by the presence *vs.* absence of a particular semantic mark: 1) quantifiers (Genitive, Locative), focusing upon the extent to which the entity takes part in the message, *vs.* non-quantifiers; 2) directional cases (Accusative, Dative), signalizing the goal of an event, *vs.* non-directional; 3) marginal cases (Instrumental, Dative, Locative), assigning to the entity an accessory place in the message *vs.* non-marginal. Nominative is opposed to all other cases as markless *vs.* marked. Quantifiers and marginal cases may be termed oblique *vs.* direct cases (N, A). We label the quantifiers together with the directional cases as definite *vs.* indefinite cases (N, I).

III. Russian has a substantival and an adjectival model of declension with some intermediate and anomalous patterns. Sg. and Pl. paradigms are sharply delimited. In Sg. two declensional types are distinguished: non-feminine paradigms *vs.* feminine or common; in the direct cases, the

non-feminine type distinguishes masculine and neuter (or prevailingly neuter) paradigms.

In each paradigm at least one of the two directional cases is subject to syncretism: D merges with L and/or A merges with G or N. A and D never fall together, and N is always distinct from all oblique cases. If L merges with D or with G, the L desinence is used, but if all three cases merge, they use the G desinence. The I undergoes merger only if all the oblique cases fall together.

IV. The declensional suffixes are divided into 1) zero, and 2) real des-inences – a) monophonematic and b) polyphonematic – containing either two or three phonemes. Any real desinence comprehends at least one syllabic; any polyphonematic desinence includes one nonsyllabic. In a three-phoneme desinence the nonsyllabic stands between two syllabics; if in certain contexts a three-phoneme desinence drops its initial phoneme, the resulting two-phoneme desinence begins with a nonsyllabic; other-wise the two-phoneme desinences always begin with a syllabic.

Of Russian phonemes all the syllabics and only four nonsyllabics occur in the case desinences: /j/, /v/, /m'/ in regular alternation with /m/, and merely in final position /x/, exceptionally replaced by /s/.

With relatively few exceptions, any substantive has a zero desinence either in NSg. or in GPl. The substantival desinences of the direct cases are never polyphonematic. In the Sg. substantival paradigms all definite cases have monophonematic desinences. Any forms of the adjectival declension and the I of all declensions have only polyphonematic desinences. In Pl. paradigms and in the feminine adjectival declension all real desinences of definite oblique cases always have two phonemes.

The direct cases of all declensions and also the oblique cases of feminine or common paradigms have /j/ in polyphonematic desinences. The phoneme /m'/ in regular alternation with /m/ serves as indicator of peripheral cases, /v/ as indicator of G and /x/ – of L.

Also in the vocalic pattern of the declensional suffixes a common phonemic indicator in diverse desinences may point to the unity of a grammatical class. Thus if a directional case (whether A or D) does not merge with other primary cases then -u is its only monophonematic desinence. The substantival Pl. desinences of all the marginal cases begin with a-. The adjectival Pl. desinences begin with i- against the initial o- in the adjectival Sg. desinences of the definite cases.

V. In a limited number of paradigms with a zero desinence of N-A, the G and/or the L undergoes a bifurcation. Both the G_1 and the L_1 in contradistinction to the G_2 and L_2, ascribe to the given entity a property

or an action undergone and thus they may be unified with the directional cases into a wider class of ascriptive cases *vs.* the non-ascriptive cases (N, I, G_2, L_2). The Russian cases present a regular three-dimensional, cube-shaped system.

VI. In the aspect of *signatum*, morphological categories are defined as semantic invariants in the midst of syntactic and lexical variations. In the aspect of *signans*, a morphological category (e.g. the case, a case, a class of cases) or a combination of different morphological categories (e.g. the Pl. cases) is characterized by a specific selection of phonemes and their arrangement. A scale of transitional, interdisciplinary problems and particularly the indissoluble connection of sound and meaning tie together phonemics and grammar.

The search for common laws unifying the multitude of paradigms and for rules underlying the total and partial syncretism of diverse cases must be extended to Russian historical grammar and applied furthermore to the comparison of different Slavic patterns in order to throw light upon their convergent and divergent development. E.g., the nasal indicator of marginal cases, going back to an Indo-European dialectal feature, presents curious varieties: in Serbocroatian, the polyphonematic desinences have /m/ as the constant indicator either of the I or, in some paradigms, of the whole class of marginal cases (their partial syncretism), while in Polish, nasality is common to all desinences of the I, whether polyphonematic or monophonematic (the multiformity of synonymous desinences displays their partial homonymity).

III. *ЗАКЛЮЧИТЕЛЬНОЕ СЛОВО*

Основной темой доклада была изоморфность отношений между грамматическими категориями и их звуковым обликом, рассмотренная на примере русского склонения и чрезвычайно поучительная для исторической и сравнительной славянской морфологии. Эти вопросы, и в частности центральная проблема полного и частичного синкретизма, в статье "Общие значения русских падежей" (1936) еще не были поставлены; в настоящем докладе, вслед за сжатым вступлением, пересматривающим выводы статьи 1936 г., ставится новая задача – обстоятельный анализ падежной флексии.

Разнообразие контекстуальных (в терминах Бодуэна – ком-

бинаторных) значений того или иного падежа не мешает поискам синхронического общего знаменателя, так же как пестрота рефлексов (например, русск. *три*, нижне-луж. *tśo*, нем. *drei*, арм. *erek'*) не препятствует вскрытию того, что их объединяет, т.е. закономерному восстановлению общего диахронического прототипа. Без типологической установки на определение вариантов теряет смысл идея вариации, и лингвистический материал грозит превратиться в хаотическую россыпь единичных фактов, не поддающихся анализу и научной классификации.

Общее значение каждого отдельного падежа может быть определено лишь в отношении ко всем прочим падежам той же языковой системы. С. К. Шаумян прав в признании релятивизма как необходимой основы грамматического анализа, но этот тезис не порывает с лингвистической традицией: необходимость последовательного релятивизма нашла яркое выражение уже у Фортунатова и Бодуэна де Куртенэ.

Значение грамматической формы наиболее четко выступает в тех контекстах, где возможен выбор между двумя взаимно противопоставленными категориями, но оно остается в силе и там, где выбор всецело предопределен контекстом, и идея нейтрализации грамматических значений в таких контекстах представляется мне механическим и неоправданным перенесением фонологических критериев в область грамматики. С другой стороны, оппоненты, призывающие свести исследование падежных значений к вопросу частных синтаксических и прочих контекстуальных значений, и, вразрез с лучшими традициями московской лингвистической школы, подменить анализ семантических противопоставлений, лежащих в основе падежных парадигм, наиболее механистической, явственно отмирающей разновидностью американского дистрибуционизма, – не в праве прибегать к лозунгу борьбы с "фонологической контрабандой" в области грамматики: иначе пришлось бы изобличить в мнимой фонологической контрабанде все те точные науки нашего времени, которые систематически разрабатывают вопросы инвариантов и трансформаций, и даже сопричислить к такого рода "контрабандизму" идею класса "абсолютно эквивалентных состояний", справедливо положенную А. Н. Колмогоровым в основу его меткого определения падежной категории.

Разумеется, необходимо перебрасывать мосты между обеими грамматическими дисциплинами, морфологией и синтаксисом, но в то же время не следует забывать относительной автономии каждой

из этих двух областей и сводить морфологическую проблематику словоизменения, в частности вопросы внешней и внутренней структуры падежей, к синтаксической проблематике словосочетания.

Разложение падежных значений на составные признаки не менее объективно, чем анализ любых иных грамматических категорий; яркие примеры изоморфности, характерные явления падежного синкретизма, как полного, так и частичного дают нам возможность наглядно проверить эмпирическую правильность опытов по вскрытию системы междупадежных отношений.

При всей ограниченности и замкнутости местоименного инвентаря насквозь грамматический характер местоимений, их субститутивная роль и частота их употребления не только не позволяют оставить местоименное склонение за бортом грамматического анализа, но, напротив, превращают местоимения в центральный вопрос; в подтверждение достаточно сослаться на громадное историческое влияние местоименных парадигм на прочие типы склонения.

Ссылки на зыбкость и двусмысленность тех или иных контекстуальных значений (например, в словосочетании *поиски сестры*) малоубедительны: просто отчетливость частного значения здесь зависит от более емкого контекста.

Не подлежит сомнению тесное соотношение между падежами и предложными конструкциями, но самый факт возможности употребления одного и того же падежа с различными предлогами и одного и того же предлога с различными падежами требует тщательного принципиального разграничения обоих грамматических процессов. С другой стороны, явное семантическое различие между предложным и беспредложным употреблением данного падежа не снимает вопроса об общем значении этого падежа, остающемся в силе независимо от наличия или отсутствия предлога.

THE GENDER PATTERN OF RUSSIAN

Louis Hjelmslev's notable study "Animé et inanimé, personnel et non-personnel" (*Travaux de l'Institut de Linguistique*, I, Paris, 1956, p. 155 ff.), with its references (on pp. 160, 170, 184 ff.) to my early discussion of some Russian grammatical oppositions (*Charisteria Mathesio*, Prague, 1932, p. 74 ff.) has stimulated me to sketch a new outline of the Russian grammatical genders. I wish to dedicate this study to Alexander Graur, an eminent expert on the genders of Rumanian.

Russian case-forms distinguish two numbers – the marked plural *vs.* singular, and in all the grammatical cases of the unmarked singular, two genders – the more specified, marked feminine *vs.* non-feminine. The feminine gender signals that the given noun cannot designate a male human being, unless in expressive, particularly pejorative language (cf. *ón – svóloč*, *stérva, ètakaja drján' i razmaznjá*). The unmarked non-feminine, in turn, splits into two genders, distinguished, however, only in the unmarked, nominative case (and in the accusative when merging with the nominative).

Russian non-feminine nominative forms display a distinction between the marked neuter and the less specified, unmarked masculine. The neuter signals a lack of sex reference. These asexual nouns are either inanimates or the widest generic designations of animate beings, as *suščestvó* 'being', *živótnoe* 'animal', *nasekómoe* 'insect', *mlekopitájuščee* 'mammal', *čudovišče* 'monster'. The masculine is a twice unmarked gender. Contrary to the neuter, it signals neither the asexual character of the entity named, nor, in contradistinction to the feminine, does it carry any specification of the sex; masculines like *vráč* 'physician' or *továrišč* 'comrade' apply to both males and females (*továrišč Ivanóva – stáršij vráč*).

Thus the distinction neuter *vs.* masculine implies the distinction feminine *vs.* non-feminine. Neither of these two distinctions is compatible

with the marked, plural number. The distinction neuter *vs.* masculine is incompatible with any marked case.

Furthermore, the distinction between the so-called sub-genders animate *vs.* inanimate is incompatible with any marked gender, either neuter or feminine. This distinction, confined to the accusative, is combinable only with the unmarked, masculine gender or with the genderless plural.

Russian declension exhibits certain slight hints of a distinction between "personal", specifying male human beings, and "non-personal"; in particular we find the use of a divisive stem-suffix *-in-* in the singular and a grammatical alternation of the final stem-consonant in the plural of some personal nouns (N. sg. /bajár'in/ – N.pl. /bajár'i/ – G. pl. /bajár/). The most striking distinction between these two sub-genders, however, is offered by the numerals from two to ten; beside simple cardinal numerals there appear corresponding collective numerals (like *tróe* 'the totality of three', *pjátero* 'the totality of five') which at least in the oblique cases are used in Standard Russian only with reference to male human beings, while in the nominative (and in the accusative when merging with the nominative) such collective numerals fulfill also some other functions (cf. *dvé ruki* 'two hands' – *dvóe rúk* 'two pairs of hands'). It is noteworthy that this distinction appears in numerals, the only declinable part of speech which has no grammatical number and as a rule no genders.

The caseless forms provided with distinct genders, namely the short forms of the adjectives in the positive degree and the preterit forms of the verb, present the same three basic genders. Our statement about the incompatibility of the distinction neuter *vs.* masculine with any marked case can be given a more general formulation: such a distinction is combinable only with an unmarked case or with a caseless form. As in the case-forms, the discrimination of the three genders is incompatible with the marked, plural number in the caseless forms; furthermore, such a discrimination is incompatible with the comparative, i.e., marked, degree in adjectives and with the discrimination of persons in verbs.

The interrelationship of the three genders is different here, however. The neuter, which is a specified, marked category in the case-forms, proves to be the least specified – the unmarked gender – among the caseless forms. Here a "subjective" class is opposed as marked to the unmarked neuter, and the former signals that the verb or short adjective actually relates to a subject, namely to a more specified, marked feminine or to a less specified and, in this respect, unmarked masculine, whereas the neuter may relate either to a subject of neuter gender or to a lack of a substantival headword: cf. *zél'e žgló, vsjó xorošó*, and on the other hand

predicative neuters without any nominative subject, *zél'em žgló vnú-trennosti, rassveló, naródu prišló, býlo temnó, lgát' grešnó, xorošó v krajú rodnóm*, or adverbial modifiers – *ón byválo oxótilsja, xorošó pojút.*

Such shifts in the distribution of marked and unmarked categories in the caseless forms, as compared to the case-forms, are quite natural. Cf. the phonemic opposition compact *vs.* diffuse, with compactness as the marked opposite in the consonants while unmarked in the vowels, or stridency as marked among the plosives but as unmarked among the continuants.

There is an expectable difference in the treatment of the neuter gender under the viewpoint 1) of the noun and 2) of the verb or adverbal adjective (adjective combined either with a notional verb or with a real or zero copula). The tension between the two coexisting patternings of the three genders can easily have contributed to the variance in their structural interpretation.

ON THE RUMANIAN NEUTER

In his impressively varied studies Emil Petrovici has singled out some isomorphic similarities between Rumanian and certain Slavic linguistic patterns. In the spirit of such structural confrontations one may note that both Polish and Rumanian display a different distribution of some grammatical categories in the singular and in the plural.

In the singular of Polish masculine nouns two subgenders are distinguished: the class of objects (inanimate things and abstracts) is opposed to all other nouns (żywotne rzeczowniki). In the first class the Acc. merges with the Nom. but in the second, with the Gen. (*widzę dom* 'I see a house' but *widzę brata, kota* 'I see a brother, a tom-cat'). A different pair of subgenders appears in the plural of Polish masculine nouns: personal nouns (osobowe rzeczowniki) are opposed to the non-personal (whether animate or inanimate). In the latter class Acc. and Nom. fall together, in the former Acc. merges with Gen. (*widzę domy, koty* 'I see houses, tom-cats' but *widzę bratów* 'I see brothers'). Thus Polish possesses two oppositions of masculine nouns: the marked class OBJECTS *vs.* NON-OBJECTS in singular and the marked class PERSONS *vs.* NON-PERSONS in plural. Nouns like *kot* 'tom-cat' which designate neither objects nor persons are an unmarked class in both respects. The Acc. of object-nouns (inanimates) coincides in both numbers with the Nom., and the Acc. of personal nouns with the Gen., whereas in the Acc. the non-personal non-object (animate) nouns are treated like personal nouns in the singular and like object-nouns (inanimates) in the plural.

In the singular, Rumanian nouns oppose a delimited category of FEMININE to the NON-FEMININE, while in the plural, they oppose a delimited category of MASCULINE to the NON-MASCULINE. The inherent gender of the Rumanian noun finds its constant formal expression in the concord genders of the adjective and of the postpositive article. Besides masculine and feminine nouns, Rumanian possesses nouns which are neither masculine nor feminine. They cannot be combined with an adjective (or

article) in its specifically masculine or specifically feminine form; only
the unmarked variety of the adjective (or article) may be used – the non-
feminine in the singular and the non-masculine in the plural. Hence the
term genul neutru 'neuter gender' is definitely preferable to the mis-
leading designation of these literally neuter (non-feminine and non-
masculine) nouns as "ambigeneous" or "heterogeneous".[1]

Each of the three genders carries its own semantic information:
only the masculine gender can be applied for designating males, and only
the feminine for designating females; neuter cannot be applied to sexed
beings and is used only for inanimate, collective, and abstract units. Any
attempt to reduce the Rumanian grammatical pattern to two genders
and to envisage the neuters as mixed forms "masculine when singular but
feminine when pluralized"[2] is an oversimplification. Once we appreciate
the common semantic property of these quasi-irregular forms and the
different *principium divisionis* of genders in the singular on the one hand
and in the plural on the other, the alleged irregularity proves to be
fictitious.

One and the same grammatical process underlies the third, neither/
nor class of nouns in the two instances examined – the Rumanian neuters
and the Polish non-personal animate nouns. But there is an essential dif-
ference between the two languages in the assignment of functions to the
triad of correlated classes. The Rumanian masculine and feminine in con-
tradistinction to the neuter have a common denominator, namely, the
virtual designation of a sexed being, whereas Polish inanimate and per-
sonal nouns have no joint feature which would oppose them in common
to the non-personal animate class.

Within the Rumanian pair of masculine and feminine the latter is
more specified than the former.[3] A masculine noun is applied to a woman
rather than a feminine noun to a man, except for depreciatory words:
un om și o femeie fericiți (masc. plural), 'happy man and woman'; *femeie
advocat* 'female lawyer'. Likewise the plural, as it has been repeatedly
observed, is more thoroughly specified than the singular. Accordingly,

---

[1] "Neutrul rominesc corespunde foarte bine definiției termenului latin *neutrum;*
'nici unul din doi, nici unul, nici altul', așadar, ceea ce nu e nici masculin, nici feminin"
(A. Rosetti, *Despre genul neutru și genul personal în limba romînă*, "Studii și Cercetări
Lingvistice", VII (1957), p. 407; cf. A. Graur, *Les substantifs neutres en roumain*,
Mélanges linguistiques, Paris-Bucharest, 1936, p. 31).

[2] See F. B. Agard, *Structural Sketch of Rumanian*, Language Monograph No. 26
(Baltimore, 1958) p. 60.

[3] Cf. K. Togeby, "Le problème du neutre roumain", *Cahiers Sextil Pușcariu*, I
(1952), p. 267.

we rather substitute singular for plural than plural for singular. Here lies the synchronic explanation for the different distribution of gender forms in singular and plural. A simultaneous signalling of two particularly specified categories is avoided; therefore, the more specified Rumanian feminine is delimited only in the less specified singular, and, vice versa, the less specified masculine only in the more specified plural.

СТРОЙ УКРАИНСКОГО ИМПЕРАТИВА

I

Психологи издавна обращали внимание на существенное различие между побудительной (конативной) и познавательной (когнитивной) функциями речи. Сложный вопрос, как анализировать и мерить информацию, содержимую в повелительных предложениях остро поставлен выдающимся работником в математической теории коммуникации, D. M. MacKay ("The informational analysis of questions and commands", *Information Theory*, под редакцией C. Cherry, London, 1961). Специалисты в области математической логики неоднократно пробовали вскрыть логическую природу императивных высказываний, определить их общность и расхождение с декларативными предложениями. Из всех этих попыток наиболее плодотворною для языкознания нам представляется статья копенгагенского логика Jörgen Jörgensen'a, "Imperatives and Logic" в *Erkenntnis* VII (1938), в виду того, что автор отправляется от строго лингвистического определения своей темы, характеризует императивные предложения, "as sentences in which the main verb is in the imperative mood", и действительно пользуется этим критерием. При таком понимании императивные предложения с одной стороны превосходят по объему понятие приказаний, ибо они включают "not only commands or orders but also requests, pleas, appeals and other linguistic expressions of willing or wishing something to be done or not to be done", с другой же стороны вне рассматриваемого лингвистического понятия оказываются разнообразные формы транспозиции императивных конструкций в план декларативной речи; между тем, эти оба разряда высказываний нередко смешиваются логиками.

Jörgensen справедливо указывает, что проверочное испытание, приложимое к каждому декларативному предложению, неприменимо

к императиву: "*Be quiet* – is it true or false? A meaningless question" (ср. W. Dubislav, "Zur Unbegründbarkeit der Forderungssätze", *Theoria*, III/1937); A. Hofstadter and J. C. C. McKinsey, "On the Logic of Imperatives", *Philosophy of Science*, VI (1939); R. M. Hare, "Imperative Sentences", *Mind*, LVIII (1949); H. S. Leonard, "Interrogatives, Imperatives, Truth, Falsity, and Lies", *Philosophy of Science*, XXVI (1959). Именно непригодность такого испытания четко отмежевывает подлинно императивные конструкции от всех видов их перевода на язык декларативных предложений. Критерий правды и неправды неприложим к императиву *работай*, но становится вполне закономерным при любой подстановке индикативного субститута: предложения "Ты должен работать", "Тебе надлежит, тебе следует работать", "Ты будешь работать" непосредственно открыты для обсуждения, следует ли действительно работать или нет, правда ли, что адресат повинен работать, или неправда, станет ли он это делать или же не станет. Другой тип преобразований превращает в тему предикации не предмет, а самый факт волеизъявления: "Я приказываю тебе работать", "Я требую, чтобы ты работал", "Тебе велено работать", и в этих случаях именно факт приказания подлежит проверке: правда ли, что велено, или это неправда?

Соответственно, в чисто лингвистическом плане, отличительной особенностью императива является невозможность непосредственной трансформации повелительных предложений в вопросительные. В то время как все прочие глагольные конструкции обратимы в вопросительные корреляты (напр. "Работаешь ли ты? Работал ли ты? Будешь ли ты работать? Работал бы ты?"), императив "Работай" лишен соответственного вопросительного образования. Попытка H. Reichenbach'a (*Elements of Symbolic Logic*, New York, 1947, стр. 342) включить в круг императивных терминов такие вспомогательные глаголы как *shall* и *should* является примером злополучного смешения элементарных лингвистических понятий, типичным для операций этого ученого над живым языком. Пары *You shall do it – Shall you?* и *You should do it – Should you?* наряду с такими парами как *You have done it – Have you?* противостоят одинокому *Do it.*

Если императивные предложения, или собственно, согласно иной терминологии, эквиваленты предложений, нашли себе надлежащее освещение в синтаксических трудах, то морфологическому своеобразию императива еще не было уделено достаточного внимания.

II

Исторические судьбы славянского императива и его современное состояние в различных славянских языках представляют в этом отношении немалый интерес. Глагольная основа без флективных суффиксов, одна или в сопровождении различных экспрессивных частиц, служившая индоевропейским императивом, была, как известно, вытеснена в праславянском языке старым оптативом, и чрезвычайно поучительна та цепь изменений, которой подверглись состав и структура оптативных форм в результате их превращения в формы подлинного императива. Автору этих строк уже неоднократно приходилось отмечать, что в современном русском повелительном наклонении наиболее четко сказывается своего рода рецидив индоевропейского строя, т.е. приближение императивных форм к голой глагольной основе, употребляемой либо самостоятельно, либо в сопровождении обособленных, агглютинативно нанизанных суффиксов (см. выше, стр. 12-13 и 145-146). Фонологически они трактуются как своего рода энклитические частицы. Непосредственным импульсом для такой трактовки императивных суффиксов послужила форма второго лица множественного числа, присоединяющая окончание к той же личной форме единственного числа: *кинь–киньте, неси–несите*. Раскрепощение суффикса «*те*» сказывается 1) в его присоединении к форме первого лица – *пойдемте* (в прошлом веке нередко писалось *пойдем-те*) – для дифференциации значений "я с тобой" и "я с вами", 2) в сочетании того же суффикса с междометиями (*ну-те*). Ощущение автономности этой частицы иллюстрируется диалогом в романе Пантелеймона Романова:

– Садитесь сюда, – сказала Кэт ***
– Только «те» нужно выбросить, заметил Митенька. – Садись, а не садитесь ***

На шве между основой и такими суффиксами императива действуют те же законы, что и на стыке слов, в отличие от обычных звуковых законов междуморфемного шва. Ср. напр. императив /p'át'sa/ *пяться* с индикативом /talp'átca/ *толпятся* и инфинитивом /kupátca/ *купаться* или императив /zabút'sa/ *забудься* с индикативом /skr'ibútca/ *скребутся* и инфинитивом /zabítca/ *забыться*, а также мягкие зубные и губные перед зубными, чего иначе внутри слова не бывает: /ad'én'sa/ *оденься*, /žár'sa/ *жарься*, /pr'ibl'ís'sa/ *приблизься*, /upr'ám'sa/ *упрямься*, /gatóf't'i/ *готовьте*, /gráp't'i/ *грабьте*.

Схожие морфонологические явления, сближающие конец императивной основы с концом слова, наблюдаются и в других славянских языках. Так напр. и в польском, и в чешском звонкие и глухие согласные внутри слова противопоставлены друг другу, а на стыке слов в одних польских и чешских говорах перед сонорными глухие переходят в этом положении в звонкие, в других, напротив, звонкие в глухие, и в обоих случаях точно так же трактуется в императиве конечный согласный основы перед суффиксом первого лица множественного числа: в тех говорах, где конечный согласный слова звонок перед начальным сонорным, мы находим не только *groźmy* и *powiedzmy*, но также *nieźmy* и *pleaźmy*, а у чехов как *vezme*, так и *nezme*, и соответственно *vez mi* и *nez mi*. Там же, где конечные согласные слова в этом положении глухи, соответственно в императиве фигурируют перед /m/ глухие согласные: *nieśmy, plećmy, grośmy, powieśmy*, а по-чешски *nesme, vesme* (от корней *nes* и *vez*) подобно словосочетаниям *nes mi, ves mi*, между тем как внутри слова звонкость перед /m/ сохраняется: *vezme* 'возьмет'.

III

Оригинальное развитие украинских императивных форм неоднократно озадачивало исследователей. Вставал целый ряд вопросов: Почему отпадает гласный в императивных окончаниях *-мо* и *-те*, тогда как те же гласные последовательно сохраняются в соответствующих формах настоящего времени? Иными словами, как объяснить на исходе слова разницу между индикативными формами 1. и 2. лица множественного числа как *пасе́мо, пасе́те* и императивными формами тех же лиц и того же числа *пасі́м, пасі́ть*? Как исторически обосновать мягкость конечного согласного в последней форме? Даже приняв предположение о первоначальной мягкости украинских согласных в положении перед /e/, трудно допустить, чтобы утрата конечного /e/ в этом окончании произошла в украинском еще до отвердения согласных перед /e/.

История звуков украинского языка свидетельствует, что уже в XIII веке согласные перед /e/ были тверды, между тем как примеры императивных форм 2. лица множественного числа без конечного *е* не старше конца XVI столетия. Факт появления усеченных окончаний "nur im Imperativ und niemals im Indic. Pres." долго служил камнем преткновения для филологов и побуждал их выдвигать малоправдоподобные домыслы о скрещении императивной формы на *-te*

с мнимым праславянским вариантом императива на *-ть (ср.
Г. Ильинский, "Zur Geschichte des Imperativs im Kleinrussischen",
ZfSlPh, II/1925, стр. 127-133). Возникала догадка, что в первом лице
множественного числа украинский императив использовал чередо-
вание двух диалектных вариантов, -то и -ть, и что усеченная форма
второго лица возникала по аналогии с этой альтернацией, но вопрос,
почему оба этих чередования остались "исключительной приви-
легией императива" продолжал смущать специалистов.

Между тем, парадигмы украинского императива оказываются
ясны и глубоко последовательны, если взглянуть на них именно в
свете специфических особенностей императива по сравнению с
прочими глагольными формами. В украинском, равно как и в
других отпрысках праславянского языка, наблюдается вслед за
падением слабых глухих явственное стремление свести императив-
ную форму единственного числа к голой основе. Эта тенденция
сталкивается с двумя ограничениями.

Окончание сохранялось, если ему предшествовало не менее двух
неслоговых фонем (сту́кни, підкре́сли). Помимо того, окончание
сохранялось у глаголов с безударной основой, даже если к таким
глаголам присоединялся перфективирующий префикс ви-, пере-
тягивавший на себя конечное ударение (неси́, ви́неси), но в тех
случаях, когда последней неслоговой фонемой является /j/, конечный
гласный всегда упраздняется (тай, дій, стій). Там же, где ни одно из
двух названных условий не имело места, т.е. не было ни сочетания
двух неслоговых перед конечным гласным, ни безударной основы,
окончание последовательно утрачивалось.

Если мы зададим себе вопрос, что́ является, согласно терминам
L. Bloomfield'a, основным альтернантом в этой автоматической
альтернации, наличие гласного или его отсутствие, то роль основ-
ного альтернанта придется приписать именно отсутствию гласного,
потому что такие несуществующие формы, как *ký́ny, *rády (вм.
кинь, радь) и т.п., были бы возможны в рамках украинских фонологи-
ческих законов, тогда как такие образования как *hlý́pn', *bú́bn',
*krý́kn' или *nes' без ударного гласного (вместо глі́пни, бу́бни,
крі́кни, неси́) противоречили бы этим законам. Таким образом, в
синхроническом аспекте основною формой здесь служит тема без
флективного суффикса, а внешне обусловленный альтернант -и
появляется просто как приставной, парагогический гласный (радь
кинь, ви́кинь, вір), и эта утрата конечного гласного распространялась
в украинском на вокалический префинальный суффикс окончаний

множественного числа (*ра́дьмо*, *ра́дьте*, *ки́ньмо*, *ки́ньте*, *ві́рмо*, *ві́рте*, *гра́ймо*, *гра́йте*, но *несі́м*, *несі́ть*, *ви́несїм*, *ви́несїть*, *сту́кнїм*, *сту́кнїть*, *підкре́слїм*, *підкре́слїть*). Ср. схожие явления напр. в истории русского, белорусского, польского, чешского и словацкого языков. О том, что упразднение окончания оставалось живым процессом, свидетельствуют западнославянские языки. В польских памятниках XIV века и в чешских до начала того же века еще сохранялись, вопреки утрате конечного ударения, такие пережитки как *prosi*, но в дальнейшем все эти формы с некогда ударным -*i* лишились этого гласного (пол. *pros*, чеш. *pros*). Далее тот же принцип был распространен в украинском и на гласный конечного суффикса тех же окончаний: если этому гласному предшествовало две не-слоговых фонемы, он сохранялся, если же одна, то отпадал (ср. *ста́ньмо*, *ста́ньте* и *сту́кнїм*, *сту́кнїть*).

В говорах это обобщение распространилось с конечного гласного в императивной форме единственного числа на конечный гласный множественного числа лишь в пределах того же второго лица, тогда как конечный гласный в формах первого лица сохранялся (*несі́мо–несі́ть*, *стукнї́мо–стукнї́ть*, *провітрї́мо–провітрї́ть*). Следственно альтернация форм с конечным гласным и без такового во втором лице множественного числа возникла отнюдь не под влиянием соответствующей альтернации в первом лице того же числа, как думал напр. С. Смаль Стоцкий (*Grammatik der ruthenischen Sprache*, Вена, 1913, § 9), а непосредственно по образцу такого же чередования в единственном числе императива; затем по аналогии с альтернациями конечного гласного и нуля во втором лице обоих чисел часть украинских диалектов приобрела схожее чередование также в императивных формах первого лица множественного числа.

Говоры с систематической альтернацией гласного и нуля в окончаниях императива, напр. западный вариант украинского литературного языка, на котором базируется *Граматика української мови* В. Симовича (Киев, 1919), располагает двумя моделями окончаний повелительного наклонения: $\#/V$ в единственном числе и $\#/V + C + V/\#$ во множественном ($\#$ обозначает нуль, $V =$ гласный, $C =$ согласный). Все эти альтернации с нулем автоматически обусловлены структурой беспрефиксной глагольной основы, т.е. наличием или отсутствием ударения на основе и отсутствием или наличием сочетания неслоговых фонем перед окончанием. Модель окончаний представлена таким образом двумя комбинаторными вариантами – либо $\#$ в единственном числе и соответственно

$\neq + C + V$ во множественном либо V в единственном и соответственно $V + C + \neq$ во множественном числе. В рассмотренном диалектном типе после сочетания неслоговых фонем флективные суффиксы императива требуют гласного, и в этих окончаниях беспрефиксных глаголов безударный гласный допустим лишь после сочетания неслоговых фонем. Таким образом только согласный является неотъемлемым элементом императивных окончаний множественного числа.

В украинских именных окончаниях нет согласных парных по мягкости и твердости (т.е. по наличию и отсутствию диезности), а в глагольных окончаниях парные согласные мягки в заключительном положении (*бачить, бачать, беріть*), но неизменно тверды перед заключительными гласными (*стати, стала, стали, станете, станьте*). Под синхроническим углом зрения мы наблюдаем, что в императиве, т.е. в единственной морфологической категории, чередующей нулевое окончание с вокалическим, вышеуказанный принцип распределения мягкости и твердости распространен и на конечную согласную фонему основы: здесь парные по твердости и мягкости фонемы тверды перед заключительным гласным слова и мягки во всех прочих положениях: ср. *свисни, жени* и *кинь, кіньмо, кіньте, свиснім, свисніть*).

В историческом плане следует предположить обратный ход аналогии – *лети* (с твердым превокальным *t*) : *трать* (с мягким конечным *t'*) = *тратьте* (с твердым превокальным *t*) : "х" т.е. *летіть* (с мягким конечным *t'*). Таким образом мягкость конечного согласного во втором лице единственного числа при твердости этого согласного перед конечным гласным могла послужить стимулом к смягчению конечного согласного в том же лице множественного числа в противоположность его твердости перед конечным гласным. Факт мягкости всех парных согласных в конце украинских флективных суффиксов, конечно, благоприятствовал действию названного стимула. В этой связи заслуживает внимания что большею частью говоры с твердым /t/ в окончаниях третьего лица обоих чисел настоящего времени показывают конечное твердое /t/ и во втором лице множественного числа императива (ср. С. Бевзенко, *Історична морфологія української мови*, Ужгород, 1960, стр. 337).

По поводу конечных гласных украинского императива и вообще финитных форм может быть отмечено, что обе собственно личных категории, т.е. первое и второе лицо, четко разнятся дифференциаль-

ными признаками этих гласных: если форма кончается на гласный, то первое, признаковое лицо в противоположность второму, беспризнаковому (см. выше, стр. 9) характеризуется округленностью (бемольностью) этого гласного (ср. *кѝньмо*, а с другой стороны *свисни*, *кинь́те*, или в индикативе *пасу́*, *пасе́мо*, но *пасе́те*); между тем как узкость (диффузность) конечного гласного в личных формах единственного числа противопоставлена относительной широкости (отсутствию диффузности) в конечном гласном личных форм множественного числа (ср. *свѝсну* и *свѝсни*, но *пасе́мо*, *пасе́те* и *кѝньмо*, *кѝньте*). Бемольность конечного гласного оказывается монополизована для первого лица в противоположность не только второму, но и, собственно говоря, безличной категории, т.е. так называемому "третьему лицу". Соответственно согласный наделен низкой тональностью в окончаниях первого лица (*ї́м*, *хвалимо*, *хвалı́м*), но высокой тональностью в окончаниях второго и третьего лица (*ї́сı*, *хвалиш*, *хвалите*, *хвалı́ть*; *хвалить*, *хвалять*).

Рассмотрение украинского императива и спряжения вообще должно быть введено в контекст типологического и сравнительно-исторического анализа славянских глагольных систем. Когда такого рода структурный анализ будет осуществлен во всей широте и последовательности, он несомненно бросит новый свет на морфонологический состав и развитие славянского глагола и наглядно покажет то особое место, которое занимает императив среди прочих грамматических категорий. В дискуссионном порядке уже могут быть выдвинуты отдельные, предварительные соображения синтетического характера.

RELATIONSHIP BETWEEN RUSSIAN
STEM SUFFIXES AND VERBAL ASPECTS

"In various Indo-European languages, the positive, comparative, and superlative degrees of adjectives show a gradual increase in the number of phonemes, e.g., *high — higher — highest, altus — altior — altissimus.* In this way the signantia reflect the gradation gamut of the signata.*** The signans of the plural tends to echo the meaning of a numeral increment by an increased length of the form.*** When one traces the varied historical processes which persistently built up the diagram — longer plural/shorter singular forms – in diverse Slavic languages these and many similar facts of linguistic experience prove to be at variance with the Saussurian averment that 'in the sound structure of the signans there is nothing which would bear any resemblance to the value or meaning of the sign'."[1]

This statement may be exemplified by the suffixation of Russian verbs which serves to distinguish their grammatical aspects. Two such verbs as *zamorózit'* and *zamoráživat'*, provided with the same prefix and identical in lexical meaning, differ in their aspect – perfective and imperfective, respectively. The perfective aspect presents the narrated event with reference to its absolute completion, whereas the imperfective aspect is noncommittal in regard to completion or noncompletion. Correspondingly, *zamorózit'* means "to complete frezing", while *zamoráživat'* means 'to freeze' with no concomitant information as to whether the process is or is not supposed to be completed. Thus the perfective aspect, in contradistinction to the imperfective, implies a limitation in the extent of the narrated event.[2] Comparing the full-stems of both verbs, {za—moróz'-i—} and {za+moráž-ivaj—}, we observe several differential characteristics;

[1] R. J., "Quest for the essence of language". [See below.]
[2] For a more detailed analysis of grammatical processes and concepts displayed by the Russian verbs, consult the author's earlier studies: "Zur Struktur des russischen Verbums" [see above, p. 3 ff.]; "Russian Conjugation" [see above, p. 119 ff.]; *Shifters, Verbal Categories, and the Russian Verb* [see above, p. 130 ff.].

(1) Only in the impf. stem is the final vowel followed by a nonsyllabic – namely /j/.

(2) This vowel is compact in the impf. but diffuse in the pf. stem: /a/ vs. /i/.

(3) The suffix, confined to one vowel – /a/ – in the pf. stem, comprises two vowels with a consonant between them – /iva/ – in the impf. stem.

(4) To the diffuse prevocalic consonant /z/ at the end of the pf. stem corresponds a final compact /ž/ in the impf. stem, while, e.g., the stems of the pf. *uslóvit'sja* {u+slóv'-i—t'-s'a} and impf. *uslávlivat'sja* {u+slávl'-iva—t'-s'a} end in a single consonant /v'/ and a consonant cluster /vl'/, respectively.

(5) To the noncompact stressed vowel /ó/ in the root of the pf. verb the impf. verb opposes a compact /á/.

All these differences in the form of the two correlative verbs display an iconic congruence with the opposition of their grammatical meanings. The perfective signalizes a limited extent of the narrated event, and correspondingly a lesser number of phonemes characterizes the pf. stem suffix (items 1 and 3). The same semantic relation between the two aspects is reflected by the phonemic opposition diffuse vs. compact or noncompact vs. compact (items 2, 4, and 5), since "the scale of magnitude, i.e. the small vs. large symbolism" is "latently connected for the average listener with the opposition of diffuse and compact",[3] a relation of two contraries which bifurcates into two dyads of contradictories: diffuse vs. nondiffuse and compact vs. noncompact.

Applying the same principle of analysis to all those pairs of Russian verbs both of which are provided with one and the same prefix, differing externally in their thematic suffixes and internally in grammatical aspect but not in lexical meaning, we find several types of formal difference between the correlative impf. and pf. full-stems. Pairs of stems provided with an identical prefix must be discussed separately from stems without any prefix. First we shall survey the pairs of complex, i.e. prefixal stems and subsequently the pairs of simple stems.

The aspectual pairs of complex stems in turn present different varieties. If such impf. stems are provided with a one-vowel suffix, it is always {-í—} and the corresponding pf. stems are devoid of suffix, e.g. *uvozít'* ∼ *uveztí, prinosít'* ∼ *prinestí.* All other suffixes of impf. full-stems in these verbal pairs are {-áj—}, {-váj—}, and {-ivaj—}. Impf. stems with the suffix {-áj-} correspond to pf. stems 1) without vocalic suffix – *propadát'*,

³ See R. Jakobson, C. G. M. Fant, M. Halle, *Preliminaries to Speech Analysis* (Cambridge, Mass., M.I.T. Press, 1964), 2.413.

vlezát' {-áj-} ~ *propást'*, *vlézt'* {-#—}; similarly *produvát'* ~ *prodút'*, *sogrevát'* ~ *sogrét'* – or 2) with a one-vowel suffix – usually the diffuse {-í—} or {-i—}, such as *obvinját'* ~ *obvinít'*, *zakupát'* ~ *zakupít'*, *proverját'* ~ *provérit'*; the noncompact {-é—} or {-e—}, such as *vletát'* ~ *vletét'*, *stirát'* ~ *sterét'*, *obižát'* ~ *obídet'*. When to the impf. full-stems with {-áj—} the pf. full-stems oppose an equally compact {-á—}, the difference lies in a pf. one-phoneme suffix *vs.* the impf. two-phoneme suffix, e.g. *vbegát'* ~ *vbežát'* (cf. *vbegá'ju* ~ *vbegú*), and frequently, moreover, there is an alternation of a complementary root vowel in the impf. stem with a zero in its pf. counterpart: *poryvát, udirát', peresylát'* {-áj—} ~ *porvát', udrát, pereslát'* {-á—}. If the impf. {-áj—} corresponds to the pf. {-a—}, the higher intensity of the stressed vowel carries the iconic representation of the unrestricted deployment of imperfective action.

To the two-phoneme suffix {-nú—} or {-nu—} of pf. verbs the impf. stems oppose either the three-phoneme suffix {-iva—} – *podprýgnut'* ~ *podprýgivat'*, *začerknút'* ~ *začërkivat'* – or the two-phoneme suffix {-áj—} with a compact /á/ *vs.* /ú/ or /u/ of the pf. suffix – *nameknút'* ~ *namekát'*, *privýknut'* ~ *privykát'*.

The pf. stems in {-áj—} or {-aj—} correspond to the longer suffix {-ivaj—} of the impf. verbs – *zapugát'* ~ *zapúgivat'*, *podslúšat'* ~ *podslúšivat'*.

The stem consonant before the initial vowel of the pf. suffix may be replaced by a consonant cluster in the corresponding impf. stem – *pricepít'* ~ *pricepját'*, *uglubít'* ~ *uglublját'*, *potráfit'* ~ *potraflját'*, *vstávit* ~ *vstavlját'*, *uvédomit'* ~ *uvedomlját'*, *ugodít* ~ *ugoždát';* if there is an alternation of the prevocalic consonants at the end of the stem the diffuse consonant of the pf. verb is usually matched by a compact consonant – *otvétit'* ~ *otvečát'*, *smutít'* ~ *smuščat'*, *ugostít'* ~ *ugoščát'*, *spustít'* ~ *spuskát'*, *provodít'* ~ *provožát'*, *povýsit'* ~ *povyšát'*, *priblízit'* ~ *približát'*. The noncompact /ó/ of the pf. stems alternates with the compact /á/ of the corresponding impf. stems – *nastróit'* ~ *nastráivat'*, *unavózit'* ~ *unaváživat'*, *zabrósit'* ~ *zabrásyvat'*.

Perfective *vs.* imperfective, the only aspectual opposition of verbs with prefixes, is supplemented by two aspectual distinctions of simple, i.e. prefixless, verbs. Among prefixless impf. verbs several pairs are differentiated as belonging to the determinate aspect, which signals the integrity and unbrokenness of the narrated event, respectively to the indeterminate aspect, devoid of such signalization. The higher temporal reduction of the determinate verbs finds its external expression in the

use of the same grammatical processes which divide the compound verbs into perfective and imperfective.

A number of simple verbs which are neither perfective nor determinate undergo a scission, disappearing in literary Russian but still frequent in colloquial language, namely the opposition of the iterative and noniterative aspects, of which the former signals an event that is repetitive or usual in the past. In view of the wider scope encompassed by an iterative action, the same pairs of suffixes are utilized by the simple iterative and corresponding noniterative verbs as by the complex impf. and pf. verbs respectively. Pairs of verbs used with identical prefixes for the distinction of the pf. and impf. aspects when deprived of prefixes fulfill one of the three aspectual oppositions: pf. *razrešít'* ∼ impf. *razrešát'* – pf. *rešít'* ∼ impf. *rešát'*; pf. *unestí* ∼ impf. *unosít'* – determ. *nestí* ∼ indeterm. *nosít'*; pf. *zagovorít'* ∼ impf. *zagovárivat'* – noniter. *govorít* ∼ iter. *govárivat'*.

In the aspectual pairs of prefixless verbs, athematic stems in contradistinction to the suffixes {-í—}, {-i—}, {-aj—} specify the determinate verbs – *veztí* ∼ *vozít'*, *lézt'* ∼ *lázit'*, *polztí* ∼ *pólzat';* there is, however, one instance of an athematic perfective stem opposed to an imperfective verb with the suffix {-aj—} – *pást'* ∼ *pádat'* – and at least one example of a noniterative verb without stem suffix in opposition to an iterative verb with the full-stem suffix {-áj—} – *ést'* ∼ *edát'*.

One-phoneme suffixes of determinate stems form pairs with two-phoneme suffixes of indeterminate stems – *bežát'* ∼ *bégat'*, *letét'* ∼ *letát'*, *katít'* ∼ *katát'*.

Any iterative verb has a longer suffix than the corresponding noniterative, and all these aspectual pairs when provided with a common suffix fulfill the opposition of perfectives and imperfectives: cf. *ést'* ∼ *edát'* and *s"ést'* ∼ *s"edát'*; *znát'* ∼ *znavát'* and *uznát'* ∼ *uznavát'*; *pét* ∼ *pevát'* and *otpét'* ∼ *otpevát;* *pisát'* ∼ *písyvat'* and *pripisát'* ∼ *pripísyvat'*; *igrát* ∼ *ígryvat'* and *proigrát'* ∼ *proígryvat';* *kurít'* ∼ *kúrivat'* and *zakurít'* ∼ *zakurivat'*.

As a rule, pairs of simple pf. and impf. verbs use the suffixes {-í—} and {-áj—}, respectively, or oppose a stem in {-nú-} or {-nu-} to an impf. stem in {-áj—} or {-aj—} – *glotnút'* ∼ *glotát'*, *čerpnút'* ∼ *čérpat'*, *prýgnut'* ∼ *prýgat'*. Pf. stems in {-nú—} or {-nu—} may correspond also to impf. stems with a one-vowel suffix: a compact {-á—} – *kríknut'* ∼ *kričát'*, a nondiffuse {-é—} or {-ó—} – *blesnút'* ∼ *blestét'*, *svísnut'* ∼ *svistét'*, *kol'nút'* ∼ *kolót'*, and finally a diffuse {-í—} – *skol'zít'* ∼ *skol'znút'*, *ševelít'* ∼ *ševel'nút'*, *kutít'* ∼ *kutnút'*. These are the only

instances of aspectual pairs with a shorter impf. suffix and at the same time an equally diffuse vowel as in the corresponding pf. suffix. It is significant that the correspondence of the pf. suffix {-nú—}, {-nu—} with the impf. one-vowel suffixes finds no analogues among the compound verbs: cf. such pairs as *soskol'znút'* ~ *soskál'zyvat'*, *poševel'nút'sja* ~ *poševélivat'sja*, *vskríknut'* ~ *vskríkivat'*, *prisvísnut'* ~ *prisvístyvat'*. With the exception of the few simple stems which oppose the pf. suffix {-nú—} or {-nu—} to the impf. one-vowel suffix and of the entirely isolated pair *dúnut'* ~ *dút'*, each aspectual pair of verbs without prefix or with an identical prefix conforms to the following rules :

Any verb of a semantically nonrestrictive or expansive (i.e. imperfective, indeterminate, or iterative) aspect has a longer stem suffix than the correlative verb of the opposite aspect.

The last or only vowel of this suffix never stands in relation of diffuse *vs.* nondiffuse (or noncompact *vs.* compact) to the corresponding vowel of the aspectual mate.

Whatever the historical background of the grammatical processes involved, the iconic character of the contemporary Russian aspectual design is patent.

ДУБЛЕТЫ ТИПА *СОЧКЛЕ/СЧЁЛ* В ПОКАЗАНИЯХ Т. ФЕННЕ О ЯЗЫКЕ ПСКОВА НА ПОРОГЕ XVII ВЕКА

Tönnies Fenne прибыл, по собственным словам, "на русскую землю", а именно в Псков, чтобы "русскому языку научиться да похватить" и затем "писать ту русскую книгу", которая помогла бы немецким купцам, торгующим с русскими, овладеть их речью, дабы не попасть впросак: "datt de nicht werden van ehnen bedragen", как сказано автором в нижненемецком стихотворном предисловии к его труду.[1]

Мы не знаем, осуществился ли дальнейший замысел Фенне "здорово опять отъехать на свою немецкую землю". Собственный текст книги открывается краткой пометкой: "Tönnies Fenne gehordt düt boek. Anno 1607 den 1. septemb. [древнерусская новогодняя дата] zur Pleschow geschrieben" (стр. 4), а заглавная страница несет дарственную запись: "A° 1609 den 9. Iuni h⟨ab⟩ Ich TF. Disz Buch Hinrich Wistinghauszen Vorerdt" (1). В настоящее время рукопись Фенне хранится в Копенгагенской королевской библиотеке. Из 566 нумерованных страниц первоначального состава уцелели 502 страницы.

По мере писания книги настойчивые усилия наблюдательного автора совладать с особенностями и трудностями русского языка увенчивались все более осязательным успехом. Основным предметом изучения была деловая и разговорная речь псковского рынка, обильного людьми и товарами. Для ознакомления с разнообразным словарным, фразеологическим, грамматическим и звуковым составом живого русского языка первых лет семнадцатого века русские записи Фенне, снабженные старательным нижненемецким переводом, дают неисчерпаемый материал. Не менее поучителен этот источник как связующее звено между специфическими чертами

---

[1] *Tönnies Fenne's Low German Manual of Spoken Russian, Pskov, 1607*, published by the Royal Danish Academy of Science and Letters, Vol. I: Facsimile Copy, prefaced by R. Jakobson and C. van Schooneveld (1964); Vol. II: transliteration and translation, ed. by L. L. Hammerich and R. Jakobson (1968). Цитируемые автобиографические показания автора даны на страницах 4, 13, 16 и 188 его текста.

письменных памятников древнего Пскова и современными псков-
скими говорами.

В трудах по русской исторической грамматике укоренился взгляд,
что "неясны по происхождению формы прош. вр. в 3-м л.ед. на -*ле*".[2]
Нередкие, хотя и спорадические окончания -*ле* вместо -*лъ* в формах
прошедшего времени – сперва применительно к 3-му, а затем и к
прочим лицам м. рода ед. числа – принадлежат к числу наименее
обследованных вопросов русской исторической диалектологии.

В первом, словарном отделе рукописи Фенне рядом с кириллов-
ским написанием *погиблъ* (стр. 43, абзац 16) в транслитерации
приведена форма pogible, а дальнейшие четыре примера кончаются
гласным не только в транслитерированной, но также в кирилловской
передаче: *зломилесъ* slomiles, *зпортилес* sportiles (с псковской утратой
начального *и*), *росдралес* rosdrales (стр. 140, абз. 1, 2, 3), *опухля* (!)
opuchle (142.15). Вторая, фразеологическая часть, где русские слово-
сочетания обычно даются только в латинизированной записи,
содержит целый ряд глаголов м. рода ед. числа прош. времени с
конечным -*е*. Фенне часто снабжает цитируемые слова и выражения
вариантами и синонимами, предваряя каждый из них двоеточием.
Показательны глагольные варианты с конечным -*е* и без такового:
206.4, On ialles: ialsa bütt = He werdt kamen; 237.7, Ialles ia knemu
tzeszu togo buitt = Ich wyll thor stundtt by ehm wesen; 209.3, Ia
schasale = ich sede; 209.8, Ty zaperles: popererles [вм. poperles] = Du
versakest; 236.6, Ia svikli [вероятно: *я свыклый*]: privykle togo diela
dielat = Ich si datt werk gewondtlich tho doende; 244.2, On skronilsa
sebe ffuglu da ne smele sebe iauit = He vorstach sich in den ordtt und
dorste sich nichtt apenbahren; 343.3, Ia stoboi vprauilsa: sotzkles da tebe
otplatil = Ich hebbe mit dy gerekent vnd dy affbetalt; 343.6, Ia stoboi
roslesles [*розлѣзлесь*]: rosplatilsa: smoluilsa: roszotzkles = I hebbe my
myt dy vordragen (ср. 442.4, Ia stoboi roslesles: rospravilsa = Ich sy
van dy gescheyden); 344.1, Ty otmenæ lisneie pritzol: pritzkle = Du
heffst tho vehle van my geteldt; 344.2, Ty otmenæ lisok [*лишок*] pritzol,
odai mnie tzto ty otmenæ pritzkle = Du heffst tho vehle van me geteldt,
giff my wedder dattu thouehle van my geteldt heffst (ср. дублеты
соответствующей формы среднего рода – *причлось/причклось*:
342.3, Ktomu tovaru pritzlos = An der wahre is thouehle getaldt;
342.4, Ktomu tzislo pritzklos); 357.5, Diko ty vperles [*уперлесь*]:
vporsi [*упёрси*] = Du bist sehr vorhardedt; 357.6, Ias tebe vtzkle [*учкле*],

² С. П. Обнорский, *Очерки по морфологии русского языка* (Москва, 1953),
стр. 152.

tzto ty otzkles [*очклесь*] = Ich hebbe idt dy berekendt, dattu dy forteldt heffst; 384.1, Ostalesli vtebe ostatok = Heffstu eynen auerloep; 387.1, Ia ⟨...⟩ iovo perod sudiu vtzol: vtzkle: vtægal = ich ⟨...⟩ hebbe idt ehme vor dem vagede berekendt; 388.3, Ty sebe fftom tovari obotzkles [*обочклесь*]: otzkles [*очклесь*] = Du heffst dy vp der wahre vorteldt; 486.2, Ty godile nasad [*ходиле назад*] = Du gingest my achter na. Прочие примеры глаголов прошедшего времени с конечным -*е* менее показательны, так как в этих единичных казусах отражается вообще характерное для Фенне смешение русских грамматических родов; 428.1, Kolko sol potenule [вм. *потянула*] = Wat dat soldt wicht; 496.1, Sedili (!) stara baba da ⟨...⟩ vopele [вм. *вопѣла*] = Dar sadt eyn oldt wiff undt ⟨...⟩ se rep;[3] 486.1, Tzto tebe ffnotz gresiles [вм. *грезилось*] = Wadt dromde dy tho nacht (ср. 486.2, Mnie gresiles = My drembte; 194.2, Ttzo tebe ffzu notz gresziles = Watt hefft dy auernacht gedromedt). Показательно элевое причастие с конечным -*е* в составе "двойного перфекта" м. рода:[4] 430.1, Kabui tu seldu poiale bül sroszolum [*кабы ту сельдю пояле был с россолом*] ino ta selda ne sgnila büla = Were de heringk mit lake begahten so wehre he nicht vorvult.

Такие дублеты, как *учкле/учёл*, *причкле/причёл* или *сочклесь* и 384.6, *счёл*, при отсутствии форм *учле*, *причле*, *сочле*, свидетельствуют, что конечное -*е*, следующее за типично псковским сочетанием *кл* из **тл*, в свою очередь принадлежит коренному псковскому говору. Без последующего гласного сочетание *кл* из **тл* в записях Фенне не встречается, тогда как исконное сочетание *кл* в конце муж. формы прошедшего времени у него отмечено: 432.2, *отволокл* otvolokl. Что касается псковской группы *гл* из **дл*, то она, наряду с исконным сочетанием *гл* (245.8, *жжогль* szszogl [*сжёгл*]), появляется в рукописи Фенне: 289.2, ne poblugl [*не поблюгл*] рядом с пришлой формой: 294.4, bluil [*блюл*], между тем как запись: 441.9, Ia iich rosvogel: rospravil: roszol = Ich hebbe se gescheyden позволяет предположить форму rosvogle [*розвёгле*], искаженную перестановками двух последних букв. Ср. схожую огласовку *повегле* в Первой псков-

---

[3] Следы схожей парадигматической экспансии в говорах недавнего прошлого побуждают поставить вопрос: кто ответствен за эти формы ж. рода на -*ле* – Фенне или же записанные им псковичи; ср. каргопольский фольклорный пример: "Уговаривале да родной татенка, Уговаривале да родная сёстрица" (М. А. Колосов, *Обзор звуковых и фольклорных особенностей народного русского языка*, Варшава, 1878, стр. 151).

[4] Ср. C. H. van Schooneveld, *A Semantic Analysis of the Old Russian Finite Preterite System* (Гаага, 1959), стр. 134-140.

ской летописи по Погодинскому списку второй половины XVI века.[5]

Наибольшая устойчивость конечного *е* в тех глаголах, где *л* следует непосредственно за корневым согласным, объясняется относительной непривычностью конечных сочетаний "согласный + *л*" и стремлением сохранить *л* как регулярный показатель прошедшего времени, в частности воспрепятствовать возникновению таких лишенных показателя форм, как *перецок* "перечёл" в современном говоре Псковского уезда.[6]

В древнейшем периоде истории русского языка (а также и прочих славянских языков) целый ряд грамматических слов характеризуется наличием двух вариантов – двусложного и односложного, причем последний выступает преимущественно или единственно в энклитиках: *мене/мя, мьнѣ/ми,*[7] *тебе/тя, тобѣ/ти, себе/ся, собѣ/си, насъ/ны, намъ/ны, нама/на, васъ/вы, вамъ/вы, вама/ва, есть/е, бысть/бы.* Сочетание вспомогательного глагола *е* со слабым ером окончания -*лъ*, подвергалось диалектному стяжению: lьje > lъe > le. Происходила универбация первоначально составной глагольной формы. Энклитический вариант глагола *есть* превращался в флексионный суффикс. Поскольку слабый глухой в окончании -*лъ* сменился гласным полного образования, в основе глагола неизбежно возникало перераспределение сильных и слабых глухих (напр. в древнепсковском *съчькле* вместо *съчьклъ*).[8] Таким образом достигалось структурное единообразие как основы, так и окончания во всех формах прошедшего времени.

В древнейшем периоде истории русского языка перфект 3-го лица был представлен двумя явственно раздельными стилистическими разновидностями – одна с наличием вспомогательного глагола, другая без такового.[9] Формы на -*ле* восходят к первой, а на -*лъ* ко второй из них; по всей вероятности, оба варианта – на -*ле* и на -*лъ*

---

[5] Н. М. Каринский, *Язык Пскова и его области в XV веке* (СПб., 1909), стр. 87.

[6] См. А. А. Шахматов, *Очерк древнейшего периода истории русского языка* (Петроград, 1915), стр. 101.

[7] Ср. также дублеты *язъ/я*, из которых второй, повидимому, возник в роли слабоударного варианта.

[8] Остается открытым вопрос, был ли результатом стяжения двух смежных гласных – заднего ъ и переднего *е* – гласный *е* с сопроводительным смягчением предшествующего согласного, или же первоначально возникал соответствующий гласный более заднего образования без умягчительного действия на предыдущий согласный.

[9] C. H. van Schooneveld в вышеназванной работе, гл. IV, поставил вопрос о семантической сущности этого различия.

(а затем -*л*) оставались на первых порах стилистически противопоставлены друг другу.

Русское упразднение спрягаемых энклитик[10] вызывало распространение на все лица первоначальной формы 3-го лица ед.ч. как беспризнаковой по отношению и к лицу, и к числу. Так объясняется обобщение энклитики *бы* для всех лиц и чисел сослагательного наклонения; потому же нулевая связка стала общей принадлежностью всех трех лиц в обоих числах перфекта, а другая его разновидность, кончавшаяся на -*ле*, приобщила себе вслед за 3-им прочие лица ед. числа. Любопытны переходные типы, которые контаминируют составные формы -*лъ есмь*, *еси* с простой формой на -*ле*, напр. *ухо еси за мене дале*; *покосиле есмь* в новгородских берестяных грамотах.[11]

С рефлексом древнерусского перфекта, согласно свидетельству Фенне, ту же судьбу разделяет и сказуемостная форма страдательного залога. Ср. такие дублеты, как 305.3, Tuoi tovar chitrene ⟨,⟩ schudim tovarum smeszan = Dyne wahre is vorfelschedt ⟨,⟩ mit qwader wahre vormengedt, и с другой стороны 320.1, Tuoi tovar ⟨...⟩ ninetza schudim smeszon da schitron = Nu isz se mit quader vormengedt vnd vorvelschedt, или же наконец 412.1, Tuoi tovar bül dobroi, ninetza sgudim smeszane = Dine wahre ⟨...⟩ wasz gudt, vnd nu isz se mit quader vormengedt. А. А. Шахматов справедливо сопоставляет формы 3-го лица ед. числа *писале* и *написане*.[12]

Схожий процесс, видимо, распространялся и на краткую форму прилагательных м. рода ед. числа в сочетании с глагольной связкой *е*. В словарной части учебника Фенне различные прилагательные с суффиксом -*ив* кончаются надписным *в*, в транслитерации двойным ff (45.4, *шутли*в shutliff; 46.2, *хвастъли*в chvatliff и пр.), но два прилагательных во втором столбце, а одно из них также в первом, записаны с конечным *е*: 45.14, *тоскъли*в toskliue = bemoyedt; 46.25, *ръвниве* riffnive = hanrey. В фразеологическом отделе книги примечательны дублеты: 233.3, On ftom deli ne vinovate = He is in de saken nicht schuldich; 387.1, On mnie vinovate; 219.1, Ty ne vinovate; 290.5, Ty mnie vinovate; 346.5, Ty fftom deli vinovate; 311.2, Ias ⟨...⟩ tebe ne vinovate; 292.4 и 343.3, Ia tebe ne vinovate; 225.5 и 348.4, Ia fftom deli ne vinovate; 208.4, Ia vinovate peretoboi = Ich sy schuldich

---

[10] Cp. R. Jakobson, “Les enclitiques slaves”, *Atti del III Congresso internazionale dei linguisti* (Флоренция, 1935), стр. 384-390 [см. выше, стр. 16-22].

[11] *Палеографический и лингвистический анализ новгородских берестяных грамот* под ред. В. И. Борковского (Москва, 1955), стр. 199, 202.

[12] В вышеназванном труде, стр. 226.

vor dy, a рядом 385.1, Tot tzeloviek mnie vinovat; 330.3, Ty mnie ne vinovat, ⟨...⟩ da ia vinovat; 331.6, Ias tebe ne vinovat; 394.2, Ia tebe vinovat, y ty mnie na promena vinovat = Ich sy dy schuldig, vnd du bist my wedderumb schuldig. Ср. далее такие сказуемостные формы, как 352.5, Besz dengi torgk puiste [*пусте*] = Sunder geldt is de koep wöeste; 354.5, Tuoi tovar nikomu ne prigose [*пригоже*] = Dyne wahre de dendt nehmande; 308.3, Tuoi tovar ne litzne [*личне*] = Dyne ware is nicht schone; 367.6, Moi tovar ⟨...⟩ ne odnake, т.е. "неодинаков"; 472.2, Guastlive govorit ne velike promuszal, т.е. "не велик промысл говорить хвастливо"; 475.2, Ty gluche; 399.5, Ne pichai moiovo tovaru, toko lübo tebe, y ty iovo kupi, ne lube y ty otiovo podi protz, т.е. "Не пихай моего товара; если любо тебе, то ты его купи, а нелюб [*нелюбе*] – ступай прочь от него". Своевольно расширительное употребление отдельных грамматических форм, характерное для русских фразеологических упражнений в книге Фенне, изредка сказывается и на его примерах с краткой формой прилагательных м. рода ед. числа: 253.6, Mile ty mne gost = Du bist my eyn leuer gast, где, впрочем, не исключена интерпретация – "Мил ты мне, гость"; 346.2, Ty mnie drug velike = Du bist min grote friend.

Изучение материалов Фенне, а также других немецких да и вообще западных наблюдателей русской речи XVI-XVII вв., разумеется, требует строго критического подхода, но в то же время не следует преуменьшать ценность и надежность этих свидетельств. В нашей длительной коллективной работе над копенгагенской рукописью мы неоднократно ставили под сомнение многие странные и необычные слова и конструкции, но на проверку сплошь и рядом оказывалось, что мнимая отсебятина ганзейского грамотея находит себе неожиданное подтверждение в псковской письменности и в позднейших диалектологических источниках.

B

CRUCIAL QUESTIONS
OF LINGUISTIC THEORY

SIGNE ZÉRO

I

En concevant la langue comme un système cohérent d'oppositions syn-chroniques et en accentuant son dualisme asymétrique, l'école genevoise a dû nécessairement élucider l'importance de la notion "zéro" pour l'analyse du langage. Selon la formule fondamentale de F. de Saussure, le langage peut se contenter de l'opposition de quelque chose avec rien,[1] et, justement, ce "rien" opposé à "quelque chose" ou, en d'autres termes, le signe zéro a suggéré des vues personnelles et fécondes à Charles Bally. Ce sont surtout ses études denses "Copule zéro et faits connexes"[2] et "Signe zéro"[3] qui ont attiré l'attention sur le rôle que joue ce phénomène non seulement en morphologie, mais encore en syntaxe, non seulement en grammaire, mais aussi en stylistique. Cet examen instructif demande à être poursuivi.

La désinence zéro dans la déclinaison des langues slaves modernes est un exemple généralement connu. Ainsi, en russe NSg *suprug* (époux) s'oppose à toutes les autres formes du même mot (GA *suprúga*, D *suprúgu*, I *suprúgom*[4] etc.).

A peu près dans tous les paradigmes des substantifs, on rencontre en russe, parmi les formes casuelles, une seule forme à désinence zéro par paradigme. Là où le génitif du pluriel et le nominatif du singulier ont eu une forme à désinence zéro, le génitif du pluriel, pour éviter l'homonymie, s'est approprié par analogie une désinence positive -*ov* (*suprugov*) ou -*ej* (*konej*). La désinence zéro du GPl n'a survécu que chez les noms qui distinguaient, de telle ou telle autre manière, GPl du NSg – fut-ce par la désinence (NSg *žena*, *selo* – GPl

---

[1] *Cours de linguistique générale* (1922), p. 124. Cf. la notion de la "forme négative" dans la doctrine linguistique de F. Fortunatov.
[2] *Bulletin de la Société Linguistique de Paris*, XXIII, p. 1 sqq.
[3] *Linguistique générale et linguistique française*, p. 129 sqq.
[4] Vu que les faits analysés demandent à être considérés par rapport au système total de la langue donnée, j'emprunte les exemples de cette étude à ma langue maternelle.

žēn, sēl) – par la place de l'accent (NSg *vólos* – GPl *volós*) par un suffixe de
dérivation (NSg *bojarin* – GPl *bojar*) ou par la composition des syntagmes (dans
le sens saussurien du mot) où ces formes casuelles sont usitées (NSg *aršin* nom
de mesure – GPl *aršin* qui apparaît presque toujours accompagné des noms
de nombre).

La désinence zéro, et de même le "degré zéro" opposé à un phonème
dans les alternances grammaticales (par exemple, en russe GSg *rta* – NSg
rot bouche) répond strictement à la définition de M. Bally: le signe revêtu
d'une valeur déterminée, mais sans aucun support matériel dans les sons.[5]
Mais la langue "peut se contenter de l'opposition de quelque chose avec
rien" non seulement sur le plan des signifiants, mais aussi sur le plan des
signifiés.[6]

II

Au singulier, le paradigme *bog* (dieu), *suprug* (époux), est systématique-
ment opposé au paradigme *noga* (pied), *supruga* (épouse). Tandis que le
premier de ces deux paradigmes énonce, sans équivoque, la catégorie
grammaticale et notamment celle du genre non-féminin, le second peut
indistinctement se rapporter au féminin et au masculin: le masc. *sluga*
(serviteur) et l'ambigu *nedotroga* (sensitive) se déclinent de la même façon
que les fém. *noga, supruga*. Aucune désinence des cas obliques du para-
digme *bog, suprug* ne peut appartenir aux noms féminins et, en ce qui
concerne le nominatif de ce paradigme, sa désinence zéro ne signale
strictement le masculin que chez les thèmes terminés par une consonne
dure, tandis que, chez les thèmes terminés par une consonne mouillée
ou chuintante, la désinence zéro peut appartenir également au masculin
(*den'* jour, *muž* mari) et au féminin (*dan'* tribut, *myš* souris).

Le paradigme *bog, suprug* énonce, avons-nous dit, le non-féminin ou, en d'autres
termes, le masculin ou bien le neutre. Ces deux genres ne diffèrent qu'au nomi-
natif, et à l'accusatif tant qu'il coïncide avec le nominatif. Au nominatif, la
désinence zéro signale strictement le non-neutre, tandis que la désinence -*o*
ou bien son correspondant atone peut appartenir autant au neutre qu'au
masculin (neutre *toporíšče* manche de la hache, masc. *topórišče* augmentatif
de *topór* hache).

Ainsi, pour l'opposition des genres, le paradigme *noga, supruga* est dé-
pourvu de faculté différentielle. Ce sont donc, du point de vue du genre,

---

[5]   *Bulletin...*, 3; cf. R. Gauthiot, "Note sur le degré zéro", *Mélanges linguistiques
offerts à M. Antoine Meillet* (Paris, 1902), p. 51 sqq.
[6]   Le problème de la signification zéro a été posé dans notre plaquette *Novejšaja
russkaja poèzija* (Prague, 1921), p. 67.

des signes revêtus d'une forme déterminée, mais sans aucune valeur fonctionnelle, bref des formes à fonction morphologique zéro. La confrontation des deux formations nominatives – *suprug* (époux) et *supruga* (épouse) – nous démontre que, dans ce cas-ci, la forme à désinence zéro porte une fonction morphologique positive, tandis que la désinence positive ne possède, relativement à la distinction des genres, qu'une fonction morphologique zéro.

Quelles sont en russe les significations générales du genre grammatical masculin et féminin? Le féminin indique que, si le désigné est une personne ou se prête à la personnification, c'est à coup sûr au sexe féminin que cette personne appartient (*supruga* désigne toujours la femme). Au contraire, la signification générale du masculin ne spécifie pas nécessairement le sexe: *suprug* désigne ou bien, d'une manière restrictive, le mari (*suprug i supruga*, époux et épouse), ou bien, d'une manière généralisante, l'un des époux (*oba supruga* les deux époux, *odin iz suprugov* l'un des deux époux). Cf. "*tovarišč* (genre masc., ici sexe fém.) *Nina* (genre fém., sexe fém.), *zubnoj vrač*" (genre masc., ici sexe fém.) = camarade Nina, dentiste. Ainsi, dans l'opposition de significations générales des deux genres, le masculin est le genre à signification zéro. Ici, de nouveau, nous nous trouvons en face d'un chiasme net: les formes à fonction morphologique zéro (type *supruga*) dénotent le genre à signification positive (féminin) et au contraire les formes à fonction morphologique positive (type *suprug*) marquent le genre à signification zéro (masculin).

C'est justement sur l'"opposition de quelque chose avec rien", c'est-à-dire sur l'opposition contradictoire selon la terminologie de la logique formelle, qu'est basé l'agencement du système grammatical, comme j'ai essayé de le démontrer ailleurs.[7] Ainsi, le système nominal et le système verbal se laissent décomposer en oppositions binaires, dont l'un des termes désigne la présence d'une certaine qualité et, l'autre (terme non caractérisé ou non marqué, bref terme zéro) n'annonce ni sa présence ni son absence. Ainsi, en russe, l'aspect perfectif énonce la fin absolue d'un procès, par opposition à l'imperfectif (aspect zéro) qui laisse la question de terme hors cause. Impf. *plavat'*, *plyt'* nager, Pf. *priplyt'*, *doplyt'* aboutir en nageant, *poplyt'* s'être mis à nager (c'est le début qui est présenté comme un procès accompli), *poplavat'* avoir nagé, *naplavat'sja* avoir nagé suffisamment, jusqu'au but, *ponaplavat'* avoir nagé à maintes reprises et, somme toute, assez (fin absolue). L'aspect déterminé (selon

---

[7]   "Zur Struktur des russ. Verbums", *Charisteria G. Mathesio quinquagenario* (1932), p. 74 sqq. [above, p. 3ff.]; *Beitrag zur allgemeinen Kasuslehre* (*Travaux du Cercle Ling. de Prague*, VI), p. 240 sqq. [above, p. 23ff.].

la terminologie de M. Karcevskij) énonce l'action conçue comme unité –
plyt' être en train de nager, tandis que l'aspect indéterminé (aspect zéro)
n'en sait rien : *plavat'* peut, selon le contexte, signifier une action une
(*poka ja plavaju, on sidit na beregu* – tandis que je nage, il reste assis au
bord), une action répétée (*ja često plavaju* – je nage souvent),[8] une action
non réalisée (*ja ne plaval* – je n'ai pas nagé), une capacité d'action non
réalisée (*ja plavaju, no ne prixoditsja* – je sais nager, mais je n'en ai pas
l'occasion), enfin une action, dont on ne sait si elle a eu lieu une ou plu-
sieurs fois ou jamais (*ty plaval?* – as-tu nagé?). *Plavat'* est un verbe
imperfectif et indéterminé. Il appartient donc à deux aspects zéro. Mais
un verbe russe ne peut pas réunir deux valeurs d'aspect positives. L'op-
position des verbes déterminés et indéterminés n'a donc lieu que dans les
limites de l'aspect imperfectif. V. Brøndal a relevé le fait qu'on tend à
éviter une complexité excessive dans l'ensemble d'une formation mor-
phologique et que, fréquemment, les formes complexes, par rapport à
certaine catégorie, sont relativement simples par rapport à d'autres.[9]
De même, en russe, le présent (temps zéro) distingue les personnes, con-
trairement au passé qui n'a qu'une seule forme pour toutes les personnes ;
le singulier (nombre grammatical zéro) distingue les genres grammaticaux,
au contraire du pluriel qui les a complètement abolis. Mais, tout en bor-
nant le "cumul des signifiés" (terme et notion, introduits par Bally)[10] le
système grammatical ne l'exclut nullement. Le datif ainsi que l'instrumen-
tal s'opposent à l'accusatif et au nominatif, en indiquant la position
périphérique du désigné dans le contenu de l'énoncé et, sous le point de
vue de cette opposition, les deux derniers cas sont des cas zéro. Mais, en
même temps, le datif ainsi que l'accusatif signalent que l'objet est affecté
par une action et ils se trouvent ainsi opposés à l'instrumental et au nomi-
natif qui, du point de vue de cette opposition, sont des cas zéro. De cette
façon, le datif cumule deux valeurs grammaticales, dont l'accusatif en
possède une et l'instrumental l'autre. Le nominatif fonctionne comme cas
zéro absolu et distingue, conformément au "principe de compensation"
de Brøndal, le masculin et le neutre, distinction qui reste étrangère aux
cas obliques ("caractérisés").

La distinction entre le nominatif et l'accusatif démontre avec évidence le
caractère purement arbitraire du rapport entre "l'opposition de quelque
chose avec rien", sur le plan des signifiés, et l'opposition du même ordre
sur le plan des signifiants. Toutes les trois variétés possibles de ce rapport

---

[8]   Mais *ja često plyvu i dumaju...* – souvent. quand je suis en train de nager, je pense.... .
[9]   V. *Slovo a slovesnost*, III, p. 256.
[10]   *Linguistique générale...*, p. 115 sqq.

sont présentes. 1. Au cas zéro correspond une désinence zéro: N *suprug* – A *supruga;* 2. Le rapport est inverse (cf. les "chiasmes" précités): NPI *gospoda* – API *gospod;* 3. Aucun des cas n'a de désinence zéro: N *sluga* – A *slugu.*

Les signifiés peuvent être opposés l'un à l'autre, comme quelque chose et rien, non seulement en grammaire, mais aussi dans le domaine du vocabulaire; l'un de deux synonymes peut se distinguer par une détermination supplémentaire inconnue à l'autre. Ainsi, les mots russes *devuška* et *devica* désignent tous les deux une jeune fille, mais le premier de ces synonymes étant opposé à l'autre ajoute la signification "vierge": on ne pourrait permuter les deux mots dans la proposition *ona – devica, no uže ne devuška* (elle est jeune fille sans plus être vierge). De même, dans le couple des synonymes tchèques *mám rád* (*ich habe gern*) et *miluji* (*ich liebe*) c'est *mám rád* qui est "synonyme zéro", et on peut également dire *mám rád šunku* (j'aime le jambon) et *mám rád rodiče* (j'aime les parents), mais *miluji* ajoute la signification d'une haute passion et, dans la proposition *miluji šunku*, ce verbe serait senti comme employé au figuré.

Un tel emploi correspond par exemple au cas du féminin appliqué à un homme: *on – nastojaščaja masterica* (il est une véritable femme de métier). C'est un réel échange entre signes, une métaphore, tandis que l'emploi inverse *ona – nastojaščij master* (elle est un véritable homme de métier) n'est qu'une application du terme plus généralisé, générique, au lieu de *masterica* plus précisant. Néanmoins, là aussi, c'est un fait hypostatique, quand même à un degré beaucoup moins sensible, ainsi que le présent historique ou le singulier générique sont, proprement dits, des procédés d'hypostase. Un signe déterminé énonce A (*masterica*); le signe zéro qui lui est opposé (*master*) n'énonce ni la présence ni l'absence de cet A (ni A ni non-A). Ce signe est donc employé là où A et non-A ne sont pas distingués (*tut bylo sem' masterov, v tom čisle dve mastericy* – ici il y a eu sept hommes de métier, parmi eux deux femmes de métier) et là où il s'agit de désigner le non-A (*tut bylo p'at' masterov* [non-A] *i dve mastericy* [A] – ici, il y a eu cinq hommes de métier et deux femmes de métier), mais l'hypostase est présente, là où le signe zéro sert à désigner précisément A: *ona – nastojaščij master.*

L'aperçu judicieux de Bally fait ressortir le jeu varié de l'hypostase comme un fait essentiel de l'agencement de la langue.[11] J. Kuryłowicz a mis en valeur le rôle important qu'assume dans la syntaxe l'hypostase (ou "emploi motivé et caractérisé" des mots) opposée à leur fonction-base

---

[11] *Linguistique générale...*, p. 132 sqq.

ou fonction primaire.[12] "La fonction d'épithète est la fonction primaire de l'adjectif." L'adjectif épithète dénote donc zéro d'hypostase par opposition aux diverses transpositions hypostatiques – telles qu'adjectif-sujet (*dalekoe plenjaet nas* le lointain nous charme) ou adjectif-complément (*sejte razumnoe, dobroe, večnoe* semez le sage, le bon, l'éternel). L'adjectif prédicat a un signe externe de transposition *est* dans le type *deus bonus est*, tandis que le type *deus bonus* présente l'hypostase sous sa forme pure.[13]

<center>III</center>

Dans les langues où le type sans copule est l'unique possible comme c'est le cas du russe, l'absence de copule dans les constructions comme *izba derevjannaja* (la cabane (est) en bois) est conçue par opposition à *izba byla derevjannaja* (la cabane a été en bois) et *izba budet derevjannaja* (la cabane sera en bois) comme copule zéro d'après sa forme, et comme présent du verbe copule d'après sa fonction. Mais, en latin et dans toutes les langues qui admettent à titre de variantes stylistiques le type avec copule et celui sans copule, le manque de celle-ci dans des constructions comme *deus bonus* est ressenti par opposition à *deus bonus est* comme copule zéro d'après sa forme, et comme signal de la langue expressive d'après sa fonction; par contre, la présence de la copule, forme positive, est éprouvée d'après sa fonction comme zéro d'expressivité. Le signe zéro en question a donc en latin une valeur stylistique. Dans ce dernier cas, Bally parle de sous-entente qui repose sur l'existence de deux types parallèles et qui suppose un certain choix chez le sujet parlant.[14] A côté du signe zéro à valeur grammaticale et de la sous-entente, le maître de Genève place l'ellipse qu'il définit comme "la reprise ou l'anticipation d'un élément qui figure nécessairement dans le contexte ou est suggéré par la situation". Nous sommes tentés d'interpréter l'ellipse plutôt comme une sous-entente des termes anaphoriques qui "représentent" le contexte ou bien des termes déictiques qui "présentent" la situation.[15] Ainsi, à la question *Čto delal djadja v klube?* (Qu'a fait l'oncle au club?) on peut répondre en choisissant l'un des deux modes parallèles: avec "représentant explicite" *On tam obedal* (Il y a dîné) ou bien "implicite" – *Obedal* (dîné). L'ellipse est donc signe anaphorique (ou déictique) zéro.

Quand il y a à choisir entre deux formes d'énonciation, égales par leur

---

[12]   "Dérivation lexicale et dérivation syntaxique", *Bull. de la Soc. de Ling. de Paris*, XXXVII, p. 79 sqq. Cf. mon étude précitée (*Travaux*, VI, p. 252 sq., 274).

[13]   Cf. *Linguistique générale...*, p. 135, et *Bulletin...*, p. 2.

[14]   *Bulletin...*, p. 4 sqq.

[15]   Cf. *Linguistique générale...*, p. 65 sqq.

contenu conceptuel, ces deux formes ne sont jamais véritablement équipollentes et, d'ordinaire, elles forment l'opposition suivante: d'un côté, le type expressif faisant un tout avec la situation donnée ou bien évoquant une situation imaginée dans le langage d'art et, de l'autre, le type à valeur expressive et déictique zéro. Il existe, par exemple, en russe, un ordre des mots primaire opposé à ses inversions. Ainsi, le prédicat précédé du sujet et suivi du complément direct, ou le terme nominal précédé de l'épithète, mais suivi du complément nominal, sont des spécimens de l'ordre des mots à valeur zéro. *Ljudi umirajut* (les hommes meurent) est une énonciation intégrale. Au contraire, l'énonciation *umirajut ljudi* se présente comme appendice au contexte ou à la situation, ou comme réaction affective. La langue explicite des formules ne souffre que l'o r d r e z é r o – *zemlja vraščaetsja vokrug solnca* (la terre tourne autour du soleil); par contre, le langage quotidien, implicite par excellence, forge des combinaisons comme *vertjatsja deti vokrug ëlki, vokrug ëlki vertjatsja deti, vokrug ëlki deti vertjatsja, deti vokrug ëlki vertjatsja*. Par opposition à l'ordre zéro *deti vertjatsja vokrug ëlki* (les enfants tournent autour de l'arbre de Noël) ces constructions signalent le point de départ motivé par le contexte ou la situation (contexte extralinguistique), tandis que l'ordre zéro n'en fait pas mention. Cependant, là où la fonction syntaxique des mots n'est pas nettement indiquée par des moyens morphologiques, l'ordre zéro se trouve être le seul possible et s'approprie une valeur purement grammaticale. Tel est par exemple le cas lorsque l'accusatif coincide avec le nominatif (*mat' ljubit doč'* – la mère aime la fille, *doč' ljubit mat'* – la fille aime la mère), la forme du nominatif avec celle du génitif (*dočeri prijatel'nicy* – les filles de l'amie, *prijatel'nicy dočeri* – les amies de la fille), ou quand l'adjectif prend la fonction d'un substantif (*slepoj sumasšedšij* – le fou qui est aveugle, *sumasšedšij slepoj* – l'aveugle qui est fou) etc.

Le russe présente deux variantes stylistiques pour dire "je vais (en voiture)": *ja edu* (avec pronom personnel) et *edu* (sans pronom). De même, en tchèque: *já jedu* et *jedu*. Cependant, il y a là une grande différence entre les deux langues: le russe ayant aboli le présent du verbe auxiliaire et du verbe copule a dû transmettre le rôle de leurs désinences personnelles au pronom personnel et il a fini par généraliser son emploi: par conséquent, en russe, c'est la construction à deux termes qui est le type "normal", tandis que la variante à sujet-zéro est un procédé expressif.[16] En tchèque, au contraire, le zéro d'expressivité se rapporte au

---

[16]   V. S. Karcevski, *Système du verbe russe* (Prague, 1927), p. 133, et R. Jakobson, "Les enclitiques slaves", *Atti del III. Congr. Internaz. dei Linguisti*, 1935, p. 388 sqq. [above, p. 16ff.].

sujet-zéro, et la valeur expressive s'attache au type *já jedu*. La première per-
sonne est mise en relief par la présence du pronom, qui est un pléonasme
du point de vue grammatical. L'abus de ce pronom fait en tchèque l'im-
pression d'un style vantard. Au contraire, en russe, c'est justement l'omis-
sion excessive du pronom de la première personne que Dostoevskij éprou-
ve comme une morgue irritante ("Krokodil").

<center>IV</center>

Le système phonologique, enseigne Bally, court parallèlement au système
général de la langue. Les corrélations des phonèmes opposent la présence
d'une qualité phonique à son absence ou q u a l i t é   z é r o.[17] Ainsi *t, s, p*
etc. se distinguent des consonnes correspondantes mouillées *t', s', p'* etc.
par le manque de mouillure, et les mêmes phonèmes se distinguent de
d, z, b etc. par le manque de sonorité. Ce qui relie un tel manque aux
diverses espèces du signe zéro que nous avons observées dans le domaine
de la grammaire, c'est le fait qu'il ne s'agit pas d'un simple rien, mais
d'un rien opposé, à l'intérieur du système phonologique, à quelque chose
de positif. Déjà F. de Saussure a fait ressortir le rôle des oppositions
contradictoires dans la phonologie, en rappelant, à titre d'exemple,
l'opposition des voyelles nasales et orales, où "l'absence de résonance
nasale, facteur négatif, servira, aussi bien que sa présence, à caractériser
des phonèmes".[18]

En analysant un phonème comme *s* dans ses rapports avec les autres
phonèmes du russe, nous constatons que les qualités positives de ce
phonème ne participent à aucune opposition contradictoire, c'est-à-dire
que la présence de ces qualités ne se trouve jamais opposée à leur absence.
En dehors de ces qualités, le phonème *s* n'a que des qualités zéro. Au
contraire, le phonème *z'* renferme plusieurs valeurs phonologiques,
nettement analysables, par opposition au manque des mêmes valeurs
dans les phonèmes corrélatifs (aux qualités de *s* vient s'ajouter la sonorité
et la mouillure). C'est donc un cas de cumul phonologique correspondant
au cumul des signifiés, tel que l'analyse M. Bally. De même, le "principe
de compensation", établi par M. Brøndal pour la morphologie et limitant
le cumul, trouve des analogies marquantes dans la structure des systèmes
phonologiques.

Une corrélation est formée par une série de couples, dont chacun com-

---

[17]   *Linguistique générale...*, p. 13 sq., p. 120; *Travaux*, pp. 314–321.
[18]   *Cours...*, IV, p. 69.

prend, d'un côté, l'opposition d'une même qualité à son absence et, de l'autre, un substrat commun (par exemple le couple *z'*-*z* consiste en une opposition de la mouillure et de son manque et en un substrat commun: sifflante constrictive sonore). Mais ce substrat commun peut manquer à l'un des couples: dans ce cas, un phonème est réduit à la qualité en question et opposé tout simplement à l'absence de phonème (ou p h o - n è m e   z é r o). Ainsi, M. Martinet insiste avec raison, en vertu d'une ana-lyse structurale, sur le fait que, dans la corrélation d'aspiration qui carac-térise le consonantisme du danois, il faut introduire l'opposition: initiale aspirée /*h*/ – initiale vocalique.[19]

De même, en russe, la corrélation de mouillure oppose le phonème *j* au zéro (initiale yodisée–initiale vocalique). Dans les mots russes, la voyelle *e* peut être précédée d'une consonne mouillée, mais non pas de la consonne dure correspondante; la voyelle *e* peut être précédée d'un *j*, mais non pas commencer un mot. (Les interjections, et spécialement l'interjection déictique *e* dans divers composés, ne sont pas soumises à cette règle.)

Ainsi, l'opposition des mouillées et des dures est supprimée devant la voyelle *e*: la présence d'une opposition se trouve par conséquent opposée à son absence. Cette absence (o p p o s i t i o n   z é r o, confrontée avec l'op-position réalisée, met en valeur ce qui unit et ce qui distingue les deux termes de l'opposition supprimable. Comme l'avait saisi N. Durnovo, et comme l'ont démontré N. Trubetzkoy et A. Martinet, une opposition phonologique qui se neutralise en des positions déterminées forme, par rapport aux oppositions constantes, un type profondément distinct.[20] De même, le syncrétisme des formes morphologiques intervenant en certains paradigmes ou en certaines catégories grammaticales[21] ou, au contraire, l'opposition des significations qu'on voit supprimée sous la contraint d'un contexte donné, tout cela laisse prévoir la portée du problème "opposition zéro" pour la linguistique et pour la sémiologie générale, qui est appelée à suivre les rapports complexes et bizarres entre les notions entrelacées "signe" et "zéro".

Écrit à Brno en 1937 pour les *Mélanges de linguistique offerts à Charles Bally* (Ge-nève, 1939).

---

[19] *La phonologie du mot en danois* (Paris, 1937), p. 32.
[20] V. *Travaux*, VI, p. 29 sqq., p. 46 sqq.
[21] Cf. *Travaux*, VI, p. 283 sqq.

DAS NULLZEICHEN

Der Vortrag entwickelt und setzt den Gedankengang fort, welcher in dem Aufsatz des Vortragenden "Signe zéro" (*Mélanges de linguistique offerts à Charles Bally*, Genève, 1939, S. 143–152) skizziert wurde.

F. de Saussure: *La langue peut se contenter de l'opposition de quelque chose avec rien*. Soweit ein Nichtvorhandensein zum entsprechenden Vorhandensein in einer binaren Opposition steht, wird es dadurch zu einem wahren semiologischen Bestandteil. Es erweist sich immer deutlicher, dass diese "Nullwerte" eine der wesentlichsten und reichhaltigsten sprachlichen Kategorien darbietet. Ein Komplex wird einem gleichartigen Komplex mit éinem fehlenden Element (Nullelement) entgegengesetzt.

Zwei Phoneme (Komplexe von simultanen phonematischen Eigenschaften) sind korrelativ: »xyz« ~ »xy«. Das zweite (merkmallose) Phonem setzt dem ersten (merkmalhaften) das Fehlen vom »z«, d.h. eine *Nulleigenschaft* entgegen. Das französische, dem nasalen /ã/ gegenübergestellte orale /a/ (*a* mit Nullnäseln) unterscheidet sich nach seiner phonematischen Struktur vom deutschen /a/, dem kein Nasalvokal entgegengesetzt ist.

Die Eigenschaft »z« kann in manchen phonologischen Systemen auch selbständig und zwar als ein eingliedriges Phonem fungieren. Der Phonemmangel in einem sonst gleichartigen Komplex von nacheinanderfolgenden Bestandteilen wird in diesem Falle als das Nichtvorhandensein dieses eingliedrigen Phonems gewertet. Der dänische ungehauchte Anlaut in Gegenüberstellung mit /h/ und der griechische *spiritus lenis* sind Beispiele eines derartigen *Nullphonems*.

Eine Opposition zweier grammatischen Kategorien kann durch den Gegensatz eines Morphems und eines *Nullmorphems* ausgedrückt werden. Es ist zu unterscheiden, ob das Nullmorphem die einzige Ausdrucksmöglichkeit oder bloss eine der Ausdrucksformen der gegebenen Kategorie bildet: 1) die ständige Nullendung des russischen prädikativen Adjektivs im Sg.Mask.; 2) die Nullendung des Gen.Plur. der russischen

Substantiva neben den übrigen Endungen derselben Kategorie (*-ov, -ej*).

Eine Opposition zweier grammatischen Kategorien kann durch den Wechsel im Phonembestande desselben Wurzelmorphems und zwar durch den Gegensatz der Vollstufe und der *Nullstufe* ausgedrückt werden. Ein russisches Beispiel: Imperfektiv *za-zyv-a-t'* usw. : Perfektiv *za-zv-a-t'* = *za-tyk-a-t'* : *za-tk-nu-t'* = *za-syp-a-t'* : *za-s-nu-t'* = *vy-nim-a-t'* : *vy-nu-t'* (extremer Fall: *Nullwurzel*).

Eine Opposition zweier grammatischen Wortkategorien kann durch den Gegensatz eines Worts und *Nullworts* ausgedrückt werden (z.B. das russische Kopulaverbum im Präsens ist in Gegenüberstellung mit dem Präteritum eine Nullkopula; der deutsche unbestimmte Artikel im Plural ist in Gegenüberstellung mit dem Singular und mit dem bestimmten Artikel ein Nullartikel).

Einem Komplex »Träger/Gehalt« kann ein Gehalt ohne Träger gegenüberstehen (vgl. alle erwähnten Spielarten der *Nullform*) oder im Gegenteil ein entsprechender Träger ohne entsprechenden Gehalt. So z.B. gibt die russische Genitivendung der Substantiva Sg. *-a* (bzw. das ganze Paradigma) das Maskulinum an, wogegen die Genitivendung der Substantiva Sg. *-i* das Genus nicht angibt. Es ist somit ein Gegensatz einer positiven grammatischen Kategorie und einer *Nullkategorie*.

In einer Opposition zweier grammatischen Kategorien kann die eine das Vorhandensein eines Merkmals kennzeichnen und die andere im Gegenteil eine *Nullbedeutung* enthalten, d.h. weder das Vorhandensein noch das Nichtvorhandensein dieses Merkmals kennzeichnen. In den Sprachen, welche zwei grammatische Zeiten unterscheiden: das Präsens und das Präteritum, fungiert das erstere als eine Nullzeit; der imperfektive Aspekt ist in der Gegenüberstellung mit dem perfektiven ein Nullaspekt, das Maskulinum im Gegensatz zum Femininum ein Nullgenus usw. Dasselbe gilt für manche Gegensätze der lexikalen Bedeutungen.

Das Gehaltminimum wird oft (allerdings nicht immer) mit der Nullform verknüpft, wobei die letztere durch die Nullbedeutung eine innere Motivierung erhält. So wird öfters der Nullkasus (bzw. das Nullgenus, der Nullnumerus) durch ein Nullmorphem wiedergegeben, die Nullzeit des Kopulaverbums durch ein Nullwort; vgl. auch den englischen Nullartikel oder die Nullform des unbestimmten Nomens in den russischen es- und man-Sätzen. Auch hier fungiert das Nullwort als ein wahrer Wert, dank seiner Gegenüberstellung mit dem positiven Zeichen in gleichartigen Komplexen.

Auch in der Stilistik tritt die Opposition eines Etwas und eines Nichts hervor: Einerseits werden gewisse Phoneme, Morpheme, Worte innerhalb

gewisser Sprachstile ausgelassen (*stilistische Nullform*) bzw. eingeschoben, anderseits werden gewisse Zeichen oder Zeichenkomplexe einander als stilgefärbt, expressiv und ungefärbt, neutral (*stilistische Nullfunktion*) entgegengesetzt.

Jeder sprachliche Bestandteil (phonematische Eigenschaft, Phonem, Morphem, Wort, grammatische Kategorie, Bedeutung, stilistische Form und stilistische Funktion) kann also in Gegenüberstellung mit dem Null auftreten. Daneben wird die Opposition zweier sprachlichen Bestandteile ihrem Verschmelzen (*Nullopposition*) gegenübergestellt, und diese Gegenüberstellung spielt in der Sprache eine umfangreiche Rolle. Der Gegensatz zweier phonematischen Eigenschaften kann 1) in einem gewissen Phonem aufgehoben sein (so ist z.B. das Aufgehobensein des Gegensatzes Klarheit-Dunkelheit das Wesentliche am Phonem *a* in einem Dreieckvokalismus), 2) bei gewissen Bedingungen aufgehoben werden, und zwar in bestimmten Phonemverbindungen (kombinatorische Neutralisation) oder in einem bestimmten Sprachstil (stilistische Neutralisation). Auch dem Gegensatz zweier grammatischen Kategorien steht einerseits sein Aufgehobensein gegenüber (z.B. ist im russischen Präteritum im Gegensatz zum Präsens die Person aufgehoben, im Plural das Genus usw.), anderseits seine kontext- oder stilbedingte Aufhebung.

PATTERN IN LINGUISTICS

(*Contribution to Debates with Anthropologists*)

If you take the development of linguistics during the last hundred years, you see that the basic problem was and is the problem of finding out the pattern of a given language. If you analyze the development of linguistic methodology for finding out the pattern, you come to the – at least for me – very surprising conclusion, that it would be enough to take a book on the history of mathematics – let us say, a book which I can understand, Bell's *Development of Mathematics* – and then simply read certain passages, replacing the names of mathematicians by those of linguists, and the mathematical terms by more familiar linguistic ones; and what is most surprising is that even the years and decades of the development of certain ideas in both sciences coincide exactly. The problem of invariance, according to Bell and other mathematicians, became particularly important in the 1870's. Simultaneously, Baudouin de Courtenay arrived at the concept of the phoneme, discovering that to operate scientifically with variations, we must establish the invariants; and this problem of invariance, developed in the linguistics of the 1870's and 1880's, became one of the pivotal features of modern linguistics. As we read in the history of mathematics, the full import of invariance was perceived only after the discovery of the principle of relativity, after 1916, with the book of Einstein on the general theory of relativity. The same may be said about linguistics, where precisely in 1916 the posthumous *Cours de linguistique générale* by Ferdinand de Saussure appeared, defining the basic entities of linguistics as relative and oppositive, and presenting the problem of relativity as fundamental for linguistics. Then, from the 1920's on, in linguistics as well as in mathematics, we have witnessed an intensive development of the whole technique of working with many-leveled systems of invariants and covariants, and the objective methods for detecting such systems have been elaborated both on the phonemic and on the grammatical level.

If topology is defined as the study of those qualitative properties which

are invariant under isomorphic transformations, this is exactly what we did in structural linguistics, especially in phonemics, without realizing that, *mutatis mutandis*, we were making topology, like Jourdain, who spoke in prose, yet was completely ignorant that it was called prose. Both the problem of the relation between the phoneme and the contextual or stylistic variants, which has preoccupied linguists for a few decades and the further pivotal problem of phonemic theory and investigation, what is now called 'componential analysis' in American linguistics, find a salient correspondence in modern mathematics and physics. When phonemes are analyzed into elementary quanta termed 'differential elements' by Saussure and 'distinctive features' by Sapir and Bloomfield, the science of language discovers its ultimate units and their various superpositions and sequences. The discreteness of these units permits a strict quantization of phonemic data.

There is a direct help that linguistics is in line to receive from mathematics at this moment, especially from the so-called 'information theory' or theory of communication. The fundamental dichotomous notions of linguistics, particularly singled out by F. de Saussure, A. Gardiner, and E. Sapir and called *langue* and *parole* in France, 'linguistic pattern' and 'speech' in America, now receive a much clearer, simpler, logically less ambiguous, and operationally more productive formulation, when matched with the corresponding concepts of communication theory, namely with 'code' and 'message'. The attitude of the communication engineer toward this dichotomy differs essentially from the attitude of the inquirer into an unknown language, who essays, through the messages of native informants, to break their code and develops for this purpose a special cryptanalytic technique. The attitude of the communication engineer coincides with the attitude of the member of a speech community who participates in a speech exchange within this community and interprets signals received from a sender. This receiver is a decoder, and the decoder is not a cryptanalyst, although the two notions are often confused. The usual addressee of a message is a decoder, whereas the cryptanalyst is an unusual, marginal addressee, if not simply an eavesdropper. The decoder interprets the message in terms of a code common to him and the sender – a set of preconceived, prefabricated representations, as D. M. MacKay puts it. A linguist assimilating an unknown language is compelled to begin as a cryptanalyst but aims to become a regular decoder, and the decoding methodology of descriptive linguistics is to be clearly distinguished from the cryptanalytic approach of a reconnoitering field worker.

Modern mathematics suggests that "it is not things that matter but the relations between them." In biology also, as Schrödinger professes, the discrete differences of properties are "really the fundamental concept rather than the property itself." Since the phonemic entities are purely relative, their correlations within the pattern are the core problem which has engrossed linguists of various countries and interests. The underlying principle of phonemic patterning, the dichotomous scale, is again the most convenient one for the operations of the communication engineers, because the dichotomous scale is a series of 'Yes' or 'No' situations, of two-choice selections. And at the same time it is the real attitude of the receiver of linguistic messages, who for each unit has to make a binary choice. In the *Manhattan Telephone Directory*, we find such names as *Bitter, Fitter, Pitter, Titter*. When you first hear one of these names, let us say, *Pitter*, you must make a set of binary decisions: is it Pitter or Titter, Pitter or Bitter, Pitter or Fitter.

On the level of grammatical categories, we detect a similar series of dichotomies, and we face the same problem of finding the invariants in variations. Neither the phonemic nor the grammatical entities can be identified through a merely distributional analysis. We cannot decide, for instance, whether two forms are homonymic or identical if we do not know whether, behind the contextual variation, there is one invariant semantic value or not. It is true that some books on the meaning of meaning have taught that such a semantic invariant is a myth, and that there is nothing but contextual meaning. Those statements are adequate but only for one special case of linguistic reality, a certain type of aphasia: the patient is able to recognize the contexts heard beforehand and stored in his memory, but he cannot create new contexts, whereas the rest of us are able to create, or at least to understand, new contexts when we hear them; and this is proof that the constituents of such a context are known to us and possess an invariant semantic value.

The scope of the problem of invariants in linguistics is not limited to the mere description of intra-lingual patterns. Such descriptions naturally lead us to a further task, the search for linguistic universals. Kluckhohn's paper raises problems important for all branches of anthropology, and for linguistics especially. If one speaks about languages, he herewith admits that there are universals, because he recognizes that another language is also a language and not gibberish, so that it must have certain structural properties of a language. One can, for instance, predict for any language spoken by mankind the existence of such grammatical units as morphemes or sentences, and on the phonemic level one knows well

enough that there will be distinctive features, phonemes, and sequences
– and that two classes of phonemes – vowels and consonants –
will be differentiated. Particularly important for the study of uni-
versals are laws of implication which state that the presence of an
element B implies the presence (or, on the contrary, the absence)
of an element A. We do not know, for instance, languages with
constrictives but without stops, or with affricates and corresponding stops
but without constrictives; there are phonemic patterns, however, with
stops but without constrictives, or with constrictives but without affri-
cates. It is at times objected that we do not know all the languages of the
world, so that exceptions may exist. Neither does the zoologist know
whether in the virgin forests of Brazil a freak such as a five-legged cat may
not one day turn up. Nevertheless, if he says that cats have four legs, this
at least carries considerable statistical value; and if we find a language
with five legs in Brazil, because in Brazil you can find anything, then we
will say, well, there is an extremely rare exception; and, were there even
a greater number of exceptions, these high-probability statements would
still be of importance, since the number of languages registered by the
linguists of the world is large enough. There are, moreover, nearly
universal laws which govern the patterning of sequences. I know of no
exception to two very elementary but, nevertheless, significant laws: (1)
any language possesses syllables beginning with consonants; (2) any
language possesses syllables ending with a vowel.

Such laws of implication may be checked through a study of language
in the process of construction, that is, children's language. If, in the
languages of the world, the presence of B implies the presence of A in the
same pattern, then children as a rule – and again there may be Brazilian
exceptions – cannot acquire B earlier than A. I know a case where a
friend of mine, a very distinguished linguist, tried to bribe his daughter
with chocolate in order to change the usual order of phonemic acquisi-
tions discussed in my monograph, and did not succeed. Had the child
succumbed to the temptation, then chocolate would have to be recognized
as an extrinsic factor of inverted order. In aphasia, the phonemic losses
invert the order of children's acquisitions: B cannot disappear later
than A.

If we can formulate a series of such phonemic (and, let us add, gram-
matical) laws of implication, we may subsequently arrive at a typology
of phonemic (and grammatical) patterns, a typology fraught with con-
sequences particularly interesting for historical linguistics.

There are no universal laws of linguistic evolution. The development

may proceed in different ways, with a single limitation: it cannot lead to a state contradictory to general laws. The general laws, often sought in evolution, as a matter of fact govern any synchronic state. Nor is this tenet confined to linguistics. It corresponds strikingly to the view of quantum mechanics formulated by L. Tisza, its eminent representative in this country: "Quantum mechanics is morphically deterministic, whereas the temporal processes, the transitions between stationary states, are governed by statistical laws." In other words, structural linguistics as well as "quantum mechanics gains in morphic determinism what it loses in temporal determinism."

Here we see an essential prerequisite for further studies in the evolution of linguistic patterns. It must help us to overcome the methodological heritage of the neogrammarian doctrine, the tradition of the late nineteenth century in historical linguistics, even though we accept from this tradition a high number of technical devices. Its bias permitted only a history of scattered facts, piecemeal dealings with separate phenomena, without reference to the pattern to which these components belonged, and therefore the real evolution of the phonemic or grammatical structure was overlooked.

In analyzing a change of A into B, we must consistently render account of what the whole pattern was before the change and what it has become after the change; and here, again, we must see what was the sense of the change, its role for the whole pattern. Then we come to very new results, and many events which were considered completely separate appear to be simply fractional and predictable details of a single comprehensive mutation which can be described in much simpler terms.

The gulf between descriptive and historical linguistics so vehemently emphasized as inevitable by Saussure was a temporary gap due primarily to the circumstance that he used a new methodology for synchronic linguistics, while in diachronic linguistics he remained in the neogrammarian rut. This gulf was, moreover, considered necessary, because of a fallacious identification which endangered, I think, not only linguistics but anthropological research in general, the identification of two dichotomies: (1) synchronic – diachronic and (2) static – dynamic.

A synchronic system is never static. Let me resort to a simple comparison. If you are watching a movie and I ask you, "What do you see at this moment?" you do not see static situations. You see gangsters at work and horses running and various other motions. Only in front of the box office do you see merely statics pasted on the billboards. Neither is synchrony confined to statics, nor statics to synchrony. We can take a

static approach to history and ask in particular what has remained im-
movable from Latin or even Indo-European to contemporary Italian.
On the other hand, there is room for a dynamic approach in synchronic
linguistics. A linguistic change is not like a change to Daylight Saving
Time, so that on May 1 all members of the speech community would no
longer use element A, but only element B. There are periods when both
elements A and B coexist with different stylistic connotation, and speakers
may be aware that element A is an archaism and B an innovation and will
use them accordingly just as in an audience with a high dignitary you
will not wear the tie you wear on a date. Thus, the start and finish of a
change originally belong to the same synchronic state. The time factor
itself, upon entering into such a symbolic system as language, assumes a
symbolic value. The artificial barrier between synchronic and historical
linguistics vanishes, since one can analyze changes in terms of a synchronic
pattern just as one does with its static constituents.

APHASIA AS A LINGUISTIC TOPIC

As the developments of the last decades prove, aphasia is an extremely productive field for linguistic study; furthermore, the cooperation of linguists, psychologists, psychiatrists, neurologists and other experts is of ever increasing value here.

The first real interpreter of aphasia, Hughlings Jackson, recognized that an aphasic mutation may be regarded as twofold in nature: when a patient says "chair" for "table", he shows, first, a deficit in not saying "table" and, second, a compensation in saying "chair" instead.[1]

For the study of expressive language this approach is particularly illuminating: aphasia can lead to a redistribution of linguistic functions. This may be illustrated by the following examples.

In Norwegian, stressed syllables carry two different intonations which, other things being equal, serve to distinguish words; this distinctive function limits the use of intonation for expressive purposes. In standard German, intonation does not differentiate words but is often used to signal the emotional attitude of the speaker. A Norwegian woman, whom Monrad-Krohn[2] examined, had been struck by a bombfragment and had lost her ability to distinguish the two word-differentiating intonations of her mother tongue. Consequently her use of intonation was fully released for expressive variation, and as a result she was mistaken by her countrymen for a Norwegian-speaking German and often met their animosity in Nazi-occupied Oslo.

In the next illustration the loss of a distinctive feature in aphasia is compensated for by an additional expressive feature. In Czech the opposition of long and short vowels is capable of distinguishing word meanings. Thus, *draha* means "road" when the first vowel is a long /aː/ and the second a short /a/ — /draːha/; but if the distribution of long and

---

[1] Jackson, H., "On Affections of Speech From Disease of the Brain", *Brain*, 1879 (reprinted in *Brain*, 38, 1915).

[2] Monrad-Krohn, G. H., "Dysprosody or altered 'melody of language'", *Brain*, 70, 1947.

short is inverted, then the word /draha:/ is the feminine singular of
the adjective "dear"; the corresponding neuter form in colloquial
Czech is /drahi:/. Hence in Czech, emphasis cannot be rendered by
the prolongation of a short vowel, whereas in Russian, in which the
quantity of vowels has no distinctive value, the increase of the length
of a vowel plays an important expressive role. Czech patients with
language disturbances are apt to lose the distinctive opposition of long
and short vowels. An aphasic, instructed to interpret the word /dra:ha/
"road", answered /co je drahi:/ "(that) which is dear". A female patient
of the Prague psychiatrist, Antonin Heveroch, exclaimed /sem na:čena/
"I'm excited", and when asked why she said /na:čena/ instead of
the correct Czech /načena/, replied that when she felt most excited,
then she was [na:čena]. Hence what appears to be a pathological
phenomenon in Czech corresponds to the normal pattern in Russian.[3]

Again, in Czech, the main stress, falling on the initial syllable, signals
the division of the sound chain into words – it is a configurational feature.
There is, moreover, a tendency to accent the penult, which has an ex-
pressive function. In Polish, on the other hand, the main stress is on
the penult.

In an aphasic case recorded by the Prague psychiatrist, Arnold Pick,[4]
the loss of distinctive vowel quantity was accompanied by a shift of the
stress from the first to the next-to-the-last syllable of the word, which
gave rise to an unwarranted suspicion of some previous Polish influence
on the patient. What actually happened was that the expressive accent
became the main stress and assumed the configurational function,
because the loss of quantity induced a reinforcement of the stress, and
the accent on the penult appears more prominent as it contrasts with
both the following and the preceding syllables of the same word and
provides a peak with two slopes. Here we observe a redistribution of
configurational and expressive features; it is probable that the same
factors just described caused the shift of the stress from the initial syllable
to the penult in Polish and in those peripheral Czech and Slovak dialects
which, like Polish, lost the free quantity. So the ontogeny of this patholo-
gical case and the phylogeny of Polish are subject to the same structural
principles.

The losses and compensations in aphasia throw new light on the in-
terrelationship of the so-called cognitive and expressive elements in

---

[3]   Jakobson, R., *O češskom stixe* (Berlin–Moscow, 1923).
[4]   Pick, A., "Über Änderungen des Sprachcharakters als Begleiterscheinung apha-
sischer Störungen", *Zeitschrift f. d. ges. Neurol. u. Psychiatr.*, 45, 1919.

language; and aphasia provides a vital topic indeed for a conference on Expressive Language.

Research in the field of speech pathology is progressing rapidly; three fundamental works appeared shortly after World War II, synthesizing the results achieved, namely Kurt Goldstein's *Language and Language Disturbances*,[5] André Ombredane's *L'aphasie et l'élaboration de la pensée explicite*,[6] and the Russian book *Travmatičeskaja afazija*, written by the psychologist and psychiatrist A. R. Luria and based on an amazing number of cases from the last war.[7] All three outstanding experts assign high importance to the linguistic problems involved in the study of aphasia; their works suggest that linguists cannot abstain from taking a more active role in the investigation of speech disorders and in the revision of previous theories.

The application of purely linguistic criteria to the interpretation and classification of aphasic facts can contribute substantially to the science of language and language disturbances, provided that linguists remain as careful and cautious when dealing with psychological and neurological data as they have been in their traditional field. First of all, they should be familiar with the technical terms and devices of the medical disciplines dealing with aphasia; then, they must submit the clinical case reports to thorough linguistic analysis; and further, they should themselves work with aphasic patients in order to approach the cases directly and not only through prepared records which are quite differently conceived and elaborated. Although Goldstein, Luria, Ombredane, and some other psychopathologists have studied and utilized the basic linguistic literature, any variety of aphasia, any individual case offers highly complex and intricate linguistic material which cannot be satisfactorily analyzed without the cooperation of a linguist equipped with all the technical means and methods of the modern science of language.

There is one level of aphasic phenomena where amazing agreement has been achieved during the last twenty years between those psychiatrists and linguists who have tackled these problems. I am referring to the analysis of the disintegration of the sound pattern. This dissolution exhibits a time order of great regularity. Aphasic regression has proved to be a mirror of the child's acquisition of speech sounds; it shows the child's development in reverse. Furthermore, comparison of child language and aphasia enables us to establish several "laws of implication".

[5]   New York, 1948.

[6]   Paris, 1951.

[7]   Moscow, 1947.

Thus, if we observe that in the child's language the acquisition of a certain phenomenon B implies the acquisition of a phenomenon A, we discover that the loss of A in aphasia implies the loss of B, while the rehabilitation of an aphasic goes in the same direction as in the case of a child – the reacquisition of B implies the renewed presence of A. If, subsequently, we examine the distribution of these elements in the languages of the world, we detect that the presence of phenomenon B implies the presence of phenomenon A, and that the absence of A implies the absence of B.[8]

The search for this order of acquisitions and losses and for the general laws of implication cannot be confined to the phonemic pattern but must be extended also to the grammatical system. Only a few preliminary attempts have been made in this direction, and these efforts deserve to be continued.

Today, however, I should like to discuss a completely different problem which, I think, is of importance not only for the study of aphasia but for the general science of language, especially for the analysis of verbal structure, verbal behavior, and verbal art. The problem has been alluded to in the various papers of our symposium; in particular, one of the principal concepts involved in this problem emerged again and again in the interchanges and each time provoked vivid discussion. Our chairman has devoted to this concept one of his most captivating books.[9] I refer to the concept of the metaphor.

The two opposite tropes, metaphor and metonymy, present the most condensed expression of two basic modes of relation: the internal relation of similarity (and contrast) underlies the metaphor; the external relation of contiguity (and remoteness) determines the metonymy.

Language in its various aspects deals with both modes of relation. Whether messages are exchanged or communication proceeds unilaterally from the addresser to the addressee, there must be some kind of contiguity between the participants of any speech event to assure the transmission of the message. The separation in space, and often in time, between two individuals, the addresser and the addressee, is bridged by an internal relation: there must be a certain equivalence between the symbols used by the addresser and those known and interpreted by the addressee. Without such an equivalence the message is fruitless – even when it reaches the receiver, it does not affect him.

If I say "he did", then in order to grasp this message you must know

[8]   See *Selected Writings*, I, p. 328 ff.
[9]   Werner, H., "Die Ursprünge der Metapher", 1919.

the meanings of *he* and of *did;* you must know and understand the English lexical units, their grammatical form (for instance *did* in contradistinction to *does*) and also the syntactical rules of their combination (*he did* in contradistinction to *did he*). Briefly, you must have a common code with the addresser, so that when listening to his message you can identify its constituents with the corresponding code units. We may, then, define the addresser as an encoder and the addressee as a decoder.

However, it is not enough to know the code in order to grasp the message. When I say "he did", you may be familiar with the words *he* and *did* and with the rules of word order, and you will then realize that I speak about some man who performed some action, but in order to learn who this person is and what the action is which he performed, you need to know the context, verbalized or non-verbalized, but verbalizable. Here we again enter the field of contiguity. The components of any message are necessarily linked with the code by an internal relation of equivalence and with the context by an external relation of contiguity.

Let us start with the smallest units of language endowed with meaning, the so-called morphemes, for example with the suffix /-ist/. In the grammatical code of English this morpheme denotes a superlative grading. Grading in respect to what quality? The answer is given by the context to which the suffix belongs. The word is the context of morphemes, just as a sentence is the verbal context of words and an utterance the verbal context of sentences, while a morpheme in its turn is the context of phonemes. In the word *biggest* /bígist/ the grammatical meaning of the suffix /-ist/ refers to the lexical meaning of the root-morpheme /bíg-/; but not only the components /bíg-/ and /-ist/, but also the capability of /bíg-/ to form a superlative using the suffix /-ist/, and consequently the whole word unit /bígist/, all this is contained in the code.

When operating with the hierarchy – phoneme, morpheme, word, sentence, utterance – linguists are tempted to see this arrangement as a merely quantitative scale, whereas in fact each of these ranks is also qualitatively, structurally different. Sometimes there has appeared a tendency to disregard the word, or at least to minimize its peculiarity, but Edward Sapir,[10] with his remarkable insight into problems of verbal structure, warningly insisted on the pivotal position of the word as "the actual formal unit of speech" among other linguistic entities, and the statistical data interpreted by George Zipf[11] and Benoit Mandel-

---

[10]   Sapir, E., *Language* (New York, 1921).
[11]   Zipf, G. K., *Human Behavior and the Principle of Least Effort* (Cambridge, Mass., 1949).

brot[12] have confirmed this view. Among the linguistic units compulsorily coded, the word is the highest. We are not supposed to coin new words in our discourse, unless they are made clear to the listener by either translation into conventional words or by an explicit context.

The rules governing the combination of words into sentences belong to the code. If "John loves Mary", it does not mean that "Mary loves John", and to find out whom the addresser presents as the lover and whom as the beloved, the listener must know the syntactical rules of English. The order "actor-action-acted upon" is prescribed by the code, but the speaker is free to choose the substantives designating the actor or the goal and the verb designating the action, so that instead of the more likely communication about John loving Mary, a rather unusual but perfectly clear and correct sentence, "chanterelles love sour cream", may be heard in a jocular formulation of a culinary recipe or in a fanciful fairy-tale.

While the combination of words into a sentence is still bound by syntactical rules, we are no longer restricted by compulsory rules when we combine sentences in an utterance, although there obviously exist not only stereotyped sentences but also entire ready-made utterances.

Thus every level of linguistic units presents a different relationship between code and context, and these differences are of great consequence for the various problems of linguistic structure and especially for the study of aphasia. Since aphasia is first and foremost an impairment of language, no exact diagnosis can be made without a competent linguistic examination of what in the patient's language is impaired. In particular, how does he operate with code and context? How does he treat linguistic units of different ranks? The linguistic classification of the various cases must be based on such verbal symptoms from which the whole syndrome can be most reliably inferred.

First, it is important to ascertain which aspect of verbal behavior is the most affected. Is it encoding or decoding? This is the basis of the classical distinction between the so-called emissive (or expressive) aphasia on the one hand, and the receptive (or sensory) aphasia on the other.

Second, of the two modes of relation, similarity and contiguity, the aphasic suffers impairment or at least greatest deterioration of only one mode in his verbal behavior. Patients with impaired internal relations and intact external relations are able to follow, carry on and complete a context. They have a perfect sense of what in the theory of communi-

12   Mandelbrot, B., "Structure formelle des textes et communication", *Word*, 10, 1954.

cation is called "transitional probabilities". Since such a patient's whole attention is concentrated on building a context, he often exhibits unusual skill in completing a fragmentary word or a partial sentence which is presented to him. The easier it is for such a patient to find words suggested by the context, the more difficulties he has with wordfinding in the proper sense of this neuropsychiatric term; that is, difficulties with spontaneous selection of words, for instance of words starting a sentence, and even more, a discourse, or words grammatically independent of the other constituents of the sentence, and especially words divorced from sentences. One must again and again insist with Goldstein on distinguishing between the "summoning up of words" in fluent speech, and autonomous "searching for words" which do not depend on context.

Aphasics with impaired internal relation (similarity disorder) have difficulty in arranging code units according to their similarity. They are able to combine two units with each other within a message, but not to substitute one unit for another on the basis of their mutual resemblance (or contrast). They have lost the power to make an equation between corresponding words of two different codes (heteronyms), or semantically similar words of the same code (synonyms), or between a word and a more explicit phrase (circumlocution).

From early childhood, any normal user of language is able to talk about language itself. For example, a speaker mentions *champagne*, but has some doubt whether the listeners really caught the word. He may then return to the word: "I mean fizz" (colloquial synonym), or "You know, the sparkling white wine from France" (circumlocution), or simply, "I said champagne" (pleonasm). All these sentences refer to the verbal code. Actually they say: "*champagne* and *fizz* are substitutable for each other as they carry the same meaning in the code we use: in this code *champagne* is the name of a French sparkling white wine: the word I used is *champagne*". Here one verbal code acts at the same time both as topic of and as vehicle for the discourse. This use of language to discuss language, labeled "metalanguage" in logic, is deficient in aphasics with a similarity disorder. Despite any instructions, they cannot respond to the stimulus word of the examiner with an equivalent word or expression. Any gift for translation, either intralingual or interlingual, is lost by these patients, and if they had been bilingual their code switching becomes totally impaired. Also the capacity for intersemiotic translation, i.e., transposition from one sign system to another, is missing. Therefore the patient finds it hard to name an object shown to him in a picture or pointed to by the examiner.

Since the attention of such a patient is focused upon contiguity, and since he cannot perceive sameness or likeness, it is quite natural that the instruction to repeat the stimulus word is for him an impossible task. Of the two varieties of figural speech – metaphor, based on similarity, and metonymy, founded on contiguity – only the latter is used and grasped by him. He will not react to the stimulus word *champagne* with metaphors such as *ginger pop* or *geyser* or *mistress*, which suggest some analogy between two images, but he will readily resort to metonymical shifts from the cause to the immediate or further effect (*tipsiness* or *hangover*), from the thing contained to the container (*bottle*), from the goal to an auxiliary tool (*corkscrew*), and from the whole to a part (*foam*).

It is questionable whether this breaking down of similarity relations can be ascribed to the loss of an "abstract attitude", as Goldstein terms it. The metonymical and the metaphorical steps are but two different types of what he calls "abstract behavior". Perhaps this notion is too vague to be used in the analysis and classification of aphasia. In this connection it must be recalled that the most abstract words in our vocabulary, the purely analytical units such as conjunctions, prepositions, pronouns, and articles, are the best preserved and the most frequently used in the speech of aphasics focused upon context. If such indices of relations are retained in this type of aphasia (similarity disorder), it is because their primary function is to provide the connective tissue of the context.

The other cardinal type of aphasia is the reverse of the syndrome discussed. The patient cannot operate with contiguity, but operations based on similarity remain intact. Thus he loses the ability to propositionize. The context disintegrates. First the relational words are omitted, giving rise to the so-called "telegraphic style", whereas in the case of similarity disorder they are the last survivors. The more a word is syntactically independent, the stronger its tenacity in the speech of aphasics with a contiguity disorder, and the sooner it is dropped by patients with a similarity disorder. Thus the "kernel subject word" – in Bloomfield's terminology[13] – is the first to fall out of the sentence in cases of similarity disorder and, conversely, is most tenacious in cases of contiguity disorder.

Of the two relative freedoms of the speaker – free selection of words and their free combination into larger contexts – the former is limited in cases of similarity disorder, and the latter in cases of contiguity disorder, in which the sentence and the entire utterance tend to be reduced to a one-word sentence and to a one-sentence utterance.

[13]   Bloomfield, L., *Language* (New York, 1933).

Since the hierarchy of linguistic units is a superposition of ever larger contexts, the contiguity disorder which affects the construction of contexts destroys this hierarchy. On the one hand, the word ceases to serve as a constituent of larger contexts, and on the other, it becomes indissoluble into its grammatical components. Thus a patient of this type may apprehend and employ the compound *staircase* without being capable of recognizing or repeating its components *stair* and *case* used alone. The same indissolubility of words promotes the decay of inflectional variation – conjugation and declension. This deficit, along with the loss of relational words and syntactical pattern, is a typical symptom of the so-called "agrammatism".

As long as a patient with contiguity disorder is still capable of discerning the root and the suffix, the sameness of the suffix (homoeoteleuton) is more palpable for him than the sameness of the root combined with different suffixes, derivational (paregmenon) or inflectional (polyptoton), because homeoteleuton associates words by similarity (e.g., *jeweler, hatter, tinner, worker*), while paregmenon (e.g., *jewel, jeweler, jewelry*) and polyptoton (*who, whose, whom*) associate them by contiguity. For the same reason aphasics of this type use metaphors or, properly, infantile quasi-metaphors based on an inexact identification, whereas patients with similarity disorder deal with metonymies.

At advanced stages of contiguity disorder, the word tends to be the maximum and at the same time the minimum denotative unit, and in certain cases even the minimum distinctive unit. In our *Preliminaries to Speech Analysis* we quoted three rare English words – *gip, gib* and *gid*. If a normal native speaker is presented with these unfamiliar vocables, the three examples convey the following information: none of the features and feature combinations contained in them contradict the English code; consequently these samples may be English words, and if they are words, then most probably each of them has a different meaning, as the phonemic distinctions between them indicate. But those aphasics for whom the word is the ultimate unit are unable to grasp, discern, or repeat the unfamiliar samples quoted, although they consist of the usual English phonemes and phonemic groups. Thus they can utter *big, give, dig*, etc., but cannot say *gib*. Most often, however, the conflict between the two ranks of the linguistic scale – the distinctive and the significative units – is settled by cutting down the inventory of phonemes and phonemic clusters. The last residues of such aphasic speech are one-phoneme, one-word, one-sentence utterances.

This type of aphasia, contiguity disorder, presents the most regular and

consistent regression towards early infantile stages of language and there-fore, particularly, demands systematic comparison with children's linguistic development.

The opposition of the two types of verbal behavior – the metonymical, concerned with external relations and the metaphorical, involving internal relations – underlies the alternative syndromes of aphasic disturbances – similarity disorder and contiguity disorder. While each of these two types of aphasia tends toward unipolarity, normal verbal behavior is bipolar. But any individual use of language, any verbal style, any trend in verbal art displays a clear predilection either for the metonymical or for the metaphorical device.

TWO ASPECTS OF LANGUAGE
AND TWO TYPES OF APHASIC DISTURBANCES

I. THE LINGUISTIC PROBLEMS OF APHASIA

If aphasia is a language disturbance, as the term itself suggests, then any description and classification of aphasic syndromes must begin with the question of what aspects of language are impaired in the various species of such a disorder. This problem, which was approached long ago by Hughlings Jackson,[1] cannot be solved without the participation of professional linguists familiar with the patterning and functioning of language.

To study adequately any breakdown in communications we must first understand the nature and structure of the particular mode of communication that has ceased to function. Linguistics is concerned with language in all its aspects – language in operation, language in drift,[2] language in the nascent state, and language in dissolution.

At present there are psychopathologists who assign a high importance to the linguistic problems involved in the study of language disturbances;[3] some of these questions have been touched upon in the best recent treatises on aphasia.[4] Yet, ĩn most cases, this valid insistence on the linguist's contribution to the investigation of aphasia is still ignored. For instance, a new book, dealing to a great extent with the complex and intricate problems of infantile aphasia, calls for a coordination of various disciplines and appeals for cooperation to otolaryngologists, pediatricians, audiologists, psychiatrists, and educators; but the science of language is

---

[1] Hughlings Jackson, Papers on affections of speech (reprinted and commented by H. Head), *Brain*, XXXVIII (1915).
[2] E. Sapir, *Language* (New York, 1921), Chapter VII: "Language as a historical product; drift."
[3] See, for instance, the discussion on aphasia in the Nederlandsche Vereeniging voor Phonetische Wetenschappen, with papers by the linguist J. van Ginneken and by two psychiatrists, F. Grewel and V. W. D. Schenk, *Psychiatrische en Neurologische Bladen*, XLV (1941), p. 1035ff.; cf. furthermore, F. Grewel, "Aphasie en linguistiek", *Nederlandsch Tijdschrift voor Geneeskunde*, XCIII (1949), p. 726ff.
[4] A. R. Luria, *Travmatičeskaja afazija* (Moscow, 1947); Kurt Goldstein, *Language and Language Disturbances* (New York, 1948); André Ombredane, *L'aphasie et l'élaboration de la pensée explicite* (Paris, 1951).

passed over in silence, as if disorders in speech perception had nothing whatever to do with language. [5] This omission is the more deplorable since the author is Director of the Child Hearing and Aphasia Clinics at Northwestern University, which counts among its linguists Werner F. Leopold, by far the best American expert on child language.

Linguists are also responsible for the delay in undertaking a joint inquiry into aphasia. Nothing comparable to the minute linguistic observations of infants of various countries has been performed with respect to aphasics. Nor has there been any attempt to reinterpret and systematize from the point of view of linguistics the multifarious clinical data on diverse types of aphasia. That this should be true is all the more surprising in view of the fact that, on the one hand, the amazing progress of structural linguistics has endowed the investigator with efficient tools and methods for the study of verbal regression and, on the other, the aphasic disintegration of the verbal pattern may provide the linguist with new insights into the general laws of language.

The application of purely linguistic criteria to the interpretation and classification of aphasic facts can substantially contribute to the science of language and language disturbances, provided that linguists remain as careful and cautious when dealing with psychological and neurological data as they have been in their traditional field. First of all, they should be familiar with the technical terms and devices of the medical disciplines dealing with aphasia; then, they must submit the clinical case reports to thorough linguistic analysis; and, further, they should themselves work with aphasic patients in order to approach the cases directly and not only through a reinterpretation of prepared records which have been quite differently conceived and elaborated.

There is one level of aphasic phenomena where amazing agreement has been achieved during the last twenty years between those psychiatrists and linguists who have tackled these problems, namely the disintegration of the sound pattern. [6] This dissolution exhibits a time order of great regularity. Aphasic regression has proved to be a mirror of the

[5] H. Myklebust, *Auditory Disorders in Children* (New York, 1954).

[6] The aphasic impoverishment of the sound pattern has been observed and discussed by the linguist Marguerite Durand together with the psychopathologists Th. Alajouanine and A. Ombredane (in their joint work *Le syndrome de désintégration phonétique dans l'aphasie*, Paris, 1939) and by R. Jakobson (the first draft, presented to the International Congress of Linguists at Brussels in 1939 – see N. Trubetzkoy, *Principes de phonologie*, Paris, 1949, pp. 317-79 — was later developed into an outline, "Kindersprache, Aphasie und allgemeine Lautgesetze", *Uppsala Universitets Årsskrift*, 1942:9; both papers are reprinted in *Selected Writings*, I, The Hague, 1962, 328-401).

child's acquisition of speech sounds: it shows the child's development in reverse. Furthermore, comparison of child language and aphasia enables us to establish several laws of implication. The search for this order of acquisitions and losses and for the general laws of implication cannot be confined to the phonemic pattern but must be extended also to the grammatical system. Only a few preliminary attempts have been made in this direction, and these efforts deserve to be continued.[7]

II. THE TWOFOLD CHARACTER OF LANGUAGE

Speech implies a selection of certain linguistic entities and their combination into linguistic units of a higher degree of complexity. At the lexical level this is readily apparent: the speaker selects words and combines them into sentences according to the syntactic system of the language he is using; sentences in their turn are combined into utterances. But the speaker is by no means a completely free agent in his choice of words: his selection (except for the rare case of actual neology) must be made from the lexical storehouse which he and his addressee possess in common. The communication engineer most properly approaches the essence of the speech event when he assumes that in the optimal exchange of information the speaker and the listener have at their disposal more or less the same "filing cabinet of *prefabricated* representations": the addresser of a verbal message selects one of these "preconceived possibilities" and the addressee is supposed to make an identical choice from the same assembly of "possibilities already foreseen and provided for".[8] Thus the efficiency of a speech event demands the use of a common code by its participants.

"'Did you say *pig* or *fig*?' said the Cat. 'I said *pig*,' replied Alice."[9] In this peculiar utterance the feline addressee attempts to recapture a linguistic choice made by the addresser. In the common code of the Cat and Alice, i.e. in spoken English, the difference between a stop and a continuant, other things being equal, may change the meaning of the

[7] A joint inquiry into certain grammatical disturbances was undertaken at the Bonn University Clinic by a linguist, G. Kandler, and two physicians, F. Panse and A. Leischner: see their report, *Klinische und sprachwissenschaftliche Untersuchungen zum Agrammatismus* (Stuttgart, 1952).
[8] D. M. MacKay, "In search of basic symbols", *Cybernetics, Transactions of the Eighth Conference* (New York, 1952), p. 183.
[9] Lewis Carroll, *Alice's Adventures in Wonderland*, Chapter VI.

message. Alice had used the distinctive feature stop *vs.* continuant, rejecting the latter and choosing the former of the two opposites; and in the same act of speech she combined this solution with certain other simultaneous features, using the gravity and the tenseness of /p/ in contradistinction to the acuteness of /t/ and to the laxness of /b/. Thus all these attributes have been combined into a bundle of distinctive features, the so-called p h o n e m e. The phoneme /p/ was then f o l l o w e d by the phonemes /i/ and /g/, themselves bundles of simultaneously produced distinctive features. Hence the c o n c u r r e n c e of simultaneous entities and the c o n c a t e n a t i o n of successive entities are the two ways in which we speakers combine linguistic constituents.

Neither such bundles as /p/ or /f/ nor such sequences of bundles as /pig/ or /fig/ are invented by the speaker who uses them. Neither can the distinctive feature stop *vs.* continuant nor the phoneme /p/ occur out of context. The stop feature appears in combination with certain other concurrent features, and the repertory of combinations of these features into phonemes such as /p/, /b/, /t/, /d/, /k/, /g/, etc. is limited by the code of the given language. The code sets limitations on the possible combinations of the phoneme /p/ with other following and/or preceding phonemes; and only part of the permissible phoneme-sequences are actually utilized in the lexical stock of a given language. Even when other combinations of phonemes are theoretically possible, the speaker, as a rule, is only a word-user, not a word-coiner. When faced with individual words, we expect them to be coded units. In order to grasp the word *nylon* one must know the meaning assigned to this vocable in the lexical code of modern English.

In any language there exist also coded word-groups called p h r a s e-w o r d s. The meaning of the idiom *how do you do* cannot be derived by adding together the meanings of its lexical constituents; the whole is not equal to the sum of its parts. Word-groups which in this respect behave like single words are a common but nonetheless only marginal case. In order to comprehend the overwhelming majority of word-groups, we need be familiar only with the constituent words and with the syntactical rules of their combination. Within these limitations we are free to put words in new contexts. Of course, this freedom is relative, and the pressure of current clichés upon our choice of combinations is considerable. But the freedom to compose quite new contexts is undeniable, despite the relatively low statistical probability of their occurrence.

Thus, in the combination of linguistic units there is an ascending scale of freedom. In the combination of distinctive features into phonemes,

the freedom of the individual speaker is zero: the code has already established all the possibilities which may be utilized in the given language. Freedom to combine phonemes into words is circumscribed; it is limited to the marginal situation of word coinage. In forming sentences with words the speaker is less constrained. And finally, in the combination of sentences into utterances, the action of compulsory syntactical rules ceases, and the freedom of any individual speaker to create novel contexts increases substantially, although again the numerous stereotyped utterances are not to be overlooked.

Any linguistic sign involves two modes of arrangement.

1) Combination. Any sign is made up of constituent signs and/or occurs only in combination with other signs. This means that any linguistic unit at one and the same time serves as a context for simpler units and/or finds its own context in a more complex linguistic unit. Hence any actual grouping of linguistic units binds them into a superior unit: combination and contexture are two faces of the same operation.

2) Selection. A selection between alternatives implies the possibility of substituting one for the other, equivalent to the former in one respect and different from it in another. Actually, selection and substitution are two faces of the same operation.

The fundamental role which these two operations play in language was clearly realized by Ferdinand de Saussure. Yet of the two varieties of combination – concurrence and concatenation – it was only the latter, the temporal sequence, which was recognized by the Geneva linguist. Despite his own insight into the phoneme as a set of concurrent distinctive features (*éléments différentiels des phonèmes*), the scholar succumbed to the traditional belief in the linear character of language "*qui exclut la possibilité de prononcer deux éléments à la fois*".[10]

In order to delimit the two modes of arrangement which we have described as combination and selection, F. de Saussure states that the former "is *in presentia*: it is based on two or several terms jointly present in an actual series", whereas the latter "connects terms *in absentia* as members of a virtual mnemonic series". That is to say, selection (and, correspondingly, substitution) deals with entities conjoined in the code but not in the given message, whereas, in the case of combination, the entities are conjoined in both, or only in the actual message. The addressee perceives that the given utterance (message) is a combination of constituent parts (sentences, words, phonemes, etc.) selected from the repository of all possible constituent parts (the code). The constituents of

[10]   F. de Saussure, *Cours de linguistique générale*, 2nd ed. (Paris, 1922), pp. 68f. and 170f.

a context are in a state of contiguity, while in a substitution set signs are linked by various degrees of similarity which fluctuate between the equivalence of synonyms and the common core of antonyms.

These two operations provide each linguistic sign with two sets of interpretants, to utilize the effective concept introduced by Charles Sanders Peirce:[11] there are two references which serve to interpret the sign – one to the code, and the other to the context, whether coded or free, and in each of these ways the sign is related to another set of linguistic signs, through an alternation in the former case and through an alignment in the latter. A given significative unit may be replaced by other, more explicit signs of the same code, whereby its general meaning is revealed, while its contextual meaning is determined by its connection with other signs within the same sequence.

The constituents of any message are necessarily linked with the code by an internal relation and with the message by an external relation. Language in its various aspects deals with both modes of relation. Whether messages are exchanged or communication proceeds unilaterally from the addresser to the addressee, there must be some kind of contiguity between the participants of any speech event to assure the transmission of the message. The separation in space, and often in time, between two individuals, the addresser and the addressee, is bridged by an internal relation: there must be a certain equivalence between the symbols used by the addresser and those known and interpreted by the addressee. Without such an equivalence the message is fruitless: even when is reaches the receiver it does not affect him.

III. SIMILARITY DISORDER

It is clear that speech disturbances may affect in varying degrees the individual's capacity for combination and selection of linguistic units, and indeed the question of which of these two operations is chiefly impaired proves to be of far-reaching significance in describing, analyzing, and classifying the diverse forms of aphasia. This dichotomy is perhaps even more suggestive than the classical distinction (not discussed in this paper) between emissive and receptive aphasia, indicating which of the two functions in speech exchange, the encoding or the decoding of verbal messages, is particularly affected.

[11] C. S. Peirce, *Collected Papers*, II and IV (Cambridge, Mass., 1932, 1934) – see Index of subjects.

Head attempted to classify cases of aphasia into definite groups,[12] and to each of these varieties he assigned "a name chosen to signify the most salient defect in the management and comprehension of words and phrases" (p. 412). Following this device, we distinguish two basic types of aphasia – depending on whether the major deficiency lies in selection and substitution, with relative stability of combination and contexture; or conversely, in combination and contexture, with relative retention of normal selection and substitution. In outlining these two opposite patterns of aphasia, I shall utilize mainly Goldstein's data.

For aphasics of the first type (selection deficiency), the context is the indispensable and decisive factor. When presented with scraps of words or sentences, such a patient readily completes them. His speech is merely reactive: he easily carries on conversation, but has difficulties in starting a dialogue; he is able to reply to a real or imaginary addresser when he is, or imagines himself to be, the addressee of the message. It is particularly hard for him to perform, or even to understand, such a closed discourse as the monologue. The more his utterances are dependent on the context, the better he copes with his verbal task. He feels unable to utter a sentence which responds neither to the cue of his interlocutor nor to the actual situation. The sentence "it rains" cannot be produced unless the utterer sees that it is actually raining. The deeper the utterance is embedded in the verbal or non-verbalized context, the higher are the chances of its successful performance by this class of patients.

Likewise, the more a word is dependent on the other words of the same sentence and the more it refers to the syntactical context, the less it is affected by the speech disturbance. Therefore words syntactically subordinated by grammatical agreement or government are more tenacious, whereas the main subordinating agent of the sentence, namely the subject, tends to be omitted. As long as beginning is the patient's main difficulty, it is obvious that he will fail precisely at the starting point, the cornerstone of the sentence-pattern. In this type of language disturbance, sentences are conceived as elliptical sequels to be supplied from antecedent sentences uttered, if not imagined, by the aphasic himself, or received by him from the other partner in the colloquy, actual if not imaginary. Key words may be dropped or superseded by abstract anaphoric substitutes.[13] A specific noun, as Freud noticed, is replaced by a very general one, for instance *machin, chose* in the speech of French aphasics.[14] In a

[12]   H. Head, *Aphasia and Kindred Disorders of Speech*, I (New York, 1926).

[13]   Cf. L. Bloomfield, *Language* (New York, 1933), Chapter XV: Substitution.

[14]   S. Freud, *On Aphasia* (London, 1953), p. 22.

dialectal German sample of "amnesic aphasia" observed by Goldstein (p. 246ff.), *Ding* 'thing' or *Stückel* 'piece' were substituted for all inanimate nouns, and *überfahren* 'perform' for verbs which were identifiable from the context or situation and therefore appeared superfluous to the patient.

Words with an inherent reference to the context, like pronouns and pronominal adverbs, and words serving merely to construct the context, such as connectives and auxiliaries, are particularly prone to survive. A typical utterance of a German patient, recorded by Quensel and quoted by Goldstein (p. 302), will serve as illustration:

"Ich bin doch hier unten, na wenn ich gewesen bin ich wees nicht, we das, nu wenn ich, ob das nun doch, noch, ja. Was Sie her, wenn ich, och ich weess nicht, we das hier war ja..."

Thus only the framework, the connecting links of communication, is spared by this type of aphasia at its critical stage.

In the theory of language, since the early Middle Ages, it has repeatedly been asserted that the word out of context has no meaning. The validity of this statement is, however, confined to aphasia, or, more exactly, to one type of aphasia. In the pathological cases under discussion an isolated word means actually nothing but 'blab'. As numerous tests have disclosed, for such patients two occurrences of the same word in two different contexts are mere homonyms. Since distinctive vocables carry a higher amount of information than homonyms, some aphasics of this type tend to supplant the contextual variants of one word by different terms, each of them specific for the given environment. Thus Goldstein's patient never uttered the word *knife* alone, but, according to its use and surroundings, alternately called the knife *pencil-sharpener, apple-parer, bread-knife, knife-and-fork* (p. 62); so that the word *knife* was changed from a free form, capable of occurring alone, into a bound form.

"I have a good apartment, entrance hall, bedroom, kitchen," Goldstein's patient says. "There are also big apartments, only in the rear live bachelors." A more explicit form, the word-group *unmarried people*, could have been substituted for *bachelors*, but this univerbal term was selected by the speaker. When repeatedly asked what a bachelor was, the patient did not answer and was "apparently in distress" (p. 270). A reply like "a bachelor is an unmarried man" or "an unmarried man is a bachelor" would present an equational predication and thus a projection of a substitution set from the lexical code of the English language into the context of the given message. The equivalent terms become two corre-

lated parts of the sentence and consequently are tied by contiguity. The patient was able to select the appropriate term *bachelor* when it was supported by the context of a customary conversation about "bachelor apartments", but was incapable of utilizing the substitution set *bachelor = unmarried man* as the topic of a sentence, because the ability for autonomous selection and substitution had been affected. The equational sentence vainly demanded from the patient carries as its sole information: "«bachelor» means an unmarried man" or "an unmarried man is called «a bachelor»".

The same difficulty arises when the patient is asked to name an object pointed to or handled by the examiner. The aphasic with a defect in substitution will not supplement the pointing or handling gesture of the examiner with the name of the object pointed to. Instead of saying "this is [called] a pencil", he will merely add an elliptical note about its use: "To write". If one of the synonymic signs is present (as for instance the word *bachelor* or the pointing to the pencil) then the other sign (such as the phrase *unmarried man* or the word *pencil*) becomes redundant and consequently superfluous. For the aphasic, both signs are in complementary distribution: if one is performed by the examiner, the patient will avoid its synonym: "I understand everything" or "Ich weiss es schon" will be his typical reaction. Likewise, the picture of an object will cause suppression of its name: a verbal sign is supplanted by a pictorial sign. When the picture of a compass was presented to a patient of Lotmar's, he responded: "Yes, it's a ... I know what it belongs to, but I cannot recall the technical expression ... Yes ... direction ... to show direction ... a magnet points to the north."[15] Such patients fail to shift, as Peirce would say, from an i n d e x or i c o n to a corresponding verbal s y m b o l.[16]

Even simple repetition of a word uttered by the examiner seems to the patient unnecessarily redundant, and despite instructions received he is unable to repeat it. Told to repeat the word "no", Head's patient replied "No, I don't know how to do it." While spontaneously using the word in the context of his answer ("No, I don't ..."), he could not produce the purest form of equational predication, the tautology a = a: «no» is «no».

One of the important contributions of symbolic logic to the science of language is its emphasis on the distinction between o b j e c t l a n g u a g e and m e t a l a n g u a g e. As Carnap states, "in order to speak *about* any

---

[15] F. Lotmar, "Zur Pathophysiologie der erschwerten Wortfindung bei Aphasischen", *Schweiz. Archiv für Neurologie und Psychiatrie*, XXXV (1933), p. 104.
[16] C. S. Peirce, "The icon, index and symbol", *Collected papers*, II (Cambridge, Mass., 1932).

object language, we need a *metalanguage*."[17] On these two different levels of language the same linguistic stock may be used; thus we may speak in English (as metalanguage) about English (as object language) and interpret English words and sentences by means of English synonyms, circumlocutions and paraphrases. Obviously such operations, labeled metalinguistic by the logicians, are not their invention: far from being confined to the sphere of science, they prove to be an integral part of our customary linguistic activities. The participants in a dialogue often check whether they are using the same code. "Do you follow me? Do you see what I mean?" the speaker asks, or the listener himself breaks in with "What do you mean?" Then, by replacing the questionable sign with another sign from the same linguistic code, or with a whole group of code signs, the sender of the message seeks to make it more accessible to the decoder.

The interpretation of one linguistic sign through other, in some respect homogeneous, signs of the same language, is a metalinguistic operation which also plays an essential role in children's language learning. Recent observations have disclosed what a considerable place talk about language occupies in the verbal behavior of pre-school children.[18] Recourse to metalanguage is necessary both for the acquisition of language and for its normal functioning. The aphasic defect in the "capacity of naming" is properly a loss of metalanguage. As a matter of fact, the examples of equational predication sought in vain from the patients cited above, are metalinguistic propositions referring to the English language. Their explicit wording would be: "In the code that we use, the name of the indicated object is «pencil»"; or "In the code we use, the word «bachelor» and the circumlocution «unmarried man» are equivalent."

Such an aphasic can neither switch from a word to its synonyms or circumlocutions, nor to its heteronyms, i.e. equivalent expressions in other languages. Loss of bilingualism and confinement to a single dialectal variety of a single language is a symptomatic manifestation of this disorder.

According to an old but recurrent bias, a single individual's way of speaking at a given time, labeled idiolect, has been viewed as the only concrete linguistic reality. In the discussion of this concept the following objections were raised:

[17]   R. Carnap, *Meaning and Necessity* (Chicago, 1947), p. 4.
[18]   See the remarkable studies of A. Gvozdev: "Nabljudenija nad jazykom malen'kix detej", *Russkij jazyk v sovetskoj škole* (1929); *Usvoenie rebenkom zvukovoj storony russkogo jazyka* (Moscow, 1948); and *Formirovanie u rebenka grammatičeskogo stroja russkogo jazyka* (Moscow, 1949).

Everyone, when speaking to another person, tries, deliberately or involuntarily, to hit upon a common vocabulary: either to please or simply to be understood or, finally, to bring him out, he uses the terms of his addressee. There is no such thing as private property in language: everything is socialized. Verbal exchange, like any form of intercourse, requires at least two communicators, and idiolect proves to be a somewhat perverse fiction.[19]

This statement needs, however, one reservation: for an aphasic who has lost the capacity for code switching, the "idiolect" indeed becomes the sole linguistic reality. As long as he does not regard another's speech as a message addressed to him in his own verbal pattern, he feels, as a patient of Hemphil and Stengel expressed it: "I can hear you dead plain but I cannot get what you say ... I hear your voice but not the words ... It does not pronounce itself."[20] He considers the other's utterance to be either gibberish or at least in an unknown language.

As noted above, it is the external relation of contiguity which unites the constituents of a context, and the internal relation of similarity which underlies the substitution set. Hence, for an aphasic with impaired substitution and intact contexture, operations involving similarity yield to those based on contiguity. It could be predicted that under these conditions any semantic grouping would be guided by spatial or temporal contiguity rather than by similarity. Actually Goldstein's tests justify such an expectation: a female patient of this type, when asked to list a few names of animals, disposed them in the same order in which she had seen them in the zoo; similarly, despite instructions to arrange certain objects according to color, size, and shape, she classified them on the basis of their spatial contiguity as home things, office materials, etc. and justified this grouping by a reference to a display window where "it does not matter what the things are", i.e. they do not have to be similar (pp. 61f., 263ff.). The same patient was willing to name the primary hues – red, yellow, green, and blue – but declined to extend these names to the transitional varieties (p. 268f.), since, for her, words had no capacity to assume additional, shifted meanings associated by similarity with their primary meaning.

One must agree with Goldstein's observation that patients of this type "grasped the words in their literal meaning but could not be brought to understand the metaphoric character of the same words" (p. 270). It

[19] "Results of the Conference of Anthropologists and Linguists", *Indiana University Publications in Anthropology and Linguistics*, VIII (1953), p. 15 [this paper is reproduced below, pp. 554-567].
[20] R. E. Hemphil and E. Stengel, "Pure word deafness", *Journal of Neurology and Psychiatry*, III (1940), pp. 251-62.

would, however, be an unwarranted generalization to assume that figurative speech is altogether incomprehensible to them. Of the two polar figures of speech, metaphor and metonymy, the latter, based on contiguity, is widely employed by aphasics whose selective capacities have been affected. *Fork* is substituted for *knife*, *table* for *lamp*, *smoke* for *pipe*, *eat* for *toaster*. A typical case is reported by Head:

When he failed to recall the name for "black", he described it as "What you do for the dead"; this he shortened to "dead" (I, p. 198).

Such metonymies may be characterized as projections from the line of a habitual context into the line of substitution and selection: a sign (e.g. *fork*) which usually occurs together with another sign (e.g. *knife*) may be used instead of this sign. Phrases like "knife and fork", "table lamp", "to smoke a pipe", induced the metonymies *fork*, *table*, *smoke*; the relation between the use of an object (toast) and the means of its production underlies the metonymy *eat* for *toaster*. "When does one wear black?" – "When mourning the dead": in place of naming the color, the cause of its traditional use is designated. The escape from sameness to contiguity is particularly striking in such cases as Goldstein's patient who would answer with a metonymy when asked to repeat a given word and, for instance, would say *glass* for *window* and *heaven* for *God* (p. 280).

When the selective capacity is strongly impaired and the gift for combination at least partly preserved, then contiguity determines the patient's whole verbal behavior, and we may designate this type of aphasia similarity disorder.

IV. CONTIGUITY DISORDER

From 1864 on it was repeatedly pointed out in Hughlings Jackson's pioneer contributions to the modern study of language and language disturbances:

It is not enough to say that speech consists of words. It consists of words referring to one another in a particular manner; and, without a proper interrelation of its parts, a verbal utterance would be a mere succession of names embodying no proposition (p. 66).[21]

Loss of speech is the loss of power to propositionize... Speechlessness does not mean entire wordlessness (p. 114).[22]

[21]   H. Jackson, "Notes on the physiology and pathology of the nervous system" (1868), *Brain*, XXXVIII (1915), pp. 65-71.
[22]   H. Jackson, "On affections of speech from disease of the brain" (1879), *Brain*, XXXVIII (1915), pp. 107-29.

Impairment of the ability to propositionize, or, generally speaking, to combine simpler linguistic entities into more complex units, is actually confined to one type of aphasia, the opposite of the type discussed in the preceding chapter. There is no wordlessness, since the entity preserved in most of such cases is the word, which can be defined as the highest among the linguistic units compulsorily coded, i.e., we compose our own sentences and utterances out of the word stock supplied by the code.

This contexture-deficient aphasia, which could be termed contiguity disorder, diminishes the extent and variety of sentences. The syntactical rules organizing words into higher units are lost; this loss, called a grammatism, causes the degeneration of the sentence into a mere "word heap", to use Jackson's image.[23] Word order becomes chaotic; the ties of grammatical coordination and subordination, whether concord or government, are dissolved. As might be expected, words endowed with purely grammatical functions, like conjunctions, prepositions, pronouns, and articles, disappear first, giving rise to the so-called "telegraphic style", whereas in the case of similarity disorder they are the most resistant. The less a word depends grammatically on the context, the stronger is its tenacity in the speech of aphasics with a contiguity disorder and the earlier it is dropped by patients with a similarity disorder. Thus the "kernel subject word" is the first to fall out of the sentence in cases of similarity disorder and, conversely, it is the least destructible in the opposite type of aphasia.

The type of aphasia affecting contexture tends to give rise to infantile one-sentence utterances and one-word sentences. Only a few longer, stereotyped, "ready made" sentences manage to survive. In advanced cases of this disease, each utterance is reduced to a single one-word sentence. While contexture disintegrates, the selective operation goes on. "To say what a thing is, is to say what it is like," Jackson notes (p. 125). The patient confined to the substitution set (once contexture is deficient) deals with similarities, and his approximate identifications are of a metaphoric nature, contrary to the metonymic ones familiar to the opposite type of aphasics. *Spyglass* for *microscope,* or *fire* for *gaslight* are typical examples of such quasi-metaphoric expressions, as Jackson termed them, since, in contradistinction to rhetoric or poetic metaphors, they present no deliberate transfer of meaning.

In a normal language pattern, the word is at the same time both a constituent part of a superimposed context, the sentence, and itself a

[23]   H. Jackson, "Notes on the physiology and pathology of language" (1866), *Brain,* XXXVIII (1915), pp. 48-58.

context superimposed on ever smaller constituents, morphemes (minimum units endowed with meaning) and phonemes. We have discussed the effect of contiguity disorder on the combination of words into higher units. The relationship between the word and its constituents reflects the same impairment, yet in a somewhat different way. A typical feature of agrammatism is the abolition of inflection: there appear such unmarked categories as the infinitive in the place of diverse finite verbal forms, and in languages with declension, the nominative instead of all the oblique cases. These defects are due partly to the elimination of government and concord, partly to the loss of ability to dissolve words into stem and desinence. Finally, a paradigm (in particular a set of grammatical cases such as *he – his – him*, or of tenses such as *he votes – he voted*) present the same semantic content from different points of view associated with each other by contiguity; so there is one more impetus for aphasics with a contiguity disorder to dismiss such sets.

Also, as a rule, words derived from the same root, such as *grant – grantor – grantee* are semantically related by contiguity. The patients under discussion are either inclined to drop the derivative words, or the combination of a root with a derivational suffix and even a compound of two words become irresolvable for them. Patients who understood and uttered such compounds as *Thanksgiving* or *Battersea*, but were unable to grasp or to say *thanks* and *giving* or *batter* and *sea*, have often been cited. As long as the sense of derivation is still alive, so that this process is still used for creating innovations in the code, one can observe a tendency toward oversimplification and automatism: if the derivative word constitutes a semantic unit which cannot be entirely inferred from the meaning of its components, the Gestalt is misunderstood. Thus the Russian word *mokr-ica* signifies 'wood-louse', but a Russian aphasic interpreted it as 'something humid', especially 'humid weather', since the root *mokr-* means 'humid' and the suffix *-ica* designates a carrier of the given property, as in *nelépica* 'something absurd', *svetlíca* 'light room', *temnica* 'dungeon' (literally 'dark room').

When, before World War II, phonemics was the most controversial area in the science of language, doubts were expressed by some linguists as to whether phonemes really play an autonomous part in our verbal behavior. It was even suggested that the meaningful (significative) units of the linguistic code, such as morphemes or rather words, are the minimal entities with which we actually deal in a speech event, whereas the merely distinctive units, such as phonemes, are an artificial construct to facilitate the scientific description and analysis of a language.

This view, which was stigmatized by Sapir as "the reverse of realistic",[24] remains, however, perfectly valid with respect to a certain pathological type: in one variety of aphasia, which sometimes has been labeled "atactic", the word is the sole linguistic unity preserved. The patient has only an integral, indissolvable image of any familiar word, and all other sound-sequences are either alien and inscrutable to him, or he merges them into familiar words by disregarding their phonetic deviations. One of Goldstein's patients "perceived some words, but *** the vowels and consonants of which they consisted were not perceived" (p. 218). A French aphasic recognized, understood, repeated, and spontaneously produced the word *café* 'coffee' or *pavé* 'roadway', but was unable to grasp, discern, or repeat such nonsensical sequences as *féca, faké, kéfa, pafé*. None of these difficulties exists for a normal French-speaking listener as long as the sound-sequences and their components fit the French phonemic pattern. Such a listener may even apprehend these sequences as words unknown to him but plausibly belonging to the French vocabulary and presumably different in meaning, since they differ from each other either in the order of their phonemes or in the phonemes themselves.

If an aphasic becomes unable to resolve the word into its phonemic constituents, his control over its construction weakens, and perceptible damage to phonemes and their combinations easily follows. The gradual regression of the sound pattern in aphasics regularly reverses the order of children's phonemic acquisitions. This regression involves an inflation of homonyms and a decrease of vocabulary. If this twofold – phonemic and lexical – disablement progresses further, the last residues of speech are one-phoneme, one-word, one-sentence utterances: the patient relapses into the initial phases of infant's linguistic development or even to the pre-lingual stage: he faces *aphasia universalis*, the total loss of the power to use or apprehend speech.

The separateness of the two functions – one distinctive and the other significative – is a peculiar feature of language as compared to other semiotic systems. There arises a conflict between these two levels of language when the aphasic deficient in contexture exhibits a tendency to abolish the hierarchy of linguistic units and to reduce their scale to a single level. The last level to remain is either a class of significative values, the w o r d, as in the cases touched upon, or a class of distinctive values, the p h o n e m e. In the latter case the patient is still able to identify, distinguish, and reproduce phonemes, but loses the capacity to do the

---

[24] E. Sapir, "The psychological reality of phonemes", *Selected Writings* (Berkeley and Los Angeles, 1949), p. 46ff.

same with words. In an intermediate case, words are identified, distinguished, and reproduced; according to Goldstein's acute formulation, they "may be grasped as known but not understood" (p. 90). Here the word loses its normal significative function and assumes the purely distinctive function which normally pertains to the phoneme.

V. THE METAPHORIC AND METONYMIC POLES

The varieties of aphasia are numerous and diverse, but all of them lie between the two polar types just described. Every form of aphasic disturbance consists in some impairment, more or less severe, either of the faculty for selection and substitution or for combination and contexture. The former affliction involves a deterioration of metalinguistic operations, while the latter damages the capacity for maintaining the hierarchy of linguistic units. The relation of similarity is suppressed in the former, the relation of contiguity in the latter type of aphasia. Metaphor is alien to the similarity disorder, and metonymy to the contiguity disorder.

The development of a discourse may take place along two different semantic lines: one topic may lead to another either through their similarity or through their contiguity. The metaphoric way would be the most appropriate term for the first case and the metonymic way for the second, since they find their most condensed expression in metaphor and metonymy respectively. In aphasia one or the other of these two processes is restricted or totally blocked – an effect which makes the study of aphasia particularly illuminating for the linguist. In normal verbal behavior both processes are continually operative, but careful observation will reveal that under the influence of a cultural pattern, personality, and verbal style, preference is given to one of the two processes over the other.

In a well-known psychological test, children are confronted with some noun and told to utter the first verbal response that comes into their heads. In this experiment two opposite linguistic predilections are invariably exhibited: the response is intended either as a substitute for, or as a complement to the stimulus. In the latter case the stimulus and the response together form a proper syntactic construction, most usually a sentence. These two types of reaction have been labeled substitutive and predicative.

To the stimulus *hut* one response was *burnt out;* another, *is a poor little house.* Both reactions are predicative; but the first creates a purely

narrative context, while in the second there is a double connection with the subject *hut*: on the one hand, a positional (namely, syntactic) contiguity, and on the other a semantic similarity.

The same stimulus produced the following substitutive reactions: the tautology *hut;* the synonyms *cabin* and *hovel;* the antonym *palace*, and the metaphors *den* and *burrow*. The capacity of two words to replace one another is an instance of positional similarity, and, in addition, all these responses are linked to the stimulus by semantic similarity (or contrast). Metonymical responses to the same stimulus, such as *thatch*, *litter*, or *poverty*, combine and contrast the positional similarity with semantic contiguity.

In manipulating these two kinds of connection (similarity and contiguity) in both their aspects (positional and semantic) – selecting, combining, and ranking them – an individual exhibits his personal style, his verbal predilections and preferences.

In verbal art the interaction of these two elements is especially pronounced. Rich material for the study of this relationship is to be found in verse patterns which require a compulsory parallelism between adjacent lines, for example in Biblical poetry or in the Finnic and, to some extent, the Russian oral traditions. This provides an objective criterion of what in the given speech community acts as a correspondence. Since on any verbal level – morphemic, lexical, syntactic, and phraseological – either of these two relations (similarity and contiguity) can appear – and each in either of two aspects, an impressive range of possible configurations is created. Either of the two gravitational poles may prevail. In Russian lyrical songs, for example, metaphoric constructions predominate, while in the heroic epics the metonymic way is preponderant.

In poetry there are various motives which determine the choice between these alternants. The primacy of the metaphoric process in the literary schools of romanticism and symbolism has been repeatedly acknowledged, but it is still insufficiently realized that it is the predominance of metonymy which underlies and actually predetermines the so-called "realistic" trend, which belongs to an intermediary stage between the decline of romanticism and the rise of symbolism and is opposed to both. Following the path of contiguous relationships, the realist author metonymically digresses from the plot to the atmosphere and from the characters to the setting in space and time. He is fond of synecdochic details. In the scene of Anna Karenina's suicide Tolstoj's artistic attention is focused on the heroine's handbag; and in *War and Peace* the synecdoches "hair on the upper lip" and "bare shoulders" are used by the same

writer to stand for the female characters to whom these features belong.

The alternative predominance of one or the other of these two processes is by no means confined to verbal art. The same oscillation occurs in sign systems other than language.[25] A salient example from the history of painting is the manifestly metonymical orientation of cubism, where the object is transformed into a set of synecdoches; the surrealist painters responded with a patently metaphorical attitude. Ever since the productions of D. W. Griffith, the art of the cinema, with its highly developed capacity for changing the angle, perspective, and focus of "shots", has broken with the tradition of the theater and ranged an unprecedented variety of synecdochic "close-ups" and metonymic "set-ups" in general. In such motion pictures as those of Charlie Chaplin and Eisenstein,[26] these devices in turn were overlayed by a novel, metaphoric "montage" with its "lap dissolves" – the filmic similes.[27]

The bipolar structure of language (or other semiotic systems) and, in aphasia, the fixation on one of these poles to the exclusion of the other require systematic comparative study. The retention of either of these alternatives in the two types of aphasia must be confronted with the predominance of the same pole in certain styles, personal habits, current fashions, etc. A careful analysis and comparison of these phenomena with the whole syndrome of the corresponding type of aphasia is an imperative task for joint research by experts in psychopathology, psychology, linguistics, poetics, and s e m i o t i c, the general science of signs. The dichotomy discussed here appears to be of primal significance and consequence for all verbal behavior and for human behavior in general.[28]

To indicate the possibilities of the projected comparative research, we choose an example from a Russian folktale which employs parallelism as a comic device: "Thomas is a bachelor; Jeremiah is unmarried" (*Fomá xólost; Erjóma neženát*). Here the predicates in the two parallel clauses

[25] I ventured a few sketchy remarks on the metonymical turn in verbal art ("Pro realizm u mystectvi", *Vaplite*, Kharkov, 1927, No. 2; "Randbemerkungen zur Prosa des Dichters Pasternak", *Slavische Rundschau*, VII, 1935), in painting ("Futurizm," *Iskusstvo*, Moscow, Aug. 2, 1919), and in motion pictures ("Úpadek filmu", *Listy pro uměni a kritiku*, I, Prague, 1933), but the crucial problem of the two polar processes awaits a detailed investigation.
[26] Cf. his striking essay "Dickens, Griffith, and We": S. Eisenstein, *Izbrannye stat'i* (Moscow, 1950), p. 153 ff.
[27] Cf. B. Balazs, *Theory of the Film* (London, 1952).
[28] For the psychological and sociological aspects of this dichotomy, see Bateson's views on "progressional" and "selective integration" and Parsons' on the "conjunction-disjunction dichotomy" in child development: J. Ruesch and G. Bateson, *Communication, the Social Matrix of Psychiatry* (New York, 1951), pp. 183ff.; T. Parsons and R. F. Bales, *Family, Socialization and Interaction Process* (Glencoe, 1955), pp. 119f.

are associated by similarity: they are in fact synonymous. The subjects of both clauses are masculine proper names and hence morphologically similar, while on the other hand they denote two contiguous heroes of the same tale, created to perform identical actions and thus to justify the use of synonymous pairs of predicates. A somewhat modified version of the same construction occurs in a familiar wedding song in which each of the wedding guests is addressed in turn by his first name and patronymic: "Gleb is a bachelor; Ivanovič is unmarried." While both predicates here are again synonyms, the relationship between the two subjects is changed: both are proper names denoting the same man and are normally used contiguously as a mode of polite address.

In the quotation from the folktale, the two parallel clauses refer to two separate facts, the marital status of Thomas and the similar status of Jeremiah. In the verse from the wedding song, however, the two clauses are synonymous: they redundantly reiterate the celibacy of the same hero, splitting him into two verbal hypostases.

The Russian novelist Gleb Ivanovič Uspenskij (1840–1902) in the last years of his life suffered from a mental illness involving a speech disorder. His first name and patronymic, *Gleb Ivanovič*, traditionally combined in polite intercourse, for him split into two distinct names designating two separate beings: Gleb was endowed with all his virtues, while Ivanovič, the name relating a son to his father, became the incarnation of all Uspenskij's vices. The linguistic aspect of this split personality is the patient's inability to use two symbols for the same thing, and it is thus a similarity disorder. Since the similarity disorder is bound up with the metonymical bent, an examination of the literary manner Uspenskij had employed as a young writer takes on particular interest. And the study of Anatolij Kamegulov, who analyzed Uspenskij's style, bears out our theoretical expectations. He shows that Uspenskij had a particular penchant for metonymy, and especially for synecdoche, and that he carried it so far that "the reader is crushed by the multiplicity of detail unloaded on him in a limited verbal space, and is physically unable to grasp the whole, so that the portrait is often lost."[29]

[29] A. Kamegulov, *Stil' Gleba Uspenskogo* (Leningrad, 1930), pp. 65, 145. One of such disintegrated portraits cited in the monograph: "From underneath an ancient straw cap, with a black spot on its visor, peeked two braids resembling the tusks of a wild boar; a chin, grown fat and pendulous, had spread definitively over the greasy collar of the calico dicky and lay in a thick layer on the coarse collar of the canvas coat, firmly buttoned at the neck. From underneath this coat to the eyes of the observer protruded massive hands with a ring which had eaten into the fat finger, a cane with a copper top, a significant bulge of the stomach, and the presence of very broad pants, almost of muslin quality, in the wide bottoms of which hid the toes of the boots."

To be sure, the metonymical style in Uspenskij is obviously prompted by the prevailing literary canon of his time, late nineteenth-century "realism"; but the personal stamp of Gleb Ivanovič made his pen particularly suitable for this artistic trend in its extreme manifestations and finally left its mark upon the verbal aspect of his mental illness.

A competition between both devices, metonymic and metaphoric, is manifest in any symbolic process, be it intrapersonal or social. Thus in an inquiry into the structure of dreams, the decisive question is whether the symbols and the temporal sequences used are based on contiguity (Freud's metonymic "displacement" and synecdochic "condensation") or on similarity (Freud's "identification and symbolism").[30] The principles underlying magic rites have been resolved by Frazer into two types: charms based on the law of similarity and those founded on association by contiguity. The first of these two great branches of sympathetic magic has been called "homoeopathic" or "imitative", and the second, "contagious magic".[31] This bipartition is indeed illuminating. Nonetheless, for the most part, the question of the two poles is still neglected despite its wide scope and importance for the study of any symbolic behavior, especially verbal, and of its impairments. What is the main reason for this neglect?

Similarity in meaning connects the symbols of a metalanguage with the symbols of the language referred to. Similarity connects a metaphorical term with the term for which it is substituted. Consequently, when constructing a metalanguage to interpret tropes, the researcher possesses more homogeneous means to handle metaphor, whereas metonymy, based on a different principle, easily defies interpretation. Therefore nothing comparable to the rich literature on metaphor[32] can be cited for the theory of metonymy. For the same reason, it is generally realized that romanticism is closely linked with metaphor, whereas the equally intimate ties of realism with metonymy usually remain unnoticed. Not only the tool of the observer but also the object of observation is responsible for the preponderance of metaphor over metonymy in scholarship. Since poetry is focused upon the sign, and pragmatical prose primarily upon the referent, tropes and figures were studied mainly as poetic devices. The principle of similarity underlies poetry; the metrical parallelism of lines, or the phonic equivalence of rhyming words prompts the

---

[30]   S. Freud, *Die Traumdeutung*, 9th ed. (Vienna, 1950).

[31]   J. G. Frazer, *The Golden Bough: A Study in Magic and Religion*, Part I, 3rd ed. (Vienna, 1950), chapter III.

[32]   C. F. P. Stutterheim, *Het begrip metaphoor* (Amsterdam, 1941).

question of semantic similarity and contrast; there exist, for instance, grammatical and anti-grammatical but never agrammatical rhymes. Prose, on the contrary, is forwarded essentially by contiguity. Thus, for poetry, metaphor, and for prose, metonymy is the line of least resistance and, consequently, the study of poetical tropes is directed chiefly toward metaphor. The actual bipolarity has been artificially replaced in these studies by an amputated, unipolar scheme which, strikingly enough, coincides with one of the two aphasic patterns, namely with the contiguity disorder.

ON LINGUISTIC ASPECTS OF TRANSLATION

According to Bertrand Russell, "no one can understand the word 'cheese' unless he has a nonlinguistic acquaintance with cheese".[1] If, however, we follow Russell's fundamental precept and place our "emphasis upon the linguistic aspects of traditional philosophical problems", then we are obliged to state that no one can understand the word *cheese* unless he has an acquaintance with the meaning assigned to this word in the lexical code of English. Any representative of a cheese-less culinary culture will understand the English word *cheese* if he is aware that in this language it means 'food made of pressed curds' and if he has at least a linguistic acquaintance with *curds*. We never consumed ambrosia or nectar and have only a linguistic acquaintance with the words *ambrosia, nectar*, and *gods* – the name of their mythical users; nonetheless, we understand these words and know in what contexts each of them may be used.

The meaning of the words *cheese, apple, nectar, acquaintance, but, mere*, and of any word or phrase whatsoever is definitely a linguistic or – to be more precise and less narrow – a semiotic fact. Against those who assign meaning (*signatum*) not to the sign, but to the thing itself, the simplest and truest argument would be that nobody has ever smelled or tasted the meaning of *cheese* or of *apple*. There is no *signatum* without *signum*. The meaning of the word "cheese" cannot be inferred from a nonlinguistic acquaintance with cheddar or with camembert without the assistance of the verbal code. An array of linguistic signs is needed to introduce an unfamiliar word. Mere pointing will not teach us whether *cheese* is the name of the given specimen, or of any box of camembert, or of camembert in general, or of any cheese, any milk product, any food, any refreshment, or perhaps any box irrespective of contents. Finally, does a word simply name the thing in ques-

[1] Bertrand Russell, "Logical Positivism", *Revue Internationale de Philosophie*, IV (1950), 18; cf. p. 3.

tion, or does it imply a meaning such as offering, sale, prohibition, or malediction? (Pointing actually may mean malediction; in some cultures, particularly in Africa, it is an ominous gesture.)

For us, both as linguists and as ordinary word-users, the meaning of any linguistic sign is its translation into some further, alternative sign, especially a sign "in which it is more fully developed", as Peirce, the deepest inquirer into the essence of signs, insistently stated.[2] The term "bachelor" may be converted into a more explicit designation, "unmarried man", whenever higher explicitness is required. We distinguish three ways of interpreting a verbal sign: it may be translated into other signs of the same language, into another language, or into another, nonverbal system of symbols. These three kinds of translation are to be differently labeled:

1) Intralingual translation or *rewording* is an interpretation of verbal signs by means of other signs of the same language.
2) Interlingual translation or *translation proper* is an interpretation of verbal signs by means of some other language.
3) Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of signs of nonverbal sign systems.

The intralingual translation of a word uses either another, more or less synonymous, word or resorts to a circumlocution. Yet synonymy, as a rule, is not complete equivalence: for example, "every celibate is a bachelor, but not every bachelor is a celibate". A word or an idiomatic phrase-word, briefly a code-unit of the highest level, may be fully interpreted only by means of an equivalent combination of code-units, i.e., a message referring to this code-unit: "every bachelor is an unmarried man, and every unmarried man is a bachelor", or "every celibate is bound not to marry, and everyone who is bound not to marry is a celibate".

Likewise on the level of interlingual translation, there is ordinarily no full equivalence between code-units, while messages may serve as adequate interpretations of alien code-units or messages. The English word *cheese* cannot be completely identified with its standard Russian heteronym *syr* because cottage cheese is a cheese but not a *syr*. Russians say: *prinesi syru i tvorogu*, 'bring cheese and [sic] cottage cheese'. In standard Russian, the food made of pressed curds is called *syr* only if ferment is used.

Most frequently, however, translation from one language into another

[2] Cf. John Dewey, "Peirce's Theory of Linguistic Signs, Thought, and Meaning", *The Journal of Philosophy*, XLIII (1946), 91.

substitutes messages in one language not for separate code-units but for
entire messages in some other language. Such a translation is a reported
speech: the translator recodes and transmits a message received from
another source. Thus translation involves two equivalent messages in
two different codes.

Equivalence in difference is the cardinal problem of language and the
pivotal concern of linguistics. Like any receiver of verbal messages, the
linguist acts as their interpreter. No linguistic specimen may be inter-
preted by the science of language without a translation of its signs into
other signs of the same system or into signs of another system. Any
comparison of two languages implies an examination of their mutual
translatability; the widespread practice of interlingual communication, par-
ticularly translating activities, must be kept under constant scrutiny by
linguistic science. It is difficult to overestimate the urgent need for, and
the theoretical and practical significance of, differential bilingual diction-
aries with careful comparative definition of all the corresponding units
in their intension and extension. Likewise differential bilingual grammars
should define what unifies and what differentiates the two languages in
their selection and delimitation of grammatical concepts.

Both the practice and the theory of translation abound with intricacies,
and from time to time attempts are made to sever the Gordian knot by
proclaiming the dogma of untranslatability. "Mr. Everyman, the natural
logician", vividly imagined by B. L. Whorf, is supposed to have arrived
at the following bit of reasoning: "Facts are unlike to speakers whose
language background provides for unlike formulation of them."[3] In the
first years of the Russian revolution there were fanatic visionaries who
argued in Soviet periodicals for a radical revision of traditional language
and particularly for the weeding out of such misleading expressions as
"sunrise" or "sunset". Yet we still use this Ptolemaic imagery without
implying a rejection of Copernican doctrine, and we can easily transform
our customary talk about the rising and setting sun into a picture of the
earth's rotation simply because any sign is translatable into a sign in
which it appears to us more fully developed and precise.

An ability to speak a given language implies an ability to talk about
this language. Such a "metalinguistic" operation permits revision
and redefinition of the vocabulary used. The complementarity of both
levels – object-language and metalanguage – was brought out by Niels
Bohr: all well-defined experimental evidence must be expressed in ordi-

---

[3]   Benj. L. Whorf, *Language, Thought, and Reality* (Cambridge, Mass., 1956), p. 235.

nary language, "in which the practical use of every word stands in com-
plementary relation to attempts of its strict definition".[4]

All cognitive experience and its classification is conveyable in any
existing language. Whenever there is a deficiency, terminology can be
qualified and amplified by loanwords or loan-translations, by neologisms
or semantic shifts, and, finally, by circumlocutions. Thus in the newborn
literary language of the Northeast Siberian Chukchees, "screw" is ren-
dered as "rotating nail", "steel" as "hard iron", "tin" as "thin iron",
"chalk" as "writing soap", "watch" as "hammering heart". Even seem-
ingly contradictory circumlocutions, like "electrical horse-car" *(èlek-
tričeskaja konka)*, the first Russian name of the horseless street car, or
"flying steamship" (*jeŋa paraqot*), the Koryak term for the airplane,
simply designate the electrical analogue of the horsecar and the flying
analogue of the steamer and do not impede communication, just as there
is no semantic "noise" and disturbance in the double oxymoron – "cold
beef-and-pork hot dog".

No lack of grammatical devices in the language translated into makes
impossible a literal translation of the entire conceptual information
contained in the original. The traditional conjunctions "and", "or" are
now supplemented by a new connective – "and/or" – which was discussed
a few years ago in the witty book *Federal Prose – How to Write in and/or
for Washington*.[5] Of these three conjunctions, only the last occurs in
one of the Samoyed languages.[6] Despite these differences in the inventory
of conjunctions, all three varieties of messages observed in "federal
prose" can be distinctly translated both into traditional English and
into this Samoyed language. Federal prose: 1) John and Peter, 2) John
or Peter, 3) John and/or Peter will come. Traditional English: 3) John
and Peter or one of them will come. Samoyed: 1) John and/or Peter both
will come, 2) John and/or Peter, one of them will come.

If some grammatical category is absent in a given language, its meaning
may be translated into this language by lexical means. Dual forms like
Old Russian *brata* are translated with the help of the numeral: 'two
brothers'. It is more difficult to remain faithful to the original when we
translate into a language provided with a certain grammatical category
from a language lacking such a category. When translating the English

[4] Niels Bohr, "On the Notions of Causality and Complementarity", *Dialectica*, I
(1948), 317f.
[5] James R. Masterson and Wendell Brooks Phillips, *Federal Prose* (Chapel Hill,
N. C., 1948), p. 40f.
[6] Cf. Knut Bergsland, "Finsk-ugrisk og almen språkvitenskap", *Norsk Tidsskrift
for Sprogvidenskap*, XV (1949), 374f.

sentence *She has brothers* into a language which discriminates dual and plural, we are compelled either to make our own choice between two statements "She has two brothers" –"She has more than two" or to leave the decision to the listener and say: "She has either two or more than two brothers." Again, in translating from a language without grammatical number into English one is obliged to select one of the two possibilities – *brother* or *brothers* or to confront the receiver of this message with a two-choice situation: *She has either one or more than one brother*.

As Boas neatly observed, the grammatical pattern of a language (as opposed to its lexical stock) determines those aspects of each experience that must be expressed in the given language: "We have to choose between these aspects, and one or the other must be chosen."[7] In order to translate accurately the English sentence *I hired a worker*, a Russian needs supplementary information, whether this action was completed or not and whether the worker was a man or a woman, because he must make his choice between a verb of completive or noncompletive aspect – *nanjal or nanimal* – and between a masculine and feminine noun – *rabotnika* or *rabotnicu*. If I ask the utterer of the English sentence whether the worker was male or female, my question may be judged irrelevant or indiscreet, whereas in the Russian version of this sentence an answer to this question is obligatory. On the other hand, whatever the choice of Russian grammatical forms to translate the quoted English message, the translation will give no answer to the question of whether I *hired* or *have hired* the worker, or whether he/she was an indefinite or definite worker (*a* or *the*). Because the information required by the English and Russian grammatical pattern is unlike, we face quite different sets of two-choice situations; therefore a chain of translations of one and the same isolated sentence from English into Russian and vice versa could entirely deprive such a message of its initial content. The Geneva linguist S. Karcevskij used to compare such a gradual loss with a circular series of unfavorable currency transactions. But evidently the richer the context of a message, the smaller the loss of information.

Languages differ essentially in what they *must* convey and not in what they *can* convey. Each verb of a given language imperatively raises a set of specific yes-or-no questions, as for instance: is the narrated event conceived with or without reference to its completion? is the narrated event presented as prior to the speech event or not? Naturally the attention of

[7]   Franz Boas, "Language", *General Anthropology* (Boston, 1938), pp. 132f.

native speakers and listeners will be constantly focused on such items as are compulsory in their verbal code.

In its cognitive function, language is minimally dependent on the grammatical pattern, because the definition of our experience stands in complementary relation to metalinguistic operations – the cognitive level of language not only admits but directly requires recoding interpretation, i.e., translation. Any assumption of ineffable or untranslatable cognitive data would be a contradiction in terms. But in jest, in dreams, in magic, briefly, in what one would call everyday verbal mythology, and in poetry above all, the grammatical categories carry a high semantic import. Under these conditions, the question of translation becomes much more entangled and controversial.

Even such a category as grammatical gender, often cited as merely formal, plays a great role in the mythological attitudes of a speech community. In Russian the feminine cannot designate a male person, nor the masculine specify a female. Ways of personifying or metaphorically interpreting inanimate nouns are prompted by their gender. A test in the Moscow Psychological Institute (1915) showed that Russians, prone to personify the weekdays, consistently represented Monday, Tuesday, and Thursday as males and Wednesday, Friday, and Saturday as females, without realizing that this distribution was due to the masculine gender of the first three names (*ponedel'nik, vtornik, četverg*) as against the feminine gender of the others (*sreda, pjatnica, subbota*). The fact that the word for Friday is masculine in some Slavic languages and feminine in others is reflected in the folk traditions of the corresponding peoples, which differ in their Friday ritual. The widespread Russian superstition that a dropped knife presages a male guest and a dropped fork a female one is determined by the masculine gender of *nož* 'knife' and the feminine of *vilka* 'fork' in Russian. In Slavic and other languages where "day" is masculine and "night" feminine, day is represented by poets as the lover of night. The Russian painter Repin was baffled as to why Sin had been depicted as a woman by German artists: he did not realize that "sin" is feminine in German (*die Sünde*), but masculine in Russian (*grex*). Likewise a Russian child, while reading a translation of German tales, was astounded to find that Death, obviously a woman (Russian *smert'*, fem.), was pictured as an old man (German *der Tod*, masc.). *My Sister Life*, the title of a book of poems by Boris Pasternak, is quite natural in Russian, where "life" is feminine (*žizn'*), but was enough to reduce to despair the Czech poet Josef Hora in his attempt to translate these poems, since in Czech this noun is masculine (*život*).

What was the first problem which arose in Slavic literature at its very beginning? Curiously enough, the translator's difficulty in preserving the symbolism of genders, and the cognitive irrelevance of this difficulty, appears to be the main topic of the earliest Slavic original work, the preface to the first translation of the *Evangeliarium*, made in the early 860's by the founder of Slavic letters and liturgy, Constantine the Philosopher, and recently restored and interpreted by A. Vaillant.[8] "Greek, when translated into another language, cannot always be reproduced identically, and that happens to each language being translated," the Slavic apostle states. "Masculine nouns like ποταμός 'river' and ἀστήρ 'star' in Greek, are feminine in another language like рѣка and звѣзда in Slavic." According to Vaillant's commentary, this divergence effaces the symbolic identification of the rivers with demons and of the stars with angels in the Slavic translation of two of Matthew's verses (7:25 and 2:9). But to this poetic obstacle Saint Constantine resolutely opposes the precept of Dionysius the Areopagite, who called for chief attention to the cognitive values (*silě razumu*) and not to the words themselves.

In poetry, verbal equations become a constructive principle of the text. Syntactic and morphological categories, roots, and affixes, phonemes and their components (distinctive features) – in short, any constituents of the verbal code – are confronted, juxtaposed, brought into contiguous relation according to the principle of similarity and contrast and carry their own autonomous signification. Phonemic similarity is sensed as semantic relationship. The pun, or to use a more erudite, and perhaps more precise term – paronomasia, reigns over poetic art, and whether its rule is absolute or limited, poetry by definition is untranslatable. Only creative transposition is possible: either intralingual transposition – from one poetic shape into another, or interlingual transposition – from one language into another, or finally intersemiotic transposition – from one system of signs into another, e.g., from verbal art into music, dance, cinema, or painting.

If we were to translate into English the traditional formula *Traduttore, traditore* as 'the translator is a betrayer', we would deprive the Italian rhyming epigram of all its paronomastic value. Hence a cognitive attitude would compel us to change this aphorism into a more explicit statement and to answer the questions: translator of what messages? betrayer of what values?

[8]   André Vaillant, "La Préface de l'Évangeliaire vieux-slave", *Revue des Études Slaves*, XXIV (1948), 5f.

LINGUISTIC GLOSSES TO GOLDSTEIN'S
"WORTBEGRIFF"

The initial section of chapter one in the first part of Ferdinand de Saus-
sure's *Cours de linguistique générale* (5), published posthumously, teaches
that any verbal sign is a two-faced entity: "Both constituents are inti-
mately united and summon forth each other." The sign in its totality is
generated by an association between the two constituents – *signifiant*
(signifier) and *signifié* (signified). In Saussure's opinion, "The latter terms
have the advantage of marking their opposition to each other and to the
whole which they build together."

Some interpreters of Saussurian doctrine are prone to believe that his
theory of the two-fold structure of linguistic entities is a novelty, but
Saussure's approach to the sign both in concepts and terms originates,
in fact, from a tradition lasting over two thousand years. His definition
of the total *signe* as a combination of *signifiant* and *signifié* literally corres-
ponds both to the Stoic *semeion* consisting of two primordial aspects –
semainon and *semainomenon* – and to St. Augustine's adaptation of the
ancient Greek model: *signum* = *signans* + *signatum*. This conception
was inherited by the schoolmen and was, furthermore, revitalized by the
semantic theories of the nineteenth and very early twentieth centuries,
particularly by Bolzano and his followers.

The *signans* is perceptible, the *signatum* intelligible. Or, to put it more
concretely and operationally, in Charles Peirce's terms: the *signatum* is
translatable. Thus we perceive the sound-shape of the word *tree* and, on
the other hand, we may translate this word by other verbal signs with
more or less equivalent *signata* but each with a different *signans*: for
instance, by the technical synonym *arbor*, by the paraphrase *woody plant*,
or by corresponding foreign names like the French *arbre*, the German
Baum, the Russian *derevo*.

Saussure illustrated his thesis with a diagram of the *signum*, a circle
divided by a horizontal diameter into two semi-circles, the one below
representing the *signans* and the one above the *signatum*. Two vertical

arrows – one, to the left of the circle, pointing up, and the other, to its right, pointing down – mark the reciprocal implication of both aspects of the sign. The italicized sequence *tree*, symbolizing the "sensory part" of the word, is inscribed in the lower semi-circle, while a drawing of a tree, placed in the upper semi-circle, represents the conceptual aspect of the same word. Actually, however, both items – the word *tree* and the pictorial representation of a tree – are correlated signs: each of them has a different *signans*, but the two signs can replace each other because they have a similar *signatum*. The first sign is a "symbol" and the second an "icon", according to Peirce's classification of signs.

A symbol may be translated into an icon and vice versa, but of course only with a certain approximation. Any symbol is endowed with general meaning, and the general meaning of any symbol, and of any verbal symbol in particular, has a generic character. Any further segmentation and individuation of the symbol is determined by its context. Thus *tree* means any species and any individual instance of a kind of plant, and only a context can adapt this word to one single species or to one single specimen.

Even in proper names the "sign-design" always has a broader meaning than any single "sign-instance". The context indicates whether we speak about Napoleon in his infancy, at Austerlitz, in Moscow, in captivity, on his deathbed, or in posthumous legends, whereas his name in its general meaning encompasses all those stages of his life-span. In the same way, the contextual meanings of *Roma* may be confined to antiquity, the Middle Ages, the Renaissance, or the present day, while the general meaning of this name covers all the phases of the Eternal City. Like the metabolic insect in the sequence *caterpillar-pupa-butterfly*, a person or a town may acquire different names for different temporal segments, "momentary objects", in Quine's terminology (4, p. 70). Married name is substituted for maiden name, monastic for secular; a town is re-christened: St. Petersburg-Petrograd-Leningrad. Of course, each of these named stages could be further segmented. Petersburg of the eighteenth century, for example, had a landscape different from the landscapes of Petersburg under each of the last Romanovs.

As to the icon, it is able to present an individual landscape, a single spatial and temporal instance (a sample of a given species of trees in a certain part of the year – a maple tree during the warm season, as in Saussure's illustration). If the meaning of such an icon is generic, its generic sense is achieved through the synecdochic device of a *pars pro toto*; the icon becomes an "iconic symbol".

The *Cours de linguistique générale* repeatedly points out that in language, concept and sound-substance reciprocally qualify each other ("un concept est une qualité de la substance phonique, comme une sonorité déterminée est une qualité du concept"), and denies the possibility of divorcing the two correlates.

In *Hunger*, Knut Hamsun, with his unusual insight into language, gives, however, a comprehensive description of a *signans* emerging without a *signatum*. In a delirium of weakness and prostration the hero of this novel imagines that he has discovered a new word:

It is not in the language; I discovered it. "Kuboa". It has letters as a word has. ... With the most singular jerks in my chain of ideas I seek to explain the meaning of my new word. There was no occasion for it to mean either God or the Tivoli; and who said that it was to signify cattle show? ... No, on second thoughts, it was not absolutely necessary that it should mean padlock, or sunrise. ... I had fully formed an opinion as to what it should not signify. ... No! ... it is impossible to let it signify emigration or tobacco factory (2, pp. 87ff.).

Hamsun's observation is precise: as soon as a sound-sequence has been interpreted as a *signans*, it demands a *signatum*, and, as far as the "new word" is believed to belong to the given language, its meaning with high probability is expected to be in some respect divergent from the meanings of the other words of the same language. Thus one has an opinion "as to what it should not signify" without knowing "what it should signify". Hamsun's *kuboa*, or any word one knows to exist in a given language without remembering its meaning, is not a *signans* without a *signatum* but a *signans* with a zero *signatum*. In principle this difference is the same as between the absence of any ending, e.g., in the Latin adverb *semper*, and a zero ending, e.g., in the Latin nominative *puer* confronted with the real endings of the other cases within the same paradigm – *pueri*, *puero*, *puerum* – and of nominative forms like *amicus*. A word with an unknown meaning is supposed to signify something other than words with familiar meanings.

The reverse question of a *signatum* with a zero *signans* has particularly been promoted by Kurt Goldstein. In *Language and Language Disturbances* he sums up his previous studies on the disembodied "word-concept" (*Wortbegriff*) as "an experience in principle different from sensory and motor phenomena" (1, p. 93).

There are various degrees of switching off the *signans* in our verbal behavior. Un-uttered speech may be easily externalized. Even on certain levels of silent speech or reading there occurs a phonetic innervation; kymographic records detect microscopic motions of the tongue (6). A

person sensitive to verse is handicapped in silent reading of poetry when he clamps his tongue between his teeth. Inner speech, strongly, often drastically elliptic, scrappy grammatically and phonetically, is readily convertible into a more explicit message.

Only in cases when there is no restitution for the obliterated *signans*, this extinction pertains not to a certain style of individual speech but to individual speech in general. The forgetting of words in language disturbances or in the verbal pathology of everyday life may serve as illustration. One knows exactly the meaning of a word and realizes that this word exists but cannot produce it because its sound-shape has slipped from recollection. It happens that some residue of the *signans* is preserved: for instance, the person remembers that the word has an *m* or *n* in it and has three syllables with the stress on the penult. But often no traces remain in the memory – a complete blank.

A Russian woman with a violent aversion to worms was unable to recollect the verb *kišét*, 'to swarm', frequently used with reference to worms. She could say nothing about the sound-shape of this verb, but she realized perfectly that it differed from the sound-shape of all the other Russian words she used. We may say that she had an opinion as to how the word should *not* sound, without remembering how it should sound. The woman was, furthermore, fully aware of the lexical and syntactic contexts in which this verb may appear; in particular she knew its different grammatical uses in constructions like *izbá kišéla tarakánami* ('the hut swarmed with cockroaches') and, on the other hand, *v izbé kišéli tarakány* ('cockroaches swarmed in the hut'). Finally, incapable of using this verb herself, she recognized it, when it was employed by other people.

This typical example shows that even the most radical emancipation of the *Wortbegriff* from sensory and motor phenomena actually does not abolish the *signans*; both a zero *signans* and the rules of its relation to the verbal environment remain. One could say with W. James that "the absence of an item is a determinant of our representations quite as positive as its presence can ever be" (3, p. 584). While disappearing from the active vocabulary of the speaker, the word retains its integral *signans* in the passive vocabulary of the listener.

REFERENCES

1. Goldstein, K., *Language and Language Disturbances* (New York, 1948).
2. Hamsun, K., *Hunger* (New York, 1920).
3. James, W., *The Principles of Psychology*, Vol. I (New York, 1950).
4. Quine, W. V. O., *From a logical point of view* (Cambridge, Mass., 1953).
5. Saussure, F. de, *Cours de linguistique générale* (1916) (5th ed., Paris, 1955).
6. Sokolov, A. N., "O rečevyx mexanizmax umstvennoj dejatel'nosti", *Izv. Akad. Pedag. Nauk RSFSR*, 1956, LXXXI, pp. 65 ff.

ZEICHEN UND SYSTEM DER SPRACHE

Diskussionsbeitrag

Es ist bemerkenswert, daß Saussures *Cours de linguistique générale* während der Diskussion besonders oft erwähnt wurde, als ob man festzustellen versuchte, was sich in den 50 Jahren, die uns von den Vorlesungen des Genfer Meisters trennen, in den Grundlagen der allgemeinen Sprachwissenschaft eigentlich geändert hat. Für die Sprachtheorie und für die ganze Linguistik war das tatsächlich ein halbes Jahrhundert ihrer grundsätzlichen Wandlungen. Und es scheint mir, daß unsere fruchtbare Diskussion eine klare Auskunft darüber gibt, was in diesem berühmten Nachlaß eigentlich der weitestgehenden Revision bedarf, und welche Bestandteile der Lehre Saussures – in der von seinen Schülern bearbeiteten Fassung – auch heutzutage aktuell bleiben.

Von den beiden Grundprinzipien des *Cours* – les deux principes généraux, wie Saussure sie nennt – kann man den ersten Grundsatz – l'arbitraire du signe, die "Willkürlichkeit" des sprachlichen Zeichens – jetzt, wie einige der hier gehaltenen Reden klarlegten, als ein willkürliches Prinzip bezeichnen. Wie es übrigens schon Benveniste in *Acta Linguistica*, I, großartig darlegte, darf man keinesfalls vom synchronischen Standpunkt der Sprachgemeinschaft, welche die gegeben Sprachzeichen gebraucht, diesen Zeichen einen willkürlichen Charakter zuschreiben. Es ist durchaus nich willkürlich, sondern schlechthin obligat, im Französichen für "Käse" *fromage* und im Englischen *cheese* zu sagen. Ich glaube, man könnte aus der ganzen Diskussion über die Frage der sogenannten "Willkürlichkeit" und "Unmotiviertheit" den Schluß ziehen, daß "l'arbitraire" eine äußerst unglückliche Bezeichnung war, und daß die betreffende Frage vom polnischen Sprachforscher M. Kruszewski, einem Zeitgenossen von Saussure, den letztgenannter besonders hoch schätzte, schon am Anfang der achtziger Jahre des vorigen Jahrhunderts viel richtiger behandelt wurde. Kruszewski unterschied nämlich zwei Grundfaktoren im Sprachleben, zwei Assoziationen, die nach Ähnlichkeit und die nach Kontiguität. Der Zusammenhang zwischen einem *signans* und

einem *signatum*, den Saussure willkürlicherweise arbiträr nennt, ist in Wirklichkeit eine gewohnheitsmäßige, erlernte Kontiguität, die für alle Mitglieder der gegebenen Sprachgemeinschaft obligat ist. Aber neben dieser Kontiguität behauptet sich auch das Ähnlichkeitsprinzip, *la ressemblance*. Wie auch hier erwähnt wurde, und wie schon Kruszewski einsah, spielt dieses Prinzip eine gewaltige Rolle in der Frage der Derivation, in der Frage der Wortsippen, wo die Ähnlichkeit der Wörter einer gemeinsamen Wurzel so entscheidend ist, und wo man schon ganz und gar nicht mehr vom Willkürlichen sprechen darf. Auch in den morphonologischen Problemen ist die Frage des ähnlichen Baues von ganz primärer Wichtigkeit, weil wir erkennen, daß es gewisse Modelle, gewisse Strukturtypen der Verteilung und Auswahl der Phoneme in den Wurzeln und in den Präfixen oder Derivations- und Flexionssuffixen gibt. Endlich die Frage des Lautsymbolismus, die vor kurzem in einem Ausfatz von A. Graur richtig angeschnitten wurde. Diese Frage des Lautsymbolismus auf die ich hier nicht weiter eingehe, bleibt trotz allen Mißgriffen der Vergangenheit ein wichtiges und spannendes Problem der Sprachforschung wie alle Fragen der bildlichen und anzeigenden Fundierung der sprachlichen Symbole (oder wie Charles Sanders Peirce, der Bahnbrecher der Zeichentheorie, sagen würde, das Problem der *ikon-* und *index*artigen Symbole).

Auch was das zweite Grundprinzip in Saussures *Cours* betrifft, die sogenannte "linéarité du signifiant", dürfen wir, scheint es mir, behaupten, daß es eine gefärliche Vereinfachung war. Tatsächlich haben wir es nicht nur auf der Ebene des *signatum*, wie Bally es darlegte, sondern auch im Felde des *signans* mit zweidimensionalen Einheiten zu tun. Falls wir erkennen, daß das Phonem nicht die letzte Einheit ist, sondern in distinktive Elemente zerlegt werden kann, dann ist es selbstverständlich, daß, wie wir in der Musik Akkorde haben, so können wir auch in der Phonologie von zwei Dimensionen sprechen, der des Nacheinanders und der des Miteinanders (Simultaneität). Damit läßt sich aber eine Reihe Saussurescher Thesen über die Grundsätze des Sprachbaues nicht mehr aufrechterhalten. In diesem Zusammenhang glaube ich, daß der Terminus "syntagmatisch" manchmal irreführend ist, weil wir bei syntagmatischen Beziehungen stets an eine Zeitfolge denken, während neben den Kombinationen in der Zeitfolge auch das Problem der Kombination der simultanen Merkmale behandelt werden muß. Es ist hier ratsam, so wie es Herr Hintze vorgeschlagen hat, einfach über Kombination zu sprechen, Kombination, der ein anderer Faktor entgegengesetzt wird, nämlich der Auswahl, der Selektion. Die Selektion der Einheiten oder der Kombina-

tionen, im Gegensatz zur Kombination als solcher, gehört der paradig-
matischen Ebene der Sprache an. Es ist ein Statteinander zum Unter-
schied vom Miteinander und vom Nacheinander. In der Auswahl
behauptet sich die Ähnlichkeitsassoziation, das Prinzip der Äquivalenz.
Doch wenn wir anstatt des Nacheinanders und Miteinanders die paradig-
matische Achse betrachten, glaube ich nicht, daß wir somit das Gebiet
des Objektiven verlassen und unvermeidlich subjektiv werden. Sprach-
wissenschaftliche Forschungen der letzten Zeit haben gezeigt, daß auf
diesem Gebiete eine objektive Schichtung stattfindet, eine Hierarchie der
Bestandteile. Es entfaltet sich hier das Problem der Vorhersage (*predic-
tability*), das Problem der primären und abgeleiteten Funktion, welches
schon in den dreißiger Jahren von Kuryłowicz so glänzend umrissen
wurde und welches jetzt besonders in Amerika in der Lehre der syn-
taktischen Transformationen entwickelt wird, eines der aktuellsten
Probleme der sprachwissenschaftlichen Analyse. Dabei entsteht die immer
wichtigere und unentbehrliche Frage des Zusammenhangs und des
Unterschieds zwischen den paradigmatischen Reihen und den Kombina-
tionsreihen (entweder Ketten oder Bündeln).

Anscheinend haben wir es hier, wie in allen modernen Wissenschaften,
mit der bedeutsamen Idee der Invarianz zu tun. Wir sprechen über
kombinatorische, kontexbedingte Varianten sowohl auf der lautlichen
wie auch auf der grammatischen Ebene. Aber man könnte kaum über
Varianten sprechen, solange die zugrunde liegende Invariante, die Einheit,
auf die sich diese Varianten beziehen, nicht klargelegt ist. Das Suchen
nach der Invariante ist jetzt nicht nur in der Phonologie, sondern auch
in der Grammatik das wesentlichste Problem. Falls wir es mit dem
Zeichen zu tun haben, mit dem bilateralen *signum* als Verbindung des
signans und des *signatum*, wie entdecken wir dann diese Invarianten
einerseits auf dem Gebiete des *signans*, andererseits auf dem Felde des
signatum? Der Grundunterschied zwischen den beiden besteht, von einem
linguistischen Standpunkt aus gesehen, darin, *daß das signans notwendiger-
weise wahrnehmbar ist, während das signatum übersetzbar ist*. Es behauptet
sich in beiden Fällen der Grundsatz der Äquivalenz in der Relation. Auf
dem Gebiete des *signans* muß diese relative Äquivalenz äußerlich wahr-
nehmbar sein, kann aber nur mit Rücksicht auf die Funktion dieser
Lautverhältnisse in der gegebenen Sprache festgestellt werden. Wir
erkennen diese distinktiven Elemente, und mittels eines Spektrographen
können wir sie aus dem akustischen Feld in die optische Ebene versetzen.
Aber nicht nur das *signans*, sondern gleicherweise das *signatum* muß rein
linguistisch und völlig objektiv untersucht werden. Eine rein linguistische

Semantik kann und muß aufgebaut werden, falls wir mit Peirce einsehen, der Grundzug jedes sprachlichen Zeichens bestehe darin, daß es in ein anderes Sprachzeichen, ein mehr entfaltetes, explizites bzw. im Gegenteil mehr elliptisches Zeichen desselben Sprachsystems oder eines anderen Sprachsystems übersetzt werden kann. Diese Übersetzbarkeit enthüllt diejenige semantische Invariante, die wir im *signatum* suchen. Auf diese Weise erhalten wir die Möglichkeit, auch die semantischen Probleme der Sprache einer distributiven Analyse zu unterwerfen. Solche metasprachlich identifizierende Sätze wie "der Hahn ist das Männchen des Huhns" gehören zum Textinventar der deutschen Sprachgemeinschaft, und die Umkehrbarkeit der beiden Ausdrücke – "das Männchen des Huhns ist der Hahn" – veranschaulicht, wie durch eine distributive Analyse solcher üblicher metasprachlicher Äußerungen die Wortbedeutung zu einem echt linguistischen Problem wird.

Zu den Grundzügen des *Cours de linguistique générale* gehört auch die Zwiespältigkeit der Sprachwissenschaft: die Synchronie und die Diachronie. Die gründliche Arbeit einiger Jahrzehnte auf beiden Teilgebieten und die verfeinerte Methodologie dieser Forschung brachte die große Gefahr einer krassen Kluft zwischen diesen Disziplinen und die Notwendigkeit, diese Kluft zu überwinden, an den Tag. Die Saussuresche Gleichsetzung des Gegensatzes der Synchronie und Diachronie mit dem Gegensatz der Statik und Dynamik hat sich als irreführend erwiesen, weil in Wirklichkeit die Synchronie gar nicht statisch ist: Veränderungen sind immer im Gange und bilden einen Bestandteil der Synchronie. Die tatsächliche Synchronie ist dynamisch, die statische Synchronie ist eine Abstraktion, die dem Sprachforscher für gewisse Zwecke zwar notwendig ist, aber die wahrheitsgetreue, ausführliche synchronische Beschreibung der Sprache muß die Dynamik der Sprache folgerichtig in Betracht ziehen. Die beiden Elemente, der Ausgangspunkt und die Endphase jeder Veränderung, sind eine Zeitlang innerhalb einer und derselben Sprachgemeinschaft zugleich vorhanden. Sie koexistieren als stilistische Varianten, und falls wir dieser wichtigen Tatsache Rechnung tragen, dann sehen wir auch, daß die Vorstellung der Sprache als eines ganz gleichförmigen, monolithischen Systems allzu vereinfacht ist. *Die Sprache ist ein System der Systeme, ein Gesamtkode (overall code), der verschiedene Sonderkode (subcodes) enthält.* Diese mannigfachen Sprachstile bilden keine zufällige, mechanische Anhäufung, sondern eine gesetzmäßige Hierarchie der Sonderkode. Obgleich wir beantworten können, welcher unter diesen Sonderkoden der Grundkode ist, so wäre es doch eine gefährliche Vereinfachung, das Problem der übrigen Sonderkode auszu-

schalten. Falls wir die *langue* als eine Gesamtheit der sprachlichen Konventionen einer Sprachgemeinschaft betrachten, dann müssen wir recht vorsichtig vorgehen, um nich mit Fiktionen zu arbeiten.

Überhaupt glaube ich, *daß es heutzutage unsere Grundaufgabe ist, ja unser Schlagwort sein sollte, realistisch zu werden, eine durchaus realistische Sprachwissenschaft aufzubauen und jeden Fiktionalismus in der Linguistik zu bekämpfen.* Wir müssen uns die Frage stellen: welches ist die wirkliche sprachliche Konvention, die in einer gegebenen Sprachgemeinschaft den Redeaustausch ermöglicht und den verschiedenartigen Aufgaben der Kommunikation wirksam dient? Da fragen manche Linguisten, warum sich die Sprachwissenschaft in ihrer Fragestellung von der Physik absondern soll. Warum ist es dem Sprachforscher nicht gegönnt, sein eigenes System der Symbole, sein schöpferisches Modell dem untersuchten Stoff aufzuzwingen, wie es in den Naturwissenschaften üblich ist? Zwar beobachten wir in vielen Hinsichten eine immer bedeutendere und fruchtbarere Annäherung zwischen den Naturwissenschaften und der Linguistik, doch ist es notwendig, auch die spezifischen Unterschiede im Auge zu behalten. *In der Londoner Schule der mathematischen Informationstheorie hat man den Grundunterschied scharfsinnig erkannt und die Kommunikationsprobleme von den übrigen Informationsfragen getrennt.* Es handelt sich hier in erster Reihe um die Abgrenzung zweier Klassen der Zeichen – der Indices und der Symbole, wie Peirce sie nennt. Die Indices, die der Psyiker der Außenwelt entnimmt, sind nicht umkehrbar, und er transformiert diese naturgegebenen Indices in ein eigenes System wissenschaftlicher Symbole. In der Sprachwissenschaft ist die Situation grundverschieden. Die Symbole sind unmittelbar in der Sprache vorhanden. Anstatt des Gelehrten, der gewisse Indices aus der Außenwelt extrahiert und sie in Symbole umbaut, findet hier ein Austausch der Symbole zwischen den an der Kommunikation Beteiligten statt. Die Rolle des Senders und Empfängers ist hier auswechselbar. Deswegen ist auch die Aufgabe der Sprachwissenschaft eine ganz andere. Wir suchen einfach diesen Kode, der objektiv in der Sprachgemeinschaft gegeben ist, in eine Metasprache zu übersetzen. Symbole sind für den Naturforscher ein wissenschaftliches Werkzeug, während sie für den Linguisten außerdem und vor allem der eigentliche Gegenstand seiner Forschung sind. Der Physiker Niels Bohr hat diesen naturgemäßen Realismus der linguistischen Stellungnahme scharfsinnig erkannt.

Wenn ich Niels Bohr erwähne, möchte ich mich auch auf seine methodologische Forderung berufen, die für Physik und Linguistik gleich wesentlich ist. Es ist nämlich notwendig, wenn man etwas betrachtet,

genau festzustellen, in welchem Verhältnis der Beobachter zu dem beobachteten Ding steht. Das ist heutzutage eine wichtige Voraussetzung der wissenschaftlichen Beschreibung. Eine Beschreibung, die sich nicht daran hält, ist ungenau sowohl vom Standpunkt der heutigen Physik als auch vom Standpunkt der heutigen Linguistik. Also müssen wir die verschiedenartigen Stellungen des Forschers zur Sprache erörtern. Der sogenannte kryptoanalytische Standpunkt ist der Gesichtswinkel eines Beobachters, der den sprachlichen Kode nicht kennt, und könnte mit der Einstellung eines militärischen Kryptoanalytikers verglichen werden, der eine feindliche verschlüsselte Mitteilung zu entziffern hat. Durch eine aufmerksame Untersuchung des Textes versucht er dem fremden Kode beizukommen. Beim Studium unbekannter Sprachen konnen offenbar derartige Kunstgriffe fruchtbare Ergebnisse zeitigen. Aber das ist nur die erste Stufe der Erforschung, und es ist nicht die einzige, sondern bloß eine der verschiedenen Methodologien, die erste Annäherung; dann bemüht sich der Beobachter, die zweite, vollkommenere Stufe zu erreichen, nämlich die des Quasi-Teilnehmers an der gegebenen Sprachgemeinschaft. Er geht nicht mehr vom Text zum Kode, sondern eignet sich den Kode an und sucht durch den Kode, den Text genau zu verstehen.

Das ist der wesentliche Grundsatz der beschreibenden Linguistik, aber hier taucht ein Unterschied auf, den wir sehr selten zur Kenntnis nehmen. Wir dürfen den Koden nicht hypostasieren, sondern wir wollen ihn unter dem Gesichtspunkt des Redeaustausches behandeln. *Zwei Standpunkte, der des Verschlüsselnden und der des Entschlüsselnden bzw. in anderen Worten: die Rolle des Senders und die des Empfängers sollen scharf auseinander gehalten werden.* Obwohl es eigentlich Banalitäten sind, werden gerade Banalitäten häufig vergessen. Indessen ist die ganze Betrachtungsweise des Textes für beide Teilnehmer des Redeaustausches grundverschieden. Den Hörer führt der Weg durch die distinktiven Elemente, durch die Phoneme, die er erkennt, zur grammatischen Form und zum Verstehen der Bedeutungen. Hier spielt der Wahrscheinlichkeitsfaktor eine gewaltige Rolle, und was uns einen Text wahrzunehmen hilft, phonematisch und dann auch grammatisch, sind vor allem die Übergangswahrscheinlichkeiten: nach gewissen Einheiten folgen andere Einheiten mit höherer oder geringerer Wahrscheinlichkeit, und manche sind a priori ausgeschlossen. Eine unbewußt statistische Einstellung ist dem Wahrnehmenden eigen, und die Homonymie ist für ihn ein wesentlicher Vorgang. Für den Sprecher ist die Reihenfolge der einzelnen Sprachstufen gerade umgekehrt – sein Weg ist vom Satze durch die Hierarchie der unmittelbaren Bestandteile und endlich durch die mor-

phologischen Einheiten zu der Lautform, die sie erfüllt. Im Sprachverkehr
sind beide Ordnungen zugleich vorhanden, und ihre gegenseitige Bezie-
hung beruht, wie Bohr sagen würde, auf dem Prinzip der Komplemen-
tarität. Beide Sprachaspekte existieren beim Verschlüsselnden sowie beim
Entschlüsselnden, aber diejenige Richtung, welche für den einen primär
ist, erweist sich als sekundär für den anderen. Für den Sprecher als
solchen gibt es keine Homonyme, und wenn er z. B. das englische /sʌn/
sagt, weiß er Bescheid, ob er den Sohn oder die Sonne meint, während
der Hörer eine andere Wahrscheinlichkeitsmethode gebrauchen muß, um
diese Frage zu lösen. Beide Standpunkte, Erzeugung und Wahrnehmung,
haben einen gleichen Anspruch darauf, vom Linguisten beschrieben zu
werden, und es wäre ein Fehler, die zweiseitige Sprachrealität zu einer
einzigen Seite herabzusetzen. Beide Beschreibungsmethoden sind teilhaft
und gleichberechtigt. Falls man eine von den beiden gebraucht und sich
dabei keine Rechenschaft davon gibt, ob man den Standpunkt des
Sprechenden oder des Hörenden wiedergibt, spielt man die Rolle eines
Jourdain, der Prosa spricht, ohne zu wissen, daß es Prosa ist. Die
wirkliche Gefahr entsteht, wenn man gesetzwidrige Kompromisse zwischen
den beiden Standpunkten macht. So z.B. wenn ein Linguist die Ver-
schlüsselung zum Ausgangspunkt seiner Sprachbeschreibung und -analyse
wählt und demgemäß auf Statistik und Wahrscheinlichkeitslehre ver-
zichtet, die grammatische Analyse in unmittelbare Bestandteile durch-
führt und das Primat der Morphologie über die Phonologie beobachtet,
so darf er – falls er folgerichtig vorgeht – nicht die Bedeutung ausschalten.
Die Bedeutung kann nur ausgeschaltet werden, wenn man auf dem
Standpunkt des Entschlüsselnden steht, den für ihn entsteht die Bedeutung
erst als Schlußfolgerung, während für den Sprechenden die Bedeutung
das Prius darstellt. Der Sprecher verfährt *de verbo ad vocem*, während
der Hörer den Gegenweg geht, wie es schon Augustinus in seinen sprach-
theoretischen Erwägungen hervorgehoben hat.

Vieles verspricht in den linguistischen Beschreibungen und in der
Sprachtheorie klarer zu werden, sobald man eine saubere Abgrenzung
unternimmt und den verschiedenartigen Betrachtungsweisen des Ver-
schlüsselnden und des Entschlüsselnden gebührende Aufmerksamkeit
schenkt. Damit sind die Betrachtungsweisen aber keinesfalls erschöpft.
Man muß auch mit dem erheblichen Vorgang der "Rückverschlüsselung"
rechnen: hier wird eine Sprache im Lichte einer anderen Sprache oder
ein Redestil im Lichte eines anderen Redestils interpretiert, ein Kode
oder Subkode wird in einen anderen Kode oder Subkode übersetzt. Es
ist ein höchst lehrreiches Problem, weil die Übersetzung eine der wesent-

lichen und immer wichtigeren sprachlichen Aktivitäten darstellt und die Methodologie des Übersetzens sowie die folgerichtige Analyse der Übersetzung auf der Tagesordnung der heutigen reinen und angewandten Sprachwissenschaft steht.

PARTS AND WHOLES IN LANGUAGE

In the second part of Edmond Husserl's *Logische Untersuchungen*[1] – still one of the most inspiring contributions to the phenomenology of language – two studies devoted to "Wholes and Parts" introduce the philosopher's meditations on "the Idea of Pure Grammar". In spite of the manifold aspects of interdependence between wholes and parts in language, linguists have been prone to disregard this mutual relationship.

Edward Sapir's *Totality*,[2] the first and, unfortunately, almost the only completed installment of his projected general work on the *Foundations of Language* (1930), opens with a reference to the psychological factors which have hampered the analysis of whole-part relation: "(1) the feeling of rest or of inability to proceed after a count, formal or informal, has been made of a set or series or aggregation of objects; (2) the feeling of inability or unwillingness to break up an object into smaller objects."

The frequent inability of students in linguistics to go from a fractional totality to another totality that is higher or to another fraction that is lower has given rise to various isolationist trends in the science of language. For example, the outer, perceptible part of the sign, its *signans*, was examined deliberately without reference to the whole sign, which unites *signans* with *signatum*, that is, with the intelligible, translatable, semantic part of the total *signum*.

Another frequent limitation was to treat the *sentence* as the highest linguistic unit. Superior wholes, namely *utterances*, which may embrace a higher integer of sentences, and the *discourse*, which normally is an exchange of utterances, remained outside the scope of linguistic analysis.

On the other hand, the sentence was often seen as the shortest actual verbal unit, while inferior entities such as the *word*, or at least its smallest meaningful constituent, the *morpheme* (and, even more, its *phonemic* components), were considered mere scientific constructs imposed by

[1] Halle, 1902.
[2] *Language Monographs*, No. 6, Linguistic Society of America (1930).

scientists upon the verbal reality. The fact that all of these entities, from the *discourse* to its ultimate components (*distinctive features*), have quite different statuses in respect to the verbal code and present diverse degrees of relative dependence does not justify the attempts to exclude some of these units from the realistic and comprehensive portrayal of language as it actually is – a multistoried hierarchy of wholes and parts. There is a certain reality, however, which corresponds to these restrictive scholarly attempts: what they mirror are the diverse types of grave language disturbances. These are pathological cases where speech is confined to one-sentence utterances or to the repetition of ready-made sentences, while the capacity to combine words into new sentences is entirely lost; or this ability may be preserved, but the derivational and inflectional operations are suppressed, because the patient is no longer able to manipulate the morphological constituents of the word. Finally, a stock of words may be retained, but recognition and reproduction of new words is impeded, because for the patient phonemic components cease to be an autonomous differential tool, whereby normal listeners and speakers can discern words never used and never heard before.

In his stimulating essay "Wholes, Sums, and Organic Unities"[3], Ernest Nagel endeavors to distinguish and delimit several types of the whole-part relation. It is noteworthy that each of these types plays a substantial role in the structure of language, and that a disregard for them threatens to distort and curtail the system.

As Nagel (1-f) points out, "the word 'whole' may refer to a process, one of its parts being another process." The latest stage of speech analysis convincingly shows the importance of studying and correlating the different phases of the whole speech event, from source to destination: intention, innervation, gradual production, transmission, audition, perception, comprehension. Numerous examples of isolationist restriction of the study to a single phase of the process without reference to the subsequent phase, or cases of confusion and blendings between successive phases, have impeded analysis and deprived it of productive classificational criteria. The relative place of each phase within the whole process of speech requires adequate elucidation.

In another type of whole-part relation, the word whole "refers to some temporal period, whose parts are temporal intervals in it", and, as Nagel (1-b) stresses, neither wholes nor parts need be temporally continuous. The verbal message, for example, a sentence, is a temporal period, and

[3] Reprinted in *Parts and Wholes* (1963). Letters before the quotations from Nagel are those used in his essay.

its parts are temporal intervals within this whole. The parsing of a sentence, like linguistic analysis in general, must necessarily follow the principle of "immediate constituents", defined by Husserl and exhaustively elaborated in American linguistics.

These constituents are a clear example of virtually discontinuous parts, such as, for instance, the subject at the beginning and the verbal predicate at the end of the Mongolian sentence. On the other hand, every message may be and must be dealt with as a temporal interval within a verbalized or nonverbalized, continuous or discontinuous temporal context; and we stand before the nearly unexplored question of the interrelation between message and context. In particular, the structural laws of ellipsis have not yet been subjected to a thorough analysis.

The comparison of incomplete and explicit messages, the fascinating problem of fragmentary propositions, challengingly outlined in Charles Peirce's perusal of "blanks"[4] and in the semiotic studies of Frege[5] and Husserl, strange as it may seem, have found no response among linguists. The artificial treatment of messages without reference to the superposed context once more exemplifies the illicit conversion of a mere part into a seemingly self-sufficient whole.

A contiguous question is the dependence of the message on the simultaneous environmental situation. Here the speech event is "spatially included" in a whole "with a spatial extension" (Nagel, 1-a). The spatio-temporal framework of the message becomes one of the crucial problems for any objective approach to language. From a realistic standpoint, language cannot be interpreted as a whole, isolated and hermetically sealed, but it must be simultaneously viewed both as a whole and as a part.

When Nagel (1-d) reminds us that the word *whole* may refer "to a property of an object or process, and *part* to some analogous property which stands to the first in certain specified relations", we can cite our previous example of the *signum* as the whole and the *signans* and *signatum* as its indispensably conjugated parts. Notwithstanding the experimental interest of their artificial separation in certain phases of linguistic investigation, the final aim of this analysis is the study of the two parts in relation to the whole of the sign.

If by "whole" we understand "any class, set, or aggregate of elements", then "part" may designate "either any proper subclass of the initial set or any element in the set" (Nagel, 1-c). The structure of the verbal code

---

[4] Peirce, C.S., *The Simplest Mathematics* = *Collected Papers of Charles Sanders Peirce*, IV (Cambridge, Mass., 1933).

[5] Frege, G., *Philosophical Writings* (Oxford, 1952).

is perhaps the most striking and intricate example of whole-part relations that are built hierarchically. From the sentence model as a whole we pass to various syntactic patterns of sentences, on the one hand, and to the grammatical constituents of the sentence, on the other. When we reach the level of the word, then either word classes or, again the morphological constituents of the word serve as parts. Gradually we arrive at the ultimate stage – the analysis of the smallest meaningful units into distinctive features. An important structural particularity of language is that at no stage of resolving higher units into their component parts does one encounter informationally pointless fragments.

The relation between a concrete object as whole and its properties as parts (Nagel, 1-g) is particularly typical of language, for not only is every classification of morphemes or complex grammatical units based on their abstract, semantic properties, but also each ultimate phonemic constituent, the distinctive feature, presents an abstract, relational, oppositive property.

Nagel's statement (1-e) – that "the word 'whole' may refer to a pattern of relations between certain specified kinds of objects or events, the pattern being capable of embodiment on various occasions and with various modifications" – finds a wide application in language with its relational invariants and manifold contextual and stylistic variations. This kind of whole-part relation, which was for a long time underrated by linguists, has finally attracted their attention, especially in regard to the contextual variants in phonemics and grammar. In the lexical field, which so far remains the underdeveloped province of linguistics, the study of invariance and of variables is still inferior to the medieval doctrine of the *modi significandi.*

Stylistic variations, particularly in phonology, gradually have begun to disturb students of language who until recently had been possessed by the isolationist idea of a monolithic verbal code. The variety of functional, mutually convertible subcodes requires a careful and consistent structural analysis. Such an analysis makes possible a synchronic study of the phonemic and grammatical changes in progress, which initially present a necessary coexistence of the older and newer form in two related subcodes, and thus there emerges a bridge between descriptive and historical linguistics. On the other hand, the inquiry into the system of subcodes encompasses the various forms of interdialectal and even interlingual code switching and thus establishes an intimate bond between the description of an individual or local dialect and the vast horizons of linguistic geography.

If the whole is "a pattern of relations", then the part, as Nagel notes, may also refer to "any one of the elements which are related in that pattern on some occasion of its embodiment". Thus he touches upon the fundamental difference between design and token, a whole-part relation which linguists have recognized, but without drawing all the obvious and far-reaching inferences.

Finally, with the progress of typological studies, the science of language will be able to answer Nagel's question about systems "whose parts stand to each other in various relations of dynamical dependence" (1-h). The universal and near-universal laws of implication which underlie this taxonomy reveal a rigorous phonemic and grammatical stratification, which likewise determines the gradual acquisition of language by children and its decay in aphasia.

A systematic consideration of multiform whole-part relations broadly extends the scope of our science; it allows a systematic analysis of verbal messages with respect both to the code and to the context; it uncovers the complex interaction of the various levels of language, from the largest to the smallest units, and the constant interplay of diverse verbal functions. It introduces time and space factors into descriptive linguistics and, in the search for general, universal laws, is near to proving the scientific verity of Henri Delacroix's keen anticipation: "Une langue est une variation historique sur le grand thème humain du langage."[6]

Indeed a rich scale of tensions between wholes and parts is involved in the constitution of language, where *pars pro toto* and, on the other hand, *totum pro parte*, *genus pro specie*, and *species pro individuo* are the fundamental devices.

[6]   Delacroix, H., *Le langage et la pensée* (Paris, 1924).

ANTHONY'S CONTRIBUTION TO
LINGUISTIC THEORY

The half-dream soliloquies of the two-year-old Anthony, recorded on tape, transcribed and analyzed by his mother, the Stanford linguist Ruth Weir, lead us into a fascinating and hitherto unexplored province of language. As Vygotsky's profound investigation of inner speech has disclosed, the so-called egocentric talk of children is an "intermediate link between overt and inner speech". We have been taught that "egocentric speech is inner speech in its functions; it is speech directed inward." In a child's development, speech proves to be "interiorized psychologically before it is interiorized physically". Anthony adds a new and apposite angle to Vygotsky's discovery: the transition from overt to inner speech displays a graduated order.

Our overt speech is directed toward an outside addressee and requires a listener. Our inner speech obviously meets with no listener and is not supposed to reach an actual addressee. Children's egocentric talk has no concern for any outside addressee, but it tolerates, not seldom even favors the presence of a listener, whereas their pre-sleep speech does imply the absence of human hearers. It is meant as a genuine soliloquy, the speaker's *privatissimum*, ready to be cut off as soon as he realizes that his solitude has been broken. Hence the verbal activities of the child in his crib bring us a step nearer to true inner speech, namely, to its most hidden and perplexing variety, the speech of dreams. The soliloquies of Anthony falling asleep give us a suggestive insight into the speech of our dreams, which in the whole of our verbal behavior plays a no less vital part than do dreams themselves in our mental life.

For linguistic study in this border zone of inner speech and dream speech, the various examples of reduction and condensation are particularly inviting. One could hardly find a more gratifying text for the investigation of radical ellipsis on the different levels of language – fragmentation not only of sentences, clauses, and phrases but also of words used side by side in their full and truncated form: *Anthony* and *Antho-*, *dance* and [dæn-], *donkey* and [dɔn-].

Sometimes it is difficult to separate features typical of inner speech in general from those which characterize the speech development in young children. Nonetheless, here one immediately detects new and valuable clues to the study of child language. According to Ruth Weir's subtle observations, the lowering of the cognitive, referential function in Anthony's soliloquies brings to the fore all the other language functions. A typical property of children's speech is an intimate interlacement of two functions – the metalingual and the poetic one – which in adult language are quite separate. Although the pivotal role which in language learning belongs to the acquisition of metalanguage is well-known, the predominantly metalingual concern of the somnolent child with language itself comes as a great surprise. It shows us the ways in which language is gradually mastered. Many of the recorded passages bear a striking resemblance to the grammatical and lexical exercises in textbooks for self-instruction in foreign languages:

"What color – What color blanket – What color mop – What color glass…. Not the yellow blanket – The white…. It's not black – It's yellow… Not yellow – Red…. Put on a blanket – White blanket – And yellow blanket – Where's yellow blanket…. Yellow blanket – Yellow light…. There is the light – Where is the light – Here is the light."

Selection of modifiers for one head word and selection of head words for one modifier: "Big and little – Little Bobby – Little Nancy – Big Nancy." Antonyms (either contraries or contradictories) follow each other: "On the blanket – Under the blanket…Berries – Not berries… Too hot – Not too hot." The disjunctive *or* is missing. Members of a paradigmatic set (either lexical or grammatical), joined to each other by a conjunctive *and* or without any conjunction at all, are open to selection: "Hat for Anthony and Bobo – For Bobo – Not for Anthony – Hat for Anthony." The desired choice is finally made: Anthony is the designated proprietor.

He practices confronting different grammatical forms of the same vocable, especially of the same verb: "*Fix* the music – Music is *fixed*… Cobber *crossed* the street – Cobbers always *cross* the street [with the adverb manifestly opposing the present to the preterit]… Anthony *write* – Pencil's always *writing* [a pair followed and supported by a parallel couple: *smiling – smile*]… *Take off – Took off*… *See – I see*… Where *are you going – I am going*." Vocables used both in verbal and nominal function are juxtaposed: "Can bite – Bite – Have a bite… Broke the vacuum – The broke – Get some broke – Alice broke the baby fruit" [*break* is generally replaced by the alternant *broke*). Nouns and verbs are deliber-

ately used side by side with their anaphoric substitutes: "Take the monkey – Take it… Stop the ball – Stop it… Go for glasses – Go for them… Don't jump – Don't ticklish – Don't do that."

Grammatical alternations and purely phonemic minimal pairs are purposely strung together: /tək/ – /tʊk/ – /bæk/ – /tʊk/ – /tek/ – /bʊk/ … /wat/ – /nat/ – /naɪt/. *Light* and *like* or *likes* and *lights* attract each other. *Back* and *wet* are blended in the portmanteau word *Babette*. Thus in the child's pre-sleep speech, lexical, morphological, and phonemic sets appear to be projected from the paradigmatic axis into the syntagmatic one.

In chains of repetitive sentences the variation within each pair be limited to one single unit:

> There's a hat
> There's another
> There's hat
> There another hat
> That's a hat.

The whimsical interchange of two syntactical operations – properly singled out by Ruth Weir as a "build-up" and a "break-down" – are patently similar to the play of Anthony's coevals who alternately assemble and dismantle their toys. The gradual constituting of a sentence from its originally separate and autonomous components, each with a predicative function, and, on the other hand, the progressive filling-in and expansion of primary sentence frames are equally instructive procedures, which bring to light the mechanism of syntactical learning and training. How informative, for instance, are Anthony's sentence frames, where the place of the noun is signaled by the article, while the noun itself has not yet been selected:

"Anthony take the – Take the book.… This is the – This is the – Book.… That's a – That's a – That's a kitty – That a Fifi here.… Mommy get some – Mommy get some – Soap."

Predicate phrases without expressed subject or with a merely deictic pronominal subject (*That's a kitty*) and transitional forms between subject-predicate declarative sentences and vocative-imperative sequences indicate how explicit two-term propositions may embarass the somnolent child. The type of sentence he prefers is a mere annex to an implied or required situation.

Anthony's bedtime play with language as a condensed summary of his day imperatively calls for further investigation of how usual such self-educational linguistic games are among dozing children. Yet however

prominent the metalingual function is in Ruth Weir's records, she is right in considering the copresence of other functions. In particular, the last and longest of Anthony's "paragraphs" discussed by his mother, with its eight times recurring leitmotiv "Daddy dance", is not only an elaborate lesson in grammar but also a moving and poignant psychoanalytic document, utilizing the child's whole inventory of expressive devices. And above all, it is a true and beautiful poetic composition comparable to the masterpieces of children's art – verbal and pictorial:

That's for he – Mamamama with Daddy – Milk for Daddy – OK – Daddy dance – Daddy dance – Hi Daddy – Only Anthony – Daddy dance – Daddy dance – Daddy give it – Daddy not for Anthony – No – Daddy – Daddy got – Look at Daddy (*falsetto*) – Look at Daddy here – Look at Daddy – Milk in the bottle – I spilled it – Only for Daddy – Up – That's for Daddy – Let Daddy have it – Take off – Take off – The – Turn around – Turn around – Look at donkey – That's the boy – That's the donkey – [dæn] Daddy [dæn] – Pick up the [dɔn] – I can pick up – I can – How about – How about the Daddy – OK – Daddy's two foot – Daddy had some feet – [biːbə] – Put on a record for you – What Daddy got – Daddy got – On the plane – Look at pillow – What color pillow – What color – Is not black – It's yellow – Daddy dance – Ah, Daddy – Take it to Daddy – Daddy put on a hat – Daddy put on a coat – Only Daddy can – I put this in here – See the doggie here – See the doggie – I see the doggie (*falsetto*) – I see the doggie (*falsetto*) – Kitty likes doggie – Lights up here – Daddy dance– Daddy dance – Daddy dance – With Bobo – What color's Bobo – What color's Bobo

Introduction to Ruth Weir's *Language in the Crib* (The Hague, 1962).

TOWARD A LINGUISTIC CLASSIFICATION OF
APHASIC IMPAIRMENTS

In 1907 Pierre Marie opened a discussion on aphasia with the modest statement: "N'étant malheureusement pas du tout psychologue, je me contenterai de parler ici en médecin qui a médicalement observé de faits médicaux" (Marie, 1926). Here *mutatis mutandis* I should like to use the same formula: as a mere linguist versed neither in psychology nor in medicine, I shall confine myself strictly to linguistic observations of linguistic facts only. The first, fundamental paper on aphasia, "Notes on the Physiology and Pathology of Language", written nearly a century ago by Hughlings Jackson, carries the significant subtitle "Remarks on those Cases of Disease of the Nervous System, in which Defect of Expression is the most Striking Symptom" (see Jackson, 1958, p. 121). Since defects of verbal expression as well as verbal expression itself obviously belong to the domain of linguistics, the key to "the most striking symptoms" of aphasia cannot be found without the guiding and vigilant assistance of linguistics.

We are faced with the crucial question: what categories of verbal signs, and of signs in general, are affected in any given case? This is a linguistic question or, on a larger scale, a semiotic problem, if along with Charles Peirce (see 1932, p. 134) we mean by semiotic the general science of signs which has as its basic discipline linguistics, the science of verbal signs. Jackson (see 1958, p. 159) had also envisaged this widened scope of aphasic impairments and, consequently, favored the term *asemasia*, coined by Hamilton. Since the semiotic traits of aphasia, in Peirce's sense of this adjective, constitute "the most striking symptom" of the disease, they are semiotic also in the medical usage of this word.

Linguists can only agree with Jackson that the pathology of language, far from being a random disturbance, obeys a set of rules; and that no rules underlying the regression of language can be elicited without the consistent use of linguistic techniques and methodology. The disorders of language display their own peculiar order and require a systematic linguistic comparison with our normal verbal code.

If, as stated by Brain (1961, p. 51), linguistics actually is "the most recent field of work in aphasia", this tardiness, harmful both for the science of language and for the science of language disorders, easily finds a historical explanation. The study of aphasia requires the structural analysis of language; yet the elaboration of such an analysis has come about only in the latest stages of linguistic science. Ferdinand de Saussure realized half a century ago that in any kind of aphasia "au dessus du fonctionnement des divers organes il existe une faculté plus générale, celle qui commande aux signes, et qui serait la faculté linguistique par excellence" (see 1922, p. 27). However, before it became possible to specify in what way and to what degree this faculty was affected, it was necessary to re-examine the constituents of language at all levels of complexity with respect to their linguistic functions and mutual relations. It is remarkable that in 1878 two great pioneers, the Polish linguist Baudouin de Courtenay (1881), and the London neurologist Jackson (1958, p. 156) quite independently of each other refuted the notion of an immediate transition from words (or morphemes, the smallest grammatical units) to "an articulatory movement, a physical state", describing it as an "unwarranted, paralogistic jump" in linguistic operations (Baudouin), and as a "fallacy" which "confuses the real issues" and is "not warrantable in a medical inquiry" (Jackson).

A parallel development in the medical and linguistic search for a way out of this impasse may be observed. Some fifty years later, a demand for systematic phonological research, consistently matching sound with meaning, was made by the First International Congress of Linguists in 1928 and was widely discussed at the First International Congress of Slavists (Prague, 1929) and in the two inaugural volumes of the *Travaux du Cercle Linguistique de Prague*, which were dedicated to this assembly.

Simultaneously, at the annual meeting of the German Neurological Society in Würzburg, Wolpert (1929) argued against the possibility of divorcing *Wortklangverständnis* from *Wortsinnverständnis* in the examination of aphasia. Experts in speech disorders did not fail to bring the rapid progress of the new linguistic discipline to the attention of their colleagues. Thus, for example, at the Sixth Congress of the French Phoniatric Society, J. Froment and E. Pichon pointed out the importance of phonology for studies in language disturbances (*Rapport*, 1939). Froment illustrated his point by applying phonological criteria to the motor aphasiac: "Ce n'est pas phonétiquement qu'il s'est apauvri, c'est phonologiquement. Il peut être comparé à un pianiste, qui, ayant à sa disposition un bon clavier et tous ses doigts, aurait perdu la mémoire ou

presque toute mélodie, et qui plus est, ne saurait même pas reconnaître ses notes."

The first steps towards a joint investigation of language disorders were taken by Dutch linguists and psychoneurologists. They discussed the common problems in a special conference in Amsterdam in 1943, where the neurologist Bernard Brower brought to light the need for basic phonological concepts in the study of aphasia. It was the use of these concepts which exemplified what Jackson and Freud (1953) meant by a close correspondence between functional retrogression and the development of the language pattern, thus supporting Jackson's view that early acquisitions are more tenacious and resistant to brain damage than those which have been added more recently (cf. Jakobson, 1962; Alajouanine, Ombredane and Durand, 1939).

In books by Luria (1947) and Goldstein (1948), we find the first efforts by neurologists towards the systematic utilization of modern linguistic principles for the analysis of aphasic impairments. When, for example, Luria specifies that in so-called sensory aphasia the deficiency of auditory perceptions is actually confined to the breakdown of phonemic perception, the whole syndrome of this impairment yields itself to a clear linguistic analysis. Both this monograph, based on an enormous amount of clinical material, and Luria's later works, which display a greater and greater linguistic skill and orientation towards the science of language, present us with a sound foundation for thoroughly integrated medical and linguistic research in the pathology of language. Specialists in pathology must unite with specialists in language in order to cope with this important task and in order to liquidate the residue of that "chaos" which Head (1926) had exposed in contemporary views on aphasia.

In his recent survey of linguistic problems connected with the study of aphasia, the Moscow linguist Ivanov (1962) emphasized that first and foremost we need extensive samples of the spontaneous, unconstrained speech of patients, whereas at present our usual, often our only, material consists of medical tests and interviews, which display the metalingual operations of the patient rather than his unforced, habitual utterances. I am sorry to have to add that some of these tests clash with the elementary requirements of linguistic methodology. If the experimenter has not sufficiently familiarized himself with the science of language, he will give a distorted interpretation to the data, especially if his criteria for classification are borrowed from obsolete school grammars and have never undergone a thorough linguistic check-up. Statistics proceeding from such classifications are apt to disorient the research in aphasia.

In the study of speech pathology, one approach at variance with linguistic reality is the hypothesis that language impairments in aphasia can be viewed as a unitary general disorder, with the allegedly dissimilar types of aphasia representing differences in quantity of disturbance, rather than in quality. Any linguist who has had the opportunity to observe different specimens of aphasic speech can only confirm and support the views of those neurologists, psychiatrists and psychologists who are getting an increasingly clearer insight into the qualitative diversity of the aphasic patterns. A linguistic analysis of these patterns imperatively leads to the ascertainment of distinct and integral syndromes as well as to their structural typology. The linguistic errors made by the adherents of the unitarian heresy have prevented them from discriminating between the various verbal failures of aphasiacs.

FIRST DICHOTOMY: ENCODING (COMBINATION, CONTIGUITY) DISORDERS VERSUS DECODING (SELECTION, SIMILARITY) DISORDERS

Two fundamental operations underlie our verbal behavior: *selection* and *combination*. Kruszewski's *Outline of the Science of Language*, printed eighty years ago (1883) but still vital, connects these two operations with two models of relationship: selection is based on similarity, and combination on contiguity. My attempt to explore this twofold character of language and to apply it to the study of aphasia by delimiting two kinds of impairments, termed 'similarity disorder' and 'contiguity disorder' (Jakobson and Halle, 1956), met with an encouraging response from specialists in the diagnosis and treatment of aphasia. In turn, their discussion of this dichotomy has impelled me to recognize that the division of aphasia into similarity and contiguity disorders is closely linked with the classical sensory and motor dichotomy. According to Osgood and Miron (1963, p. 73), "a contingency in aphasic syndromes between these two dichotomies" was envisaged by J. Wepman (cf. also Fillenbaum, Jones and Wepman, 1961); verifying experiments led Goodglass (Goodglass and Mayer, 1958; Goodglass and Berko, 1960) to a similar conclusion; both dichotomies have been expressly united by Luria (1958, pp. 17, 27).

Before discussing the indissoluble unity of the two divisions, which requires an explanation, let us exemplify their linguistic correlation. We all know how inexact, one-sided and superficial the traditional terms "motor" and "sensory" aphasia are. However, if the syndrome character-

izing a given type of aphasia can be unambiguously described, purely conventional nomenclature is harmless as long as we are aware that it is nothing but convention. Several terminological substitutes have been proposed. The adjectives 'expressive' and 'impressive' carry too many meanings; particularly, in linguistics they are used in a totally different sense. The labels 'emissive' – 'receptive' are clearer; yet the impairment of internal speech, an important consequence of classical motor aphasia, could hardly be subsumed under the name emissive aphasia. The terms 'encoding' and 'decoding impairments' perspicuously indicate the type of damages. They could be used with an optional appendage: 'predominantly encoding' and 'predominantly decoding', since impairments in one of the two coding processes generally affect the opposite process also. This is particularly true of decoding impairments, which affect the encoding process much more than *vice versa*. The greater autonomy of the decoding process may be illustrated by a person's purely passive mastery of a foreign language or by the grasping of adult speech by speechless infants. Pathological cases are the most instructive. Lenneberg (1962) observed and described an eight-year-old boy who had learned to understand language despite a congenital inability to produce speech.

The classical motor (*alias* Broca's) aphasia is the basic variety of encoding impairments; correspondingly, the so-called sensory (*alias* Wernicke's) aphasia is the basic form of decoding impairments. Since it is Luria's illuminating portrayal of six aphasic syndromes which has served as the starting point of my linguistic interpretation in this paper, I shall follow Luria's nomenclature for the six types in question, even though Luria himself, and all of us, undoubtedly agree with Kurt Goldstein when he states that any terminology used at present in the field of aphasia "is somewhat confused" and "does not at all do justice to the complexity and variation of the modifications of language found in patients" (1948, p. 148).

The traditional Broca's aphasia, termed "efferent" (or "kinetic") by Luria, is palpably opposed to sensory or Wernicke's aphasia; the one being the most typical contiguity disorder, the other being the most conspicuous similarity disorder. Combination is disturbed in efferent aphasia. On the phonemic level this means difficulties in using phoneme clusters, difficulties in constructing syllables and difficulties in making the transition from phoneme to phoneme and from one syllable to another. Prosodic features (for example, Russian stress, Norwegian pitch and Czech vowel quantity) are affected because they involve the syllabic context. There are constraints on sequences, reflected in the

compulsion to make phonemic assimilations. Fry (1959) cites a typical example. A patient, when reading the sequence of words: *wood, kick, wear, feet*, substituted *w* for the initial consonant of the even words upon the model of the odd words. To such deteriorations in phonemic ensembles. the sensory aphasiac opposes an inability to utilize certain phonemic constituents; single distinctive features, as, for instance, the consonantal opposition grave/acute or voiced/voiceless, are lost.

On the level of meaningful units, the deficiency is primarily grammatical in the efferent type of aphasia but primarily lexical in the sensory type. Goldstein's motor agrammatism (1948, p. 81), or true agrammatism as Alajouanine formulates it (1956, p. 16), is, indeed, the most typical manifestation of efferent aphasia. Therefore, the so-called 'little tools of language' – connectives, articles, pronouns – which serve to cement the grammatical context, remain intact in the sensory disorder but are the first to be suppressed in the efferent disorder. The fundamental syntactic relationship is that of dependence; thus in agrammatism with its 'telegraphic style' all kinds of dependent words – adverbs, adjectives, finite verbs – are lost. In efferent aphasia "the abolishment of predicates, which evidently presents a definite loss of power to propositionize" (Jackson, 1958, p. 60), is, however, only the focal expression of a general tendency to abolish any syntactic rank. It is quite natural that of the two types of syntactic dependence, government and agreement, the latter is somewhat more resistant in the contiguity disturbances of efferent aphasia, because agreement is a sequential dependence which involves grammatical similarity, whereas government is built on mere contiguity. Ultimately, speech is reduced to primaries, independent words – nouns and nominal forms of verbs – in holophrastic usage. In contrast, in sensory aphasia the grammatical subject, which is the only part of the sentence which is independent of the context, is apt to be lost, since the chief stimulus for the subject lies in selection rather than in combination. It is the kernel term of the syntactic construction and most frequently, in some languages even obligatorily, the subject marks the beginning of the sentence. An impoverishment of the variety of nouns, a tendency to supplant them by generalized, pronominalized substitutes, and an inability to furnish synonyms and antonyms are the symptoms of a pronounced similarity disorder. This disorder may cause disturbances in word-finding and/or in phoneme-finding. Both kinds of disturbances may reinforce each other, but we could hardly deduce one of these two linguistic levels of disturbances from the other, i.e. we could not trace the disintegration of the verbal code to the disintegration of the phonemic code (cf. Critchley, 1959, p. 289).

Likewise, morphology brings to light a noticeable contrast between efferent and sensory disorders. In languages with a rich inflectional system, such as Russian or Japanese (cf. Panse and Shimoyama, 1955), efferent aphasia exhibits a considerable deficiency in suffixes. Even in English with its scanty grammatical endings, an atrophy of desinences, especially those "which express syntactic relations", has been observed (Goodglass and Hunt, 1958). In the efferent aphasiacs whom Goodglass and Hunt tested, the break-down of three phonemically identical desinences – z with its automatic alternants iz and s – presents a significant hierarchy, and a very clear principle accounts for the order of their dissolution. The higher the grammatical construction, the more imminent is its disintegration. The first to be affected is the clause, and, therefore, the third person singular verbal ending which signals the subject-predicate relation (for example *John dreams*) is the least viable. The possessive ending (*John's dream*), which signals a relationship within a phrase, is somewhat more resistant. The word is the last of the three constructions affected; hence the plural nominal ending (*dreams*), which depends neither on the clause nor on the phrase, is the least impaired.

Whereas in efferent aphasia lexical root-morphemes exercise a higher viability than grammatical morphemes (affixes) and grammatical words (in particular pronouns), the opposite state of affairs exists in sensory aphasia. As Beyn (1957, p. 93) and Luria (1958, p. 20) have pointed out, patients with this form of aphasia "lose the power to understand the roots of words", whereas suffixes "ordinarily remain considerably more comprehensible". Beyn, moreover, notes the cardinal role of pronouns in the speech of these patients. It may be noted that words with one and the same root but with diverse suffixes are bound by semantic contiguity (e.g. *editor-edition-editorial-editorship*), whereas words with different roots but one and the same suffix display semantic similarity (e.g. actors such as: *editor, auditor, solicitor*, etc.). Thus, patients having a similarity disorder differentiate suffixes rather than roots, whereas patients having a contiguity disorder differentiate roots rather than suffixes.

The affection of internal speech which, as Luria discovered, accompanies efferent disorders, finds its explanation in the essential characteristic of this type of aphasia: the break-down of contextual speech. Our internal speech is the context of our utterances; since all verbal contiguities are destroyed in the efferent type, the impairment of internal speech is inevitable. The corresponding deficiency in sensory aphasia is the loss of metalingual operations, which is the unavoidable result of similarity disorders.

The dichotomy of encoding and decoding disturbances finds its most typical expression in the divergent or, one might say, polar syndromes of efferent and sensory aphasia. At the same time these two syndromes clearly demonstrate the contrast between contiguity and similarity disorders. The indissoluble unity of the two divisions requires explanation. We can ask why the context is impaired in encoding disorders although it is retained intact in decoding disorders and why, on the other hand, those autonomous constituents which remain intact in encoding disorders are impaired in decoding disorders, where no autonomous constituents survive. The answer lies in the fact that the encoding and decoding processes present a cardinal difference in ordering. Encoding starts with the selection of constituents which are to be combined and integrated into a context. Selection is the antecedent, whereas building up the context is the consequent or the aim of the encoder. For the decoder this order is inverted. First the decoder is faced with the context, second, he must detect its constituents; combination is the antecedent, selection is the consequent, that is, the ultimate aim of the decoding process. The encoder begins with an analytic operation which is followed by synthesis; the decoder receives the synthesized data and proceeds to their analysis. In aphasic disorders the consequent is impaired, while the antecedent remains intact; combination, therefore, is deficient in the encoding types of aphasia, and selection in the decoding types. (See Table I.)

Table I

ENCODING   DECODING

intact – constituents⌐ ╲ ╱ ⌐context – *antecedent*
impaired – context⌐ ╱ ╲ ⌐constituents – *consequent*

Similarity relations underlie the selective operation, whereas combination is based on contiguity. Thus, the difference between encoding and decoding troubles merges with the dichotomy of contiguity and similarity disorders. The difference between the encoding and decoding processes or, in the terms of Hippocrates, between the brain's function as the speaker's 'messenger' and as the listener's 'interpreter' (see Penfield and Roberts, 1959, p. 7), plays a tremendous role in the disorders of language and gives rise to thoroughly divergent types of syndromes, involving either similarity disorders or contiguity disorders.

As I outlined in a previous study (see above, pp. 239-259), metaphor is alien to the similarity disorder, and metonymy to the contiguity

disorder. Now that we have discussed, on the one hand, selection, based on similarity, as the first stage of the encoding process, and, on the other hand, combination, based on contiguity, as the start of the decoding operation, let us confront two kinds of poetry: lyric, which as a rule is built primarily on similarity; and epic, which operates chiefly with contiguity. We recall that metaphor is the inherent trope in lyric poetry, and that metonymy is the leading trope in epic poetry. In this connection, the lyric poet, we note, endeavors to present himself as the speaker, whereas the epic poet takes on the role of a listener who is supposed to recount deeds learned by hearsay. Here again, on another level, we observe the parallel relationship of encoding with similarity, and of decoding with contiguity; and this corresponds perfectly to the evidence provided by aphasia about the higher stability of similarity relations in encoding and of contiguity relations in decoding.

SECOND DICHOTOMY:
LIMITATION VERSUS DISINTEGRATION

From the two basic types of aphasia – the efferent and the sensory – let us turn to the other four types discussed in Luria's monographs. Their linguistic symptoms are to be singled out and reinterpreted. Here we find two attenuated forms: among the encoding types there is what Luria calls 'dynamic' aphasia (1962, p. 182); and among the decoding disorders, the type he calls 'semantic' (1962, p. 132; 1958, p. 30; 1947, p. 151). Luria's use of the label 'semantic', let me add, deviates somewhat from the meaning given to this term by Head. The dynamic disorder affects only those units of speech which go beyond the limits of a sentence, namely extensive utterances, especially monologues. In other words, this impairment touches only those verbal combinations which exceed the bounds of the verbal code, since the combination of words and word groups into a sentence is the largest ultimate construction entirely organized on the basis of compulsory grammatical rules.

Another variant of the same syndrome has been described by Luria and his collaborators. Luria defines this variant as the "dissolution of the regulative function of speech" (1959; 1962, p. 214). Viewed in its linguistic aspect, this symptom, however, may be interpreted as an inability to transpose a verbal dialogue into a non-verbal, artificial system of signs or to carry on a dialogue combining verbal utterances with utterances transposed into the latter system. Such semiotic activities would again go beyond the combinations stipulated and regulated by

the habitual verbal code. The patient, as Luria (1962, p. 244) pointed out, "constantly slips toward accustomed verbal clichés".

In general, the transition from verbal stimuli to responses in non-verbal sign systems belongs among the most interesting linguistic and semiotic problems. The inhibition of visual dreams connected with encoding disorders of language (Anan'ev, 1960, p. 336) has been rightly interpreted as a break-down of that code which provides the transition from verbal to visual signals (Žinkin, 1959, p. 475).

The speech of dynamic and semantic aphasiacs is characterized by two opposite features; the former is marked by an excessive embedding in the code and the latter by a one-track embedding in the context. Normal language makes a distinction between word classes and syntactic functions; one and the same class can perform different functions in the sentence, whereas one and the same function can be performed by different word classes. Semantic aphasia tends to discard this dualism and assign to each word class a single specific function. Under these conditions, any word class is defined by the place which its members occupy in a syntactic sequence, and the variety of these places is subject to restrictions. Thus only the adverbal functions of the noun are retained (for example, *John likes Mary*), whereas subordinative groups of two nouns, especially if they are reversible, will be misunderstood; Luria (1958, p. 25) cites these examples: *father's brother* and *brother's father*; *a circle under a triangle* and *a triangle under a circle* as groups typically misunderstood. One of Luria's patients (1947, p. 161) has given us a lucid account of his efforts to understand the words *mother's daughter*: "I know they are two. I imagine ... mother ... and daughter ... but which of them? It's strange, but I cannot grasp this. Is it connected with the mother or with the daughter? ... It's unclear, I don't follow." Verbal predicates are comprehensible, whereas predicate nouns, especially when the copula is not expressed, perplex the semantic aphasiac. Adjectives in an attributive function are the only ones which reach him. The explicit precedence of the subject over the direct object becomes compulsory. Consequently, passive constructions embarrass the patient, and in active clauses the order subject–object becomes irreversible. Even in such a language as Russian, where normally free stylistic variations of word order play a great role, the inverted order object-subject is misinterpreted by the patient in spite of the clear information provided by the accusative and nominative desinences. For example, *sestrú žená ljúbit*, 'sororem uxor amat', is understood as *sestrá ženú ljúbit*, 'soror uxorem amat'. The syntagmatic axis suppresses the paradigmatic axis.

Semantic aphasia simplifies and tightens the syntactic rules; further-more, it effaces the grammatical connection between sentences, and one observes this deficiency even after the rehabilitation of the patient. Among the verbal constructions subject to compulsory rules, the sentence is usually considered the largest. It is true that rules of grammatical super-position (whether concord or agreement) work only within a sentence. Yet anaphoric rules based on mere similarity relations cross the borders of sentences. Pronouns and articles may depend on a wider context than the bounds of the sentence. Since semantic aphasia pertains to similarity disorders, it is not surprising that the regulation of anaphoric pronouns and articles may be lost. Professor J. M. Wepman gave me a good example: a patient who had recovered from a semantic disorder suddenly made a symptomatic slip: "My wife is not here today. *He* did not come with me."

THIRD DICHOTOMY: SEQUENCE (SUCCESSIVITY)
VERSUS CONCURRENCE (SIMULTANEITY)

The description and classification of aphasic impairments face the pertinent question of whether a sequence or a simultaneous set of lin-guistic entities appears to be affected. The dichotomy of sequence and concurrence cuts across the fundamental division of aphasic impairments into encoding (combination) and decoding (selection) disorders. Of the two modes of arrangement which operate in language – selection and combination – it is the latter which suffers from encoding disorders. There are two varieties of combination in language: concurrence and temporal sequence; it is the sequence which undergoes impairment in the efferent and dynamic types of encoding disorder, whereas the third type, afferent aphasia, disrupts concurrence. On the phonemic level, efferent aphasia disrupts the sequential concatenation of phonemes, whereas in afferent aphasia the combination of concurrent distinctive features into phonemes breaks down. The typical linguistic symptom of afferent aphasia is the wide range of fluctuations in the implementation of phonemes. In efferent aphasia only certain constituents of the sequence survive, and their context has deteriorated; in the same way, afferent aphasia preserves only single constituents of the simultaneous bundle, with the rest of the context being filled in almost at random. Sensory aphasia, oriented towards the context, causes the loss only of single constituents, that is, only separate features of the phoneme; apparently, those are lost which are least dependent on their simultaneous and
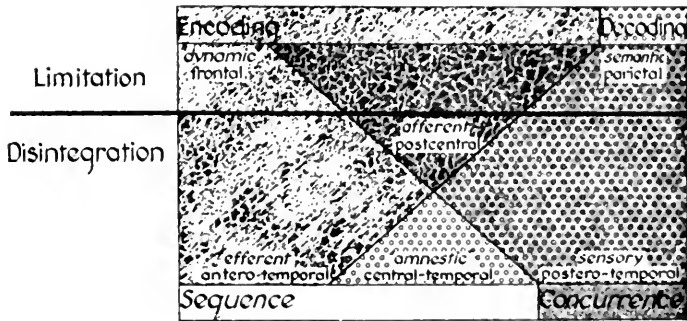
Fig. 1.   The dichotomies underlying the six types of aphasic impairments.

sequential environment. In contrast, afferent aphasia seems to preserve only those features which are the least dependent on their environment and which underlie the phonemic pattern of language. However, as Luria has warningly noted (1947, p. 111). our acquaintance with afferent aphasia is still insufficient.

Afferent aphasia is an encoding disturbance in simultaneous combination; the form of aphasia for which Luria provisionally accepts the label 'amnestic' or 'acoustico-amnestic' (1962, p. 98) is a decoding disturbance in sequential selection. Whereas sensory aphasia affects the identification of constituents with respect to a set of concurrent substitutive possibilities. amnestic aphasia impairs this identification only if a given constituent is a member of a co-ordinative pair (or larger series) of words (or clauses). Co-ordinative groups occupy a particular place among syntactic constructions. They are the only syntactic groups without any internal superposition, the only open groups with freely addible and omissible members; finally, they are the only ones where, as de Groot has neatly remarked (1957, p. 128), "there is strictly speaking, real concord. namely a pure, mutual agreement." Thus amnestic aphasia is a similarity disorder which involves the only grammatical sequence based on pure similarity, and afferent aphasia is a contiguity disorder which involves the only alignment of concurrent constituents in the sound sequence of language. The two-dimensional (sequential and concurrent) contiguity of the distinctive features troubles the encoder suffering from an afferent aphasia, whereas the two-dimensional (paradigmatic and syntagmatic) similarity of paratactic words or clauses troubles the decoder suffering from an amnestic aphasia.

CONCLUSION

These brief remarks aim, on the one hand, to indicate the specific verbal

symptoms which distinguish the six types of aphasia outlined in Luria's books (1947, 1962) and, on the other hand, to retrace the interrelation of these six types from a strictly linguistic point of view. Three dichotomies have been found to underlie the six types of aphasic impairments (see Fig. 1). Speech devoid of any cognitive function and reduced to mere emotive, interjectional exclamations remains out of the scope of this survey.

Three types of aphasia – the so-called efferent, dynamic and afferent types – are characterized by *contiguity* disorders with a deterioration of the context; the three other types – in Luria's nomenclature, the sensory, semantic and amnestic – display *similarity* disorders with damage to the code. The same two groups, viewed in terms of verbal behavior, are opposed to each other as *encoding* and *decoding* disturbances.

In all three types of contiguity disorders, the ability to combine and integrate is impaired; however, in the efferent and dynamic types this impairment affects the integration of successive constituents, whereas in the afferent type it is the concurrent constituents which fail to be integrated. In the three types of similarity disorders, the ability to select and identify is affected; however, in the sensory and semantic types what suffers is simply the choice among concurrent possibilities and the identification of such alternative constituents, whereas in amnestic aphasia there are impediments in choice and identification only as regards constituents joined in a co-ordinative group. Thus, besides the simple types of contiguity disorders which involve only the successivity set, and of similarity disorders based solely on the simultaneity set, there appear two complex, intermediate types of aphasia: a contiguity disorder which implies the simultaneity axis (afferent aphasia), and a similarity disorder, dependent on the successivity axis (amnestic aphasia). Consequently, a second dichotomy is operative – the opposition of *sequence* and *concurrence* or, in Saussure's terminology (see 1922, pp. 115, 180) *successivity* and *simultaneity* – which in turn divides the six types of impairments into two threefold groups.

In contradistinction to efferent aphasia, Luria's dynamic aphasia impairs neither the phonemic nor the grammatical context, but only those verbal contexts which contain more than one sentence and thus exceed the limits of a syntactic integer. The sentence is the maximum context, structured on the basis of coded rules; therefore we are no longer restricted by compulsory ranking rules when we combine sentences into an utterance (see above, p. 243). On the other hand, semantic aphasia, in Luria's application of this term, abolishes any difference

Table II

| | Aphasia | | | | | |
	Efferent	*Sensory*	*Dynamic*	*Semantic*	*Afferent*	*Amnestic*
Impaired:						
encoding (+) or decoding (−)	+	−	+	−	+	−
sequence (+) or concurrence (−)	+	−	+	−	−	+
Present:						
disruption (+) or limitation (−)	+	+	−	−		

between morphological categories and their syntactic functions. Incidentally, this loss of delimitation between morphology and syntax seems to favor neology. The intense neology of aphasiacs and children is due to their lack of our sharp discrimination between two verbal levels: the ready-made words and the sentences, ready-made only in their grammatical pattern, but relatively free in their lexical make-up. Our selection of words is basically free and their combination is bound only by formal rules of sentence-building. For such kinds of aphasiacs, and for children at a certain developmental stage, this freedom is extended to the selection of morphemes, and their combination is bound only by formal rules of word-building.

It will be recalled that dynamic aphasia belongs to the code-focused and context-impairing types of speech disturbances and that semantic aphasia is one of the code-impairing and context-focused types. Correspondingly, dynamic aphasia affects only uncoded contexts, whereas on the other hand, semantic aphasia tends to restrict the grammatical code by limiting the autonomy of morphological categories in behalf of syntax. The dynamic and semantic types are distinguished from the efferent and sensory types respectively, the first two being limitative, the second pair being disruptive. This third dichotomy – *limitation* versus *disintegration* – involves only the simple varieties of both the encoding and decoding aphasias, but does not apply to the complex, transitional types (see Table II).

It is superfluous to add that by restricting my survey to linguistic criteria, I am not disregarding the other aspects of aphasic impairments. *Suum cuique*, and my main concern has been to avoid any confusion of different levels. However, one must agree with Jackson's program of 1878, that a rigorous delimitation of levels must not prevent us from "endeavouring to trace a correspondence betwixt them" (1958, p. 156)

and, in particular, between the affections of language and their 'anatomical substrata'.

The connection between the more anterior lesions of the cortex and the encoding impairments, as well as the connection between the more posterior lesions and the decoding impairments, is widely recognized. It is, furthermore, noteworthy that the encoding impairments of sequences correspond to anterior fronto-temporal and frontal lesions (cf. Luria, 1958, pp. 27, 30), whereas the decoding impairments, which involve concurrence, the simultaneity axis of language, are tied to postero-temporal and postero-parietal lesions. The transitional types, which connect encoding impairments with the simultaneity axis or decoding impairments with the successivity axis of language, apparently correspond to lesions in the retrocentral (afferent aphasia: cf. Luria, 1947, p. 112) and centro-temporal areas (amnestic aphasia: cf. Penfield and Roberts, 1959, p. 42; Luria, 1962, p. 98). There appears to be an eloquent conformity between the middle location of these lesions and the intermediate character of these language disorders in relation to the other types of aphasia.

Frontal-temporal and postero-temporal lesions are responsible for the basic types of encoding and decoding impairments, and in contra-distinction to these two disruptive forms of aphasia, the limitative types are tied to two polar areas, namely the dynamic disorder is bound to the anterior, frontal portions of the brain (cf. Luria, 1962, p. 182), the "frontal intrinsic area of the forebrain", and inversely the semantic disorder to the postero-parietal and parieto-occipital sections, the "posterior intrinsic areas" (cf. Luria, 1958, p. 21; Pribram, 1960).

There arises inevitably the question: What is the cerebral correlate of the relevant dichotomy – Sequence/Concurrence? Permit me to quote the tentative, but, nevertheless, most stimulating response to this question which I have received from Professor K. Pribram of Stanford University:

The question may be raised as to the true locus of disturbance in 'efferent' aphasia. Bilateral removal of Broca's area has been performed without the production of aphasia (Mettler, 1949). In monkeys fronto-insulo-temporal lesions produce the 'encoding-sequence' defect even though they do not speak. My feeling is, therefore, that the 'encoding-sequence' type of aphasia results not from a superficial involvement of area 44 but from infringement on the fronto-temporal region of the brain when lesions are deep.

If this is so, and if the anterior frontal cortex is considered as part of the medio-basal forebrain (for thalamocortical, phylogenetic and neurobehavioral reasons), an added dividend accrues from the linguistic analysis. The two linguistic axes find their correspondence in the brain: *viz.* Decoding/Encoding is Posterior/Frontal in the brain; Concurrence/Sequence (or Simultaneity/ Successivity) is arranged as Dorsolateral/Mediobasal in the brain.

The study of aphasia can no longer by-pass the pertinent fact that an intrinsically linguistic typology of aphasic impairments, outlined without any regard to the anatomical data, yields a patently coherent and symmetrical relational pattern, which proves to be remarkably close to the topography of those lesions of the brain which underlie these impairments.

SUMMARY

The six cardinal types of aphasic disorders examined by A. R. Luria and conventionally labelled: 1, *dynamic* (with lesions of the frontal portions of the brain); II, *efferent motor* (linked with the anterior fronto-temporal section of the cortex); III, *afferent motor* (retro-central); IV, *amnestic* (centro-temporal); V, *sensory* (postero-temporal); and VI, *semantic* (parieto-occipital), require and suggest a clear-cut and symmetrical linguistic classification.

Types I-III affect the encoding process, while types IV-VI imply damage primarily to the decoding process. For the encoder, selection is normally followed by combination, whereas the decoder is presented first with the context, so that selection is preceded by combination. In aphasia the consequent is impaired, while the antecedent remains intact. Therefore, combination is deficient in the encoding types of aphasia and selection in the predominantly decoding disturbances. The difference between encoding and decoding difficulties merges with the dichotomy of contiguity and similarity disorders.

Type II retains the phonemic and grammatical units but disrupts the phonemic and/or grammatical sequences; whereas type V reduces the variety of such units, while preserving the pattern of their grouping.

Type I shares with type II a deficiency in the integrative operations, but in type I they are impeded only on the higher levels: the combination of sentences into utterances and of utterances into discourse is impaired. Likewise, type VI, in contradistinction to type V, does not affect the lower levels of language. The repertory of phonemes and words remains, but morphology appears to be radically suppressed by syntax; the syntactic functions and word order overpower the morphological categories.

Types III and IV occupy an intermediate position between I-II and V-VI. Combination processes suffer in all three encoding types, but while types I and II affect different kinds of sequences, aphasiacs of type III cannot manipulate and discriminate the concurrent bundles of distinctive features. Selection processes suffer in all three decoding types, but in type IV only items arranged in a series are affected. Thus of the

two Saussurian axes, successivity is involved in I-II and IV; simultaneity is involved in V-VI and III.

Paper presented to the Ciba Foundation Symposium on Disorders of Language, London, May 21st, 1963.

REFERENCES

Alajouanine, T. (1956). *Brain*, 79, 1.
Alajouanine, T., Ombredane, A., and Durand, M. (1939). *Le syndrome de désintégration dans l'aphasie* (Paris: Masson).
Anan'ev, B. G. (1960). *Psixologija čuvstvennogo poznanija* (Moscow, Academy of Pedagogical Sciences).
Baudouin de Courtenay, J. (1881). *Podrobnaja programma lekcij v 1877-1878 utebnom godu* (Kazan: University Press).
Beyn, E. S. (1957). *Vop. Psixol.*, 4, 90.
Brain, W. R. (1961). *Speech Disorders* (London: Butterworths).
Critchley, M. (1959). In *The Centennial Lectures commemorating the one hundredth anniversary of E. R. Squibb and Sons*, p. 269 (New York: Putnam's Sons).
Fillenbaum, S., Jones, L. V., and Wepman, J. M. (1961). *Language and Speech*, 4, 91.
Freud, S. (1953). *On Aphasia* (New York: International Universities Press).
Fry, D. B. (1959). *Language and Speech*, 2, 52.
Goldstein, K. (1948). *Language and Language Disturbances* (New York, Grune and Stratton).
Goodglass, H., and Berko, J. (1960). *J. Speech Res.*, 3, 257.
Goodglass, H., and Hunt, J. (1958). *Word*, 14, 197.
Goodglass, H., and Mayer, J. (1958). *J. Speech Dis.*, 23, 99.
Groot, A. W. de (1957). *Lingua*, 6, 113.
Head, H. (1926). *Aphasia and Kindred Disorders of Speech* (Cambridge University Press).
Ivanov, V. V. (1962). In *Strukturno-tipologičeskie issledovanija*, p. 70, ed. Mološnaja, T. N. (Moscow, Academy of Sciences).
Jackson, J. H. (1958). *Selected Writings*, vol. 2 (New York, Basic Books, Inc.).
Jakobson, R. (1962). *Selected Writings*, vol. 1, p. 328 (The Hague, Mouton).
Kruszewski, N. (1883). *Očerk nauki o jazyke* (Kazan: University Press).
Lenneberg, E. H. (1962). *J. abnorm. soc. Psychol.*, 65, 419.
Luria, A. R. (1947). *Travmatičeskaja afazija* (Moscow, Publishing House of the Academy of Medical Sciences of the U.S.S.R.).
Luria, A. R. (1958). *Language and Speech*, 1, 14.
Luria, A. R. (1959). *Word*, 15, 453.
Luria, A. R. (1962). *Vysšie korkovye funkcii čeloveka* (Moscow, University Publishing House).
Marie, P. (1926). *Travaux et Mémoires*, vol. 1 (Paris, Masson).
Mettler, F. (1949). *Selective Partial Ablation of the Frontal Cortex* (New York, Hoeber)
Osgood, C. E., and Miron, M. S. (1963). *Approaches to the Study of Aphasia: A report of an interdisciplinary conference on aphasia* (Urbana, University of Illinois Press).
Panse, F., and Shimoyama, T. (1955). *Arch. Psychiat. Nervenkr.*, 193, 131.
Peirce, C. H. (1932). *Collected Papers*, vol. 2, eds. Harsthorne, C., and Weiss, P. (Cambridge, Mass., Harvard University Press).
Penfield, W., and Roberts, L. (1959). *Speech and Brain Mechanisms* (Princeton, N.J., Princeton University Press).

Pribram, K. H. (1960). In *Handbook of Physiology*, vol. 2, eds. Field, J., Magoun, H. W., and Hall, V. E. (Washington, D.C., American Physiological Society, 1323).

Rapport au VI Congrès de la Société française de phoniatrie (1939). *Rev. franç. phoniatrie*, 7.

Saussure, F. de (1922). *Cours de linguistique générale*, 2nd edn. (Paris, Payot).

Wolpert, I. (1929). *Dtsch. Z. Nervenheilk.* 3, 187.

Žinkin, N. I. (1959). In *Psixologičeskaja nauka v SSSR*, 1, 470 (Moscow, Academy of Pedagogical Sciences).

LINGUISTIC TYPES OF APHASIA

At present only few workers in the field of language disorders still believe that the role of linguistics in the study of aphasia is unimportant. Now, in various parts of America and Europe, diverse groups of scholars are attempting joint inquiry into various questions of language disturbances. In several centers neurologists, psychologists, linguists, and other specialists work together to describe, to examine, to analyze aphasia, and to obtain the most exact diagnoses and prognoses.

In a recent interdisciplinary Ciba symposium (5) devoted to the disorders of language, it was expressly stated that for a very long time linguistics had been unable to participate efficiently in the investigation of aphasia because the development of structural analysis in the science of language is a relatively recent phenomenon. But now, with the intensive development of such scrutiny, linguists must also have their say on the disruptions of language. The participation of linguists in such research proves to be important for the study of aphasia, on the one hand, and for general linguistics, on the other, because there obviously exists a very intimate interrelation between problems of normal language in operation, language in buildup, i.e., the acquisition of language by children, and the disintegration of language, exemplified by the various types of aphasic impairments. It becomes more and more clear that such impairments have their own order, so to say an orderly hierarchy of disorders; this order actually exists and must be analyzed. Lord Brain, the initiator of the Ciba Symposium, went even farther: he said that the same analytic methods may be applied to psychotic, especially schizophrenic, speech (3). The linguistic work in this wider field has scarcely begun but even at the present stage schizophrenia gives clues that enable a linguist to catch certain phases and facets in the process of the illness which could otherwise easily remain unnoticed.

During the earlier period, when linguistics played only a minor role in the study of language disorders, there arose among nonlinguists certain

conceptions of aphasia which, to put it bluntly, show a complete dis-regard for the linguistic aspect of speech pathology. Such intentional neglect is intolerable for, if aphasia affects our language uniquely or primarily, it is the science of language which has to offer the first tentative answer as to the kind of aphasia encountered in any given case. Un-fortunately many psychologists came to believe that aphasia presents a single unitary type only, and that no qualitative, but merely quantitative, differences may be found among the diverse varieties of verbal distur-bances. This theory is in glaring contradiction with all the extant empiric data about aphasic impairments. It is impossible to confine our analysis of aphasia to a purely quantitative picture. Linguists must pay and actually pay close attention to statistical problems of language, and quantitative linguistics is one of the important aspects of our science, but to be able to count it is necessary to know what one is counting: it would be useless to count without defining qualitative characteristics, without a classification of the units and categories to be counted.

The results of the purely quantitative approach to aphasia are at variance with linguistic facts. All of the quasi-proofs used to substantiate the unitary bias are futile because they are based on fictitious rubrics which actually ignore the phonemic, morphologic, and syntactic structure of language. At present, we have a number of objective and careful descriptions of diverse aphasic cases from various linguistic areas. This material unambiguously reveals the existence of qualitatively different, even opposite, types of disturbances. Of course, polarity does not exclude transitional or mixed cases – in this respect, the disorders of language are similar to all other pathological changes.

The frequent occurrence of pure polar types cannot be denied; these fundamental dichotomies enable us to classify the aphasic impairments. Several years ago I had the opportunity to discuss one of them in detail (see above, p. 239 ff.). Two different factors, selection and combination, play an essential role in any speech event. If, for instance, I intend to tell something about my father, I have to make a conscious or sub-conscious choice of one of the possible terms – father, parent, papa, dad, daddy; then, if I want to say that he is in bad shape, again I select one of the suitable words: ill, sick, indisposed, not healthy, ailing. Selections are one aspect of the twofold event, and the combination of the two selected verbal entities, "Father is sick", is its other aspect. The entities among which we make our selection are mutually connected by various forms and degrees of similarity in all its varieties: likeness, similitude, equivalence, resemblance, analogy, diverse grades of specification,

contrast. Contrary to selection, which is based on an internal relation, combination involves the external relation of contiguity in its various forms and degrees: neighborhood, proximity, and remoteness, subordination and coordination.

A linguistic reinterpretation of the varied cases described in the multilingual literature on aphasia, as well as observations made by myself on aphasics of different languages, made it clear to me that we have to deal with two basic types of aphasia. Either the internal relation of similarity and correspondingly the selective ability is impaired or, conversely, the external relation of contiguity and, hence, the capacity of combination appears to be affected.

After publishing my first outlines of this hitherto overlooked dichotomy (pp. 229 ff., 239 ff.), I was happy to find support and approval on the part of such experts in the field of aphasia as Luria in Moscow (35, 36), and Wepman (8, 44) and Goodglass (14, 15, 17) in this country. Their observations and also earlier studies, especially Goldstein's (13), prompted me to examine and point out the very close relationship between the dichotomy of selection and combination and the traditional discrimination between two types of aphasia which were known under the somewhat misleading names of "sensory" and "motor". Any terminology is conventional but in this case nomenclature creates an erroneous impression, as if the entire problem lay either in the damaged articulatory activities or in the harmed sensory apparatus. This misunderstanding disappears as soon as the term "encoding" is substituted for "motor" and "decoding" for "sensory". In this way occasional symptoms are replaced by far more essential features. The difference between combination and selection disorders closely coincides with the difference between encoding and decoding disturbances. Before discussing the interrelation of these two pairs of syndromes, let us delineate the most salient types of encoding and decoding aphasia.

Among the contributions of neurologists, psychiatrists and psychologists to the study of aphasia, Luria's works seem to be the most instructive, first because he approached the different types of aphasic impairments on several levels, and second because he had the opportunity to work with numerous cases, since a high number of aphasic patients, especially war veterans with brain injuries, were brought together in Moscow clinics. The amount of cases that illustrate his findings is quite impressive. In a book published in 1962 (36) and in a paper for the Ciba Foundation symposium (38), Luria deals with six types of impairments, among them the basic types of encoding disorders, the traditional "Broca's" or

"motor" aphasia – in Luria's nomenclature the "efferent" (or "kinetic") type – and the basic type of decoding disorders which carried in these studies the customary label "sensory" aphasia.

Permit me to give a brief answer to the question of what the main features of efferent aphasia on the various levels of the verbal pattern are. Of course, in any given case not all of these symptoms must be present and not all the linguistic levels must necessarily be affected. In some cases the deficit is chiefly or solely phonological; in some instances, the losses belong principally or only to the syntactic level.

In efferent aphasia, words are preserved, especially those which can be independent of the context – mainly substantive nouns, and in particular concrete nouns which carry the leading function. On the other hand, the construction of a sentence presents enormous difficulties; in the first place we observe the disappearance of purely grammatical words, namely connectives (conjunctions and prepositions), as well as such strictly grammatical, formal words as pronouns. The more independent the word is and the more it approaches the model of a normally initial word, the more viable it is. Thus nouns are preserved better than verbs, and substantives better than adjectives. The nominative is the only case which survives, and verbs are used in their most nominalized form. Thus, if there is an infinitive in the verbal pattern of the given language, this form shows a higher resistance in efferent aphasia than the finite verbs. The traditional label "telegraphic style" is well suited to the speech of such aphasics. Their utterances tend to be reduced to one-word sentences.

On the phonological level, the phonemes are preserved. The difficulty is not in the phonemes by themselves but in their combinations, in the transition from one phoneme to another, and in the diversity of phonemes within polysyllabic words. Intensive use is made of phonemic assimilation and dissimilation. The more independent a phoneme or distinctive feature is in respect to the context, the greater the probability of its survival. Among the distinctive features, the inherent ones are more resistant than the prosodic, since only the latter involve interphonemic relations within the sequence.

Efferent aphasia is, I repeat, a typical contiguity disorder, and eloquent manifestations of disturbed contiguity are observable on all levels of language. The root, as the lexical and least dependent part of the word, is better preserved than the grammatical suffixes. It is noteworthy that words of the same root but with different suffixes are mutually associated by semantic contiguity, whereas words with a common suffix but different

roots display a semantic similarity. Among syntactic relations, "government" is more easily abolished than "agreement" because the latter links the modifier to its initial word not only by contiguity but also by similarity, whereas "government" is confined to pure contiguity. For the efferent type of aphasia with its agrammatism, the best definition was given by the ardent proponent of a scientific approach to aphasia, Hughlings Jackson, one century ago (23). He was the first to recognize that the main deficiency consists in the loss of the ability to propositionize, i.e., to construct a proposition.

The so-called sensory aphasia, acutely analyzed by E. S. Beyn (2), presents an opposite linguistic syndrome. Here the syntactic wholes – sentences – are preserved. The most viable elements are those which serve to construct sentences, the so-called little words, such as connectives, pronouns, etc. Adverbs and adjectives are retained longer than verbs and nouns; the predicate is more stable than the subject. The initial substantive of the sentence presents the greatest difficulty, especially if the patient speaks a language like English or French, where as a rule the subject appears at the beginning of the sentence. This difficulty becomes particularly acute when the subject is a substantive in a nonderived, primary form, i.e., a pure lexical form with a minimal dependence on the context. It is interesting that deverbative and deadjectival nouns are less vulnerable.

If the required word is context-free, the word-finding operation is an impossible task for a patient severely affected by a selection (i.e., similarity) disorder. He is unable to build an equational sentence or to name an object drawn or pointed at; he often is uncapable of responding to a word by its repetition, although the same word may be pronounced easily within a context. Some patients counter the request to repeat the negation "no" with the unwittingly whimsical statement, "No, I cannot".

Faced with these two types of aphasia, we may ask ourselves why the first of them – the loss of the ability to integrate, to create a context – affects chiefly the encoding process; and why, on the other hand, the inability to analyze a context into its constituents, to separate them, and to operate with those constituents which are not prompted by the context, handicaps first and foremost the decoding process. Before answering these questions, it seems appropriate to discuss the deficits of the latter, the sensory type, on the phonemic level.

Here again the combinations are preserved, but within these combinations some phonemes are simplified, especially those which cannot be predicted from their environment. Certain phonemic distinctions are

lost. For linguists this point is clear and, in accord with this linguistic experience, Luria (35, 36) repeatedly points out that in sensory aphasia it is not the physical but the phonemic hearing which is lost. Among psychologists, however, there are still skeptics who see only risky hypotheses in such references to a breakdown in phonemic perception. But without this hypothesis one could not explain why in a language such as Czech or Hungarian, where the contrast of long and short vowels plays a great role both in stressed and unstressed positions, a sensory aphasic may lose the ability to distinguish long and short vowels whether in hearing or in his own speech. There is no question of inability to hear or articulate vowels of longer or shorter duration; what is lost is the distinctive semantic value of the difference between long and short signals in the phonemic code.

The phonological deficits of sensory aphasics reflect the hierarchical structure of the phonemic pattern. Recently an important paper (6) was published by the Polish linguist Doroszewski, a remarkable field worker who carefully followed, recorded, and described a typical case of sensory aphasia. In this case report one finds scrupulous observations on disturbances in the relevant Polish distinction between voiced and voiceless consonants. These data are particularly eloquent since the observer had no preconceived opinion and even disregarded the principle which underlies and explains the order of these deficits. In the opposition voice-voiceless, the voiced consonants are the so-called "marked" category. Many habitually voiced consonants lost their voicing mark in the speech of the patient, but there was no change at all of habitually voiceless (unmarked) into voiced (marked) phonemes. Besides voicing ($+$)/voicelessness ($-$), several other binary oppositions underlie the Polish consonantal system: they mark compactness ($+$) *versus* diffuseness ($-$), acuteness ($+$) *versus* gravity ($-$), stridency ($+$) *versus* mellowness ($-$). It is indeed significant that sensory aphasia manifests a tendency to reduce the recurrence of marks in a phoneme. Thus 91 per cent of the compact ($+$) consonants, but only 35 per cent of the diffuse ($-$) consonants, lost their voicing in the speech of the Polish aphasic. Among the diffuse ($-$) consonants, 57 per cent of the acute ($+$) ones and only 6 per cent of the grave ($-$) ones became voiceless. Among the diffuse acute ($-+$) consonants, 100 per cent of the strident ($+$) phonemes, but a mere 50 per cent of the mellow ($-$) ones, changed from voiced to voiceless.

Now let us go back to the question of why the combination disturbances which hamper the construction of a context and any act of

integration affect primarily the encoding activity of the patient, whereas selection disturbances strike especially the decoding activity. Both connections, which at first glance seem arbitrary, are in reality well founded. No further explanations are needed for a psychologist like Dr. Osgood, who has traced the cardinal difference between the integrating and representational capacities (43).

In the process of encoding, impairments affect the context rather than its constituents, whereas the decoding process presents the inverse relation. Why are the constituents intact in the encoding? Because the speaker makes the selection of the elements before combining them into a whole. The secondary stage, the building of a context, is more susceptible to disruption, while its constituents are much more viable. Therefore, the encoding process succumbs most often to combination disturbances. In decoding operations we have first to grasp the whole: here lies the greater difference between the attitude of listeners and of speakers. The decoder is a probabilist to a much greater extent than the encoder. Thus there are no homonyms for the speaker; when he says "bank" he knows perfectly whether he is speaking about the shore of a river or a financial establishment, whereas the listener, as long as he is not helped by the context, struggles with homonymy and has to use a probability test. The identification of the constituents is the second stage, which can be characterized as a self-identification of the listener with the speaker: the sequential synthesis yields to a simultaneous synthesis, and sequences change, as George Miller (41) would say, into chunks. Naturally, the consequent is shakier than the antecedent and therefore the decoding process is particularly vulnerable to the selection disturbances.

When observers discuss encoding and decoding disorders and prefer to term them as "predominantly encoding" and "predominantly decoding", they are obviously right because there are no purely encoding or purely decoding disorders, only a difference in hierarchy. There is a much lesser dependence of decoding on encoding than vice versa. More or less intact decoding processes are compatible with badly disrupted encodement. An eloquent case was recently presented by Lenneberg (26); a boy who at eight years was totally speechless but at the same time understood perfectly the language of adults. On the other hand, one could hardly imagine the preservation of a full-fledged encoding capacity despite the atrophy of decoding ability. The active mastery of a language implies its passive knowledge. Each of us knows more languages passively than actively, and the stock of words one understands exceeds the number

which one actually uses. The sphere of our decoding action is wider than our encoding activities.

A highly important connection observed is the impairment of internal speech in any serious case of efferent aphasia. Internal speech, a cardinal problem for both linguists and psychologists, was nevertheless somewhat neglected until it became a gratifying topic of modern Russian research. I would like to refer especially to Vygotsky (52), Luria (36), Žinkin (54), Sokolov (50), and the other authors cited by the latter. In the light of these stimulating studies, the detriment of the internal speech provoked by efferent aphasia is quite understandable. It suffices to confront agrammatism as the pivotal sign of the efferent syndrome with the predicative nature of internal speech and, moreover, to recollect that internal speech is the usual context of our externalized, uttered speech, and that it is the destruction of the contextual frame which characterizes this type of aphasia.

It is equally natural that the sensory type of aphasia entails an incapacity for metalingual operations. The vital ability to translate one verbal sign into another (synonymic or more explicit or, inversely, more elliptic) underlies the development and use of language, but the sensory aphasia which inhibits any intralingual and interlingual translation and any identification of verbal signs abolishes the metalingual function.

Having surveyed the efferent type of combination disorders and the sensory variety of selection disturbances, we may now proceed to the other types of aphasia. It was Luria (32, 36) who singled out most clearly what he called dynamic aphasia. Like efferent aphasia, this type belongs to the combination disorders, but presents no disruption on either the phonemic or the grammatical level. As long as the patient operates with such entirely (both grammatically and lexically) coded units as words, or with such partly (only grammatically) coded units as sentences, there is no trouble. Difficulties begin as soon as speech exceeds the limits of a sentence and the utterance consists of more than one sentence. A combination of sentences which is free of obligatory rules, especially of hierarchical, subordinative rules, is a particularly intricate task for patients with some combination defects, and they fail to execute it, especially to build a monologue, that is, a context which is incumbent on the speaker alone.

The other deficiency of such aphasics is their vanishing capacity for switching from one system of signs to another, for instance, answering a verbal order by a prescribed gesture. According to Luria's definition, what is impaired in such cases is the regulative function of speech (34,

36); as a matter of fact, it is an incapacity to use two different semiotic codes alternatingly within the same discourse. In comparison with the efferent type, the dynamic variety is simply a more attenuated form of combination impairment: disintegration in the former type, mere limitation in the latter.

To this dualism of disintegration and limitation we find a correspondence also among the selection disorders. If the disintegration of selection processes is represented by the sensory type, the limitation of these processes appears in the variant described by Luria (36, 38) under the traditional label – semantic aphasia. This type in turn demands a linguistic reinterpretation. In the various forms of selection impairments, the words and their internal structure confront the patient with much greater handicaps than the organization of the sentence. Morphology is more difficult and embarrassing for him than is syntax.The more a word within a sentence depends on the syntactic environment, the higher are its chances of being understood and uttered by a sensory aphasic; in semantic aphasia, the selection disturbance appears to be attenuated. Any grammatical category, and in particular nouns, survives solely in its primary syntactic function. Morphology yields to syntax. Each part of speech is defined by the only syntactic construction assigned to it. Nouns are confined to an adverbal position and are no longer understood when used as adnominal modifiers. Patients suffering from semantic aphasia cannot grasp the difference between phrases such as "wife's brother" and "brother's wife". The predicative function of a noun, especially in clauses without copula, e.g., Russian *lev – zver'*, "[the] lion [is an] animal", puzzles such an aphasic.

The word order in these cases becomes much more uniform and inflexible. Since in English not only aphasic but also normal speech has a rigid word order, let us take an example from a language with freer word order. The basic word order of Russian (subject, predicate, object) admits a stylistic inversion (object, predicate, subject) because the accusative of the object and the nominative of the subject are distinguished by their declensional endings: "Luka pomnit Ol'gu" and "Ol'gu pomnit Luka" both mean "Luke remembers Olga", whereas "Ol'ga pomnit Luku" and "Luku pomnit Ol'ga" state that Olga remembers Luke. For a Russian with semantic aphasia, any noun which precedes the verb becomes a subject, and any postverbal noun is comprehended as an object notwithstanding the inflectional endings. All such examples reveal a limitation of morphology in favor of a clear-cut and stabilized syntactic pattern.

.

The two remaining forms of aphasia are perhaps the most complex and notable varieties. One of them, termed by Luria (32, 36) afferent (or kinesthetic) aphasia, evidently belongs to the class of encoding disturbances based on a disruption of the capacity for combination. In contradistinction to the efferent type of combination disorders which affects the phonemic sequences, single phonemes merge in the afferent type. Also sensory aphasia shows deficits in phonemic distinctions, but there, as we saw, disturbances in phoneme-finding, quite similar to the word-finding difficulties, lead toward an orderly abolition of certain distinctive marks. The number of selections decreases: e.g., in the Polish case cited (6), the presence of the compactness mark in a consonant nearly excludes the voiced-voiceless distinction. Conversely, for afferent aphasics the difficulty consists in the combination of distinctive features into a phoneme. Such a bundle of concurrent features is too complex for these patients, and they implement only one or a few features of the given phoneme with random substitution of its other constituents. The retained features carry the phonemic information, while the substitutes are mere fillers.

This type of aphasia, in both its linguistic and clinical aspects, demands a further, subtler inquiry. However, I would like to refer to an instructive annotated report on a typical case of afferent aphasia, prepared for publication jointly by two Warsaw scholars, a linguist, Halina Mierzejewska, and a psychologist, Mariusz Maruszewski (40). This study makes it clear that there is no constancy in the repertory of preserved features and hat terms of any binary opposition are mutually interchangeable: voiced and voiceless, nasal and oral, continuant and discontinuous, strident and mellow, compact and diffuse, acute and grave, sharp and nonsharp (cf. 24).

The combinations impaired are temporal sequences in the efferent type of aphasia and bundles of concurrent features in the afferent type. The relation between combination and selection disorders (or correspondingly between the prevailingly encoding and decoding level of aphasia) coincides with the dichotomy of successivity and simultaneity disturbances. In the afferent type, the correspondence between both dichotomies ceases, since here it is simultaneous combinations that prove to be affected.

The opposite discrepancy between the two dichotomies is manifested in the amnestic type (32, 36). If a patient suffering from amnestic aphasia is asked to point to his eye, he will do it; likewise he will fulfill the request to point to his ear. But when asked, "Show your eye and ear", he will indicate only one of the two named organs, omitting or

erroneously identifying the other one. Finally, the proposal that he show his eye, ear, and nose will simply perplex this patient. It is a selection disorder, but in contrast to the sensory type, amnestic aphasia affects only an iterative selection, a selective operation expanded into a sequence. Three different choices have to be made successively by the patient from one and the same series "eye-ear-nose". "John, Peter, and Mary came to Boston" is a sentence with three coordinative nouns. "John sang. Peter played, and Mary danced" is a sentence of three coordinative clauses. The coordinative constructions are the only ones which suffer in the amnestic aphasia. They are the only grammatical sequences deprived of any internal syntactic hierarchy, and therefore the only open groups with freely addible and omissible members. The coordinative words, phrases, or clauses are linked together only by mutual formal similarity. In these groups, similarity relations involve not only the simultaneity axis but also the successivity axis of language. Through such a double play of similarity, the coordinative groups become the maximal impediment for patients with similarity disorders.

Thus three dichotomies underlie the six cardinal types of aphasia: (a) combination, which implies contiguity and affects primarily encodement *versus* selection, which implies similarity and affects primarily decodement; (b) successivity *versus* simultaneity; and (c) disintegration *versus* limitation. The afferent and amnestic types do not take part in the latter dichotomy. A tentative tabulation of these three dichotomies was proposed in my paper for the Ciba Foundation symposium (see above, p. 300).

When on a purely linguistic level I interpreted and classified all the instructive material contained in Luria's publications (32-36, 38), the factual testimonies in various European and American works on aphasia, and my own observations, I became interested also in the extant attempts to classify aphasic impairments on yet other levels. I followed Hughlings Jackson's warning against any mixture of different levels in the investigation of aphasia (23) and outlined my typology of aphasic impairments on a strictly linguistic basis. At the same time I realized that a call for autonomy should not be confused with isolation. While autonomy is rewarding, isolation is always harmful. After an autonomous examination of each given level is accomplished, it is useful and even necessary to look for the correlation between the different levels. Thus I asked myself what was done in the intricate questions of brain topography; what functional areas in the cortex were found responsible for the different types of language disorders. I used the results of this topographic

research, in particular Luria's (32, 33, 36) and Pribram's (47) data. After
several detailed discussions with the latter at Stanford, a close corre-
spondence between the location of the lesions and the linguistic typology
of impairments suggested itself. A tentative topographic analogue to all
three linguistic dichotomies may be drafted.

The combination (contiguity) disorders appear to be connected with
the more anterior lesions of the cortex, and the selection (similarity)
disorders with the more posterior lesions. If we confront the basic
varieties of these two kinds of disorders, the efferent type and the sensory
type, we learn that the former is associated with anterotemporal and the
latter with posterotemporal lesions. There are two types of milder
disturbances corresponding to these two types of verbal disintegration:
the combination ability undergoes a limitation in the "dynamic" impair-
ments, and the selection ability in the "semantic" impairments. These
two attenuated forms of aphasia (mere limitation *versus* disintegration)
are connected with the two polar areas: the frontal intrinsic area of the
forebrain is responsible for the "dynamic" impairments, and the posterior
intrinsic area (the postero-parietal and parieto-occipital sections) for the
"semantic" impairments (33, 35, 36, 47).

In the efferent and dynamic types of combination disorders, the
successivity axis of language is affected, whereas the sensory and semantic
types of selection disorders affect the simultaneity axis. As to the two
transitional types, one of them, afferent aphasia, is a combination dis-
order which affects the simultaneity axis, while the other, amnestic
aphasia, is a selection impairment concerned with the successivity axis.
These transitional types are linked with more central parts of the cortex –
the afferent type with retrocentral lesions and the amnestic type with
centrotemporal lesions (cf., Luria, 32, 36, and Penfield's views on the
interpretive cortex, 45).

Luria's and Pribram's studies (36, 48) and their joint research, both at
Stanford University and the Burdenko Institute in Moscow, suggest that
the dichotomy successivity–simultaneity corresponds to the structural
difference between the mediobasal and dorsolateral areas of the brain
(see above, p. 303). If this cerebral correlate of the linguistic coordinates
proves to be valid, then this correspondence opens new prospects to the
intricate problem of the relationship between our sequential and simul-
taneous perceptions, in particular between such temporal, chiefly
sequential phenomena as speech and music, and such typically spatial,
chiefly simultaneous phenomena as perception of visual arts. It seems
to me that the dichotomy successivity–simultaneity, which plays such an

essential and still unexplored role in language, gives a key to the pending investigation of different sign systems in their interrelations. Perhaps the study of this dualism will throw a new light upon the different functions and functional areas of the brain.

DISCUSSION

H. W. Magoun: May I ask you to elaborate the generalization about an impairment in mediobasal versus dorsolateral parts of the brain? Could you amplify a little more fully the relationship of the dynamic frontal, semantic parietal, amnestic centrotemporal, and sensory postero-temporal foci which were delineated to the mediobasal or dorsolateral parts of the brain?

Jakobson: All three types of successivity disorders – the dynamic, efferent, and amnestic types – seem to be localized much deeper and to be connected with the mediobasal area. All these three types affect the sequence, primarily the sentence and combination of sentences. If we accept Luria's and Pribram's suppositions, then the operations dealing with the time sequence appear to be connected with the mediobasal part of the brain. I confess that I feel impressed by this hypothesis because it throws new light on the dichotomy of successivity and simultaneity. This dichotomy belongs, as you know, to the burning questions in linguistics, psychology, and many other fields. Anyway, in all its aspects, the outlined dichotomy requires careful examination.

J. M. Wepman: I have discussed this concept many times with Dr. Jakobson when it was at a different stage of development than it is now. I am most interested in his naming a separate type of aphasia, called amnestic, since I think that all aphasia could probably be described, in one sense, as amnestic, as a loss of memory and the ability to recall. For myself at least, I would need a great deal of proof about the neuro-physiological localization of the aphasic types he presents.

Jakobson: Luria showed me diverse illuminating cases in his Moscow Institute where he works with an impressive number and variety of aphasic patients. The results of their careful examination appear very convincing, as do the numerous and detailed post-mortem data. Many brain pictures are published in his books (32, 36, 37), with a parallel description of the cases. He pays attention to the different aspects of aphasia with particular reference to the changes in speech and to the localization of the brain lesion. Pribram also, when working with Luria, made valuable observations in that area.

I completely agree that the term amnestic is very vague. But the same could be said about most of the terms used. However, I did not want to introduce new labels. A comparison of my findings with Luria's work is facilitated by my use of the same terms he uses.

May I add that I take full responsibility for the linguistic part of the paper presented, for the linguistic interpretation of Luria's and others' clinical testimonies and of my own observations. As to the topographic data, I simply collated Luria's and Pribram's conclusions with my linguistic statements. Although we detect a striking correspondence between the linguistic and topographic dichotomies, I would propose to discuss both aspects independently.

N. Geschwind: Dr. Jakobson has given us a brilliant presentation of the major contrasting types of aphasia. I would like, however, to make some historical corrections. Dr. Jakobson stated that Hughlings Jackson was the founder of the scientific study of aphasia; I do not agree with this view. Jackson did not make the contrast between the two major types of aphasia. Bastian (1) was probably the first to point out on the basis of clinical observation that there were aphasias in which comprehension was impaired. Jackson, in fact, actively opposed the idea that there were such aphasias. In the face of such an error, I find it hard to call Jackson the founder of the scientific study of aphasia. It is interesting that despite his brilliant contributions Bastian was severely criticized by Head (18), in my opinion quite unfairly.

The real founder of the scientific study of aphasia was certainly Wernicke. His classic paper (53) succeeded (where Bastian's earlier work had failed) in drawing attention to the existence of an aphasia in which the patient did not comprehend and had fluent, paraphasic speech. He contrasted this syndrome with the type of aphasia which Broca had described more than ten years earlier, in which the patient has a paucity of speech and good comprehension. It was Wernicke who really established in the eyes of the world the dichotomy between these two types of aphasia. In addition, there is little question that the greatest single source of contributions to aphasia were the students of Wernicke, among whom are such different figures as Liepmann, Goldstein, Bonhoeffer, Lissauer, and Kleist.

The point has been raised that the words "sensory" and "motor" are confusing as applied to aphasia. I think that these labels have become confusing through loss of contact with the original use of the terms by German neurologists. German neurology went into the ascendancy in part because of the German victory in the Franco-Prussian War, and

similarly suffered somewhat from neglect with Germany's defeat in World War I. There was a decline in the interest of American and British neurologists in the German literature, and confusion appeared in the use of the terms "sensory" and "motor" which had, in my opinion, been used in a consistent manner by the German authors.

A difficulty arises with the model presented by Professor Jakobson. It suggests that in association with fluent paraphasic speech there must be a disturbance of comprehension, and indeed, it is suggested, also a disturbance of repetition. Conversely, disturbance of comprehension is thought of necessity to entail a disturbance on the expressive side. Yet when we study the cases we can find that these elements may vary independently. Thus, if fluent paraphasic patients with a great flow of speech and good preservation of syntactic structures are considered, one will find that they fall into several groups: (*a*) some show disturbance of *both* comprehension and repetition; (*b*) others may show absolutely letter-perfect repetition and yet have absolutely no comprehension; (*c*) a third group shows marked impairment of repetition but excellent comprehension. This third group has what is called "conduction" aphasia, for which Kurt Goldstein (11-13) used the term "central" aphasia. One of the odd things about these fluent paraphasic patients is the fact that repetition and comprehension can be so thoroughly dissociated that patients who show the most excellent repetition, even of foreign words in languages unknown to them, may show such a profound loss of comprehension.

C. E. Osgood: Would you not agree, perhaps, that pure echolalia almost requires lack of comprehension?

Geschwind: I would agree that forced echolalia probably does require lack of comprehension.

The second way in which Dr. Jakobson's model presents some difficulties is in its view that disturbance of comprehension (or decoding) necessarily entails a disturbance on the expressive (or encoding) side. A common argument is that for correct expression there must be feedback. The fact is, however, that there are many excellent cases in the literature of isolated comprehension disturbances; I have partially reviewed this problem (9). Dejerine (4) described in detail an extensively studied patient with intact vision who had lost the ability to read, but who could write and had normal language performances otherwise. Many such cases have been described – e.g., Symonds (51), Holmes (20), and many others. I have personally seen three such cases. All these patients could copy words they could not read, so it is obvious that vision was intact.

These well-studied individual cases in the literature establish beyond doubt the existence of isolated comprehension disturbances. I might add that one should not be impressed by large numbers of cases. Most of the best papers in the literature have probably been single-case descriptions. Mechanisms often tend to become blurred in the larger series.

Let me cite some further examples of the preservation of normal expression in the face of severe comprehension difficulty. Liepmann (27) and Liepmann & Storch (30) described the first case of pure word-deafness to come to postmortem. Their patient was followed very carefully in life with, among other things, intensive audiometric studies. At necropsy all the peripheral hearing apparatus was shown to be intact by examination of the temporal bones, and the lesion was shown to be a central one. This patient had severe loss of comprehension of spoken language, with otherwise normal hearing and intactness or near intactness of all other aspects of language. There have been other such cases, including a recent excellent study by Hemphill & Stengel (19). I believe that many of these varying clinical pictures which cannot be accounted for by Dr. Jakobson's model in its present form can be explained by further attention to certain anatomical features which I shall not discuss at present.

One last word is in order on the problem of localization. Dr. Jakobson's diagram of localization was not on a model of a real brain. What comes through, however, is that he and his collaborators have ended up in the same place that Wernicke did in 1874. Various investigators, such as Head (18) and Marie (39) set out to destroy his scheme; they somehow ended by supporting Wernicke's views on localization, although Head at least never admitted to it.

Jakobson: I am very interested in all that Dr. Geschwind said, and on many questions we are in agreement. He may be right in pointing to the weak aspects of Jackson's views, but in some other problems, particularly in his emphasis on the verbal aspects of aphasia (23), Jackson surpassed his contemporaries. I would place him among the precursors of modern linguistics. He launched many ideas which later were developed in the science of language, partly under his influence, partly independently.

Bastian was indeed a very remarkable specialist in the pathology of language, and actually his writings on aphasia and other speech defects should be read much more because they contain many important and still viable thoughts.

I did not say that everybody who uses the terms "motor" and "sensory" interprets them mistakenly, but there still is a danger that some people in

some countries, and particularly in America, could misinterpret this terminology. However, I always tend to avoid discussion about terms. The most difficult and thankless task is to propose and promote better terms. My teacher used to say, "Call it what you want. All that matters is to know what you are speaking about."

When the decoding ability is destroyed, the encoding ability may still be preserved if it was strongly developed before the onset of the decoding disturbances, but even then such disturbances usually lead to a deterioration of encoding as well. When decoding is disrupted for a longer period, then encoding has very little chance to remain intact.

Geschwind: Dr. Jakobson suggests that comprehension (decoding) disturbances cannot last for a long time without accompanying expressive (encoding) disturbances. Yet Dejerine's patient (4) went over two years without being able to read a word of French. During this time he continued to conduct his business at a very high level, played cards, played musical instruments, and continued to write letters on business affairs. The difficulty in reading persisted the full period. I have personally seen such patients present a stable picture over many months.

Jakobson: Dr. Geschwind's example is quite instructive. But problems of reading and writing are not in direct correspondence to the problems of speaking and listening, because reading and writing are secondary habits, superstructures upon speech, and they differ from speech both in their development and in their disturbances. As to spoken language, may I ask whether there are recorded cases of a lengthy sensory breakdown with preservation of intact motor activities?

Geschwind: Such stable isolated comprehension disturbances are not restricted to written language. For example, Liepmann's case (27) had stable isolated word-deafness over many months. The one patient I have seen who most closely approximated pure word-deafness, although she did not show as isolated a disturbance as either Liepmann's or Hemphill & Stengel's (19) case, had had a stable disturbance for several months. I do not believe that it really makes a difference whether these isolated disturbances are for visual or spoken language.

Jakobson: This mild paraphasia seems to be here a byproduct of decoding disturbances. As Feuchtwanger clearly demonstrated (7), there is neither bilateral nor unilateral implication between aphasia and amusia. When cautiously, perhaps overcautiously, I question the existence of decoding disorders without reverberations on the encoding side, I feel influenced both by the warning of psychologists against the symmetrical model of encoding and decoding aphasia and by the

fact that the active mastery of language implies its passive mastery.

Wepman: I think we should not forget there is a level of language lower than the cortical one. The example that was given of the echolalic response of a patient can certainly be true, even though the conceptual level is unable to function. The patient is commonly seen who can echo or can repeat anything that is said, and yet has no spontaneous language of his own. Whether or not we even see pure types, or whether we see what we are looking for, is another problem. Although there is no ideal topographical relationship between the brain and language, the fact that it is even possible to suggest such a relationship using behavioral data is important, for it provides us at least with a take-off point for discussing the issue from a linguistic point of view.

Geschwind: From the point of view of localization one fascinating fact is that there is no case on record, to my knowledge, of a child who developed the fluent and paraphasic type of aphasia. The same lesion which in the adult typically produces a fluent paraphasic aphasia produces a loss of speech in the child. For this reason, aphasia is more difficult to localize in children than in adults. Isserlin (21) pointed out, on the basis of studies made in the German army in World War I, that the younger an aphasic was who had a lesion in the posterior speech regions, the less likely he was to become fluent and paraphasic. The fluent aphasias are mostly diseases of relatively old men.

K. de Hirsch: Both the causes and the effects of impaired language development are much more generalized in the child than they are in the adult. Whatever it is that happens to the child involves the developmental process itself. Thus, linguistic difficulties in children differ from those in adults qualitatively rather than quantitatively.

Geschwind: I agree; I believe that the difference between the child and the adult is the result of the developmental stage at which the damage occurs.

Jakobson: I agree entirely that there are two basically different kinds of repetition: the very low level of repetition – echolalia – must be sharply distinguished from intentional repetitions. In sensory aphasia the loss of ability for such repetitions parallels the incapacity for making equational statements. Goldstein (13) fully realized that "repetition is not at all such a simple performance." The collapse of equation is the crucial problem of sensory aphasia. According to Goldstein, "the patient of the sensory type may not realize that the word presented sometime before is the same when presented a short time later." Word identity does not exist for him, and the word is inseparable from its context. Those

linguists who deny the general meaning of a word and operate only with contextual meanings unwittingly describe the language of sensory aphasics.

One can only agree with Dr. Geschwind's request for accurate and exhaustive descriptions of aphasic language. The number of such records is still insufficient. As was recently emphasized by the linguists Ross in the London Ciba Foundation symposium (49) and Ivanov in Moscow (22), we badly need a large collection of aphasic texts, edited, as Ross suggested, with the same care as the works of classic authors. It must be precisely stated in what situations the recorded utterances were produced; texts must be reproduced, transcribed, and annotated with the greatest methodological skill. At present we usually have at our disposal only the answers of the patients to the clinicians' questions. That is a classical example of objects essentially distorted by their observers. In addition to these instructive experiments, the completely free speech of aphasics with their families and conversation of aphasics with one another must be meticulously recorded.

Most of the extant records do not meet the methodological require-ments. Only when aphasic speech is recorded with the joint participation of linguists and clinicians will we have well prepared and annotated samples of the various forms of aphasia. The Ciba Foundation sym-posium (5) advocated the desirability and urgency of an ample anthology of precisely transcribed and annotated aphasic texts supplemented with phonographic records, where all the different types of aphasic impair-ments would be adequately represented.

As to the cerebral topography, I am afraid that a misunderstanding arose in our discussion. While the efferent type of aphasia is actually related to Broca's area, the dynamic type, according to Luria's (36) and Pribram's (48) conclusions (see above, p. 303), is linked with injuries in the more frontal portions of the brain, precisely "before Broca's area".

Osgood: I would agree that naturalistic studies of aphasics in natural environments would be helpful, but they are hard to interpret because of the multiple determination of their behavior. Perhaps either you, Dr. Jakobson, or Dr. Geschwind in his studies with Davis Howes, have some answer to the question. Word-association shows a very clear split, with two types relating to your distinction between similarity and contiguity. They are the paradigmatic type, in which the association is in the same substitution class, *versus* the sequential type of association. An example of the first type would be table *versus* chair; of the second type, man *versus* walks. Using this basic distinction between the

similarity disorder and the contiguity disorder, as carried into this analysis from your earlier writings, I certainly would expect that aphasics who are clearly identified in terms of their spontaneous behavior as having a continuity-type disorder should tend to have great difficulty in association, or tend to give very few sequential types of associates. On the other hand, the aphasic with a similarity disorder should tend to give sequential associates and not the paradigmatic type. This seems to me a straightforward prediction. Are there any data at all on word-association aphasics? Was this part of your program, Dr. Geschwind?

Geschwind: Davis Howes and I did not study the problem Dr. Osgood has referred to, and I gather that Dr. Wepman has not done so either. I do not know whether Harold Goodglass has studied it.

Wepman: One of the unfortunate things about studies of aphasics is that they have all been studies of aphasia as a generality rather than as individual types of language disturbances. I think it is time in the study of aphasia that we start with peculiar types and generalize from the individual. I have lived through an endless number of sessions with groups of aphasics. Many aphasics do not talk, you know; most of them do not talk as much as we have been talking about them.

We find that when aphasics have some interchange they are inclined to communicate quite well with gestures. They are not inclined to speak very much to each other, and they do not tend to communicate to any extent without gestures.

I am not sure that aphasics in a naturalistic environment would provide very much of a verbal corpus for study. They talk much better to people who are not aphasics than they do to each other. They talk to pictures better than they talk to other people. There seems to be a failure in human interrelationship at the verbal level. Consequently, they will talk in a room by themselves or to a set of pictures better than they will to another person. What then is a naturalistic environment for an aphasic patient?

Jakobson: In connection with Dr. Osgood's question, may I remind you of Luria's early monograph (31) with the results of his observations on children's habitual responses to words. Are these responses paradigmatic or syntagmatic? Is the stimulus "house" responded to by "cabin" or some other word for a certain kind of house, or perhaps by a mere synonym of "house"? These are paradigmatic responses, whereas syntagmatic responses add to the word "house" some predicate or attribute: "stands", "burns", "broken", "old", "little". This duality corresponds to our observations on similarity *versus* contiguity.

As to Dr. Wepman's important remarks concerning the natural context of aphasic utterances, yes, the ideal would be to have not only tape recordings but also sound films, since gestures may play a considerable role. In general, in our detailed discussion of aphasia, it is appropriate to recollect a statement of Hughlings Jackson's to the effect that aphasia could be labeled "asemasia" because it is not necessarily confined to deficiencies in verbal behavior but *can* extend to other semiotic activities as well, for example, gestures accompanying speech.

Geschwind: I think Jackson was wrong in asserting that aphasia involves not only verbal activity but also involves all symbolic actions and gestures. This view is part of the old concept that aphasia is an aspect of a more generalized disturbance which was given the name "asymbolia". Jackson did not, in fact, make any extensive study of the use of movements by aphasics. The pioneer study in this field was made by Liepmann (29), the same man who five years earlier had initiated the study of apraxia in its modern sense (28). Liepmann showed, and I have been able to confirm (10), that there are some aphasics who show great difficulty with learned limb movements, while others preserve them. Goodglass & Kaplan (16) studied the same problem independently and from a different point of view and came up with essentially the same conclusions: aphasics *may* have a disturbance of gesture language but this is not necessarily the case at all.

I can give one very good example from my own experience that aphasia cannot be regarded as a general disturbance of sign activities. This case is very similar to those studied by Liepmann (29). My patient had a dense right hemiplegia together with an aphasia in which he showed a great paucity of speech but produced good single-word responses. He could not carry out simple commands with his left side, e.g., "Point to the floor" or "Make a fist". Yet he could reply to such questions as, "What occupation were you engaged in before you became ill?" with the correct answer, "Retired". When asked if he knew the use of a hammer, he replied, "Nails". He was able to point out when the examiner made a demanded move correctly, having rejected incorrect movements by the examiner. Close consideration of this case shows that the patient could give correct verbal responses (although of only one word) in situations in which he could not make the correct gesture. The reverse is also seen. In any case there is no support for a generalized asymbolia.

Jakobson: To avoid further misunderstandings, I must state that in his works on the affections of speech (23), Jackson never claimed that each kind of aphasia is a general deficit in all the semiotic activities. But

since verbal behavior is one of the semiotic activities, it is very important to find out in any type of aphasia the relation between the affections of language and the status of all other sign systems used by the patient. Evidently there is an interrelationship between different semiotic patterns, but it does not mean that all of them must necesssaily be disturbed. I recall, for instance, once more the remarkable observations of Feuchtwanger (7), who described the mutual independence of verbal intonation and musical melody. Either of them can be lost without any harm to the other. Aphasic cases of completely monotonous speech, without any syntactic and emotive intonations but with full mastery of complex musical melodies, and vice versa, were observed and recorded. In the question of verbal problems with respect to other semiotic provinces, I am again for autonomy but against any isolationism. When investigating aphasia, we must perform an intrinsically linguistic analysis and at the same time pay due attention to the semiotic whole.

O. Lindsley: I wonder sometimes whether we do not pay too much attention to primarily sensory or motor aspects of aphasia. I am thinking here about attention, or attentional factors; about whether we pay attention to a group of words that we have said. As an illustration, I noticed Dr. Jakobson made two statements in his talk, and these were perfectly well made, but he corrected himself and said just the opposite. That means that he somehow was paying attention to auditory feedback or afterimages of what he had said. He may have been paying attention to the specific word combinations, the contiguities, or the sequence when he uttered these phrases, but apparently they did not satisfy him and therefore he came back and corrected them with the opposites.

What I am concerned about here is something that Lashley (25) mentioned in the Hixon Symposium some years ago, namely that the sense of a particular word like "right", "rite", or "write", which is used in a variety of combinations, could only be known after one had uttered a whole sentence, and literally one had then laid before oneself the auditory feedback or, let us say, an afterimagery which enabled one to see the context in which these same sounds had been used, as in "millwright" or the "rite" of ritual, and so forth. In other words, I am wondering whether the deterioration we are looking for is one of specific reception as much as it is of the overall attention that one pays not to individual words but to groups of words. I take it that Luria is interested in something of this sort because he has written to me about some literature on reticular activation. I suppose he has in mind attention as well. He made the statement that the only lesions which led to deteriora-

tion of verbal instruction were in the frontal area. I take it that by "verbal instruction" he means being able to keep in mind attentively, for a long period, something which has been uttered as a verbal instruction, or which the individual gives himself as a verbal instruction. So, in relation to Dr. Jakobson's statement about the role of mediobasal areas, I am really concerned about whether we know something about mechanisms which control attention. If nonspecific thalamic nuclei regulate the rhythms of the brain, and if the rhythms of the brain have anything to do with attention, as some people, including myself, think, then the dorsomedial and intralaminar areas of the thalamus may possibly be concerned with this attentive role.

I believe that attentional mechanisms ought to be given more consideration when we examine aphasics. I do not know precisely how one goes about this, but I think the matter of getting at attentional mechanisms and the auditory afterimagery or the delayed feedback would be a very important part of it.

Jakobson: Dr. Lindsley's comments are most relevant. In our own activities, when we are somewhat tired and want to say many things, we can make aphasia-like mistakes and immediately correct ourselves. Yet we can concentrate our attention in two different ways – either on the context or on its constituents. That is the essential difference between us and aphasics. Aphasics have a unilaterally oriented attention, neglecting either the whole or the constituents, without being able to be unitarian, as some students of aphasia would like to see them. The clear-cut types of aphasia present the most striking examples of such one-sidedness.

For instance, in Paris Professor J. Alajouanine presented me with his most interesting cases of aphasia. There was one remarkable example of sensory aphasia, a French truck driver who had had a traffic accident. His high intelligence was preserved, however, and he was able to help us efficiently in our examination of his case. He understood what we were talking about, tried to inform us, spoke readily, and uttered long sentences. The main difficulty for this patient was to begin a sentence; its initial word was a serious handicap for him, especially when the sentence was the first in an utterance. Also, when one showed him something, e.g., a pencil, and asked, "What is this?" he could provide a detailed comment without being able to name the thing itself. Or if he was posed the question, "What is a pencil?" he could not build the required equation. How consistently the patient eliminated the initial subject of the sentence may be illustrated by the following circumstance. He was writing, and we asked him what he was doing; the man answered,

"J'écris." Professor Alajouanine took a pen and we asked the patient what he was doing; the answer was: "Il écrit." Then I started to write and asked him what I was doing, but he was unable to start a reply. Why? Because with autonomous initial words in French – *vous, nous,* etc. – it is possible to build elliptic one-word sentences: "Qui écrit?" – "Vous." On the other hand, such elements as *je, tu, il* are mere preverbal prefixes. We repeated and repeated, in various ways, the same experiments, and we saw that the personal pronoun handicapped the patient only when it was an independent grammatical subject, whereas when functioning as preverb it presented no difficulties.

As to the question of Luria's observations about difficulties in fulfilling instruction, it is merely a variant of dynamic aphasia with the most frontal localization. Luria emphasizes the patient's inability to carry out instructions received. When we analyze all the examples he gives in different studies devoted to the "directive function of speech" (33, 34, 36, 38), we note that the common denominator of all these cases is the impossibility of passing from one system of signs to another. If one says, for instance, "Draw a circle", the patient, who has to switch from verbal activity to another semiotic system – in this case drawing – is embarrassed. We find here various types of intersemiotic relations, such as the transition from gestures to words, from words to gestures, from words to pictures, etc. I think this impairment can be clearly explained as a variant of encoding disturbances.

I. J. Hirsh: With respect to this linguistic analysis of aphasia, I want to ask whether all the aspects you have described are necessarily language-bound aphasia, in particular some of the deficiencies that you described in the cases of sensory aphasia. In reference to the duration of vowels in Czech and Hungarian, you mentioned a patient who had difficulty in judging or discriminating the durations of auditory signals when they were not words. I wonder whether this same specificity of the difficulty can be enlarged to other dimensions. Consider the example Dr. Geschwind gave about repetition (p. 321). Is repetition more difficult for whole linguistic units, like words? Would this patient have less difficulty repeating single idiophones, or would the patient, as Dr. Geschwind said, have less difficulty in repeating sounds in a language other than his own? Finally, in the question of sequence, can the patient who has difficulty with verbal sequence demonstrate that he has no difficulty with sequences outside of language?

Jakobson: The structure of verbal sequence (its immediate constituents and its basically subordinative structure) is quite different from other

temporal sequences, and therefore verbal sequences naturally confront the patient with specific problems.

In Czech - I borrow an example from the valuable study of the Prague expert on aphasia, A. Pick (46) – "dráha", with the length of the first vowel, means "road"; "drahá", with the length of the second vowel, means "dear" (feminine). The difference between long and short vowels is one of the basic distinctive features in the prosodic structure of Czech or Hungarian, but the distinctive role of this difference can be lost in the language of a native aphasic, and both quoted words become homonyms, although the ability to pronounce vowels of longer and shorter duration and to perceive their acoustical difference may be preserved. The Oslo psychiatrist Monrad-Krohn (42) describes the case of a Norwegian woman who during an air attack was wounded in the brain, incurring a very limited aphasia: she lost the ability to distinguish, both when listening and when speaking, the two word intonations which play a significant phonemic role in the Norwegian language. The fact that Norwegian intonations differentiate meanings of words precludes their use for emotive variations of sentences; in German, however, where intonational differences are not utilized for the distinction of words, they assume an emotive function. As soon as Monrad-Krohn's patient ceased to employ word intonations for phonemic purposes, she shifted to an emotive use of intonations. The results were distressing. When she shopped, the Norwegians did not want to sell her anything, suspecting her of being a German, although in fact she knew no German. What was lost in these cases was not the Czech vocalic length or the Norwegian pitch, but only a certain linguistic function which these features carry in their given languages. It is important to insist on this point because too often an extrinsically acoustic or articulatory interpretation is erroneously substituted for a thoroughly linguistic, phonemic approach. In any given case one must determine what is deficient in the patient's speech – phonemic distinctions or mere variations (contextual or optional) – and, whether there are some corresponding deficits in his perception and reproduction of foreign speech sounds and of nonverbal auditory signals.

REFERENCES

1. H. C. Bastian, "On the various forms of loss of speech in cerebral disease", *Brit. For. Med.-Chir. Rev.* (1869), 43, 209-236; 470-492.
2. E. S. Beyn, "Osnovnye zakony struktury slova i grammatičeskogo stroenija reči pri afazijax", *Vopr. Psixol.* (1957), 4, 90.
3. W. R. Brain, "Statement of the problem", in: *Disorders of Language* (A. V. S. de Reuck and M. O'Connor, Eds.) (London, 1964), 5-20.
4. J. Dejerine, "Contribution à l'étude anatomo-pathologique et clinique des différentes variétés de cécité verbale", *C. R. Soc. Biol.* (Paris, 1892), 44, 61-90.
5. A. V. S. de Reuck and M. O'Connor (Eds.), *Disorders of Language* (London, 1964).
6. W. Doroszewski, "Język – system znaków a procesy mowy", *Sprawozd. Prac Nauk. Wydz. Nauk Spolecz.* (1963), 6, 1-16.
7. E. Feuchtwanger, "Amusie", *Fortschr. Neurol. Psychiat.* (1932), 4, 289-305.
8. S. Fillenbaum, L. V. Jones and J. M. Wepman, "Some linguistic features of speech from aphasic patients", *Lang. Speech* (1961), 4, 91-108.
9. N. Geschwind, "The anatomy of acquired disorders of reading", in: *Reading Disability* (J. Money, Ed.) (Baltimore, 1962), 115-129.
10. N. Geschwind, "Sympathetic dyspraxia", *Trans. Am. Neurol. Ass.*, 88 (1963), 219-220.
11. K. Goldstein, "Die transkortikalen Aphasien", *Erg. Neurol. Psychiat.*, 2 (1917), 352-629.
12. K. Goldstein, "Die Lokalisation in der Grosshirnrinde; nach den Erfahrungen am kranken Menschen", in: *Handbuch der Normalen und Pathologischen Physiologie*, Vol. X (A. Bethe *et al.*, Eds.) (Berlin, 1927), 600-842.
13. K. Goldstein, *Language and Language Disturbances; Aphasic Symptom Complexes and Their Significance for Medicine and Theory of Language* (New York, 1948).
14. H. Goodglass and J. Berko, "Agrammatism and inflectional morphology in English", *J. Speech Hear. Res.*, 3 (1960), 257-267.
15. H. Goodglass and J. Hunt, "Grammatical complexity and aphasic speech", *Word*, 14 (1958), 197-207.
16. H. Goodglass and E. Kaplan, "Disturbance of gesture and pantomime in aphasia", *Brain*, 86 (1963), 703-720.
17. H. Goodglass and J. Mayer, "Agrammatism in aphasia", *J. Speech Hear. Dis.*, 23 (1958), 99-111.
18. H. Head, *Aphasia and Kindred Disorders of Speech* (New York, 1926).
19. R. E. Hemphill and E. Stengel, "A study on pure word-deafness", *J. Neurol. Psychiat.*, 3 (1940), 251-262.
20. G. Holmes, "Pure word blindness", *Folia Psychiat. Neurol. Neurochir. Neerl.*, 53 (1950), 279-288.
21. M. Isserlin, "Aphasie", in: *Handbuch der Neurologie*, Vol. VI (O. Bumke and O. Foerster, Eds.) (Berlin, 1936), 627-806.
22. V. V. Ivanov,"Lingvistika i issledovanie afazii", in: *Strukturno-tipologičeskie issledovanija* (T. N. Mološnaja, Ed.) (Moscow, Akad. Nauk SSSR, 1962), 70-95.
23. J. H. Jackson, *Selected Writings*, Vol. II (J. Taylor, Ed.) (New York, 1958).
24. R. Jakobson and M. Halle, "Phonology and phonetics", in: *Selected Writings of R. Jakobson*, Vol. I (The Hague, 1962).
25. K. S. Lashley, "The problem of serial order in behavior", in: *Cerebral Mechanisms in Behavior* (L. A. Jeffress, Ed.) (New York, 1951), 112-146.
26. E. H. Lenneberg, "Understanding language without ability to speak: a case report", *J. Abnorm. Soc. Psychol.*, 65 (1962), 419-425.
27. H. Liepmann, *Ein Fall von reiner Sprachtaubheit: Psychiatrische Abhandlungen* (Breslau, 1898).

28. H. Liepmann, "Das Krankheitsbild der Apraxie ('motorischen Asymbolie') auf Grund eines Falles von einseitiger Apraxie", *Mschr. Psychiat. Neurol.*, 8 (1900), 15-44; 102-132; 182-197.
29. H. Liepmann, "Die linke Hemisphäre und das Handeln", *Münch. med. Wschr.*, 52 (1905), 2322-2326; 2375-2378.
30. H. Liepmann and E. Storch, "Der mikroskopische Gehirnbefund bei dem Fall Gorstelle", *Mschr. Psychiat. Neurol.*, 11 (1902), 115-120.
31. A. R. Luria, *Rečevye reakcii rebenka* (Moscow, Akad. Kom. Vospitanija im. N. K. Krupskoj, 1927).
32. A. R. Luria, *Travmatičeskaja afazija* (Moscow, Akad. Med. Nauk USSR, 1947).
33. A. R. Luria, "Brain disorders and language analysis", *Lang. Speech*, 1 (1958), 14-34.
34. A. R. Luria, "The directive function of speech in development and dissolution", *Word*, 15 (1959), 341-352; 453-464.
35. A. R. Luria, "Disorders of 'simultaneous perception' in a case of bilateral occipito-parietal brain injury", *Brain*, 82 (1959), 437-449.
36. A. R. Luria, *Vysšie korkovye funkcii čeloveka i ix narušenie pri lokal'nyx poraženijax mozga* (Moscow, Moscow Univ. Press, 1962).
37. A. R. Luria, *Mozg čeloveka i psixičeskie processy* (Moscow, Akad. Pedagog. Nauk RSFSR, 1963).
38. A. R. Luria, "Factors and forms of aphasia", in: *Disorders of Language* (A. V. S. de Reuck and M. O'Connor, Eds.) (London, 1964), 143-167.
39. P. Marie and C. Foix, "Les aphasies de guerre", *Rev. Neurol.*, 31 (1917), 53-87.
40. M. Maruszewski and H. Mierzejewska, "Zastosowanie analizy lingwistycznej w badaniach nad afazją", *Studia Psychologiczne*, 5 (1964), 73-103.
41. G. A. Miller, "The magical number seven, plus or minus two: some limits on our capacity for processing information", *Psychol. Rev.*, 63 (1956), 81-97.
42. G. H. Monrad-Krohn, "Dysprosody or altered 'melody of language'", *Brain*, 70 (1947), 405-415.
43. C. E. Osgood, "Motivational dynamics of language behavior", in: *Nebraska Symposium on Motivation* (M. Jones, Ed.) (Lincoln, 1957), 348-424.
44. C. E. Osgood and M. S. Miron (Eds.), *Approaches to the Study of Aphasia* (Urbana, 1963).
45. W. Penfield and L. Roberts, *Speech and Brain-Mechanisms* (Princeton, 1959).
46. A. Pick, "Über Änderungen des Sprachcharakters als Begleiterscheinung aphasischer Störungen", *Zschr. Neurol. Psychiat.*, 45 (1949), 230-241.
47. K. H. Pribram, "The intrinsic systems of the forebrain", in: *Handbook of Physiology; Neurophysiology II* (J. Field, H. W. Magoun and V. E. Hall, Eds.) (Washington, D.C., 1960), 1323-1344.
48. K. H. Pribram, "A review of theory in physiological psychology", *Ann. Rev. Psychol.*, 11 (1960), 1-40.
49. A. S. C. Ross, P. R. F. Clarke, and N. L. Haddock, "Edition of text from a dysphasic patient", in: *Disorders of Language* (A. V. S. de Reuck and M. O'Connor, Eds.) (London, 1964), 299-323.
50. A. N. Sokolov, "Issledovanija po probleme rečevyx mexanizmov myšlenija", in: *Psixologičeskaja Nauka v SSSR*, Vol. I (Moscow, Akad. Pedagog. Nauk RSFSR, 1959), 488-515.
51. C. Symonds, "Aphasia", *J. Neurol. Neurosurg. Psychiat.*, 16 (1953), 1-6.
52. L. S. Vygotsky, *Thought and Language* (E. Hanfmann and G. Vakar, Eds. and Transl.) (Cambridge, 1962).
53. C. Wernicke, *Der aphasische Symptomencomplex. Eine psychologische Studie auf anatomischer Basis* (Breslau, 1874).
54. N. I. Žinkin, *Mexanizmy reči* (Moscow, Akad. Pedagog. Nauk RSFSR, 1958).

VISUAL AND AUDITORY SIGNS

Why does nonobjective, nonrepresentational, abstract painting or sculpture still meet with violent attacks, contempt, jeers, vituperation, bewilderment, sometimes even prohibition, whereas calls for imitations of external reality are rare exceptions in the perennial history of music?

This question is paralleled by another notorious puzzle: Why is audible speech the only universal, autonomous and fundamental vehicle of communication? Visual sign patterns are either confined to a merely concomitant, subsidiary role, such as gestures and facial expressions, or – e.g., letters and glyphs – these semiotic sets constitute, in J. Lotz' terminology, parasitic formations, optional superstructures imposed upon spoken language and implying its earlier acquisition.[1] In E. Sapir's succinct formulation, "phonetic language takes precedence over all other kinds of communicative symbolism, all of which are, by comparison, either substitutive, like writing, or excessively supplementary, like the gesture accompanying speech".[2]

The late M. Aronson, a gifted observer who had studied first in Vienna with N. Trubetzkoy, then in Leningrad with B. Èjxenbaum, wrote in 1929 an instructive report on the experiments conducted by him and several other research workers at Radio Leningrad in order to improve and develop radio drama.[3] Attempts were made to introduce into the montage of the scripts verisimilar reproductions of various natural noises. Yet, as the experience disclosed, "nur ein unbedeutender Teil der uns umgebenden Geräusche wird von uns bewusst aufgenommen und in Verbindung mit gewissen Erscheinungen gebracht". The radio station carefully recorded noises of railroad stations and trains, streets, harbors, sea, wind, rain and various other noise producers, but in view of the poor discriminative capability shown by the listeners, it proved to be necessary

---

[1] Lotz, J., "Natural and scientific language", *Proc. Amer. Acad. Arts Sciences*, *LXXX* (1951), 87 f.

[2] Sapir, E., *Language. Selected Writings* (University of California Press, 1949), 7 ff.

[3] Aronson, M., "Radiofilme", *Slavische Rundschau*, I (1929), 539 ff.

"mit einem kleinen Vorrat von bedeutungsbestimmten Geräuschen zu arbeiten". One can agree with the reporter that the informative value of natural noises is minimal ("Geräusche sind eben noch keine Sprache") and therefore it is quite difficult to utilize them for a radio play. However, his conclusion – "Wir leben mehr mit der Sehkraft als mit dem Gehör" – demands a more precise restatement.

Using C. S. Peirce's division of signs into indexes, icons and symbols,[4] one may say that for the interpreter an index is associated with its object by a factual, existential contiguity and an icon by a factual similarity, whereas there is no compulsory existential connection between symbols and the objects they refer to. A symbol acts "by virtue of a law". Conventional rules underlie the relations between the diverse symbols of one and the same system. The connection between the sensuous *signans* of a symbol and its intelligible (translatable) *signatum* is based on a learned, agreed upon, customary contiguity. Thus the structure of symbols and indexes implies a relation of contiguity (artificial in the former case, physical in the latter), while the essence of icons consists in similarity. On the other hand, the index, in contradistinction to the icon and symbol, is the only sign which necessarily involves the actual copresence of its object. Strictly speaking, the main difference among the three types of signs is rather in the hierarchy of their properties than in the properties themselves. Thus any painting, according to Peirce, "is largely conventional in its mode of representation", and as long as "likeness is aided by conventional rules", such a sign may be viewed as a *symbolic icon*. On the other hand, the pertinent role played in language by *iconic* and *indexical symbols* still awaits a thorough examination.

In our everyday experience the discriminability of visual indexes is much higher, and their use much wider, than the discernment and utilization of auditory indexes. Likewise, auditory icons, i.e. imitations of natural sounds, are poorly recognized and scarcely utilized. On the other hand, the universality of music, the fundamental role of speech in human culture, and, finally, a mere reference to the predominance of word and music in radio suffice to prove that Aronson's conclusion as to the supremacy of sight over hearing in our cultural life is valid only for indexes or icons, and not for symbols.

We are prone to reify visual stimuli by identifying any object catching our eye. One may note a widespread tendency to interpret various spots, blotches or broken roots and twigs as effigies of animate nature, landscape

[4] Peirce, C. S., "Speculative grammar", *Collected Papers*, *II* (Harvard University Press, Cambridge, Mass., 1932), 129 ff.

or still life, in short, as imitative art. This inherent inclination to convert any visual image into some natural object occasions an instinctive approach to abstract paintings as if they were puzzle pictures, and hence gives rise to a naive anger when no answer to the supposed riddle can be found.

Both visual and auditory perception obviously occur in space and time, but the spatial dimension takes priority for visual signs and the temporal one for auditory signs. A complex visual sign involves a series of simultaneous constituents, while a complex auditory sign consists, as a rule, of serial successive constituents. Chords, polyphony, and orchestration are manifestations of simultaneity in music, while the dominant role is assumed by the sequence. The primacy of successivity in language has sometimes been misinterpreted as linearity. Yet phonemes, simultaneous bundles of distinctive features, reveal the second axis of any verbal sequence. Moreover, it is the linearity dogma which prompts its adherents to associate such a sequence with a Markov chain and to overlook the hierarchical arrangement of any syntactic construction.

There is a striking difference between a primarily spatial, simultaneously visible picture and a musical or verbal flow which proceeds in time and successively excites our audition. Even a motion picture continually calls for simultaneous perception of its spatial composition. The verbal or musical sequence, if it is to be produced, followed and remembered, fulfills two fundamental requirements – it exhibits a consistently hierarchical structure and is resolvable into ultimate, discrete, strictly patterned components designed ad hoc (or, in Thomas Aquinas's terminology, *significantia artificialiter*). No similar components underlie visual sign sets, and even if some hierarchical arrangement appears, it is neither compulsory nor systematic. It is the lack of these two properties that disturbs and rapidly fatigues us when we watch an abstract film, and which inhibits our perceptive and mnestic abilities.

In the Ciba Foundation Symposium of 1963, the present author discussed two opposite types of aphasic impairment – simultaneity and successivity disorders – and, in accordance with A. R. Luria's and K. H. Pribram's research, sought to tie the former disturbances to dorsolateral and the latter to mediobasal lesions [see above, p. 303). The work of Luria, and in particular his latest book,[5] brilliantly develops the fundamental distinction between simultaneous and successive syntheses

---

[5] *Mozg čeloveka i psixičeskie processy* (Academy of Pedagogical Sciences, Moscow, 1963).

introduced by I. M. Sečenov in 1878.[6] Both varieties participate not only in verbal behavior but also in visual experience. While simultaneous synthesis proves to be the determinant of visual perception, this final stage, as stressed by Luria, is preceded by a chain of successive search processes. With regard to speech, simultaneous synthesis is a transposition of a sequential event into a synchronous structure, whereas in the perception of paintings such a synthesis is the nearest phenomenal approximation to the picture under contemplation.

Simultaneous synthesis, both in verbal behavior and in visual experience, is affected by dorsolateral lesions (cf. also Luria's paper of 1959 on disorders of simultaneous perception).[7] On the other hand, successive synthesis, particularly the "dynamics of visual perception" and the construction of integrated speech sequences, is impaired by lesions of the mediobasal cortical sections. When Luria's patient suffering from a mediobasal brain injury "was faced with a complex picture, one isolated component could be grasped immediately and only afterward did the other components begin to emerge, little by little".

SUMMARY

A manifold dichotomy of signs may be outlined. Primarily representational signs, which display a factual similarity or contiguity with their objects, prove to be mostly visual, in contradistinction to nonrepresentational signs, which are preponderantly auditory. The former deal foremost with space, the latter with time; simultaneity in the one case and successivity in the other is the principal structuring device. In contrast to the first semiotic type, the second implies a compulsorily hierarchical arrangement and discrete elementary components, conceived, selected, and organized to serve the given purpose.

[6] See Sečenov's *Èlementy mysli* (Academy of Sciences of the USSR, Moscow, 1959).
[7] "Disorders of 'Simultaneous Perception' in a Case of Bilateral Occipito-parietal Brain Injury", *Brain*, LXXXII (1959), 437 ff.

ON THE RELATION BETWEEN VISUAL
AND AUDITORY SIGNS

*Concluding Remarks at the Symposium on Models
for the Perception of Speech and Visual Form (Boston, Oct. 1964)*

During these two days we have had some extremely interesting papers and
discussions, and several points which were brought up seem to me
particularly important and productive. It was brought up repeatedly in
today's discussions that there is a great difference between the perception
of speech sounds and of sounds which are not identified by the listener
as constituents of speech, even though they be externally similar or even
identical. The discussion of today about the relevance of a phonological,
categorial approach to the perceptual discrimination of vowels and con-
sonants has been illuminating indeed.

Another question, raised in the very interesting paper by J. C. Webster
and R. B. Chaney,[1] is that of the different reaction of the ears, and more
exactly of the brain, to speech sounds as compared to all other sound
stimuli. The authors of this paper state – and in so doing they are
developing some very stimulating views expressed by D. Kimura three
years ago[2] – that the right ear has a more exact discrimination of speech
sounds and the left ear a more exact discrimination of other sound
stimuli. It becomes ever clearer that the problem of belonging to a
system of signs, to a semiotic system, as Charles Sanders Peirce would
say, is a very pertinent criterion. Today we heard a further discussion
about different systems of signs and in particular about the extent to
which problems of speech and music are similar, as well as about the
divergencies between the two systems. It is impossible to analyze ex-
haustively a single system of signs without constant reference to the
general problems of semiotics, and in the context of this new and rapidly
developing science the question of the relation between the various sys-

---

[1] "Information and Complex Signal Perception", *Proc. AFCRL Symposium of
Models for the Perception of Speech and Visual Form* (M.I.T. Press, 1966).
[2] "Cerebral Dominance and the Perception of Verbal Stimuli", *Canadian Journal of
Psychology*, XV (1961).

tems of signs is one of the fundamental and burning questions. We face the task of constructing an overall model of sign production and sign perception and separate models for different types of signs.

To the same cycle of problems belongs the question of the relation between the perception of audible speech and reading, approached today in the brilliant paper by Liberman and Cooper and their co-workers.[3] It was said – and this seems to me a very stimulating observation – that, if you were to present letters one at a time with the same speed as we hear the corresponding speech sounds, it would be quite impossible to perceive the message.

Now what I would like to touch upon is the structural and perceptual relation between visual and auditory signs. I returned to this problem after reading newspaper reports about Xruščev's recent declarations on modern art, his sharp and dictatorial protests against nonrepresentational, abstract painting. It was clear that he really has a violent aversion to this kind of pictures, and the question inevitably arises in our mind, why do we so often meet this outraged reaction, this superstitious fear and inability to grasp and accept nonobjective painting? An official Moscow handbook has summarized this attitude of repugnance: "We do not like abstract art for the simple reason that it takes us away from reality, from labor and beauty, from joy and sorrow, from the very throb of life into an illusory and spectral world, into the futility of the so-called self-expression." But why does the same tirade lose all sense when applied to musical art? In the entire history of the world quite rarely have people grieved and asked, "What facet of reality does Mozart's or Chopin's sonata such-and-such represent? Why does it take us away from the very throb of life and labor into the futility of the so-called self-expression?" The question of mimesis, of imitation, of objective representation seems, however, to be natural and even compulsory for the great majority of human beings as soon as we enter into the field of painting or sculpture.

A young specialist in linguistics and poetics, M. Aronson, worked at the end of the 1920's at Radio Leningrad among the experimenters who were trying to diversify and enrich the broadcast programs by complementing the words and music of the radio dramas with reproductions of natural sounds and various noises [s. above, p. 334 f.]. These attempts proved, however, to be totally in vain. People were not capable of discriminating different noises and assigning them to their sources. It was

[3] "Some Observations on a Model for Speech Perception", *Proc. AFCRL Symposium ****.

unclear to the listeners whether they were hearing thunder or trains or breakers. They knew only that it was noise and nothing more. The con clusion drawn in Aronson's study from these very interesting data was, however, inaccurate. He supposed that vision plays a much greater role than audition. It is enough to recollect that radio deals solely with audition of speech and music. Thus the essence of the problem lies not in the degree of importance but in a functional difference between vision and audition.

I have mentioned one puzzling question, namely ,why abstract painting surprises and sometimes even provokes prohibitive measures and obstructions against it. Another question which likewise cannot be answered immediately but demands a reply is that of the universality of audible speech. All human beings except those with pathological conditions speak. Speechlessness (aphasia universalis) is a pathological state. On the other hand, illiteracy is a widespread, in some ethnic groups even general, social condition.[4] Why is it that visual word messages are, so to say, a superstructure, a "parasitic formation" upon the universal phenomenon of spoken language? Why are all other forms of human communication only secondary and optional? Either they are, as in the case of writing, mere substitutes for oral communication, or they are only concomitant, subsidiary vehicles, like, for example, gestures or facial expressions. These facts demand elucidation.

Then let us try to answer the questions raised. It is clear that all the phenomena we have mentioned occur in both space and time. In visual signs it is the spatial dimension which takes priority, whereas the temporal dimension takes priority in auditory signs. Auditory signs act in a time sequence. Every complex visual sign, for example every painting, presents a simultaneity of various components, whereas the time sequence appears to be the fundamental axis of speech. Of course, one should not draw the frequently suggested but oversimplified conclusion that speech displays a purely linear character. It cannot be considered a unidimensional chain in time. It is a successive chain of phonemes, but phonemes are simultaneous bundles of concurrent distinctive features, and language exhibits also other structural properties which prohibit regarding speech as mere linearity. Nonetheless, the predominantly sequential character of speech is beyond doubt, and this primacy of successivity must be analyzed.

What is the essential difference between spatial and auditory signs?

[4] Around 43-45% of the world population are totally, and 65-70% "functionally" illiterate, according to the Unesco statistical survey *L'analphabétisme dans le monde au milieu du XXe siècle* (1957).

We observe a strong and conspicuous tendency to reify visual signs, to connect them with objects, to ascribe mimesis to such signs, and to view them as elements of an "imitative art". Painters of all periods have splashed blotches or spots of ink or color and tried to visualize them as faces, landscapes or still lifes. How often broken twigs, furrows in stones or other natural bends, crooks and patches are taken for representations of things or beings. This universal, innate tendency explains why a naive spectator when looking at an abstract painting subconsciously assumes it to be a kind of puzzle picture and then loses his temper when unable to discover what this work "is supposed to represent" and concludes that "this is just a mess!"

What, on the other hand, is typical for sequential signs, especially verbal and musical? They show us two essential features. First, both music and language present a consistently hierarchized structure, and, second, musical as well as verbal signs are resolvable into ultimate, discrete, rigorously patterned components which, as such, have no existence in nature but are built ad hoc. This is precisely the case with the distinctive features in language and it is likewise exact about notes as members within any type of musical scale. The same idea was clearly formulated by Thomas of Aquinas. When defining the characteristic traits presented by the phonic components of language, he stated that they are *significantia artificialiter*. They act as significant units in an artificial arrangement. Such a system of compulsory hierarchical structures does not exist in painting. There is no obligatory superposition or stratification, as we find in language and in music. When discussing problems of visual perception at a scientific meeting, Walter Rosenblith, well acquainted with the linguistic investigation of distinctive features, aptly observed: "What a pity that in our visual experience we find no correlates to distinctive features. How much easier it would be to dissect and describe the visual percepts." It is not a fortuitous difference but a cardinal and specific property inherent in the temporal, sequential, auditory systems of signs.

Cinema offers a very fruitful field for semiotic studies, and some initial steps in this direction have been made by international research workers. In connection with our discussion of spatial and temporal signs may I share with you my personal experience with abstract films. Although I have belonged to the ardent and active adherents of abstract painting from the time of the first Russian steps in this direction (Kandinskij, Larionov, Malevič, Bajdin, Romanovič, Rodčenko), I feel completely exhausted after five or ten minutes of watching such films, and I have

heard many similar testimonies from other people. Yesterday Professor MacKay used a good expression – "visual noise" – which renders perfectly my response to these stimuli. The chasm between the intention of the artist and the reaction of an unsophisticated decoder to a nonrepresentational visual sequence is a noteworthy psychological fact.

If we continue to discuss problems of simultaneity and successivity we must refer to the instructive views on this matter expressed in the modern literature about aphasia. Especially the Moscow expert in language pathology, A. R. Luria, has insisted on the substantial difference between two basic types of disturbances which I have tentatively termed "the simultaneity disorder" and "the successivity disorder". A. R. Luria convincingly demonstrates the distinct characteristics in the topography of the cortex which correspond to these two kinds of impairments [see above, p. 303]. Together with the successivity disorders, simultaneity disturbances also play a considerable role in the pathology of language. When we say "simultaneity" we mean not only deficiencies in operating with "chords" of concurrent components such as the distinctive-feature bundles (phonemes) but also all the impairments affecting the selectional axis of language, impairments in the choice of grammatical or lexical forms which can occupy the same place in the sequence and thus constitute a commutative (or permutative) set within our verbal pattern. The whole field of transformational grammar evidently belongs to the same area.

In his new book on the *Human Brain and Mental Processes* (1963), Luria shows that it was wrong to connect all the disturbances in the visual perception of such objects as paintings solely with the so-called visual centers at the back of the cortex. He discloses that its frontal, pre-motor part is also responsible for certain distortions, and he has analyzed the essence of these impairments. In our perception of a painting, we first employ step-by-step efforts, progressing from certain selected details, from parts to the whole, and for the contemplator of a painting integration follows as a further phase, as a goal. Luria observed that certain pre-motor impairments affect precisely this process of passing from one stage to the next in such preliminary perception, and he refers to I. M. Sečenov's pioneering studies of the 1870's [s. above, p. 336f.]. In connection with speech and similar activities, this great neurologist and psychologist of the last century outlined two distinct, cardinal types of synthesis, one sequential and the other simultaneous.

The problem of the two types of synthesis plays a very great role in linguistics. Today we heard allusions to this dyad in the various papers

about models of speech perception. The interrelation of successivity and simultaneity in speech and language has been vividly discussed by linguists of our century, but certain paramount aspects of the same problem were sagaciously approached already in the old Indic science of language. In the fifth century Bhartṛhari, the great master of Indic linguistic theory, distinguished three stages in the speech event. The first is the conceptualization by the speaker which implies no time sequence; the message as a whole may be simultaneously present in the mind of the speaker. What follows is the performance itself which, according to this scholar's treatise, has two faces – production and audition. Both of these activities are naturally sequential. This stage yields to the third one, namely the stage of comprehension, where the sequence appears to be changed into a concurrence. The sequence must be seized and experienced by the interpreter at one and the same time. This conception is akin to the modern psychological problem of "immediate memory", astutely examined by George Miller,[5] or in other terms the "shortrate memory", as we heard it outlined today in this Symposium. At this stage the whole sequence, whether it be a word, a sentence, or a group of sentences, emerges as a simultaneously present totality which is decoded by means of "simultaneous synthesis".

These vital questions reappear again and again in world literature, and similar principles have been applied repeatedly to verbal art. Two centuries ago a fascinating discussion took place in Germany, where the famous master and theoretician of literature, G. E. Lessing, tried to fix a rigid boundary between verbal art and the fine arts. He taught that painting is an art based on simultaneity (*räumliches Nebeneinander*), whereas poetry operates solely with time sequence (*zeitliches Nachein-ander*). Another remarkable German writer and thinker, J. G. Herder, answered Lessing that the idea of a mere literary succession is fictitious, and an art based on mere *Zeitfolge* is impossible. In order to comprehend and evaluate a poetic work, we must have, according to Herder, a synchronic insight into its whole, and he gives the Greek name *energeia* to the simultaneous synthesis which enables us to comprehend the entirety of a verbal flow.

It is clear that between visual, spatial signs, particularly painting, and on the other hand verbal art and music, which deal primarily with time, there are not only a number of significant differences but also many common traits. Both these divergences and convergences must be care-

[5] "The Magical Number Seven, Plus-or-minus Two, or, Some Limits on Our Capacity for Processing Information", *Psychological Review*, LXIII (1956).

fully taken into account, and whatever the import of simultaneous synthesis, nonetheless there exists a profound dissimilarity between the spatial and temporal arts, and between spatial and temporal systems of signs in general. When the observer arrives at the simultaneous synthesis of a contemplated painting, the painting as a whole remains before his eyes, it is still present; but when the listener reaches a synthesis of what he has heard, the phonemes have in fact already vanished. They survive as mere afterimages, somewhat abridged reminiscences, and this creates an essential difference between the two types of perception and percepts.

At the end I would like to add that my remarks should by no means be interpreted as a common front with the antagonists of abstract art. The fact that it is a superstructure and does not follow the line of least resistance with regard to our perceptual habits stands in no contradiction to the legitimate and autonomous existence of nonrepresentational painting or sculpture and of representational bents in music. The transmutative character of the abstract art which forcefully infringes the border between music and the fine arts cannot be branded as decadent, perverse or degenerate ("*entartet*"). From the fact that writing is socially and territorially limited, whereas oral speech is universal, one would hardly draw the conclusion that literacy is harmful or futile. The same principle is to be applied to nonobjective art. It is clear that both of these designs – written language and abstract painting – are superstructures, secondary patterns, epiphenomena; but it is not an argument against their prosperous development and diffusion, even if at some loss to oral communication and tradition or to the strictly figurative arts.

QUEST FOR THE ESSENCE OF LANGUAGE

Since "in human speech, different sounds have different meaning", Leonard Bloomfield's influential manual of 1933 concluded that "to study this coordination of certain sounds with certain meanings is to study language." And one century earlier Wilhelm von Humboldt taught that "there is an apparent connection between sound and meaning which, however, only seldom lends itself to an exact elucidation, is often only glimpsed, and most usually remains obscure." This connection and coordination have been an eternal crucial problem in the age-old science of language. How it was nonetheless temporarily forgotten by the linguists of the recent past may be illustrated by repeated praises for the amazing novelty of Ferdinand de Saussure's interpretation of the sign, in particular the verbal sign, as an indissoluble unity of two constituents – *signifiant* and *signifié* – although this conception jointly with its terminology was taken over entirely from the twenty-two-hundred-year-old Stoic theory. This doctrine considered the sign (σημεῖον) as an entity constituted by the relation of the signifier (σημαῖνον) and the signified (σημαινόμενον). The former was defined 'as "perceptible" (αἰσθητὸν) and the latter as "intelligible" (νοητὸν) or, to use a more linguistic designation, "translatable". In addition, reference appeared to be clearly distinguished from meaning by the term τυγχάνον. St. Augustine's writings exhibit an adaptation and further development of the Stoic inquiry into the action of signs (σημείωσις), with Latinized terms, in particular *signum* comprising both *signans* and *signatum*. Incidentally, this pair of correlative concepts and labels were adopted by Saussure only at the middle of his last course in general linguistics, maybe through the medium of H. Gomperz's *Noologie* (1908). The outlined doctrine underlies the medieval philosophy of language in its magnificent growth, depth, and variety of approaches. The twofold character and the consequent "double cognition" of any sign, in Ockham's terms, was thoroughly assimilated by the scientific thought of the Middle Ages.

Perhaps the most inventive and versatile among American thinkers was Charles Sanders Peirce (1839-1914), so great that no university found a place for him. His first, perspicacious attempt at a classification of signs – "On a New List of Categories" – appeared in the *Proceedings of the American Academy of Arts and Sciences* in 1867, and forty years later, summing up his "life long study of the nature of signs" the author stated: "I am, as far as I know, a pioneer, or rather a backwoodsman, in the work of clearing and opening up what I call *semiotic*, that is, the doctrine of the essential nature and fundamental varieties of possible semiosis; and I find the field too vast, the labor too great, for a first-comer." He keenly realized the inadequacy of general theoretical premises in the research of his contemporaries. The very name for his science of signs goes back to the antique σημειωτική; Peirce praised and widely utilized the experience of the ancient and medieval logicians, "thinkers of the highest order", while condemning severely the usual "barbarous rage" against "the marvellous acuteness of the Schoolmen". In 1903 he expressed a firm belief that if the early "doctrine of signs" had not been sunk but pursued with zeal and genius, the twentieth century might have opened with such vitally important special sciences as, for instance, linguistics "in a decidedly more advance condition than there is much promise that they will have reached at the end of 1950."

From the end of the last century a similar discipline was fervently advocated by Saussure. Stimulated in turn by Greek impetus, he called it semiology and expected this new branch of learning to elucidate the essence and governing laws of signs. In his view, linguistics was to become but a part of this general science and would determine what properties make language a separate system in the totality of "semiological facts". It would be interesting to find out whether there is some genetic relation or merely a convergence between the efforts of both scholars toward this comparative investigation of sign systems.

Half a century of Peirce's semiotic drafts are of epochal significance, and if they had not remained for the most part unpublished until the 1930's, or if at least the printed works had been known to linguists, they would certainly have exerted an unparalleled influence upon the international development of linguistic theory.

Peirce likewise makes a clear-cut distinction between the "material qualities", the signans of any sign, and its "immediate interpretant", that is, the signatum. Signs (or *representamina* in Peirce's nomenclature) offer three basic varieties of semiosis, three distinct "representative qualities" based on different relationships between the signans and

signatum. This difference enables him to discern three cardinal types of signs.

1) The *icon* acts chiefly by a factual similarity between its signans and signatum, e.g., between the picture of an animal and the animal pictured; the former stands for the latter "merely because it resembles it."

2) The *index* acts chiefly by a factual, existential contiguity between its signans and signatum, and "psychologically, the action of indices depends upon association by contiguity"; e.g., smoke is an index of a fire, and the proverbial knowledge that "where there is smoke, there is fire" permits any interpreter of smoke to infer the existence of fire irrespective of whether or not the fire was lighted intentionally in order to attract someone's attention; Robinson Crusoe found an index: its signans was a footprint in the sand, and the inferred signatum, the presence of some human creature on his island; the acceleration of pulse as a probable symptom of fever is, in Peirce's view, an index, and in such cases his semiotic actually merges with the medical inquiry into the symptoms of diseases which is labeled semeiotics, semeiology or symptomatology.

3) The *symbol* acts chiefly by imputed, learned contiguity between signans and signatum. This connection "consists in its being a rule" and does not depend on the presence or absence of any similarity or physical contiguity. The knowledge of this conventional rule is obligatory for the interpreter of any given symbol, and solely and simply because of this rule will the sign actually be interpreted. Originally the word *symbol* was used in a similar sense also by Saussure and his disciples, yet later he objected to this term because it traditionally involves some natural bond between the signans and signatum (e.g., the symbol of justice, a pair of scales), and in his notes the conventional signs pertaining to a conventional system were tentatively labeled *seme*, while Peirce had selected the term *seme* for a special, quite different purpose. It suffices to confront Peirce's use of the term *symbol* with the various meanings of *symbolism* to perceive the danger of annoying ambiguities; but the lack of a better substitute compels us for the time being to preserve the term introduced by Peirce.

The resumed semiotic deliberations revive the question, astutely discussed in *Cratylus*, Plato's fascinating dialogue: does language attach form to content "by nature" (φύσει), as the title hero insists, or "by convention" (θέσει), according to the counterarguments of Hermogenes. The moderator Socrates in Plato's dialogue is prone to agree that representation by likeness is superior to the use of arbitrary signs, but

despite the attractive force of likeness he feels obliged to accept a complementary factor – conventionality, custom, habit.

Among scholars who treated this question following in the footsteps of Plato's Hermogenes, a significant place belongs to the Yale linguist Dwight Whitney (1827-1894), who exerted a deep influence on European linguistic thought by promoting the thesis of language as a social institution. In his fundamental books of the 1860's and 1870's, language was defined as a system of arbitrary and conventional signs (Plato's ἐπιτυχόντα and συνθήματα). This doctrine was borrowed and expanded by F. de Saussure, and it entered into the posthumous edition of his *Cours de linguistique générale*, adjusted by his disciples C. Bally and A. Sechehaye (1916). The teacher declares: "On the essential point it seems to us that the American linguist is right: language is a convention, and the nature of the sign that is agreed upon (*dont on est convenu*) remains indifferent." Arbitrariness is posited as the first of two basic principles for defining the nature of the verbal sign: "The bond uniting the signans with the signatum is arbitrary." The commentary points out that no one has controverted this principle "but it is often easier to discover a truth than assign to it the appropriate place. The principle stated dominates all the science of language [*la langue* in the Saussurian sense of this term, i.e., the verbal code] and its consequences are innumerable." In accord with Bally and Sechehaye, A. Meillet and J. Vendryes also emphasized the "absence of connection between meaning and sound", and Bloomfield echoed the same tenet: "The forms of language are arbitrary."

As a matter of fact, the agreement with the Saussurian dogma of arbitrary sign was far from unanimous. In Otto Jespersen's opinion (1916), the role of arbitrariness in language was excessively overstated, and neither Whitney nor Saussure succeeded in solving the problem of the relationship between sound and meaning. J. Damourette & E. Pichon's and D. L. Bolinger's rejoinders were identically entitled: "Le signe n'est pas arbitraire" (1927), "The sign is not arbitrary" (1949). E. Benveniste in his timely essay "Nature du signe linguistique" (1939) brought out the crucial fact that only for a detached, alien onlooker is the bond between the signans and signatum a mere contingence, whereas for the native user of the same language this relation is a necessity.

Saussure's fundamental demand for an intrinsic linguistic analysis of any idiosynchronic system obviously invalidates the reference to sound and meaning differences in space and time as an argument for the arbitrary connection between the two constituents of the verbal sign. The Swiss-German peasant woman who allegedly asked why cheese is called

fromage by her French countrymen – "Käse ist doch viel natürlicher!" – displayed a much more Saussurian attitude than those who assert that every word is an arbitrary sign instead of which any other could be used for the same purpose. But is this natural necessity due exclusively to pure habit? Do verbal signs – for they are symbols – act "by virtue only of there being a habit that associates" their signatum with their signans?

One of the most important features of Peirce's semiotic classification is his shrewd recognition that the difference between the three basic classes of signs is merely a difference in relative hierarchy. It is not the presence or absence of similarity or contiguity between the signans and signatum, not the purely factual or purely imputed, habitual connection between the two constituents which underlies the division of signs into icons, indices and symbols, but merely the predominance of one of these factors over the others. Thus the scholar refers to "icons in which the likeness is aided by conventional rules", and one may recollect the diverse techniques of perspective which the spectator must learn in order to apprehend paintings of dissimilar artistic schools; the differences in the size of figures have divergent meanings in the various pictorial codes; in certain medieval traditions of painting, villains are specifically and consistently represented in profile, and in acient Egyptian art only en face. Peirce claims that "it would be difficult, if not impossible, to instance an absolutely pure index, or to find any sign absolutely devoid of the indexical quality." Such a typical index as a pointing finger carries dissimilar connotations in different cultures; for instance, in certain South African tribes the object pointed at is thus damned. On the other hand, "the symbol will involve a sort of index", and "without indices it is impossible to designate what one is talking about".

Peirce's concern with the different ranks of coassistance of the three functions in all three types of signs, and in particular his scrupulous attention to the indexical and iconic components of verbal symbols, is intimately linked with his thesis that "the most perfect of signs" are those in which the iconic, indexical, and symbolic characters "are blended as equally as possible". Conversely, Saussure's insistence on the conventionality of language is bound to his assertion that "The entirely arbitrary signs are the most appropriate to fulfill the optimum semiotic process."

The indexical elements of language have been discussed in my study "Shifters, Verbal Categories, and the Russian Verb" (see above, p. 130 ff.). Now let us attempt to approach the linguistic pattern in it iconic aspect and to give an answer to Plato's question, by what kind of imitation (μίμησις) does language attach the signans to the signatum.

The chain of verbs – *Veni, vidi, vici* – informs us about the order of Ceasar's deeds first and foremost because the sequence of co-ordinate preterits is used to reproduce the succession of reported occurrences. The temporal order of speech events tends to mirror the order of narrated events in time or in rank. Such a sequence as "the President and the Secretary of State attended the meeting" is far more usual than the reverse, because the initial position in the clause reflects the priority in official standing.

The correspondence in order between the signans and signatum finds its right place among the "fundamental varieties of possible semiosis" which were outlined by Peirce. He singled out two distinct subclasses of icons – *images* and *diagrams*. In images the signans represents the "simple qualities" of the signatum, whereas for diagrams the likeness between the signans and signatum exists "only in respect to the relations of their parts". Peirce defined a diagram as "a *representamen* which is predominantly an icon of relation and is aided to be so by conventions." Such an "icon of intelligible relations" may be exemplified by two rectangles of different size which illustrate a quantitative comparison of steel production in the USA and the USSR. The relations in the signans correspond to the relations in the signatum. In such a typical diagram as statistical curves, the signans presents an iconic analogy with the signatum as to the relations of their parts. If a chronological diagram symbolizes the ratio of increase in population by a dotted line and mortality by a continuous line, these are, in Peirce's parlance, "symbolide features". Theory of diagrams occupies an important place in Peirce's semiotic research; he acknowledges their considerable merits, which spring from their being "veridically iconic, naturally analogous to the thing represented". The discussion of different sets of diagrams leads him to the ascertainment that "every algebraic equation is an icon, insofar as it exhibits by means of the algebraic signs (which are not themselves icons) the relations of the quantities concerned." Any algebraic formula appears to be an icon, "rendered such by the rules of commutation, association, and distribution of the symbols." Thus "algebra is but a sort of diagram", and "language is but a kind of algebra". Peirce vividly conceived that "the arrangement of the words in the sentence, for instance, must serve as *icons*, in order that the sentence may be understood."

When discussing the grammatical universals and near-universals detected by J. H. Greenberg, I noted that the order of meaningful elements by virtue of its palpably iconic character displays a particularly clear-cut universalistic propensity (see below, p. 584ff.). Precisely there-

fore, the precedence of the conditional clause, with regard to the conclusion, is the only admitted or primary, neutral, nonmarked order in the conditional sentences of all languages. If almost everywhere, again according to Greenberg's data, the only, or at least the predominant, basic order in declarative sentences with nominal subject and object is one in which the former precedes the latter, this grammatical process obviously reflects the hierarchy of the grammatical concepts. The subject on which the action is predicated is, in Edward Sapir's terms, "conceived of as the starting point, the 'doer' of the action" in contradistinction to "the end point, the 'object' of the action." The subject, the only independent term in the clause, singles out what the message is about. Whatever the actual rank of the agent, he is necessarily promoted to hero of the message as soon as he assumes the role of its subject. "The subordinate obeys the principal". Notwithstanding the table of ranks, attention is first of all focused on the subordinate as agent, turns thereupon to the undergoer, the "goal" of his action, the principal obeyed. If, however, instead of an action effected, the predicate outlines an action undergone, the role of subject is assigned to the patient: "The principal is obeyed by the subordinate". The inomissibility of the subject and the optional character of the object underscore the hierarchy discussed: "The subordinate obeys; the principal is obeyed". As centuries of grammatical and logical scrutiny have brought to light, predication is so cardinally different from all other semantic acts that the forced reasoning intended to level subject and object must be categorically rejected.

The investigation of diagrams has found further development in modern graph theory. When reading the stimulating book *Structural Models* (1965) by F. Harary, R. Z. Norman, and D. Cartwright, with its thorough description of manifold directed graphs, the linguist is struck by their conspicuous analogies with the grammatical patterns. The isomorphic composition of the signans and signatum displays in both semiotic fields very similar devices which facilitate an exact transposition of grammatical, especially syntactic, structures into graphs. Such linguistic properties as the connectedness of linguistic entities with each other and with the initial and final limit of the sequence, the immediate neighborhood and distance, the centrality and peripherality, the symmetrical relations, and the elliptic removal of single components find their close equivalents in the constitution of graphs. The literal translation of an entire syntactic system into a set of graphs permits us to detach the diagrammatic, iconic forms of relations from the strictly conventional, symbolic features of that system.

Not only the combination of words into syntactic groups but also the combination of morphemes into words exhibits a clear-cut diagrammatic character. Both in syntax and in morphology any relation of parts and wholes agrees with Peirce's definition of diagrams and their iconic nature. The substantial semantic contrast between roots as lexical and affixes as grammatical morphemes finds a graphic expression in their different position within the word; affixes, particularly inflectional suffixes, in languages where they exist, habitually differ from the other morphemes by a restricted and selected use of phonemes and their combinations. Thus the only consonants utilized in the productive inflectional suffixes of English are the dental continuant and stop, and their cluster *-st*. Of the 24 obstruents of the Russian consonantal pattern, only four phonemes, saliently opposed to each other, function in the inflectional suffixes.

Morphology is rich in examples of alternate signs which exhibit an equivalent relation between their signantia and signata. Thus, in various Indo-European languages, the positive, comparative, and superlative degrees of adjectives show a gradual increase in the number of phonemes, e.g., *high-higher-highest, altus-altior-altissimus.* In this way the signantia reflect the gradation gamut of the signata.

There are languages where the plural forms are distinguished from the singular by an additional morpheme, whereas, according to Greenberg, there is no language in which this relation would be the reverse and, in contradistinction to the singular forms, the plural ones would be totally devoid of such an extra morpheme. The signans of the plural tends to echo the meaning of a numeral increment by an increased length of the form. Cf. the finite verbal forms of the singular and the corresponding plural forms with longer endings: 1. *je finis – nous finissons,* 2. *tu finis – vous finissez,* 3. *il finit – ils finissent;* or in Polish: 1. *znam* (I know) – *znamy,* 2. *znasz – znacie,* 3. *zna – znają.* In the declension of Russian nouns the real (non-zero) endings are longer in the plural than in the singular form of the same grammatical case. When one traces the varied historical processes which persistently built up the diagram – longer plural/shorter singular forms – in diverse Slavic languages, these and many similar facts of linguistic experience prove to be at variance with the Saussurian averment that "in the sound structure of the signans there is nothing which would bear any resemblance to the value or meaning of the sign."

Saussure himself attenuated his "fundamental principle of arbitrariness" by making a distinction between the "radically" and "rela-

tively" arbitrary elements of language. He assigned to the latter category those signs which may be dissociated on the syntagmatic axis into constituents identifiable on the paradigmatic axis. Yet also such forms as the French *berger* (from *berbicarius*) 'shepherd', in Saussure's view "completely unmotivated", could undergo a similar analysis, since *-er* is associated with the other specimens of this agentive suffix and occupies the same place in other words of the same paradigmatic series as *vacher* 'cowboy', etc. Furthermore, the search for the connection between the signans and signatum of the grammatical morphemes must involve not only the instances of their complete formal identity, but also such situations where different affixes share a certain grammatical function and one constant phonemic feature. Thus the Polish instrumental case in its various endings for the different genders, numbers, and parts of speech consistently contains the nasality feature in its last consonant or vowel. In Russian the phoneme *m* (represented by two automatic alternants – one with and the other without palatalization) occurs in the endings of marginal cases (instrumental, dative, locative), but never in other classes of grammatical cases. Hence separate phonemes or distinctive features within grammatical morphemes may serve as autonomous indicators of certain grammatical categories. Saussure's remark about "the role of relative motivation" may be applied to such performances of morphemic subunits: "The mind manages to introduce a principle of order and regularity in certain parts of the body of signs."

Saussure descried two drifts in language – the tendency to use the lexical tool, that is, the unmotivated sign, and the preference given to the grammatical instrument, in other words, to the constructional rule. Sanskrit appeared to him a specimen of an ultragrammatical, maximally motivated system, whereas in French as compared to Latin he found that "absolute arbitrariness which, in point of fact, is the proper condition of the verbal sign." It is noteworthy that Saussure's classification had recourse to morphological criteria only, while syntax was actually laid aside. This oversimplified bipolar scheme is substantially amended by Peirce's, Sapir's, and Whorf's insights into wider, syntactic problems. In particular, Benjamin Whorf, with his emphasis on "the algebraic nature of language", knew how to abstract from individual sentences the "designs of sentence structure" and argued that "the *pattern-ment* aspect of language always overrides and controls the *lexation* or name-giving aspect." Thus the distinctly diagrammatic constituents in the system of verbal symbols are universally superimposed upon the vocabulary.

When abandoning grammar and approaching the strictly lexical problems of roots and further indissociable one-morpheme words (the lexicon's στοιχεῖα and πρῶτα ὀνόματα, as they are labeled in *Cratylus*), we must ask ourselves, as did the participants of Plato's dialogue, whether at this point it would be advisable to stop and abandon the discussion of the internal connection between signans and signatum or whether, without clever evasions, one must "play the game till the end and investigate these questions vigorously."

In French, *ennemi*, as stated by Saussure, "*ne se motive par rien*", yet in the expression *ami et ennemi* a Frenchman can hardly overlook the affinity of both juxtaposed rhyme words. *Father, mother,* and *brother* are indivisible into root and suffix, but the second syllable of these kinship terms is felt as a kind of phonemic allusion to their semantic proximity. There are no synchronic rules which would govern the etymological connection between *ten, -teen,* and *-ty,* as well as between *three, thirty,* and *third* or *two, twelve, twenty, twi-* and *twin,* but nevertheless an obvious paradigmatic relationship continues to bind these forms into serried families. However opaque is the vocable *eleven,* a slight connection with the sound shape of *twelve* supported by the immediate neighborhood of both numerals is still seizable.

A vulgarized application of information theory could prompt us to expect a tendency toward dissimilation of contiguous numerals, like the change of *zwei* (2) into *zwo* introduced by the Berlin telephone directory to avoid any confusion with *drei* (3). However, in various languages an opposite, assimilatory tendency prevails among adjacent cardinals. Thus Russian attests a gradual attraction within every pair of simple numerals, e.g., *sem'* (7) – *vosem'* (8), *devjat'* (9) – *desjat'* (10). The similarity of signantia enforces the junction of the paired numerals.

Coinages such as *slithy* from *slimy* and *lithe,* and multiform varieties of blends and portmanteaus display a mutual adhesion of simple words resulting in a joint interaction of their signantia and signata.

D. L. Bolinger's paper cited above convincingly documents "the vast importance of cross influences" between sound and meaning and the "constellations of words having similar meanings tied to similar sounds" whatever the origin of such constellations may be (e.g., *bash, mash, smash, crash, dash, lash, hash, rash, brash, clash, trash, plash, splash,* and *flash*). Such vocables border upon onomatopoetic words where again the questions of origin are quite immaterial for synchronic analysis.

Paronomasia, a semantic confrontation of phonemically similar words irrespective of any etymological connection, plays a considerable role in

the life of language. A vocalic apophony underlies the punning title of a magazine article "Multilateral Force or Farce?" In the Russian proverb "*Síla solómu lómit*" ('power breaks straw') the connection between the predicate *lómit* and the object *solómu* is internalized by a quasi incorporation of the root *lóm-* into the root *solóm-;* the phoneme *l* adjacent to the stressed vowel pervades and unites the three parts of the sentence; both consonants of the subject *sila* are repeated in the same order by the object which, so to say, synthesizes the phonemic make-up of the initial and final word of the proverb. Yet on a plain, lexical level the interplay of sound and meaning has a latent and virtual character, whereas in syntax and morphology (both inflection and derivation) the intrinsic, diagrammatic correspondence between the signans and signatum is patent and obligatory.

A partial similarity of two signata may be represented by a partial similarity of signantia, as in the instances discussed above, or by a total identity of signantia, as in the case of lexical tropes. *Star* means either a celestial body or a person – both of preeminent brightness. A hierarchy of two meanings – one primary, central, proper, context-free; and the other secondary, marginal, figurative, transferred, contextual – is a characteristic feature of such asymmetrical couples. The metaphor (or metonymy) is an assignment of a signans to a secondary signatum associated by similarity (or contiguity) with the primary signatum.

The grammatical alternations within the roots carry us again into the domain of regular morphological processes. The selection of alternating phonemes may be purely conventional, as for instance the use of front vowels in the Yiddish "umlaut" plurals quoted by Sapir: *tog* 'day' – *teg* 'days', *fus* 'foot' – *fis* 'feet', etc. There are, however, specimens of analogous grammatical "diagrams" with a manifestly iconic value in the alternants themselves, as for instance the partial or entire reduplication of the root in the plural, iterative, durative or augmentative forms of various African and American languages. In Basque dialects palatalization which heightens the tonality of consonants brings about the concept of diminution. The replacement of grave vowels or consonants by acute, compact by diffuse, continuous consonants by discontinuous, and unchecked by checked (glottalized), which is used in a few American languages for "the addition to the meaning of the word of a diminutive idea", and the reverse substitutions in order to express an augmentative, intensive grade, are based on the latent synesthetic value inherent in certain phonemic oppositions. This value, easily detectable by tests and experiments in sound perception and particularly manifest in children's

language, may build scales of "diminutivized" or "augmentativized" meanings as opposed to the neutral one. The presence of a grave or acute phoneme in the root of a Dakota or Chinookan word does not signal by itself a higher or lower degree of intensity, whereas the co-existence of two alternant sound forms of one and the same root creates a diagrammatic parallelism between the opposition of two tonal levels in the signantia and of two grading values in the respective signata.

Apart from these relatively rare instances of grammatical utilization, the autonomous iconic value of phonemic oppositions is damped down in purely cognitive messages but becomes particularly apparent in poetic language. Stéphane Mallarmé, amazingly sensitive to the sound texture of language, observed in his essay *Crise de vers* that the word *ombre* is actually shady, but *ténèbres* (with its acute vowels) suggests no darkness, and he felt deeply deceived by the perverse attribution of the meanings 'day' to the word *jour* and 'night' to the word *nuit* in spite of the obscure timbre of the former and the light one of the latter. Verse, however, as the poet claimed, *rémunère le défaut des langues*. A perusal of noc-turnal and diurnal images in French poetry shows how *nuit* darkens and *jour* brightens when the former is surrounded by a context of grave and flat vowels, and when the latter dissolves in a sequence of acute phonemes. Even in usual speech a suitable phonemic environment, as the semanticist Stephen Ullmann remarked, can reinforce the expressive quality of a word. If the distribution of vowels between the Latin *dies* and *nox* or between the Czech *den* and *noc* fits the poetic chiaroscuro, French poetry drapes the "contradictory" vocables or replaces the imagery of daylight and nightly darkness by the contrast of heavy, stifling day and airy night, for this contrast is supported by another synesthetic connotation which associates the low tonality of the grave phonemes with heaviness and correspondingly the high tonality of the acute phonemes with light weight.

Poetic language reveals two effective causes in sound texture – the selection and constellation of phonemes and their components; the evocative power of these two factors, although concealed, is still implicit in our customary verbal behavior.

The final chapter of Jules Romains' novel *Les amours enfantines* is entitled "Rumeur de la rue Réaumur". The name of this Paris street is said by the writer to resemble a song of wheels and walls and various other forms of urban trepidation, vibration, and rumbling. These motifs, tightly fused with the book's theme of flux and reflux, are embodied in the sound shape of *rue Réaumur*. Among the consonantal phonemes of this

name there are only sonorants; the sequence consists of four sonorants (S) and four vowels (V): SVSV – VSVS, a mirror symmetry, with the group *ru* at the beginning and its reversal *ur* at the end. The initial and final syllables of the name are thrice echoed by the verbal environment: *rue Réaumur, ru-meur, roues... mur*ailles, trépidation d'im*meu*bles. The vowels of these corresponding syllables display three phonemic oppositions: 1) grave (back) versus acute (front); 2) flat (rounded) versus nonflat (unrounded); 3) diffuse (close) versus nondiffuse (open):

	ru	meur		ru	ré		au	mur	rou	mur		ré	meu
grave	—	—		—	—	+	—		+	—		—	—
flat	+	+		+	—		+	+	+	+		—	+
diffuse	+	—		+	—	—	+		+	+		—	—

The cunning intertexture of identical and contrasting features in this "song of wheels and walls", prompted by a hackneyed street sign, gives a decisive answer to Pope's claim: "The sound must be an echo to the sense."

When postulating two primordial linguistic characters – the arbitrariness of the sign and the linearity of the signans – Saussure attributed to both of them an equally fundamental importance. He was aware that if they are true, these laws would have "incalculable consequences" and determine "the whole mechanism of language". However, the "system of diagrammatization", patent and compulsory in the entire syntactic and morphological pattern of language, yet latent and virtual in its lexical aspect, invalidates Saussure's dogma of arbitrariness, while the other of his two "general principles" – the linearity of the signans – has been shaken by the dissociation of phonemes into distinctive features. With the removal of these fundamentals their corollaries in turn demand revision.

Thus Peirce's graphic and palpable idea that "a symbol may have an icon or [let us rewrite this conjunction in an up-to-date style: and/or] an index incorporated into it" opens new, urgent tasks and far-reaching vistas to the science of language. The precepts of this "backwoodsman in semiotic" are fraught with vital consequences for linguistic theory and praxis. The iconic and indexical constituents of verbal symbols have too often remained underestimated or even disregarded; on the other hand, the predominantly symbolic character of language and its con-

sequent cardinal difference from the other, chiefly indexical or iconic, sets of signs likewise await due consideration in modern linguistic methodology.

The *Metalogicus* by John of Salisbury supplied Peirce with his favorite quotation: "*Nominantur singularia, sed universalia significantur.*" How many futile and trivial polemics could have been avoided among students of language if they had mastered Peirce's *Speculative Grammar*, and particularly its thesis that "a genuine symbol is a symbol that has a general meaning" and that this meaning in turn "can only be a symbol", since "*omne symbolum de symbolo*". A symbol is not only incapable of indicating any particular thing and necessarily "denotes a kind of thing", but "it is itself a kind and not a single thing." A symbol, for instance a word, is a "general rule" which signifies only through the different instances of its application, namely the pronounced or written – thinglike – *replicas*. However varied these embodiments of the word, it remains in all these occurrences "one and the same word".

The prevalently symbolic signs are the only ones which through their possession of general meaning are able to form propositions, whereas "icons and indices assert nothing." One of Charles Peirce's posthumous works, the book *Existential Graphs* with its eloquent subtitle "My chef d'œuvre", concludes the analysis and classification of signs with a succinct outlook toward the creative power (ἐνέργεια) of language: "Thus the mode of being of the symbol is different from that of the icon and from that of the index. An icon has such being as belongs to past experience. It exists only as an image in the mind. An index has the being of present experience. The being of a symbol consists in the real fact that something surely will be experienced if certain conditions be satisfied. Namely, it will influence the thought and conduct of its interpreter. Every word is a symbol. Every sentence is a symbol. Every book is a symbol.*** The value of a symbol is that it serves to make thought and conduct rational and enables us to predict the future." This idea was repeatedly broached by the philosopher: to the indexical *hic et nunc* he persistently opposed the "general law" which underlies any symbol: "Whatever is truly general refers to the indefinite future, for the past contains only a certain collection of such cases that have occurred. The past is actual fact. But a general law cannot be fully realized. It is a potentiality; and its mode of being is *esse in futuro*." Here the thought of the American logician crosses paths with the vision of Velimir Xlebnikov, the most original poet of our century, in whose commentary of 1919 to his own works one reads: "I have realized that the homeland of

creation lies in the future; thence wafts the wind from the gods of the word."

Address to the American Academy of Arts and Sciences, February 10, 1965, published in *Diogenes*, 51.

ДА И НЕТ В МИМИКЕ

Так как зона распространения некоторых жестикуляционных и мимических знаков нередко охватывает более обширную область, нежели собственно речевые изоглоссы, легко возникает наивное представление об универсальности тех или иных *значимых* жестов, а также движений головы и лицевых мышц.[1] Когда в начале 1914 года Москву посетил писатель Э. Ф. Т. Маринетти, художник М. И. Ларионов, враждебно встретивший приезжего футуриста, вскоре завязал с ним приятельские отношения, хотя не знал еще в то время ни одного иностранного языка, а его новый друг ни слова не понимал по-русски. Ларионов потчевал гостя то живописью своею и своих соратников, то русскою водкой. Однажды Михаил Иванович нетерпеливо дожидался в Литературно-художественном кружке конца французских дебатов Маринетти с московскими литераторами и вдруг ошеломил итальянца, подойдя к нему вплотную и дважды щелкнув самого себя по шее. Когда попытка напомнить таким образом чужеземцу, что пора бы, дескать, и выпить или, говоря метонимически, залить за воротник, оказалась явно безуспешной, "ну и балбес", с горечью заметил Ларионов, "даже этого не понимает!"

Русские солдаты, побывавшие в Болгарии в дни войны с Турцией 1877-78 гг. не могли забыть поразившей их диаметральной противоположности между своими и туземными движениями головы, обозначавшими "да" и "нет". Обратное распределение знаков и значений сбивало с толку собеседников и порой вело к досадным недоразумениям. Хотя собственная мимика поддается контролю в меньшей степени, чем речь, русские могли бы без особых усилий переключить знаки утверждения и отрицания на болгарский лад, но главная трудность заключалась в неуверенности болгар, к какому

---

[1] "Il linguaggio del gesto è un linguaggio universale?" – задает вопрос Giuseppe Cocchiara в любопытной книге *Il linguaggio del gesto* (Torino, 1932), стр. 20.

из двух мимических кодов, своему собственному или же местному, прибегает в каждом отдельном случае их русский собеседник.

Сопоставление двух противоположных систем утвердительной и отрицательной мимики легко вызывает новое заблуждение, а именно уверенность в чисто условном и произвольном распределении обоих семантически противопоставленных движений головы. Между тем, внимательный анализ вскрывает изобразительную подоплеку – iconicity, согласно семиотической терминологии Чарльза Пэрса,[2] – этих символов, казалось бы, вовсе лишенных связи по сходству между их внешней формой и значением. Русская двоичная система знаков утверждения и отрицания совпадает с мимическим кодом подавляющего большинства европейских стран. Мало того, схожие знаки в той же функции вообще широко, хотя и отнюдь не повсеместно, распространены среди разнообразных народов всех частей света. Кивок головы служит здесь выражением согласия, иначе говоря, синонимом речения "да".

Подобно некоторым формам ручной утвердительной жестикуляции, этот мимический знак находит себе близкую аналогию в ритуале приветствия, свойственном той же этнической среде.[3] Движение головы вперед и вниз служит наглядным изображением преклонения перед требованием собеседника, перед его желанием, предложением или мнением; оно же олицетворяет послушную готовность к утвердительному ответу на положительную постановку вопроса.[4] Прямой противоположностью голове, склоненной вперед как бы в знак повиновения, должна была бы служить голова, откинутая назад в знак несогласия, расхождения, отказа, просто-напросто

---

[2] C. S. Peirce, *Collected Papers*, II (Cambridge, Mass., 1932): Speculative Grammar. D. Efron, *Gesture and Environment* (New York, 1941), пользуется термином pictorialism.

[3] Arnold H. Landor, *Alone with the Hairy Ainu* (London, 1893), стр. 234, отмечает, что для утверждения и отрицания Айну не пользуются движениями головы, а только ручными жестами: Both hands are gracefully brought up to the chest and prettily waved downwards – palms upwards – in sign of affirmation. In other words, their affirmation is a simpler form of their salute, just the same as with us the nodding of the head is similarly used both ways.

[4] В нашу задачу не входит анализ утвердительных и отрицательных жестов руки. Обильную, но совершенно механическую и бессистемную сводку дал Garrick Mallery, "Sign language among North American Indians", *First Annual Report of the Bureau of Ethnology* (Washington, 1881). В связи с многочисленными примерами сомкнутых пальцев, движущихся в знак согласия forward and downward, автор ссылается на источники, интерпретирующие руку в поддакивающем жесте индейцев дакота и ирокезов, как метафору утвердительно кивающей головы (стр. 455). Ср. W. Tomkins, *Universal Indian Sign Language* (San Diego, Calif., 1926), стр. 58.

отрицательной позиции. Однако такому прямолинейному противопоставлению двух движений головы препятствует нужда в настойчивой эмфатической повторности как утвердительного, так и отрицательного мимического знака; ср. речевые повторения "да, да, да!" и "нет, нет, нет!"[5] Соответственной цепью движений головы в первом случае было бы чередование "вперед-назад-вперед-назад-вперед-назад" и т.д., а во втором обратно "назад-вперед-назад-вперед-назад-вперед-назад" и т.д., т.е. два сходных ряда; все различие между ними сводится к начальному движению вперед или назад и легко ускользает от адресата, оставаясь за порогом его восприятия.

Семантически полярные знаки утверждения и отрицания требовали наглядно противопоставленных мимических форм. Наклонное движение при утвердительном кивке встретило четкую противоположность в горизонтально-вращательном движении головы, присущем мимическому синониму речения "нет". Внешняя форма последнего знака, построенная, несомненно, по контрасту с утвердительным движением головы, все же не лишена изобразительности. Отклонение лица в сторону от собеседника (в первой фазе, повидимому, обычно влево)[6] как бы олицетворяет отчуждение, отказ, прекращение прямого контакта лицом к лицу.[7]

Если в рассмотренной системе мимических "да" и "нет" отправной точкой является знак утверждения, то в болгарском коде, находящем себе соответствие еще в нескольких племенных группах Балканского полуострова и Ближнего Востока, исходным пунктом служит, напротив, знак отрицания. Болгарское мимическое "нет", кажу-

---

[5] "Puede reforzarse por la *iteracion simple o multiple*" – G. Meo-Zilio, "El lenguaje de los gestos en el Uruguay", *Boletin de Filología*, XIII (Santiago de Chile, 1961), стр. 129. Ср. его же *El Lenguaje de los Gestos en El Rio de La Plata* (Montevideo, 1960), стр. 100.

[6] Такое же отрицательное движение головы именно влево отмечено, напр., у индейцев Огненной Земли (см. M. Gusinde, *Die Yamana: vom Leben und Denken der Wassernomaden am Kap Hoorn. Die Feuerland-Indianer*, II, Wien, 1937, стр. 1447) и у персов (D. C. Phillott, *Journal und Proceedings of the Asiatic Society of Bengal*, n.s. III, стр. 619 сл.).

[7] Открытые ладони с вытянутыми пальцами, поднятые как бы в знак отпора и обороны перед собеседником, – таков изобразительный жест, сопровождающий или заменяющий мимическое "нет" у многих народов на обоих полушариях. Кисти рук в этом жесте движутся либо вперед и назад, как бы парируя собеседника, либо из стороны в сторону, словно от него отгораживаясь, отмахиваясь, отнекиваясь. Ср. с этими двумя вариантами и по форме и по значению сродные с ними разновидности грозящего жеста: движение поднятого указательного пальца перпендикулярно линии плеч в восточной Европе или же параллельно плечам в среднеевропейской области.

щееся, на первый взгляд, оптически тождественным с русским мимическим "да", при внимательном наблюдении обнаруживает существенное отличие. Русский однократный утвердительный кивок ограничивается наклонным движением головы вперед и ее возвращением к обычному вертикальному положению. В болгарской мимике однократное отрицание состоит из отбрасывания головы назад и последующего возвращения к вертикальной позиции. Однако эмфатическое усиление превращает возврат к нормальной позиции в некоторый наклон затылка в русском "да" или лба в болгарском "нет". Зачастую в силу эмфазы один и тот же мимический знак подвергается непосредственному повторению однократному или многократному, и такая повторность, как уже было отмечено выше, более или менее смазывает разницу между русским мимическим утверждением и болгарским отрицанием.

В чистой же форме болгарского отрицания голова, закинутая назад, вдаль от собеседника, олицетворяет отход, несогласие, разминку, отвергнутое предложение, отказ от положительного ответа на заданный вопрос, тогда как болгарская мимика утверждения, поворот головы из стороны в сторону, представляет собою явно вторичную форму, производную от ее отрицательного антонима. Более пристальные наблюдения над структурой болгарского мимического "да" и ее основным, неотъемлемым ядром, вероятно, обнаружат даже и в этом зрительном знаке некоторую меру изобразительности – un rudiment de lien naturel entre le signifiant et le signifié, согласно формулировке Соссюра.[8] С первичным поворотом предпочтительно вправо и с каждым дальнейшим поворотом головы податель утвердительной реплики как бы подставляет, открывает свое ухо собеседнику, проявляя таким образом повышенное, благожелательное внимание к его словам. Ср. такие болгарские обороты, как *Аз съм целият в уши, давам, надавам ухо.*

Мимика утверждения и отрицания представлена в Европе двумя вышерассмотренными типами – "русским" и "болгарским", согласно нашей условной номенклатуре, – и, наконец, третьей разновидностью, бытующей в отдельных участках Средиземноморья, а именно наклонным движением головы вперед для утверждения и назад для отрицания. Таким противопоставлением последовательно пользуются, как мы наблюдали, греки в Афинах, и та же система сохраняет живучесть в некоторых районах южной Италии, на-

---

[8] F. de Saussure, *Cours de linguistique générale*, I, первая глава, § 2.

пример, среди неаполитанцев и калабрийцев.[9] Всё же тот факт, что разница между повторными наклонными движениями головы вперед и назад с трудом поддается восприятию, находит себе и в данном случае полное подтверждение. Эти оба наклона головы в действительности сопряжены с двумя взаимно-противоположными движениями зрачков, глазных яблок и бровей – вниз в знак согласия и вверх в знак отрицания. Но и эти движения, так же как и названные сдвиги головы, в свою очередь, оказываются всего-навсего сопроводительными, избыточными явлениями, тогда как в роли автономного мимического сигнала здесь выступает только расщелина между бровями и скулами, особенно правой бровью и скулой, суженная в знак утверждения и, напротив, расширенная в знак отрицания.[10]

Работа лицевых мышц, вызывающая движение брови в направлении к скуле или от скулы создает своего рода синекдоху: опущенная и поднятая бровь становится значимым, самоценным субститутом покорно склоненной или же, напротив, строптиво закинутой головы. Другим сигналом, специфицирующим мимический знак отрицания служит, например, у тех арабских племен, которые пользуются подобным противопоставлением наклонов лба и затылка, щелкающий звук, кликс, сопутствующий основной, начальной фазе вышеназванного знака, т.е. обратному загибу головы.

С мимическими "да" и "нет" русского и преобладающего в Европе типа связано по форме и значению еще несколько других мимических знаков. Вопрос противопоставлен утвердительному кивку закинутой назад головой с выдвинутым вперед и вверх подбородком. Голова либо застывает в этом положении, либо адресант мимического вопроса слегка поводит ею в обе стороны. При этом широко открытые глаза характеризуют недоуменный вопрос, а прищуренные поощрительную установку вопрошающего. Как уже было нами отмечено в иной связи, решающую роль здесь играет

---

[9]   Как утверждает Mallery, стр. 441, the ancient Greeks, followed by the modern Turks and rustic Italians, threw the head back, instead of shaking it, for "no". Любопытно, что в случаях амальгамации обеих форм отрицания – вертикальной и горизонтальной – выбор первого из этих двух мимических синонимов осмысляется на юге Италии как взор, смиренно обращенный ввысь во избежание размашистого, непристойно категорического отрицания, неучтивого отказа наотрез.

[10]   Схожее соотношение отмечено у персов (ср. вышеназванную статью D. C. Phillot) и полинезийцев (см. A. Métraux, *Ethnology of Easter Island*, Honolulu, 1940, стр. 33).

раздвинутый или же, напротив, суженный промежуток между бровями и скулами.

Изумление, как бы лишающее способности к однозначной реплике ("ни да, ни нет"), выражается покачиванием головы из стороны в сторону, обычно слева направо. Наклонное движение роднит этот знак с мимическим "да", а направление с боку на бок с мимическим "нет". Подергивание плечами означает сомнение ("не то да, не то нет"). Сокращение угла между головой и плечами сближает знаки недоуменного удивления и сомнения, но в первом случае голова склоняется к неподвижным плечам, а во втором плечи поднимаются по направлению к неподвижной голове.

Необходимо подвергнуть обстоятельному разбору формальный состав и семантику различных мимических систем с выделением знаковых инвариантов внутри каждой из них. Исследованию подлежит этнологическая разверстка и географическое распространение отдельных укладов, равно как и роль, отведенная им в процессах коммуникации (степень соотнесенности и иерархическая значимость жеста, мимики и слова). Языковеду следует при этом учесть чрезвычайно поучительную туземную номенклатуру привычных мимических знаков – как именную, так и глагольную.

Поставленные почти сто лет т.н. в пытливом труде Дарвина "Выражение эмоций у человека и животных" (1872) увлекательные вопросы о соотношении натуральности и условности в этих двигательных знаках, о бинарном, "антитетическом принципе" их построения и, наконец, о племенных вариациях и универсальных инвариантах, например, в утвердительной и отрицательной мимике,[11] требуют пристального и систематического рассмотрения.[12]

Написано в январе 1967 г. в Палермо для сборника в честь Петра Саввича Кузнецова.

[11] Charles Darwin, *The Expression of the Emotions in Man and Animals* (Chicago-London, 1965), главы 2 и 11.
[12] Приношу благодарность за те ценные библиографические указания, которыми любезно снабдил меня Claude Lévi-Strauss.

C

TOWARD A NOMOTHETIC SCIENCE
OF LANGUAGE

ONE OF THE SPECULATIVE ANTICIPATIONS

An Old Russian Treatise on the Divine and Human Word

Amid the numerous grammarian writings of the ninth to the seventeenth centuries, carefully reprinted by I. V. Jagić from Church Slavonic manuscripts ("*Rassuždenija južnoslavjanskoj i russkoj stariny o cerkovno-slavjanskom jazyke*", *Issledovanija po russkomu jazyku*, I. Akademija Nauk, Otd. rus. jazyka i slovesnosti, vol. I, St. Petersburg 1885-95), there occurs an anonymous *Colloquy on Teaching Letters* (*Besěda o učenii gramotě*), found in Muscovite manuscripts of the sixteenth and seventeenth centuries (see pp. 673-685 of the cited publication). It is a series of brief questions and detailed answers. After an inquiry and reply to "What ıs literacy?" the author introduces the question of the genetic relationship between reason and letters and his answer, affirming the primacy of reason, broaches a wider problem: he attempts to define the place of language in human life (pp. 673-676).

The philological information supplied by the bookman links his work with the South Slavic grammarian tradition, and especially with the first Church Slavonic treatise "on the letters", compiled in Bulgaria by the monk Xrabr at the threshold of the tenth century. For most of the theological material used in the *Colloquy*, one finds close correspondence in Russian polemics against the local anti-trinitarian sects of the fifteenth century (see their reproduction in the book, *Antifeodal'nye eretičeskie dviženija na Rusi XIV—načala XVI veka* by N. Kazakova and Lur'e, Leningrad 1955).

The early history of the science of language has not yet been worked out. We do have an inkling of the monumental Scholastic achievements in the theory of verbal signs, whereas the development of Byzantine linguistic thought remains nearly unknown. Thus it is difficult to detect what in our treatise goes back to the Greek philosophy of language and what was devised in the Slavic province of the Byzantine intellectual orbit. In any case, the devout symbolism of the Old Russian approach to the

human *logos* bears a deep insight into the same essentials of language which attract and puzzle the modern investigator.

To make intelligible to believers the relationship between the two Mysteries, the eternal Generation and the Incarnation of the Divine Logos, the ecclesiastical argumentation utilized the analogy of the internal and uttered word. The grammarian treatise inversely resorts to the twofold birth of the Son of God in order to explain the fundamental verbal dichotomy, the seemingly antinomical relationship between the speech event and the pre-existent language design (*parole* and *langue*, in the terms of Ferdinand de Saussure, who promoted this conceptual dyad in modern linguistics). For the author of the *Colloquy*, it is not a mere illustrative analogy but one of the striking manifestations of the godlike nature of man: "Imitating the twofold birth of the Son of God, our word, too, has its twofold birth. For first, our word is born of the soul, through some incomprehensible birth, and abides unknown near the soul, and then, born again through a second, fleshy birth, it emerges from the lips and reveals itself by the voice to the hearing."

To elucidate the place of language in relation to the other specific attributes of humanity, the treatise again refers to the nature of God as replicated by the human microcosm. In the likeness of the Trinity, three hypostases form the human essence: the psyche, built in the image of the Heavenly Father; the word, which is the image of the Son; and reason, an analogue of the Holy Spirit. The autonomy and distinctness of the three Persons of the Trinity, together with their inseparability, is repeated in the three attributes of the human being: "The soul cannot exist in man without reason, neither reason without the word, nor may the word exist in man without the soul and reason," and at the same time all three of them "are distinct in man." Translated into the terminological pattern of present-day sciences – for instance, into the vocabulary of George H. Mead's social psychology – these statements would mean that neither may the "process of language" be identified with the "process of reason" nor either of them with the "self", but all three processes imply each other. In particular, thought is impossible without a possession of language which in turn requires a reasoning capacity.

According to the *Colloquy on Teaching Letters*, the three crucial problems of the human word – the gift of tongue, the relationship between language and thought, and the actual emission of speech – correspond to the three Mysteries of the Divine Word, elicited by the Church Fathers as the Mystery of the Generation, of the Trinity, and of the Incarnation.

TEXT

Question: What was formed first: reason through letters or letters through reason?

Answer: Reason was not formed through letters but letters through reason, because the Divine Scriptures say: *we shall create man in our image and likeness*, and it was not said: *I shall create*, but *we shall create*. And it was not said: *in my image*, but *in our image*. So it was said by the Holy Inapprehensible Trinity, Father, Son, and Holy Spirit, about the first-created man Adam. And by this command, said by the Father to the Son and to the Holy Spirit,[1] the Lord revealed to us His divinity in three hypostases, Indescribable, Unknowable, Unspeakable, having no beginning, Triple-haloed,[2] Eternal. When the Father was, then were the Son and the Holy Spirit, and when the Holy Spirit was, then were the Father and the Son. Such a time never was, is not, will and can never be, that the Holy Trinity be called a Duality and that the Father and the Son be without the Holy Spirit, or the Holy Spirit without the Father and the Son, or the Son and the Holy Spirit without the Father. And such a time never was, is not, will and can never be, that the Father alone be All, neither the Son, nor the Holy Spirit; but consubstantially – Father, Son, and Holy Spirit. Such is the Holy Trinity, One in its essence, Inapprehensible, Unknowable, Unspeakable, Timeless, All-powerful, Omnipotent, in three hypostases, in three luminaries, Triple-haloed.

Thus God is the Perfect Father, God is the Perfect Son, God is the Perfect Holy Spirit; but not three Gods; one God, one Sanctity, one Light. And indeed Sanctity: sanctifying but not sanctified, lighting but not lighted. And existing in three persons and names, indivisibly, and coexisting unmingled, like in the celestial rainbow,[2] He set a likeness of

* The text starts with a statement about the pre-existence of the Logos and immediately goes on to discuss the Trinity, dwelling upon the coeternity of the three persons, their consubstantiality, their coequality, and their underlying unity. In connection with their underlying unity, the author tries to explain it by various analogies. Finally, the text takes up the discussion of the Incarnation. In the few notes on the text, whenever I could not find some concrete relevant reference, I gave reference to the general discussion of the subject under consideration in my book, *The Philosophy of the Church Fathers*, I (Cambridge, Mass., 1956).

[1] This reflects the oft-repeated Patristic statement that the plural "let us" in Gen. 1:26 means that God addressed himself to the Logos and the Holy Spirit. Cf. Theophilus, *Ad Autolycum*, II, 8; Irenaeus, *Adversus Haereses*, IV, Praef. 4, and IV, 20, 1; Augustine, *De Civitate Dei*, XVI, 6.

[2] The expression "triple-haloed" and the analogy of the "rainbow" reflect the various analogies of light used by the Church Fathers in the explanation of the Trinity (cf. *PCF*, I, 359-360). The analogy of a rainbow occurs in Basil, *Epist.* 38, 5 (*PG* 32, 336A).

His threefold image, in three incorporeal faces that are red, green, and yellow in their essence. For these three images are neither separated nor commingled, but the green is green, the red is red, and the yellow is yellow; for the green does not call itself red or yellow, neither does the red call itself green or yellow, nor does the yellow call itself green or red. There are not three rainbows but one in three incorporeal faces in the image of the Trinity. For the Holy Trinity is also distinct in its three-named hypostases: the Father in His fatherhood, the Son in His sonship, and the Holy Spirit in Its spirituality. The Father never calls Himself the Son and the Holy Spirit, neither does the Son call Himself the Father or the Holy Spirit, nor does the Holy Spirit call Itself the Father and Son. Such is the distinctness of the Holy Trinity in Its three-named hypostases. As we have said, the Father is the Father, the Son, the Son, and the Holy Spirit, the Spirit, and the Divinity is One and ever inseparable. Although many blasphemers against the Holy Spirit, schismatics and heretics against the Divinity of three persons and names, calumniate and commingle the three into one, as did the godless Arius and the impious Manes and Nestorius, and Appolinarius, and other accursed heretics.

It is likewise fitting to discern also in man the image of the Holy Trinity,[3] Lifegiving and Indivisible: Father, Son, and Holy Spirit. The first is the soul, the second, reason, and the third is the word, and they are inseparable. The soul cannot exist in man without reason, neither reason without the word, nor may the word exist in man without the soul and the reason, and reason may not exist in man without the soul and the word. The trinity of the Divine Image exists in man indivisibly and is united by its named properties without commingling since the soul never calls itself word or reason, and word, likewise, does not call itself soul and reason, and reason also never says of itself: *I am the word and soul*, but in the likeness of the Trinity these three hypostases are distinct in man through their names. But man is one and Grace is one.

And now we come to the essence and will consider how humanity is revered by the greatness of the Divine Image in three hypostases of the Holy Trinity, for in man the soul is in the image of the Heavenly Father, the word in man is in the image of the Son of God and reason in man is in the image of the Holy Spirit.

---

[3]   What follows here is similar to the analogy between the Trinity and the faculties of the soul used by the Latin Fathers, Marius Victorinus and Augustine (cf. *PCF*, I, p. 361). The author of this text, however, must have had some Greek source to draw upon.

Thus, the soul is born in man when there is the lawful cohabitation of man and woman; and when flint strikes stone, then a spark of fire is born quite inexplicably. So is conceived the God-inspired soul in the womb from the lawful joining of man and woman.

And the word in man is in the image of the Son of God, for the Son of God is twice-born:[4] first, He was born of the Father by some incomprehensible birth, as the ray from the sun, and abode unknown with the Father; secondly, he was born without passion, indeed in the flesh, but not as vision or dream, from the pure Virgin, the Mother of God, and was seen in the flesh by all on earth. And in this flesh he lived on earth among men, in this flesh he was circumcized and baptized and suffered His pure Passion and nailed human sin on His cross. In the same sinless flesh He descended into Hell and redeemed mankind from putrefaction, and then in the same sinless flesh He rose again in three days and resurrected with Him all the righteous. And the sinless rib of the same divine and sinless flesh, wounded on the nail, was touched, on the eighth day of the Resurrection, by the Apostle Thomas, in his firm and unswerving faith. And then in the same sinless flesh He ascended into Heaven and sat at the right hand of the Father on the throne of majesty on high. And in the same sinless flesh He will come in all His glory back upon the earth to judge the living and the dead and to do unto each according to his deeds.

For His sake, and imitating the twofold birth of the Son of God, our word, too, has its twofold birth. For first our word is born of the soul, through some incomprehensible birth, and abides unknown near the soul; and then, born again through a second, fleshy birth, it emerges from the lips and reveals itself by the voice to the hearing.[5] And thus

---

[4]   For the description here of the Logos, with reference to its generation and incarnation, as "twice-born", see the expression "there are two births of God the Logos" in the Second Anathematism of the Fifth Oecumenical Council at Constantinople in 553 (A. Hahn, *Bibliothek der Symbole und Glaubensregeln der alten Kirche*, 3/1, 148). The analogy of "the ray from the sun" as an illustration of the generation of the Logos is used by the Church Fathers with some qualification (cf. *PCF*, I, pp. 300-301). The expression "and not as vision or dream" is a reference to Docetism.

[5]   This analogy between the incarnation of the Logos and the emergence of "our word" from its abode in our soul into a spoken word reflects the Stoic distinction between the "internal ('ενδιάθετος) Logos" and the "uttered (προφορικὸς) Logos", which the Apologists, because of their belief in the twofold stage theory of the pre-existent Logos, use as an illustration of the emergence of the pre-existent Logos from its existence as a thought of God into its existence as a real personal being (cf. *PCF*, I, 298-299). The change here in the use of this analogy from an illustration for the generation of the pre-existent Logos to an illustration for the incarnation of the Logos is due to the fact that the author of this text believed in the single stage theory of the pre-existent Logos, that is, in its eternal generation, and hence this analogy was no

Grace is manifested in all deeds committed on earth or the salvation of the soul through the enunciation of the word emitted from the mouth.

Reason in man is in the image of the Holy Spirit, for the Holy Spirit is Incomprehensible, Indescribable, Unknowable, Unspeakable and Invisible and it acts, watches and shields everywhere and touches invisibly. So acts human reason, always through protection and gift from the Holy Spirit.

Therefore, not reason through letters but letters through reason were created by Divine Providence many years after the Deluge through the painstaking sages, Milesius and Simonides and Palamedes and Dionysius the Grammarian and others.

Written in Milton, N.Y., June 1955, and published in *St. Vladimir's Seminary Quarterly* (New York, Summer 1956).

---

longer applicable as an illustration of the generation of the Logos. (On the twofold and single stage theories of the pre-existent Logos, see *PCF*, I, pp. 192ff.). Undoubtedly the author of the text had some precedent for his use of this analogy as an illustration of the incarnation.

ЯЗЫКОВЕДЧЕСКИЕ БОИ ГЕНЕРАЛА МРОЗИНЬСКОГО

ПАМЯТКА И НАПОМИНАНИЕ

Для польской науки позднего девятнадцатого и раннего двадцатого столетия характерен чрезвычайно своеобычный, разносторонний и проникновенный анализ различных проблем языковой теории в лингвистических трудах Бодуэна де Куртенэ, Николая Крушевского и вслед затем Яна Розвадовского, а также в опытах Станислава Лесьневского, Яна Лукасевича и младших логиков львовско-варшавской школы, наконец в этнологических подступах Бронислава Малиновского к речи примитивных племен.

Какова была оценка предыдущей стадии отечественных занятий наукой о языке со стороны старшего из названных исследователей, об этом красноречиво повествует "Отчет командированного Министерством народного просвещения за границу с ученою целью Бодуэна де Куртенэ о занятиях по языковедению в течение 1872 г.", опубликованный Казанским университетом в 1876 году. Молодой ученый отправился в Краков для ознакомления с состоянием тамошней лингвистики, но вскоре пришел к, быть может, непомерно строгому выводу, что "нечего было там изучать, ибо нельзя изучать того, чего не существует." Он с горечью констатировал "общее равнодушие краковских студентов не только к языковедению, но и ко всякой теории вообще." В начале семидесятых годов, согласно суровому приговору Бодуэна, "вообще между Поляками новой, строго-научной лингвистики, можно сказать, нет; есть только отдельные, весьма редкие попытки усвоить эту науку, но и они, по большей части, искажены желанием удовлетворить чисто местным, национальным потребностям и гонением за национальною оригинальностью."

Неприязнь к "узким, захолустным вопросам", сосредоточивавшим исключительное внимание краковских филологов, становится особенно понятна в свете "Программы чтений по общему языковедению", приложенной Бодуэном к этим его заграничным отчетам

и поныне поражающей читателя необычайно широкой сферой научных интересов и пытливой постановкой таких новых, кардинальных вопросов, как "механизм звуков, соответствия между ними и их динамические взаимоотношения, основанные на связи значения со звуком", в частности "относительность (релятивность) категорий звуков в целом языке человека или народа", причем эти категории определяются как "паралели звуков, основывающиеся на их отличительных физиологических свойствах" и порождающие "известные противоположности", например "различие мягких и твердых звуков, звонких и глухих, долгих и кратких, ударенных и неударенных"; особая дисциплина, "морфологическая фонетика", призвана изучать эти противоположности "в тесной связи со значением слов и их частей" (см. ниже, стр. 398 сл.).

"Подробная программа лекций" 1877-1878 учебного года пополнялась Бодуэном до самого ее выхода из печати в 1881 г.; в частности, до 1881 г. доведена приложенная к программе библиография рекомендованных студентам пособий. В этом списке трудов выступают все провозвестники новейшей лингвистики – J. Winteler, H. Sweet, F. de Saussure и сотрудник Бодуэна Крушевский, представленный в этом перечне лингвистических исследований четырьмя работами 1879-1881 гг. Там же (стр. 70) неожиданно обнаруживается отнюдь не случайная, поучительная ссылка на старинную книжицу с необычным заглавием: Józef Mroziński, *Odpowiedź na umieszczoną w Gazecie Literackiéj recenzyję dzieła pod tytułem: Pierwsze zasady Grammatyki języka polskiego*, Варшава 1824.

Автор этой отповеди, как сообщают его биографы – K. W. Wójcicki, "Wiadomość o życiu i pismach Józefa Mrozińskiego", *Cmentarz powązkowski pod Warszawą*, II, № 11; K. Appel, *Wielka Encyklopedja powszechna ilustrowana*, XLVII-XLVIII (1912), 570-571; G. Korbut, *Literatura polska*, II (1929²), 249, – родился 19 марта 1784 в Галиции, в селе Конюхи близ Бржежан; "захваченный веяниями наполеоновских времен", он в 1807 г. вступил в польское войско, в 1808 и 1809 гг. сражался в Испании, а в 1812 и 1813 в России и Германии. В армии Конгрессовой Польши он был с 1815 г. подполковником, с 1820 г. полковником, с 1829 г. генералом, в 1830 г. был назначен начальником генерального штаба, натурально вышел в отставку под конец 1831 г., последние годы жизни занимался с увлечением ботаникой и умер в Варшаве 16 января 1839 года.

Доблестный участник взятия Сарагоссы, Мрозиньский написал красочный исторический обзор – *Oblężenie i obrona Saragossy w latach*

1808 i 1809 ze względem szczególniejszym na czynności korpusu polskiego.
Его рукопись, переданная в *Pamiętnik Warszawski* вызвала нарекания
редактора Ф. Бентковского на недостатки языка и слога. Тогда
автор, по собственным словам, "решил познакомиться с правилами
родной речи". Биограф отмечает, что Мрозиньский, получивший
образование в австрийских школах, вовсе не учился польскому
языку, а затем, вступив в армию и пребывая постоянно за границей,
не имел возможности овладеть им в совершенстве, пользуясь
беспрестанно французским языком.

Pamiętnik Warszawski, пятый год (1819), том XIII, опубликовал
исправленный автором текст его названного сочинения (пере-
печатка: *Biblioteka Polska*, Oddział historyczny, I/1858, с воспро-
изведением вышеупомянутой статьи К. В. Вуйчицкого). Однако и
эта переработка не удовлетворила языковых требований придирчи-
вой критики. Двадцатые годы были временем относительного
досуга в жизни Мрозиньского, и он вознамерился основательно
продумать строй родного языка, но усердное изучение польских
грамматических писаний привело рассудительного читателя к не-
ожиданному выводу: "Еще ничто на моем веку не представлялось
мне столь трудным, как польская грамматика. Я старался облегчить
себе эту науку различными способами. Мне надумалось обратиться
за помощью к общей грамматике: я ознакомился с произведениями
нескольких славных грамматиков, тотчас же отвращение сменилось
увлечением, и с тех пор общая грамматика стала моей страстью".
Результатом этих размышлений и разысканий была книга Мрозин-
ского *Pierwsze zasady grammatyki języka polskiego* (Варшава, 1822;
перепечатка: Львов, 1850). *Gazeta literacka*, № 26-32 (1822), опублико-
вала крайне отрицательный разбор этой книги, вышедший из под
пера двух филологов, Адриана Кршижановского и Андржея Кухар-
ского, и эти враждебные выпады вызвали вышеназванный ответ
разгневанного Мрозиньского, плод годовой подготовки, том в
целых триста страниц, где с испытанным стратегическим искусством
и боевым пылом парируются нападки и разбиваются доводы
оппонента, а главное – с твердой логической последовательностью
развертываются, совершенствуются и закрепляются собственные
принципиальные позиции.

Взыскательный судья местной грамматической литературы об-
винял ее в узком педантизме, в смешении звуков с буквами, в не-
достатке научного подхода и в решительной неспособности к анализу
"структуры польского языка". В поисках методологических образцов

Мрозиньский принялся за изучение иностранных трудов по общей грамматике и в своих языковедческих рассуждениях он ссылается на целый ряд западных ученых, изредка на англичан (Monboddo) и немцев (L. H. Jakob), но в первую очередь на великолепную лингвистическую продукцию французской эпохи Просвещения и ее отпрысков (Thiebault, *Grammaire philosophique*; Estarac, *Grammaire générale*; Court de Gébelin, *Grammaire universelle*, и пр.). Тесно связанный с Францией, ее языком, культурой и общественной жизнью Юзеф Мрозиньский, двукратный французский орденоносец, неслучайно набрел именно на французскую философско-грамматическую литературу, незадолго до этого прошедшую порой пышного расцвета.

Французские тяготения сарагосского бойца ярко иллюстрирует его письмо, опубликованное Вуйчицким. Оно написано в Седльцах 15 марта 1823 г., когда Мрозиньский, в то время полковник, прервал сосредоточенную работу над своей "отповедью на рецензию" для участия в генеральном смотре польской армии под Брест-Литовском: "Вот и я – впервые в моей жизни – марширую с войском по плодородной родной земле. Изнуренный бреду в песке *** В каждом краю, перед глазами человека, странствующего в течение нескольких дней, сменяются ландшафты, но здесь мы до сих пор видим только небосвод, очерченный на горизонте видом елей то близких, то отдаленных. – После лагерной утренней службы и шествия городом мы маршировали по хорошей дороге, проложенной на манер французский дорог, но еще подобало бы к ней приладить также и край на манер французского".

Надо отдать справедливость польскому полководцу: в сложном, неровном ландшафте французской философской грамматики он умел обнаружить и творчески освоить именно вершинные пункты. Связь новатора с французской лингвистической мыслью требует подробного, тщательного расследования, но не подлежит сомнения, что именно ее задания и достижения послужили благодарным импульсом к смелой формулировке основных программных требований гениального дебютанта в науке о языке.

"Мы не можем знать польской грамматики, пока не будет познана философская часть нашего языка, иначе говоря, его внутренняя структура (*wewnętrzna budowa*)", доказывал Мрозиньский. "Я излагаю принципы грамматической структуры языка", поясняет он заглавие своей первой книжки, и два его краеугольных тезиса недвусмысленно гласят: "Правила для языка могут быть выведены

только из механизма этого самого языка", и с другой стороны, – "Разбор звуков и разбор словоизменения в моей книжке служат единственно для разъяснения и обоснования моей теории общих принципов языковой структуры". Оба лозунга находят себе непосредственное продолжение в научной деятельности Бодуэна де Куртенэ и Крушевского. И тот, и другой считали описание отдельных языков лишь средством к вскрытию лингвистических закономерностей, и именно сочетание работы над частной речевой эмпирией с общеязыковой теорией неизменно восхищало Соссюра в произведениях обоих польских основоположников т.н. казанской языковедческой школы.

Мысли Мрозиньского о принципах языковой структуры явно были непосредственно знакомы Бодуэну, и, по всей вероятности, также его ученику и соратнику, Николаю Крушевскому. Слова последнего о возможности найти в са́мом языке прочные основы новой, подлинно имманентной науки о языке (см. ниже, стр. 434) созвучны с убеждением Мрозиньского о необходимости выводить языковые правила "только из механизма этого самого языка", а постоянная апелляция автора *Pierwszych zasad* к "языковому механизму", сообразно с французской научной номенклатурой XVIII века, была подхвачена молодым Бодуэном, неустанно напоминавшим, начиная с вступительной лекции 1870 г., частое несовпадение физической природы звуков с их значением в механизме языка" (см. ниже, стр. 400). Эти слова близко примыкают к поучению Мрозиньского: "Исследователь языка, который рассматривает его структуру, должен выследить, какими чертами определяются отношения между звуками речи, и на основании этих самых черт он должен провести классификацию звуков, ибо цель каждого подразделения звуков кроется в механизме языка. Классификация, произведенная не с этой целью, оказывается работой без малейшей пользы".

Соприкосновение с традицией французских энциклопедистов, их предтеч и продолжателей было для польской науки восемнадцатого и девятнадцатого века благотворной закваской, из которой взошли чрезвычайно оригинальные открытия и гипотезы, дождавшиеся подтверждения и обширного применения лишь в международном научном движении значительно более позднего, преимущественно нынешнего времени. Сошлюсь для примера хотя бы на тесную связь биологических взглядов Ендржея Сьнядецкого (1768-1838) с передовой научной мыслью тогдашней Франции (ср. L. Szyfman, *Jędrzej Śniadecki przyrodnik-filozof*, Варшава, 1960); руководящая

роль наследия гармонически сочетается в его важнейшем труде – *Teorya jestestw organicznych* (1804-1838) – с поражающей новизной авторских заключений и обобщений, вошедших в мировую науку современности и побудивших одного из ее крупнейших деятелей, В. И. Вернадского (*Химическое строение биосферы земли и ее окружения*, Москва, 1965), высоко оценить и по-новому использовать это "замечательное произведение по глубине мысли и последовательности".

К тому же плодоносному периоду в истории польской духовной жизни принадлежит своими лингвистическими этюдами и Юзеф Мрозиньский, младший современник братьев Яна и Ендржея Сьнядецких и Ст. Сташица. Показательно и лишь на первый взгляд парадоксально, что именно в результате разрыва с местной учебой, именно сквозь призму иностранных опытов философской универсальной грамматики, именно в силу широко развернувшегося, воистину интернационального лингвистического кругозора он постиг знаменательную разницу структурных принципов, лежащих в основе различных языков и необходимость радикального, последовательного отказа от механической подражательности латинскому трафарету, царившей во всех учебниках польской грамматики. Согласно его уничтожающему отзыву таковая неизменно строится на чужестранный лад ("*na obcych warsztatach*") и потому неизбежно уродует язык.

Героические вылазки Мрозиньского в теорию языка, к сожалению, не нашли себе продолжения в его дальнейшей деятельности, хотя, по собственному признанию, он мечтал "позднее отдать под суд публики свои мысли о внутренней структуре польской речи". Набросанные автором идеи не встретили живого, действенного отклика у его современников. Первыми реализаторами чаяний и предвкушений Мрозиньского были в польской науке молодые казанские лингвисты семидесятых и начала восьмидесятых годов (ср. ниже, стр. 394-450). Содержание обеих его книг обсудил последователь Бодуэна, Tytus Benni: "Jenerał Mroziński jako psychofonetik" (Komunikat), *Sprawozdania z posiedzeń Towarzystwa Naukowego Warszawskiego, Wydział językoznawstwa i literatury*, VI, № 9 (1913), стр. 77-93. В своем содержательном, живо написанном и доныне единственном очерке, непосредственно посвященном Мрозиньскому-лингвисту, Бенни воспользовался малоудачной терминологией поздних работ Бодуэна – "физиофонетика" и психофонетика" (ср. ниже, стр. 417сл.); первая, согласно определению Бенни, очерчивает

"только физиологические черты звука", а вторая – его "морфологические функции". "Коммуникат" характеризует Мрозиньского как психофонетика, который однако "не сумел отделить друг от друга этих двух точек зрения", так что порой между ними возникают взаимные противоречия. На деле же и в первой книге, и еще куда более во второй поражает именно четкая дифференциация и размежевание разных планов изучаемой действительности, т.е. та же черта, которая восхищает сегодняшнего ученого в произведении Ендржея Сьнядецкого с его проникновенным определением и различия, и общности между живым и косным веществом. Если *Teorya jestestw organicznych* удостоверяет, что автор всецело отдавал себе отчет в важности своих открытий для науки о жизни", то в свою очередь Мрозиньский сознавал и давал понять читателю новизну и поворотное значение своих наблюдений, методологических начинаний и выводов для науки о языке вообще и польском в частности.

В своей кампании против отечественной языковой учебы Мрозиньский прежде всего обвинял ее в том, что она "не уделяет никакого внимания грамматическим принципам", "не заботится о целом", "не видит связи между единичными пунктами" и трактует разрозненные, доступные непосредственному наблюдению факты "вне какого бы то ни было соотношения с механизмом языка". В рассмотрении звуковой структуры долгом систематизатора Мрозиньскому представляется определение отношений между звуками и их подразделение на основании тех черт, которые играют роль в механизме языка, тогда как "классификация, произведенная не с этой целью" вызывает, повторяем, решительное осуждение исследователя, как "работа без малейшей пользы".

Первой задачей, которую поставил себе Мрозиньский, было определение и описание звуков польского языка, согласно правильному отчету Бенни, но референт не принял во внимание, что предметом этого описания были физиологические черты звука не сами по себе, а в связи с их значимостью в языковом целом (*w całokształtu języka*). Согласно авторскому пояснению, его целью было "обследовать всяческое сродство (*powinowactwo*) звуков речи" (характерно, что говорит он здесь не о генетическом родстве, а о "сродстве", обретенном в системе и благодаря системе), и для этого нужно было "сперва пройти всю этимологическую часть грамматики", т.е. установить репертуар словоразличительных средств в звуковом составе данного языка. Следует отметить, что именно об "этимологической части науки о звуках", т.е. изучении звуков "в связи со

значением слов” говорил Бодуэн в программах своих казанских лекций.

Показательным примером трактовки звуков в свете их слово-различительной функции служит блестящее открытие Мрозиньского, что разверстка польских гласных *i* и *y* всецело зависит от различия непосредственно предшествующих согласных по мягкости и твердости. “В структуре польского языка повсеместное различение твердого и мягкого согласного обязательно”, и в таких парах, как *był* и *bil*, “мы сосредоточиваем внимание только на твердом или мягком звучании согласного”, потому что это различие в польской речи не находится в непременной зависимости от следующего гласного и, в частности, выступает самостоятельно в конце слова, между тем как “различие звучания гласных *i*, *y* не порождает раздельных грамматических форм в нашем языке”. Поэтому так же, как различие между словами *ladne*, *ladnie* основывается единственно на твердом или мягком звучании звука *n*, подобно тому и различие между словами *ladny*, *ladni* основывается на твердом или мягком звучании того же согласного”. Это утверждение об отсутствии польского (и соответственно русского) гласного *y* в качестве автономного словоразличительного средства было вместе с сопроводительной аргументацией повторено и развито Бодуэном.

Одни и те же доводы против этого открытия, обоснованного Мрозиньским, а затем Бодуэном де Куртенэ, снова и снова всплывают в печати различных стран, изобличая рабскую зависимость критиков от орфографического шаблона и непонимание основных начал функциональной оценки звуков речи. В частности, несостоятельна попытка Бенни опровергнуть приведенный тезис Мрозиньского и Бодуэна. Ведь в польском языке комбинаторный вариант *y* бытует только после твердых, а *i* только после мягких и в начале слов, а также словесных корней (в русском же языке после мягких и в *абсолютном* начале слова). Вопреки безосновательному домыслу Бенни, будто *i* в словосочетании *profesor informuje* или в таких, с точки зрения славянской фонологии, сложных словах, как *bezimenny* (= *bez-imenny*), свидетельствует в пользу двух всамделишных, независимых фонем, на деле же в обоих узких, нелабиализованных гласных как польского, так и русского языка нельзя не опознать внешне обусловленных вариантов одной и той же словоразличительной единицы.

Опять-таки заявление Мрозиньского, что польские плавные не принадлежат ни к “слабым”, ни к “сильным” согласным, т.е. ни к

звонким, ни к глухим, оспариваемое в "Коммуникате" Бенни со ссылкой на глухие плавные в словах *krwi* и *plwać*, остается в силе ввиду чисто комбинаторного распределения звонких и глухих вариантов.

Как в этих вопросах, так и вообще в анализе соотношений между ролью звуков применительно к механизму языка и их физиологическими свойствами Мрозиньский заметно опередил фонетика Бенни, который то и дело пугался бесстрашных догадок ветерана: "Конечно, не во всем мы согласимся, и не все для нас окажется ясно и понятно. *** Тут наш автор хватил через край ***" Приводимые у Бенни примеры мнимых срывов, заскоков и промахов "нашего автора", напротив, доказывают силу прозрений, роднящих его лингвистическую мысль "z dzisiejszymi poglądami naszemi", которым референт ее склонен противопоставлять.

В противоположность постулату Титуса Бенни, верившего, что психофонетическое родство звуков по самому существу своему не имеет ничего общего с вопросом артикуляционной классификации, "наш автор" свыше полутораста лет тому назад чутко осознавал не только различие между обеими "системами деления", но и необходимость поисков соотношения между функциональным и органогенетическим аспектом звуков речи. Если для Бенни аффрикаты, "простые под психофонетическим углом зрения", по своей артикуляции делятся на две различных части, то Мрозиньский (а вслед за ним Бодуэн и Maria Dłuska, развившая его концепцию в превосходной монографии *Afrykaty polskie*) расценивал их как фрикативную разновидность затворных согласных и, в частности, в основу определения аффрикаты *c* он безошибочно положил ее характер мгновенного, т.е. затворного сибилянта (*brzmienie syczące momentalne czyli odbite*). Иными словами, он уловил разницу между теми двумя противопоставлениями, которые мы в настоящее время определяем (ср. *Selected Writings*, I, стр. 485 сл.) как прерывистые/непрерывные (abrupt/continuous) и резкие/нерезкие (strident/mellow), но нерезкие выступают у него под сбивчивым названием "*głosowe*", повергшим Бенни в полное недоумение.

В свою очередь связь и различие между *s* и *sz*, а также соответственно между *c* и *cz* были вполне ясно охарактеризованы у Мрозиньского, который однако, по уверению Бенни, "чувствует себя малоуверенным в этом вопросе". Настаивая на двух классификационных признаках – "сообразно с органами речи" и "сообразно с материей звучания" (*podług materyi brzmienia*), – Мрозиньский

отверг знакомое ему из французских работ подразделение сибилянтов (которые он именует *syczące*) на свистящие (*sifflantes*) и шипящие (*chuintantes*), потому что эти два термина внушают представление о различной "материи звучания" в согласных *s* и *sz*, а на деле сибилянтность (*syczenie*) является общим признаком обоих звуков, и разница между ними основана на различном положении языка. Приведя к общему знаменателю "материю звука *s* и звука *sz*" (схожим образом также *c* и *cz*), исследователь пользуется другим из двух названных критериев, т.е. положением органов речи, для того, чтобы отмежевать согласные *sz*, *cz*, *ż* от *s*, *c*, *z*, *dz* и зачислить первую группу вместе с задненебными в разряд согласных, чисто условно нареченных "гортанными", т.е. в разряд "звуков, производимых в глубине рта". Названный класс всецело совпадает (ср. *Selected Writings*, I, стр. 484 сл.) с нашей категорией компактных согласных, в органогенетическом аспекте характеризуемых своим раструбом (*forward-flanged*). Таким образом как общие, так и различительные черты (*cechy*) согласных *sz* и *s* (*cz* и *c*; *ż* и *z*) были отчетливо определены Мрозиньским.

Наконец, выяснение всех значимых отношений между звуками речи ставит на очередь последнюю и главную в его глазах задачу: "Тогда лишь становится возможно установить, какое подразделение звуков наиболее свойствено грамматике польского языка". Именно в работе над грамматическими альтернациями, в особенности над "механизмом замены польских согласных" и над ее ролью в склонении и спряжении, Мрозиньский усматривал существенное новшество своего подхода к звукам и грамматическим формам.

Выдвинутая им проблема альтернаций, тесно связывающая звуковой и морфологический анализ, была полвека спустя воспринята и обстоятельно развернута Бодуэном де Куртенэ и вскоре затем Крушевским, заняв центральное место в творчестве обоих лингвистов. Различные типы одновременного сосуществования альтернантов требовали синхронического анализа, и именно в связи с теорией альтернаций был с особенной настойчивостью поднят как Бодуэном, так и Крушевским вопрос о "надлежащем понимании статики языка". В свое время Мрозиньский построил свой разбор "на фактах, непосредственно данных в живой речи", устранив, согласно меткому отзыву Бенни, "без колебаний и сомнений, по-солдатски" всяческий внеположный материал, иноязычный либо во времени, либо в пространстве, и как раз в силу неукоснительно синхронического подхода ему удалось понять и

обрисовать морфологическую роль чередований конечного согласного основы и вообще проложить путь к научному анализу звуковых альтернаций.

Его исследование бросило свет на внутренний строй чередования и в частности показало необходимость установить строгое различие между "первого класса" альтернантом, подверженным замене (*zamiennym*), и альтернантом "второго класса", который служит субститутом, сам же не подлежит замене (и поэтому "мог бы называться *niezamiennym*). Иначе говоря, синхроническая трактовка чередований обнаружила существенный и плодотворный для науки факт необратимого внутреннего направления в пределах каждой альтернации.

Вставал неизбежно дальнейший вопрос, которому в работах семидесятых годов Бодуэн де Куртенэ дал заостренную формулировку, а именно вопрос об изучении звуковых единиц "относительно их известных свойств, то-есть, насколько они играют роль, например, мягких и твердых, *** хотя, с строго физиологической точки зрения фонетические эквиваленты могут быть твердыми согласными элементами ***" Весьма вероятно, эти строки непосредственно внушены примером Мрозиньского, впервые поставившего на обсуждение именно такого рода "несовпадение". Согласно его выкладкам, в "грамматическом механизме" все члены вышеназванного "второго класса" альтернирующих согласных функционируют как согласные мягкие и в большинстве своем действительно наделены мягким звучанием (*brzmieniem miękkim*), тогда как немногие другие члены этого класса (исторические продукты т.н. переходного смягчения) лишены этой черты и не входят в число согласных парных по твердости и мягкости. Мрозиньский определяет их как звуки, "принадлежащие к категории мягких с точки зрения грамматической классификации", но он не ограничивается признанием несовпадения, а задает себе вопрос об общем физиологическом знаменателе всех согласных данного класса. Согласно гипотезе предприимчивого искателя, таким общим знаменателем служит большее "сужение канала", присущее артикуляции не только собственно мягких (диезовых, *sharp*), но и сибилянтов (высокотональных резких, *acute stridents*, по нашей систематике: *Selected Writings*, I, 486). Если перевести догадку Мрозиньского на язык акустики, то новейшие лабораторные показания действительно свидетельствуют о повышенном спектре этих согласных по сравнению с соответствующими звуками без сибилянтного шума (т.е. с нерезкими – *mellow* – соглас-

ными). При этом автор отдает себе отчет в побочной роли и чисто пробном характере предложенного объяснения: "Мои физиологические соображения могут быть ошибочны, но моя классификация согласных остается безупречна".

Еще один языковой план был подвергнут Мрозиньским тонкому анализу. Его работы полны интересных высказываний о письменной передаче устной речи, нашедших себе прямое продолжение в исследованиях Бодуэна на ту же тему, особенно в его знаменитой книге *Об отношении русского письма к русскому языку* (1912). Тут и вопрос о несоответствиях между единичными звуками и двойными буквами, напр. польским диграфом *sz*, обозначением глухого шипящего спиранта, и проект последовательно "грамматической системы письма", которая бы между прочим обобщила способ изображения мягкости согласных посредством последующего "умягчительного знака", причем двусмысленную букву *i* традиционных польских диграфов Мрозиньский заменил специальным нововведением – *ı*. Он оговаривает, что такое написание нельзя считать новой буквой, поскольку "эта фигура в отдельности не обозначает никакого звука" так же, как русские *ъ* и *ь*, на которые ссылается автор проекта. Бодуэн соответственно вводит термин "аналитическая графема" (ср. *Selected Writings*, I, стр. 557). Образчики названного графического приема – *koнı, ladnıe, biil* (*koń, ladnie, bil*): разницу между *у* и *i* "мы будем выражать только в самóм согласном", т.е. традиционное написание *by* мы заменим простой передачей твердого согласного через *b*, а написание *bi* уступит место передаче мягкого согласного через *bı*, "зато гласный *i* как дебелый (*у*), так и тонкий (*i*) *zawsze tą samą malować będziemy postacią* (мы всегда будем изображать одной и той же фигурой *i*): *bil* читай *byl*, *biil* читай *bil*".

Вопросы отношения между польской речью и письмом получили дальнейшее развитие в статьях, написанных Мрозиньским, когда развивавшее свою высокопродуктивную деятельность *Towarzystwo Warszawskie Przyjaciól Nauk* выбрало его в свои члены и делегировало в комиссию по упорядочению польского правописания. Бенни не упоминает об этих статьях, вошедших в коллективную публикацию Товарищества – *Rozprawy i wnioski z ortografii polskiej* (Варшава, 1830), но Карол Аппель, в свою очередь близкий к Бодуэну, справедливо причислил их "к наиболее выдающимся произведениям, каковыми могла в то время гордиться не одна лишь польская, но вообще славянская филология".

Отсутствие польского собрания трудов Бодуэна де Куртенэ

остается чувствительным пробелом, который был лишь отчасти восполнен двумя русскими томиками его избранных сочинений, далеко не покрывающими наиболее ценных и зажигательных идей великого пионера. Языковедческие работы Мрозиньского, особенно его *Odpowiedź*, вышедшая полтора столетия тому назад всего в 250 экземплярах, настоятельно требуют критического переиздания, безусловно необходимого для истории не только польской, но и международной лингвистики да и вообще научной мысли. Другой задачей равно неотложной является пристальный разбор его исследований на фоне их польского и общеевропейского окружения.

Провидец и провозвестник современного фонологического подхода к звуковому и грамматическому строю речи, видимо, подсказавший Бодуэну приступ к неуклонно синхронической трактовке фонем, их чередований и их отношений с графемами и связавший начатки структурной лингвистики с заветами французского рационализма и классицизма, бесспорно заслуживает всестороннего изучения и зоркой интерпретации.

Приглядываясь к языковедческому вкладу Мрозиньского, мы неизбежно задаем себе любопытный вопрос о связи преобразователей мировой лингвистики, Бодуэна и Крушевского, с польским научным брожением первой четверти прошлого века. Отметив близкое знакомство Бодуэна с литературным наследием Мрозиньского, мы далее можем, думается, уловить отголоски открытий Ендржея Сьнядецкого в писаниях Крушевского. Недаром последний в своем курсе французской грамматики сам ссылался на биологические аналогии с языковой эволюцией, а Бодуэн в рецензии на *Очерк науки о языке* Крушевского подчеркнул, что "предположение всеобъемлющего процесса переинтеграции во всех сторонах жизни языка" впервые перенесено автором из биологии в лингвистику. В первой половине семидесятых годов, когда Крушевский был студентом Варшавского университета, *Teorya jestestw organicznych* оказалась предметом затяжной, горячей дискуссии естесвоиспытателей и философов в польской печати (H. Struwe, Z. Kramsztyk, H. Kułakowski, B. Rejchman, T. Żuliński), и Крушевскому, страстному читателю, увлеченному философией и размышлявшему о "методологической природе" естественных наук, эти варшавские споры едва ли остались незнакомы. Проходящее красною нитью сквозь труды Крушевского учение о переинтеграции и ее основном, универсальном проявлении, всеохватывающем процессе ассимиляции (согласно авторскому пониманию и применению этого термина) разительно

совпадает с воззрениями Сьнядецкого на "постоянную переменность формы" и с руководящим тезисом его *Теории*: "Вся жизнь представляет собой постоянный и непрерывный органический процесс, т.е. никогда не прекращающуюся *ассимиляцию*. Вот важнейшая истина, до которой было возможно дойти в науке о жизни, и которая станет основоположным принципом современной науки." В своем неустанном стремлении сблизить лингвистику с естествознанием и найти "какой-либо общий закон, одинаково приложимый ко всем явлениям" в жизни языка (см. ниже, стр. 429, 431), Крушевский не мог не вспомнить универсальный "закон жизни", еще на пороге века гордо выдвинутый Сьнядецким как общенаучный принцип.

Статья написана в июне 1967 г., La Jolla, Калифорния, для сборника в честь Стефана Жулкевского, даровитого продолжателя боевых традиций польской передовй науки.

К стр. 381: ср. Z. Kawyn-Kurz, "Poglądy gramatyczne Kopczyńskiego w świetle krytyki J. Mrozińskiego", *Sprawozdania Poznańskiego Towarżystwa Przyjaciół Nauk* 3. VI. 1957.

JAN BAUDOUIN DE COURTENAY

1845-1929. Ein Leben, reich an Jahren, Arbeit, innerem Gehalt. Vier-
undsechzig Jahre wissenschaftlicher Tätigkeit. Ihr Anfang trifft zeitlich
mit einer bedeutsamen Wendung in der Geschichte der Sprachwissen-
schaft zusammen, mit der Periode der Entstehung und der ersten großen
Errungenschaften der junggrammatischen Schule. Baudouin ist einer ihrer
markantesten Bahnbrecher; in seiner Leipziger Dissertation begründet er
zum ersten Male eine der Hauptthesen der Junggrammatik – die Lehre
von der Rolle der grammatischen Analogie im Leben der Sprache, – und
die Arbeit ist derart kühn und überraschend, daß Schleicher ihre theo-
retische Einleitung streicht; als einer der ersten stellt Baudouin in Theorie
und Praxis die Forderung nach wissenschaftlicher Erforschung der zeit-
genössischen Sprachen und ihrer Dialekte auf, der Umgangssprache aller
Gesellschaftsschichten, der beruflichen Sondersprachen, der individuellen
Rede, der Pathologie der Sprache. Er beteiligt sich eifrig an der jung-
grammatischen Grenzziehung zwischen Linguistik und Naturwissenschaft.
Es handelt sich aber hier nicht um historische Verdienste, noch um den
Ehrenplatz, den Baudouin in der ruhmvollen Schar der Junggrammatiker
einnimmt: er hat eine Reihe von Problemen scharf beleuchtet, die auch
heute, nach einigen Jahrzehnten, das linguistische Denken tief bewegen.
Alles läß sich nicht aufzählen, so mögen Hinweise genügen, beispielsweise
auf die Frage des Sprachsubstrats, die in den Arbeiten über die rezjaner
Mundarten angeschnitten wurde, auf die Frage der Sprachmischung, des
polygenetischen Ursprungs der Sprachen, der Bedeutung des Generations-
wechsels für sprachliche Änderungen, auf das Problem der künstlichen
Weltsprache, das Baudouin tiefer und scharfsinniger erörtert als die
orthodoxen Junggrammatiker.

In "Einigen allgemeinen Bemerkungen über Sprachwissenschaft und
Sprache" (1871) schreibt der junge Baudouin: "... eine unendlich kleine
Änderung, die in einem Augenblick vorgenommen wird, gibt nach un-
endlich vielen Wiederholungen eine bestimmte wahrnehmbare Änderung.

So erklärt sich der Lauf der Zeit, die Vergrößerung des Raumes, die Wirkung der Wassertropfen auf einen Stein, wenn sie stets auf die gleiche Stelle fallen, die Wirkung der Gifte, der Übergang vom Schlaf zum Wachsein und umgekehrt, der Übergang des Embryos zum lebendigen Menschen, der langsame Übergang eines Menschen in den Tod, der Untergang von Staaten und anderen bestimmten politischen und sozialen Gebilden usw. Überall gibt es irgendeinen unerfaßbaren kritischen Moment, der nach der einen oder anderen Seite hin entscheidet: entweder verschwindet die ganze Vergangenheit gleichsam spurlos – oder aber sie hinterläßt wahrnehmbare Spuren ihres Einflusses".

Das kritische Moment in der Evolution der Wissenschaft hat nahezu unmerklich vom Erbe der Junggrammatik vieles außer Kurs gesetzt, was noch gestern ewig jung erschien. Die nämliche Erscheinung hat die ungewöhnliche Aktualität derjenigen Ideen und Vermächtnisse Baudouins offenbart, die vom Gesichtspunkt der junggrammatischen Doktrin ketzerisch schienen. Bezeichnenderweise blieben im Anfang die Moskauer und die Krakauer Linguistenschulen dem Einfluß Baudouins fern; erst in letzter Zeit erlebt die russische Sprachwissenschaft eine fruchtbare Kreuzung zweier Schulen, der Fortunatovschen und Baudouinschen; eine Umkehr nach den Ideen Baudouins hin macht sich auch in der polnischen Wissenschaft bemerkbar; eines der wesentlichsten Momente der Lehre Baudouins, der Begriff der Phoneme, wird in der Interpretation Ščerbas, eines der bedeutendsten Schüler Baudouins, zu einem wichtigen Bestandteil der westeuropäischen Linguistik (Jespersen, Jones, Mathesius u.a.). Es ist kein Zufall, daß der jüngste Weltkongreß der Slavisten im Zusammenhang mit der Erörterung der methodologischen Tagesprobleme der Linguistik ein Begrüßungstelegramm an Baudouin als den hervorragendsten Bahnbrecher der neuen Sprachwissenschaft abgeschickt hat.

Es ist kaum zu glauben, daß uns schon 35 Jahre trennen von dem "Versuch einer Theorie phonetischer Alternationen", einer Programmarbeit Baudouins, die nich nur seine ganze weitere wissenschaftliche Bahn bestimmte, sondern auch zu einer mächtigen Anregung für das moderne linguistische Suchen wurde. Das funktionale Anpacken der Sprachfakten charakterisiert bereits die Inaugurationsvorlesung Baudouins von 1870 an der Petersburger Universität, worin er neben der "Betrachtung der Laute vom rein physiologischen Standpunkt" bereits als selbständiges Problem "die Rolle der Laute im Mechanismus der Sprache" hervorhebt, ihre Bedeutung für das Sprachgefühl der Nation, das sich nicht immer mit den entsprechenden Lautkategorien nach deren physischer Eigenschaft deckt, die Analyse der Laute vom morphologischen, wortbildenden

Standpunkt". In der Folge hebt er klar eine besondere linguistische Disziplin hervor, die "etymologische Phonetik" (heute würde man sagen: "Phonologie"), die die Beziehung zwischen akustisch-motorischen Vorstellungen und Bedeutungsvorstellungen (semasiologischen und morphologischen) untersucht. Baudouin ist vor allen Dingen ein tiefer Analytiker, und vielleicht ist die eindringliche Aufdeckung der Grundelemente der Sprache in all ihren Reihen das wertvollste von allem, was er geschaffen hat. Nimmt die zeitgenössische Linguistik irgendein Problem der phonologischen und grammatischen Struktur der Sprache oder die Frage der Beziehung zwischen Schrift und Sprache in Angriff, so kommt sie um diese ausgezeichnete analytische Arbeit nicht herum.

Sollte die Junggrammatik die dialektische These des linguistischen Denkens vom Ende des 19. Jhs. gewesen sein, so hat sich bereits im Schaffen zweier genialer Sprachforscher, Baudouin de Courtenays und de Saussures, grell die Antithese verkörpert. Die orthodoxen Vertreter der Junggrammatik vermochten den Widerspruch zwischen ihren philosophischen Voraussetzungen und den Folgerungen aus ihrer eigenen konkreten Erfahrung nich zu erfassen. De Saussure und Baudouin ließen die philosophischen Voraussetzungen unangetastet, aber die inneren Widersprüche der junggrammatischen Doktrin deckten sie furchtlos auf. Dabei beschränkte sich Saussure auf die Anerkennung der Antinomien (die innerhalb der Junggrammatik unlösbar waren), während Baudouin aus den philosophischen Voraussetzungen der Junggrammatik alle logischen Schlüsse zu ziehen trachtete, selbst um den Preis der Entstellung der konkreten Erfahrung. Der Ausgangspunkt der Junggrammatik war die individuelle genetische Psychologie, die für sich die Rolle der höchsten Verdolmetscherin aller Produkte der psychischen Tätigkeit in Anspruch nahm. Der Versuch, mit den Mitteln der individuellen Psychologie ein derartiges System von sozialen Werten, wie die Sprache eines ist, zu erklären, war von vornherein zum Mißlingen verurteilt. Baudouin rechnete vom Anfang seiner Tätigkeit an mit der prinzipiellen Wichtigkeit der Unterscheidung zwischen der "Sprache als eines bestimmten Komplexes gewisser Bestandteile und Kategorien, die nur in potentia existiert" (Saussures *langue*) und der "Sprache als eines sich ununterbrochen wiederholenden Prozesses" (Saussures *parole*). Während aber Saussure in der statischen Analyse des Sprachsystems den Psychologismus zu überwinden und sich einen rein linguistischen Standpunkt anzueignen vermochte, stellte sich der folgerichtige Glaube an den Primat der Psychologie zwischen Baudouin und die Probleme des Sprachsystems und maß unberechtigt den Fragen der individuellen Rede eine monopole

Bedeutung bei. Als er daher die Elemente der Sprache meisterhaft aufgedeckt hatte, brachte er es trotzdem nicht fertig, ihre Beziehung zum Sprachganzen zu beleuchten. Indem er im Einklang mit der jung-grammatischen Philosophie "die unwissenschaftliche Kategorie der Zweckmäßigkeit" ("die Entwicklung der Wissenschaft", meinte er, "besteht aus den Fragen *Warum* und nicht *Wozu*") verwarf, hatte Baudouin glänzend bewiesen, daß bei einer derartigen Problemstellung das Lautgesetz eine untaugliche Fiktion sei, und in der Tat hatte er auf diesen Begriff verzichtet; zugleich äußert er ein natürliches Befremden wegen der überaus häufigen lautlichen Übereinstimmungen, die wie ein Gesetz anmuten (*Rocznik Slawistyczny*, III, 1-82). Saussure behält die traditionellen Begriffe und beschränkt sich auf die Feststellung der Antinomie zwischen der geordneten systemartigen Statik der Sprache und ihrer ziellosen, verheerenden Dynamik.

Saussures Vorlesungen sind von seinen Schülern zu einem abgerundeten "Cours de linguistique" zusammengefaßt, Spitzer verdanken wir die prächtige Anthologie der Arbeiten Schuchardts über allgemeine Sprach-wissenschaft. Ein entsprechendes Baudouin-Brevier tut not. Aktuell bleiben viele Probleme, die von dem verstorbenen Gelehrten aufgestellt worden sind, auch ist vieles davon lebendig, wogegen Baudouin sein Leb-tag mit Einsetzung seines außergewöhnlichen wissenschaftlichen Tempe-raments gekämpft hat. Ja, munter und lebendig ist noch leider "jener morsche Plunder, mit dem die auf höhere Anregung an den Schulprogram-men festhaltenden Erzieher eifrig die Köpfe der Zöglinge vollstopfen". Gleichermaßen lassen sich auf die sog. idealistische Richtung in der heutigen Linguistik die nachstehenden, vor vielen Jahren geschriebenen Zeilen Baudouins anwenden: "Die Betrachtung der Welt stimmt zu der geistigen Organisation des Betreffenden. Sie ist ja eine Selbstprojektion in die Außenwelt. Und so sehen auch chaotische und anarchistische Köpfe überall bloß Chaos und Willkür, ein ungeordnetes Mischmasch, ein buntes Durcheinander, ohne jegliche Konsequenz. Diese sozusagen anarchistische, prinzipienlose Logik wird in der Sprachwissenschaft zu einem sprachwissenschaftlichen Nihilismus, welcher z. B. keine historisch-phonetischen Lautkonsequenzen anerkennen will." Wer würde nicht in der folgenden, vor etwa 60 Jahren entworfenen Baudouinschen Charak-teristik die Schule Marrs erkennen: "Wie die Alchemisten den Urkörper zu finden trachteten, aus dem sich alles andere entwickelt hat, bzw. die geheimnisvolle, universale, allmächtige Kraft, so versuchten einige Ver-treter der apriorischen Richtung in der Sprachwissenschaft, von einem oder einigen Gleichklängen den ganzen Reichtum der menschlichen Spra-

che abzuleiten. Aber richtige Alchemie treibt heute kein Mensch, während linguistische Alchemisten immer noch nicht verschwunden sind, wie überhaupt wenig damit zu rechnen ist, die Herrschaft der Einbildung und der Willkür würden so bald aus dem Gebiete der Sprachwissenschaft verjagt werden."

Und bleibt nich auch eine der wichtigsten Zielscheiben der Baudouinschen Polemik, die "äußerst empirische Richtung, die sich häufig zur Aufgabe macht, auf rein äußerliche Weise Tatsachen zu sammeln und zu verallgemeinern", nicht als aktuelle Gefahr für die Entwicklung der Linguistik bestehen? Baudouin sieht die Quelle dieser Richtung teils in dem übermäßigen Skeptizismus, in der Angst "vor der Hypothese, die sich mit der Zeit als untauglich erweisen könnte", teils in der "Gedankenträgheit und dem Wunsche, der Notwendigkeit zu entgehen, sich redliche Rechenschaft über den Nutzen und den Zweck der Anhäufung von Material zu geben, einem Wunsche, der die Wissenschaft zu einem empirischen Zeilvertreib und einem zwecklosen Spielzeug herabwürdigt". Er nennt "Verfolger der Wissenschaft" diese "Sammler von Einzelheiten", die "auf ihre Enthaltsamkeit und Gesetztheit stolz sind und nicht nur von sich selber, sondern sogar von anderen als Sprachforscher angesehen werden".

THE KAZAN' SCHOOL OF POLISH LINGUISTICS
AND ITS PLACE IN THE INTERNATIONAL
DEVELOPMENT OF PHONOLOGY

It would be no exaggeration to say that the introduction of the phoneme concept into the science of language became a turning point in the development of this branch of knowledge and had a decisive influence not only on the way of dealing with problems of sound, but also on the whole of linguistic methodology. This discovery, like many other principles of modern linguistics, had already been sketched out in antiquity, but was subsequently forgotten or disregarded. As John Brough points out in his study on the Sanskrit theories of language, many discoveries in modern general linguistics are in fact rediscoveries of concepts evolved in ancient India and applied there to the description and analysis of languages.[1] The remarkable Indian linguistic school, represented especially by the profound treatises of Patanjali (second century B.C.) and Bhartṛhari (sixth century A.D.), invented the concept of *sphoṭa*. This term designates the sound form in respect to its semiotic value, which "flows forth" from that form. Each linguistic level has its own kind of *sphoṭa*: the Sanskrit grammarians distinguished accordingly the *sphoṭa* that corresponds to syntactic constructions and whole sentences, to combinations of morphemes and to whole words. Finally, by the time of Patanjali, a discrete "letter-sound" (*varṇa-sphoṭa*) had been defined as the lowest level of *sphoṭa*. This concept, strictly distinguished from "speech sounds" (*dhvani*) and, of course, from all other kinds of sounds or noises (*śabda*), corresponds in essence to the modern phoneme. The Sanskrit grammarians described *varṇa-sphoṭa* as being devoid of meaning, but nonetheless endowed with certain significance since replacement of such a unit can produce an entirely different word; and if a listener does not perceive this change, he may misunderstand the meaning. In the Sanskrit linguistic tradition *sphoṭa* is the constant, invariable substratum of speech variations. Thus the speed of an utterance may vary, but this does not

---

[1] J. Brough, "Theories of general linguistics in the Sanskrit grammarians", *Transactions of the Philological Society* (1931), pp. 21-46.

interfere with the relation between length and shortness of vowels since that relation in Sanskrit belongs to *sphota*. In modern terminology, it is a phonemic relationship.

The Sanskrit grammarians were forerunners of the inquisitive and fundamental contemporary discussions on the definition of the phoneme. For a long time Europe could claim no similarly elaborated and developed linguistic theory. Greek philosophy did, however, make a substantial contribution to the development of linguistic thought: we see here in particular the rudiments of the view that language, in the final analysis, consists of indivisible sound units that are capable of forming meaningful strings. Such a unit was called a στοιχεῖον 'primary element'.[2] Aristotle's *Poetics* defines στοιχεῖον as an indivisible sound (φωνὴ ἀδιαίρετος), devoid of its own meaning (ἄσημος), forming part of a syllable, *i.e.* of a complex sound which in turn is devoid of meaning (φωνὴ ἄσημος συνθετή) and serves to form higher units, such as nouns and verbs, namely complex sounds endowed with meaning (φονὴ συνθετὴ σημαντική), and indissociable into meaningful components. It is from these units that sentences – complex sounds endowed with meaning and divisible into meaningful units – are constructed. According to Plato, one cannot understand human speech without discriminating a certain number of discrete *stoicheia* in the infinitely divisible flow of sound produced by the human voice. At the same time one cannot learn any single one of these *stoicheia* without having learned all of them. In language, as in music, a knowledge of the general correlations that organize the elementary units into a coherent system is necessary. "The infinity of types and the infinity of individuals present in each of these types – as long as they are not classified – leaves each of us in a state of infinite ignorance" (*Philebus*). Thus, in Plato's understanding, language imposes upon the infinitely divisible physical continuum of the gross sound matter a coherent system that contains a limited number of discrete formal units with definite interconnections. Democritus and his follower Lucretius, in searching for an analogy which might confirm their theory of the atomic structure of the physical universe, cited the *stoicheia* (elementa) as ultimate components of speech. The term *stoicheion* was used to designate both physical and linguistic elemental units.

The problem of the conversion of sounds into sign-vehicles also loomed large in medieval theories of language. Thomas Aquinas treated speech sounds as "primarily designed to convey meaning" (*principialiter data ad significandum*), but as having no meaning in themselves. He

[2]   H. Diels, *Elementum* (Leipzig, 1899).

regarded this use of sounds as a human artifact (*significantia artificialiter*). Hence the main object of study is the way in which gross sound matter is processed and made usable for semiotic purposes.[3]

All these pregnant hypotheses fell into complete oblivion, however, and the orthodox scholarly doctrine of the last century treated speech sounds as bare sense data, without any reference to the tasks they perform in language. It was only toward the last third of the nineteenth century that a few linguists saw once again the need for a functional approach to speech sounds. To a certain extent the legacy of the Sanskrit grammarians and some of the views of the classic and scholastic philosophers on the nature of linguistic signs had an effect on single stages of the modern search for the phoneme, but a huge and novel inquiry, both theoretical and empirical, has been carried out by linguists from diverse countries in the course of the last nine or ten decades. It is noteworthy that the term and the concept of the phoneme actually emerged almost simultaneously, but quite separately and only later on found one another. A. Dufriche-Desgenettes, a modest septuagenary phonetician and co-founder of the *Société de linguistique de Paris*, was the only one of the Society members to protest against the decision to exclude from its agenda such questions as the origin of speech and the invention of an international language. It was he who proposed in the Society meeting of May 24, 1873, the use of a one-word equivalent for the German *Sprachlaut* instead of the cumbersome *son du langage*. The label he advocated was *phonème*, a French adaptation of the Greek φώνημα 'sound'.[4] This term actually appeared in Dufriche-Desgenettes' own writings,[5] but it could hardly survive if the suggested vocable had not been endorsed by the eminent Romance philologist Louis Havet who used it from 1874, giving due credit to the promoter.[6] No one would have guessed at that time that this word would later take a prominent place in international terminology and serve as a model for innumerable coinages, such as *stroneme, chroneme, toneme, prosodeme, grapheme, morpheme, syntagmeme, grameme, lexeme, sememe, semanteme, glosseme, cenema-*

---

[3]   Cf. F. Manthey, *Die Sprachphilosophie des hl. Thomas von Aquin und ihre Anwendung auf Probleme der Theologie* (Paderborn, 1937).

[4]   See *Revue Critique*, I (1873), p. 368.

[5]   "Sur la lettre R et ses diverses modifications", *Bulletin de la Société de Linguistique*, No. 14 (1875), pp. LXXI-LXXIV. Cf., for example, p. LXXIII: "certains phonèmes mouillés du russe"; "Sur la consonne L et ses diverses modifications", *ibid.*, pp. LXXIV-LXXVI.

[6]   See L. Havet, "OI et UI en français", *Romania*, (1874), p. 321: "*Phonème*, terme que j'emprunte à M. Dufriche-Desgenettes, de la Société de linguistique de Paris, désigne un son articulé quelconque".

teme, tagmeme, taxeme, acteme, behavioreme (*cf.* in French, *phrasème, logème, mélème, gustème, délirème*) with compounds like *mor(pho)-phoneme, archiphoneme, hyperphoneme, hyperbehavioreme* and derivatives – *phonemic, phonemics, phonemicist, phonemicity, phonemicize, phonemicization, tagmemic, tagmemics*, etc. – or finally "rootless" formations: *eme, emic, emics, emicness.* Could Dufriche-Desgenettes have expected that his substitute for *Sprachlaut* would evolve semantically and even should be, on the eve of World War II, tentatively retranslated by xenophobic German purists as *Sinnlaut* 'significant sound'?

It was from Havet's studies that the term *phonème* – with a notable shift in meaning – entered the epochal book of the twenty-one-year-old Ferdinand de Saussure (1857-1913), *Mémoire sur le système primitif des voyelles dans les langues indoeuropéennes*, published in Leipzig at the end of 1878. It is not yet used there, however, in the present descriptive sense but only to render a strictly historical concept. The comparative studies disclosed that in cognate languages morphological units of common origin show regular phonetic correspondences, and that each of these correspondences reflects a common prototype in the parent language. This hypothetical uniform and distinct prototype of later multiform progeny was labeled *phonème* in Saussure's *Mémoire.* This entity was conceived as an element of the phonological system that, irrespectively of its precise articulation, is recognizable as different from its other elements.[7] The meaning given to this term by Saussure became a stimulus for a further reinterpretation by Baudouin de Courtenay and his circle.

From the very outset of his scholarly activities Baudouin (1845-1929) was attracted to the question of the relationship between sound and meaning. Traditional linguistics was prone to disregard this problem. But as early as 1869, Baudouin, a 23-year-old scholarship holder, in an article "Alternation of sibilants and [x]", written and published in Berlin, approached the question of how the difference in consonants "is used to differentiate meanings" and also touched upon the puzzling phenomenon of consonantal symbolism.[8] In December, 1870, as a docent of comparative grammar of the Indo-European languages at the University of St. Petersburg, Baudouin gave an introductory lecture, in which he discussed in an amazingly thoughtful, mature, and original way the immediate

[7] *Mémoire sur le système primitif des voyelles dans les langues indo-européennes* (Leipzig, 1879, actually 1878), p. 120, = *Recueil des publications scientifiques de F. de Saussure* (Geneva-Heidelberg, 1922), p. 114.

[8] "Wechsel des s (š, ś) mit ch in der polnischen Sprache", *Beiträge zur vergleichenden Sprachforschung*, VI (1870), p. 221 f. Cf. J. Baudouin de Courtenay, *Szkice językoznawcze* (Warsaw, 1904), p. 258 f.

tasks facing general linguistics. He ended with the declaration: "The subject of our course will be the analysis of language".[9] The range of problems outlined in this lecture was broadened and developed in the young scholar's report on his foreign studies at the beginning of the 1870's and even more in the detailed programs of his university lectures in Kazan', presented in the second half of the same decade.[10] Given the rapid progress of his research, Baudouin was justified in complaining about the slow pace of publication of his papers, especially the program of his 1877-1878 lectures, which were in press for about four years: "Scientific discoveries, unfortunately, cannot wait and conform either to the pace of a tortoise or to the rate of publishing scholarly works in Kazan'".[11] Perhaps for the first time in the history of linguistics, these works, beginning with the St. Petersburg lecture, made a clear distinction between two aspects of language, particularly its sound pattern, and linguistic, especially phonetic, laws. These are, on the one hand, "static laws and forces, *i.e.* those which act in the synchronic state of language" or in other words, "laws and conditions underlying the life of sounds in a language at one given moment"; and on the other hand, "dynamic laws and forces, which condition the development of a language".[12] "Statics deals with the laws of linguistic equilibrium; dynamics, with the laws governing the historical movement of language, its mobility in time".[13] Beginning with the 1890's this dichotomy was revived and developed in F. de Saussure's discussion of "the fundamental duality of linguistics".[14] What Baudouin had said about "statics" and "dynamics" corresponds better to the opposition "synchrony" and "diachrony", and while Saussure mixes up the two pairs of concepts, one can observe in Baudouin the rudiments of a distinction between them. Thus, for example, his thesis

---

[9] "Nekotorye obščie zamečanija o jazykovedenii i jazyke", *Žurnal Ministerstva Narodnogo Prosveščenija*, CLIII (February 1871), p. 315.

[10] "*Otčety komandirovannogo Ministerstvom Narodnogo Prosveščenija za granicu* 1. A. Boduèna-de-Kurtenè (J. Baudouin de Courtenay) *o zanjatijax po jazykovedeniju v tečenie 1872 i 1873 gg*". (reprint from *Izv. Kazanskogo Universiteta*, 1876, 1877); *Programma I = Podrobnaja programma lekcij* I. A. Boduèna-de-Kurtenè (J. Baudouin de Courtenay) *v 1876-1877 učebnom godu* (reprint from *Izv. Kazanskogo Universiteta*, 1877, 1878, published in 1878); *Programma II = Podrobnaja programma lekcij* I. A. Boduèna-de-Kurtenè (J. Baudouin de Courtenay) *v 1877-1878 učebnom godu* (reprint from *Izv. Kazanskogo Universiteta*, 1879, 1880, 1881, published in 1881).

[11] *Programma II*, p. 1.

[12] *ŽMNP*, 1871, p. 301f.; *Programma I*; p. 38, *II*, p. 85.

[13] *Programma II*, p. 85.

[14] Cf. R. Godel, *Les sources manuscrites du Cours de linguistique générale de F. de Saussure* (Geneva-Paris, 1957), pp. 44f., 259, 277.

that "the stability of sounds is twofold, static and dynamic"[15] can be translated in current terminology as the two aspects of statics – one synchronic, and the other diachronic.[16] In his university lectures during the 1870's Baudouin divided phonetics into two independent parts: the first, acoustic-physiological part of phonetics, or – as Baudouin called it from the late 1870's on – "anthropophonics", "considers all *sounds* of human speech (sound units and their combinations) from the objective-physical and physiological point of view (briefly, from the point of view of the natural sciences)" and must give an exhaustive description of the phonatory and auditory properties of sounds, based on the scientific results of physiology and acoustics. The other part, "phonetics in the strict sense of the word", or "the morphological-etymological part of the general science of sounds" deals with them "in connection with the word meanings"; it "studies and analyzes the *equivalents of sounds* (of sound units and their combinations) with respect to certain of their properties, *i.e.* to the role they play in language, for example, the equivalents of soft and hard, simple and complex, consonants and vowels and so on, although from the strictly physiological point of view the phonetic equivalents of soft consonantal elements may turn out to be

[15] *Programma I*, p. 8; *II*, p. 85.

[16] In the summary characterization of this linguistic theory written for S. Vengerov and published in 1897 in his *Kritiko-biografičeskij slovar' russkix pisatelej i učenyx*, V, Baudouin emphasizes the fictitiousness of equating linguistic synchrony with statics: "This is a particular case of motion with minimal change. The statics of language is merely a particular case of its dynamics, or rather of its kinematics". (See *Prace Filologiczne*, Vol. 15, Part I, p. XVII). In his early works Baudouin insisted strongly on the inadmissibility of introducing diachronic factors into the synchronic description of a language. In the fragment of his 1870 lecture that was first published more than forty years later Baudouin illustrated the basic difference between the descriptive and the historical treatment of morphology by means of several telling comparisons, *e.g.*: "American farmers produced a new breed of hornless cattle from the ordinary, horned variety; nevertheless an adherent of the theory of immutable stems in -a, -i, -u will seem to see long horns even on the heads of these new cattle. In one place on earth a hill appeared where there had been none; in another place a hill disappeared; in a third place a sea was replaced by dry land; in a fourth place, the reverse: dry land was replaced by a sea. The eye of the adherent of the theory of immutable stems in -a, -i, -u beholds in the first place the same plain as before, in the second place the previous hill, in the third place the sea, and in the fourth, dry land". ("Zametka ob izmenjaemosti osnov sklonenija, v osobennosti že o ix sokraščenii v pol'zu okončanij", *Russkij Filologičeskij Vestnik*, XLVIII (1902), p. 236).
  Baudouin taught that "every fact of language should be considered in its appropriate spatial and temporal environment. Explaining the phenomena of a given language at a given period of its development by the laws of other periods or other languages means having absolutely no sense of reality, means giving oneself a decisive certificate of incompetence". ("Neskol'ko slov o sravnitel'noj grammatike indoevropejskix jazykov", *ŽMNP*, CCXIII (December 1881), p. 281).

hard ones and vice versa, just as simple elements may turn out to be complex and vice versa, *etc.*"[17] Beginning with his 1870 lecture and his master's thesis of the same year Baudouin constantly pointed out "the disparity between the physical nature of sounds and their role in the mechanism of the language, their significance for the people's linguistic intuition".[18] Comparing the sound structure of language "with musical tones", Baudouin emphasized that every language has its "own peculiar sound-scale" and that "in different languages physiologically identical sounds may possess different values in accordance with the whole sound system, *i.e.* in accordance with their relations to the other sounds of the same language".[19] Among the sound equivalents within the given system "one must take into account the sound zero as the minimal phonetic unit", *i.e.* such "dynamic-static relations (correspondences, divergencies) of sounds, in which one member is a sound of a certain magnitude and the other, an infinitely small sound, namely zero".[20]

In the outline of his first course at Kazan', which Baudouin prepared during his studies at Leipzig in 1873, he devotes particular attention to "the mechanism of sounds, their correspondences and their mutual dynamic relations based on the association of meaning with sound". He proposes to consider especially "the influence of certain sounds on meaning and, vice versa, the influence of meaning on the quality of sounds". "In the totality of the language of a person or a nation" he clearly detects the principle of "relativity of sound categories", and particularly "parallel sets of sounds based on their distinctive physiological properties", such as the distinction of sounds as soft and hard, voiced and voiceless, long and short, stressed and unstressed, *etc.*". "On the basis of such diverse differences languages develop certain parallel sound oppositions [*protivopoložnosti*]", which constitute the main subject matter of "morphological phonetics", since they are "intimately connected with the meaning of words and parts of words".[21] These early hints contain all the primaries of the approach to the sound structure of language which is taken by contemporary linguistics and which is related

[17]   *Programma I*, p. 6; *II*, pp. 68, 84. [Cf. above, p. 385.]
[18]   *Programma I*, p. 6; cf. *ŽMNP*, p. 301f.; cf. *O drevnepol'skom jazyke do XIV stoletija* (Leipzig, 1870), p. 39.
[19]   *Programma I*, pp. 5, 8.
[20]   *Programma II*, p. 85; cf. "Charakterystyka psychologiczna języka polskiego", *Encyklopedya Polska*, Vol. II, Section III, Part I (*Cracow*, 1915), p. 168 (13-"Element 'zero'").
[21]   "Programma čtenij po obščemu kursu jazykovedenija v primenenii k arioevropejskim jazykam voobšče, a k slavjanskim v osobennosti", *Otčety*, I, p. 128f. (see footnote 10).

to mathematical logic. It was not for nothing that Baudouin constantly declared that linguistics would "approach the exact sciences more and more" and introduce, on the model of mathematics, "more and more quantitative thinking", and, on the other hand, "new methods of deductive thinking". "Just as mathematics reduces infinite quantities to finite ones which are susceptible to analytic thinking", similarly, according to Baudouin, "we should expect something similar for linguistics from a perfected qualitative analysis".[22] It is no accident that the Czech linguist J. Zubatý, with his purely fact-oriented attitude,[23] accused Baudouin of doing algebra rather than linguistics. It is interesting that F. de Saussure, who was gravitating towards Baudouin's position, also dreamed about an "algebraic" expression of linguistic concepts and relations.[24]

In this connection it becomes understandable that in his methodological recommendations on the way in which to describe linguistic systems Baudouin, from the very beginning, paid attention not only to the qualitative side, but also to the quantitative side – to the statistics of sounds and "the percentages of various sounds in a given language" and in its "daily use".[25] A magnificent achievement in the "qualitative analysis" of phonetic phenomena and their function was Baudouin's classification (in his 1877-1878 lectures) of the Slavic languages on the basis of the oppositions accented-unaccented and long-short.[26] This grouping is basically still valid despite the significant modifications in the prosodic delineation of individual groups. In accordance with Baudouin's division both oppositions are present in Serbocroatian dialects; in Slovenian dialects the long-short opposition has been preserved only under accent; in Bulgarian and East Slavic dialects the accented-unaccented opposition has been preserved while the other has been lost; in Czech and Slovak dialects the reverse is true: only the long-short opposition has been preserved; and in Lusatian and Polish dialects both oppositions have been lost. Baudouin boldly asks and answers the question: "why, to what end is accent used" by different peoples? The author saw perfectly well that stabilization of accent means that it is no longer possible to express morphological oppositions by the opposition accented-unaccented. He

[22] *Zarys historii językoznawstwa czyli lingwistyki (glottologii)=Poradnik dla samouków,* Series III, Vol. II, No. 2 (Warsaw, 1909), p. 267f. Cf. also "Ilościowość w myśleniu językowym", *Symbolae grammaticae in honorem Joannis Rozwadowski,* I (Cracow, 1927), pp. 3-18.
[23] Cf. R. Jakobson, "Jan Baudouin de Courtenay", *Slavische Rundschau,* I (1929), p. 812. [See above, p. 393.]
[24] See Godel, *op. cit.,* pp. 44, 49.
[25] *Otčety,* p. 128; *Programma I,* p. 5.
[26] *Programma II,* pp. 133f., 143-145.

understood that with the loss of its "morphological meaning" accent in the West Slavic languages remains only as an anthropophonic property, not as a morphological device. On the other hand he points out that a fixed accent plays the role of "phonetic cement", which binds syllables together into words, just as vowel harmony does in the Ural-Altaic languages.[27] The question of the relations between means and end is dealt with by Baudouin not only in the static plane, but also in historical perspective. He assigns such phenomena as the stabilization of accent to that category of sound changes which may be characterized as "the loss of signification of sounds" [zatrata znamenatel'nosti zvukov].[28] Among factors acting to stabilize accent he mentions both purely phonetic processes and "the analogy, i.e. the assimilation of words one to another"[29] (which plays such a significant role in the interpretations given by contemporary Polish linguists, especially Kuryłowicz, to historical phenomena of accentuation). Finally Baudouin takes into account the "probable influence of foreign languages on the loss of quantity and mobile accent in single Slavic languages", i.e. the loss of "the opposition of long and short vowels and of accented and unaccented ones"[30] as well as the modifying influence of foreign languages on grammatical systems, e.g. the Balkanic restructuring of Bulgarian.[31] Baudouin persistently tends to interpret "basic dynamic laws" in terms of "drift" [stremlenija].[32] He was moved to reject both Schleicher's genealogical tree theory and the so-called "wave-theory" of J. Schmidt because of the underestimation in both doctrines of the social character, systematics and the "drift" of language as well as their underestimation of the role of cross-breeding in inter-language relations. Both theories, despite their mutual discrepancy, contained a common myth about language as an organism: "only for Schleicher language was made of wood, and for Schmidt – of water."[33]

Inquiry into the linguistic equivalents of gross sound matter inevitably led Baudouin to the problem of "indivisible phonetic particles", to the search for "phonetic atoms, the phonetic components of words" and to a comparison of "the phonetic unit in language with the atom as the unit of matter and with 1 as the unit in mathematics."[34] These investigations

---

[27] Programma I, p. 7; II, pp. 87, 149; Glottologičeskie (lingvističeskie) zamiket (reprint from Filologičeskie Zapiski, 1877), Chapter I.

[28] Otčety XXX, p. 136.

[29] Programma II, p. 133.

[30] Programma I, p. 47; II, pp. 143-147.

[31] Programma II, p. 145.

[32] Programma I, p. 59.

[33] Programma II, p. 126f.

[34] Ibidem, pp. 68, 73.

entered an entirely new phase in 1878 when the 27-year-old Polish linguist Mikołaj Kruszewski (1851-1887) came to Kazan' to work on his dissertation under the supervision of Baudouin de Courtenay. In 1876 Kruszewski, who was teaching for three years in Troick, a district town in the Orenburg province, in order to save up money for studies under Baudouin, confessed that he did not know what could have "attracted him as magnetically to linguistics as the unconscious character of the forces of language", which Baudouin had emphasized in his introductory lecture of 1870 . It was precisely in connection with "the idea of an unconscious process" that Kruszewski felt a special bent for the "logical views of language", and considering linguistics in the light of logic prompted him to raise the question of "whether linguistics has some one general law – and if so, what one – which would be equally applicable to all the phenomena that he was studying".[35]

During their several years of harmonious co-operation, the thoughts of the two great linguists were so intertwined that in many cases it is hardly possible to ascertain who of them first introduced some new thesis or other. In both of Baudouin's partially published courses for the academic year 1880-1881 – comparative grammar of the Slavic languages and Russian phonetics and morphology – this scholarly symbiosis is particularly striking.[36] Here is what Baudouin himself says in a note entitled *Suum cuique* in connection with the linguistic problems of his printed lectures on comparative grammar: "The ideas presented above on the way in which sound relations should be considered are, as far as I know, completely new in linguistic literature. But they are only to a certain extent my own personal property. *** M. Kruszewski, who has attended my lectures and taken part in my courses since 1878, conceived the idea of formulating all of that more precisely. In the introduction to his master's thesis Mr. Kruszewski developed his own thoughts on this subject more exactly and scientifically than I had done in these

---

[35] See *Prace Filologiczne*, III (1891), p. 138f. [below, p. 431]. Cf. *ŽMNP*, 1871, on the role of "unconscious generalization" and "unconscious abstraction" in the development of language [and below, p. 478 f.].

[36] *Nekotorye otdely "sravnitel'noj grammatiki" slavjanskix jazykov* = reprint from *Russ. Filol. Vestnik*, V (1881); *Otryvki iz lekcij po fonetike i morfologii russkogo jazyka*, I = reprint from *Filol. Zapiski* (1881-1882). The second series never appeared, but the program for that part of Baudouin's lectures was published by V. Bogorodickij, *Prace Filologiczne*, XV, Part II (1931), p. 476f. Cf. also Baudouin's remarkable volume of lectures from 1879-1880: *Iz lekcij po latinskoj fonetike* (Voronež, 1893), first published in *Filol. Zapiski* of 1884-1892. It is interesting that in this period Baudouin changed from printing programs to publishing courses.

lectures of mine. *** The more scientific character of Mr. Kruszewski's presentation lies in his strict logical analysis of general concepts, in his separation of these concepts into their constituent parts, in the specification of the necessary features of the diverse alternations and in the general logical coherence of his whole system. It is similarly to Mr. Kruszewski's credit that he is striving in this way to elicit real phonetic laws, *i.e.* laws to which there would be no exceptions. Only since these ideas have been formulated and presented so graphically by Mr. Kruszewski, their further development and elaboration are possible".[37] Thus it was the student who tried to persuade his teacher that what is indispensable "alongside of the present science of language" is "another, more general one, something like phenomenology" and that "one can find in language itself firm bases for such a science" (letter of May 3, 1882). He had realized that the principles enunciated by the neogrammarians were either unsuitable as bases for such a science or insufficient.[38]

Despite all their youthful unevenness, Kruszewski's few published works, which in their Russian or German form, dotted with Polonisms, strove for maximal precision of expression, are truly full of mighty anticipations in the theory of language, fresh and fertile working hypotheses and penetrating observations. Even if in the light of the further development of the science one may detect in the young Kruszewski's writings some details that are naive or outdated, still, on the other hand, we find many ideas there that belong to the linguistic vistas of today or even of tomorrow, especially in his daring attempt at a general *Outline of the Science of Language*[39] and in the theoretical introduction to his master's thesis.[40] He himself published this introduction in Kazan' in a revised German version because academic journals in Germany had passed sentence upon the manuscript, judging that the work "deals more with methodology than linguistics".[41] They refused to publish it because, as Baudouin said later, "it introduced into phonetics a new principle for

---

[37] *Nekotorye otdely*, p. 74f. [Below, p. 441.] Cf. Baudouin's later admission that "we finally lose the thread and it becomes difficult to distinguish what arose in our own heads from what came from others".

[38] See *Prace Filologiczne*, III (1891), p. 139. [See below, p. 434.]

[39] *Očerk nauki o jazyke* (Kazan', 1883). Baudouin's review saw in the book "the fruit of thought that is original and accustomed to logical analysis" and also an enrichment of world linguistic literature by new ideas (*Izv. Kazanskogo Universiteta*, XIX (1883), p. 233).

[40] *K voprosu o gune. Issledovanie v oblasti staroslavjanskogo vokalizma* — reprint from *Russ. Filol. Vestnik* (1881).

[41] *Über die Lautabwechslung* (Kazan', 1881).

research, and the overwhelming majority of scholars fear new principles as they do fire".[42]

Developing his teacher's idea of the boundary between 'anthropophonics', concerned "with the physiological conditions under which sounds are produced as well as with their acoustic properties",[43] and the truly linguistic, grammatical area of phonetics, Kruszewski recognized that for the latter the term *sound* is inadequate and misleading. He therefore launched, according to Baudouin's testimony, the term *phoneme*, "borrowed from Saussure", who, however, used it in a different sense.[44] " I propose", Kruszewski wrote, "to call the phonetic unit (*i.e.* what is phonetically indivisible) a *phoneme*, as opposed to the *sound* – the anthropophonic unit. The benefit and indispensability of such a term (and of such a *concept*) are obvious a priori."[45]

As early as 1880 Kruszewski published an enthusiastic review of Saussure's *Mémoire* with an introductory declaration that in any branch of the natural sciences such works would cause a great commotion and would evoke a number of new works, whereas in linguistics Saussure's marvelous discoveries had passed by almost unnoticed, and in Russian journals even the author's name had remained unknown. It was apparently in this review that the term *phoneme* emerged for the first time in Slavic vocabulary, with a special note indicating that "this word can be used to advantage as the term for a phonetic unit, while the word 'sound' could designate a unit in the so-called physiology of sounds".[46] As in the *Mémoire* the basis for such a unit is *correspondence* or, according to Baudouin's later Polish commentary, "a manifestation of etymological, multilingual relatedness". But alongside of multilingual correspondence "we also have single-language correspondence, *** etymological re-

---

[42] Cf. W. Radloff, "Die Lautalternation und ihre Bedeutung für die Sprachentwicklung, belegt durch Beispiele aus den Türksprachen", *Abhandlungen des 5. Internat. Orientalisten-Congresses gehalten zu Berlin in 1881* (Berlin, 1882).

[43] *Prace Filologiczne*, III, p. 134; cf. *Nekotorye otdely*, p. 75f.; N. Kruševskij, *Lingvističeskie zametki*, reprint from *RFV* (1880), p. 4.

[44] *Nekotorye otdely*, p. 75.

[45] *Über die Lautabwechslung*, p. 14. Cf. *K voprosu o gune*, p. 10. In connection with this and similar terminological innovations introduced by Kruszewski let us note that at the defense of his master's thesis, after the official opponents, the Kazan' district inspector, N. D. Šestakov, spoke up and protested against what were, in his opinion, "inappropriate innovations in technical terminology" and finished his objections with a "protest against printing the thesis without jers", *Izv. Kazanskogo Universiteta* (1881), No. 3, Zametki, p. 2.

[46] "Novejšie otkrytija v oblasti ario-evropejskogo vokalizma", *Lingvističeskie zametki*, I, pp. 1, 8.

latedness within one language".[47] It was just such alternations of "phonetically different, but etymologically cognate sounds" that Baudouin studied from the very start of his linguistic work. He attracted to these problems the strictly analytic mind of Kruszewski, who, according to his teacher's testimony, managed to set forth the theory of alternations "much more philosophically, concisely and precisely".[48] Since alternates coexist "simultaneously in one and the same language",[49] then "in order properly to understand the statics of language" – as Baudouin emphasized in his laudatory review of Kruszewski's master's thesis[50] – "it is necessary to define and investigate thoroughly not only individual sounds, but also their alternations". On the other hand such alternants "can be historically derived from one common source",[51] and thus alternations are subject to diachronic consideration and provide, as we would say today, important data for "internal reconstruction". The twofold approach that both linguists had to the study of alternations corresponds manifestly to their double significance for linguistics. While comparing Slavic sound alternations with the Sanskrit "guna", they came across the descriptive methods of Pāṇini and his school. In his critical survey of inquiry into alternations Baudouin on the one hand blamed the Indic scholars for a lack of genetic interpretation, and on the other hand found that in Western linguistics "due attention had not been paid to the very concept of alternation, *i.e.* coexistence (*das Nebeneinander*)", and he reproached the German neogrammarians and Saussure for their exclusively genetic approach.[52] Although that sounds paradoxical today in the light of Saussure's later views, yet as late as 1891, in his first Geneva lectures, he taught that "everything in language is history; hence language is an object of a historical analysis and not of an abstract analysis; it consists of *facts* and not of *laws* and everything in language that seems organic is actually contingent and completely accidental".[53]

Since the essence of alternation is primarily the coexistence of sounds, or *das Nebeneinander*, as Baudouin emphasized, the classification of types

---

[47] "Próba teorii alternacji fonetycznych", *Rozprawy Wydziału Filologicznego Polskiej Akademii Umiejętności*, XX (1894), p. 242f.

[48] *Ibid.*, p. 224.

[49] *Ibid.*, p. 242.

[50] *Učenye Zapiski Kazanskogo Universiteta* (1881), No. 3, p. 19f. [Cf. below, p. 441.]

[51] *Próba*, p. 238.

[52] *Ibid.*, p. 220f. Baudouin, who had long been familiar with the works of Pāṇini, often repeated his high praise for the Sanskrit grammarians' accomplishments in descriptive linguistics: "The Indian grammarians were incomparable masters in the systematization and classification of the details they studied". (*Zarys XXX*, p. 112).

[53] See Godel, *op. cit.*, p. 38.

of alternation should be made from the synchronic viewpoint. Baudouin was already aiming at just such a classification in his early Kazan' lectures,[54] and the task was taken over and concretely carried out by his disciple. "The analysis of those features with respect to which different categories of alternations must be distinguished belongs inalienably to Mr. Kruszewski", as his teacher acknowledged, "and constitutes a truly important contribution to science. *** Mr. Kruszewski owes this method not to the study of linguistics, but to modern logic, which he has thoroughly mastered and which he knows how to apply successfully to the exploration of the given linguistic problems".[55] This systematization was later summed up by Baudouin in his 1893 monograph on the theory of alternations, but in this work the Kazan' doctrine loses its previous logical homogeneity. Despite all the terminological vacillations and changes, which often discourage the reader, one discerns clearly in Kruszewski's and Baudouin's classification both purely "traditional" alternants, devoid of directly definable present conditions – unpredictable, as the mathematical theory of cummunication would say – and, on the other hand, presently conditioned alternants, hence predictable "members of active, living alternations". The condition here may be phonetic environment, position within a grammatical unit or membership in a specific grammatical category. Finally, in alternations conditioned by phonetic environment, which Kruszewski called divergent alternations or "divergences", either only one of the alternants is conditioned by the phonetic environment (as, for example, only the final voiceless consonant in the Polish alternation *lud/ludu*, or both alternants are totally conditioned by the phonetic environment, *i.e.* they are, according to present-day terminology, in complementary distribution. Alternations of the latter type are called by Baudouin "purely phonetic divergences", and he cites Russian examples of such "combinatory variants", as he later labeled them, or "allophones", as they were dubbed by Benjamin L. Whorf: in the forms *èta/èti, cel/cel'nyj* a close *e* before a soft palatalized consonant alternates with an open *ε* in other positions; in the endings of the words *baly/koroli* a back *y* after hard (non-palatalized) consonants alternates with a front *i* in other positions.[56]

Kruszewski and Baudouin, who accepted the former's suggestions, initially understood "phoneme" in its genetic aspect as a common prototype of "homogens" in different related languages (*i.e.* of sounds derived from an original single element in a common patrimony. Further they

[54]   Cf. *Programma I*, pp. 57-61; *II*, p. 85.
[55]   *Učenye Zapiski*, p. 20.
[56]   *Próba*, p. 276f.

naturally also included the common prototype of those homogens which alternate within one single language,[57] and finally, in the synchronic aspect, they viewed "phoneme" as a linguistic unit which underlies an alternation and which, despite all the differentiation of the alternants, constantly occupies one and the same place within the morphological whole. Baudouin tried to find a sufficiently broad, common definition which could cover the diverse applications of this ambiguous term: "A phoneme is a unit that is phonetically indivisible from the standpoint of the comparability of phonetic parts of the word".[58]

Despite all the ambiguity in the term "phoneme" as used in the search of the Kazan' school,[59] one can observe a gradual shift from the historical approach and from attempts to look for "the sum of generalized anthropophonic properties of a certain phonetic part of the word" in each kind of alternation[60] to raising the question of invariants, especially with respect to presently conditioned alternations, or, making the problem narrower and more precise, with respect solely to "divergences", and finally only to "purely phonetic divergences". It is just these alternations that are dealt with in Baudouin's programmatic thesis, which in essence resumes and develops the idea expressed in his Petersburg prologue of 1870 about the interaction of centrifugal and centripetal forces on all levels of language:[61] "We have to put aside the divergent accidental properties of individual sounds and replace them with general expressions of the variable sounds, expressions that are, so to speak, the common denominators of these variables".[62]

The search for an objective invariant in those living alternations that permit the analyst to use the symbol for that alternant from which one can predict the other, or according to Baudouin "the substitute",[63] found a new elaboration in the "morphophonological" attempts of N. Trubetzkoy and his present-day continuers both in Russian and American Slavic studies.[64]

[57] *Nekotorye otdely*, pp. 58-61.

[58] *Ibid.*, p. 69.

[59] Baudouin himself recognized this ambiguity. See *Nekotorye otdely*, p. 70f.

[60] *Ibid.*, p. 69.

[61] *ŽMNP* (1871), p. 293.

[62] *Nekotorye otdely*, p. 67.

[63] *Próba*, p. 248.

[64] See especially N. Trubetzkoy, "Gedanken über Morphonologie", *Travaux du Cercle Linguistique de Prague*, IV (1931), pp. 160-163; his *Das morphonologische System der russischen Sprache* (= *Travaux du Cercle Linguistique de Prague*, V_2 (1934)). Cf. A. Reformatskij, "O sootnošenii fonetiki i grammatiki (morfologii)", in *Voprosy grammatičeskogo stroja* (Moscow, 1955); R. Avanesov, "Kratčajšaja zvukovaja edinica v sostave slova i morfemy", *ibidem*; his "O trex tipax naučno-

No matter which of the above-mentioned meanings of *phoneme* one considers, its place in the language system and, correspondingly, in linguistic analysis was outlined long ago by Baudouin. He took into account "the twofold division of human speech". The sound matter gets dismembered from an "anthropophonic" point of view: "The whole of *audible* speech is divided into *anthropophonic* sentences; sentences, into *anthropophonic* words; words, into *anthropophonic* syllables; syllables, into sounds". On the other hand "from the phonetic-morphological point of view the whole of connected speech is divided into sentences, or meaningful syntactic wholes; sentences, into meaningful words; words, into *morphological* syllables or *morphemes*" (units indivisible from the morphological point of view), the term "morpheme" being Baudouin's neologism on the model of phoneme.[65] If, Baudouin argued further, "a morpheme can be divided into its component parts, then these components must be homogeneous with it"; Baudouin rightly considered the division of such semiotic units as morphemes into bare physical sounds to be "an unjustified and illogical jump in the process of division"; morphemes are divisible not into sounds, but into minimal semiotic units, *i.e.* phonemes.[66]

Baudouin and Kruszewski built their concrete analysis of language into its ultimate, indivisible particles – partly consciously, partly not – on the comparison of related morphological units. If in fact Saussure, according to the conclusions of his Kazan' reviewer, "made morphology the clue for phonetic research",[67] then in the phonetic analysis of the two

---

lingvističeskix transkripcij", *Slavia*, XXV (1956); M. Halle, *The Sound Pattern of Russian* (The Hague, 1960). All of these works are based on Baudouin's old slogan: "Morphological contrasts probably constitute the starting point for phonetic contrasts" (*Nekotorye otdely*, p. 59).

[65] According to A. Meillet's own acknowledgment, he borrowed Baudouin's *joli mot* in order to render the semantically narrower term 'formans' in the French version of K. Brugmann's *Abrégé de grammaire comparée* published in 1905 under Meillet's and R. Gauthiot's editorship: see A. A. Leont'ev in *Izvestija AN SSSR*, Series of literature and language, XXV (1966), p. 331. J. Whatmough substituted for Baudouin's neologism based on derivational analogy the regular form *morphome*, from the Ancient Greek μόρφωμα : see e.g., his *Language* (London-New York, 1956), p. 116. Although Baudouin's *Programma*, 1877-1878, in which the term *phoneme* is not yet used, introduces the word *morpheme* (*II*, pp. 149, 155 = *Izv. Kazanskogo Universiteta*, November-December 1880, pp. 437, 443), this is obviously one of the later insertions (1880) into the original version, which were added, according to the author's own words, as a result of the unbearably slow speed of publication (p. 1).

[66] Cf. *Programma II*, p. 68; *Nekotorye otdely*, p. 69; *Próba*, pp. 149-151.

[67] *Lingvističeskie zametki*, p. 5; similarly Baudouin: "The great virtue of de Saussure lies in his having emphasized more strongly than ever before *the connection between phonetic relationships and the morphological structure of words*". (*Zarys*, p. 220).

Polish linguists the primacy of morphology was strengthened even more. Thus Baudouin's magnificent discovery (even today not understood by all linguists) – the merger of the Russian and also Polish combinatory variants *y* and *i* into one phoneme, called *i mutabile*[68] – was made, as we have seen, by comparing two forms of one and the same morpheme, *e.g.* the nominal plural endings that occur after hard and soft final stem consonants.[69] The elicitation, as Baudouin put it, "of the sum of generalized anthropophonic properties", the discovery of the immutabilia in *i mutabile* and in phonemes generally, in a word, the liberation of phonemic analysis from morphological "command" has become possible only today with the perfection of the methods of distributional analysis and with the decomposition of phonemes into distinctive features.

The question of elicitating the phoneme from the diversity of combinatory (alias contextual) variants was raised primarily by Baudouin, while "facts of succession" within a string of elements and "facts of coexistence" within the system were theoretically recognized and opposed to one another as vital problems for linguistic research in Kruszewski's *Očerk* and other works.[70] The realization of this program was, however, a matter for the future.

---

[68]   See *Ob otnošenii russkogo pis'ma k russkomu jazyku* (St. Petersburg, 1912), p. 51f.; *Charakterystyka*, p. 171: "[i, y] have coalesced into one phoneme, which I shall symbolize by using the sign *im* (*i mutabile*)". In his analysis of *i mutabile* Baudouin approached the problem very closely, establishing the fact that "the conditioning factors here are the representations of consonants, including zero, whereas the things conditioned are the representations of the vowels"; yet "in the orthography we observe the opposite relation". He tried, moreover, to establish the common denominator for both variants of this phoneme: "the representation of [unrounded] vowels with maximal tongue-palate narrowing" (*Ob otnošenii*, pp. 51, 126). Baudouin took up the question of "what anthropophonic properties of a Russian vowel are a function of consonants and generally of its position in a word", in his 1880-1881 lectures. He pointed out that he was using the "*function* in its mathematical sense": function = dependent variable (*Otryvki*, pp. 83, 85). The principle of combinatory variants on different linguistic levels was clearly formulated in Kruszewski's only article written in Polish: "Every linguistic unit *** occurs in speech in different environments *** Every such unit changes its form in accordance with its environment" — "Przyczynek do historii pierwotnych samogłosek długich", *Prace Filologiczne*, I (1885), p. 91.

[69]   Baudouin probably got the impulse for such a discovery from J. Mroziński's reply to a review in the *Gazeta Literacka* of his work entitled *Pierwsze zasady gramatyki języka polskiego* (Warsaw, 1824), almost the only earlier Polish study to which Baudouin refers. [Cf. above, p. 382.]

[70]   While Kruszewski built his principle of two axes with respect to grammatical units, Baudouin correctly pointed out that the same distinction is applicable to phonemes and their combinations: "In each of these areas we find both systems, or nests, based on association by similarity, and sequences based on association by contiguity". (*Prace Filologiczne*, III, p. 153).

Historical linguistics also owes the opening of new prospects to the double-headed Kazan' school, and especially to Kruszewski. Baudouin, with his great perspicacity, saw the far-reaching significance of the problem of synchronic alternations, which Kruszewski took up, introducing "instead of 'transitions' or 'changes' of sounds into others the coexistence of homogens".[71] Nearly a century later historical phonology has been faced precisely with the task of treating sound changes in terms of the simultaneous alternation of free, optional, stylistic variants within the total language system.[72]

Trying to define phonemes as "abstractions" or "the results of generalization, devoid of positively given properties of actual implementation or existence",[73] Baudouin insisted on the lawfulness of such an abstractive generalization despite numerous objections from various sides, both then and later.

This attitude becomes understandable if we realize that in his inaugural appearance in 1870 Baudouin had already paid particular attention to the importance of distinguishing the two aspects of language which are interrelated and which imply one another. The first of them, or "language as a definite complex of certain constituents and categories, which exists only *in potentia*", he called simply 'language' (*jazyk*). The second aspect, "language as a continually repeatable", received the name of 'speech' (*reč'*). This pair of terms and concepts appeared again in the linguistic works of our century, especially in those of F. de Saussure. It was not until the time of his lectures on general linguistics (1906-1911) that he adopted the distinction between *langue*, which "exists potentially in everyone" and *parole*, the concrete use of that system by a given individual. The corresponding English labels introduced by Alan Gardiner are *language* and *speech*.[74] The correlative concepts of communication theory are *code* and *messages*.

For the young Baudouin the phoneme, like any other linguistic category, belongs to *langue*. This code is by no means merely an invention of scholars; it forms the fundamental basis for every spoken message. "Linguistic categories, based on the people's insight into their language",

[71] *Učenye Zapiski*, p. 19. "One exists alongside of the other". (*Charakterystyka*, p. 187).

[72] Some suggestive allusions to this problem are found in one of Baudouin's last articles, "Fakultative Sprachlaute", *Donum Natalicium Schrijnen* (Nijmegen-Utrecht, 1929).

[73] *Nekotorye otdely*, p. 71.

[74] *ŽMNP*, p. 314f.; F. de Saussure, *Cours de linguistique générale*, ed. by Ch. Bally and A. Sechehaye (Lausanne-Paris, 1916), Introduction, Ch. III; A. H. Gardiner, *The Theory of Speech and Language* (Oxford, 1932).

such as "sound, syllable, root, stem (theme), ending, word, sentence, various categories of words" really do "live in the language". "The people's insight into their language", *i.e.* everything that we would now call the metalinguistic operations of the language community, "is not a fiction, is not a subjective delusion, but", as Baudouin observed in 1870, "a genuine, positive function which can be defined by its properties and acts, confirmed objectively and factually proved",[75] since in general for Baudouin, the realist, "all sciences basically constitute one single science whose subject matter is reality".[76]

Baudouin saw one of the conclusive proofs of the fact that the speech community recognizes the unity of the phoneme in the Russian and Polish rule of riming: despite the great technical refinement of both poetic traditions, there never was a poet or critic who rejected or blamed the riming of the back vowel *y* with the front vowel *i*, although these two vowels are rendered in both Russian and Polish orthography by two different letters. Rimes such as Russian *pyl – il, pokryt' – ljubit', koryto – razbito* or Polish *tyje – żmije, pychy – cichy, ty – śni, były – miły* have always been considered impeccable.[77] The problem of the reality of phonemes and of their components was to occupy an important place in linguistic discussions beginning in the 1930's.[78]

According to S. S. Stevens, who persuasively elucidated invariance as a tool of modern thought, the importance of this category has been shown in algebra, geometry and theoretical physics and finally also in certain new currents of psychology.[79] But perhaps the most striking counterpart to this concept and to its development in the exact sciences can be found in linguistics. In the seventies and eighties of the last century the concept of invariance became the dominant principle of mathematics; at the same time the first glimmerings of the theory of linguistic invariants also showed up. In the same Bulletins of Kazan' University – *Izvestija Kazanskogo Universiteta* – in which, almost half a century before, Lobačevskij had published his outline of non-Euclidean, or as he called it, "imaginary geometry", Baudouin de Courtenay's

[75]   *ŽMNP*, p. 295.

[76]   *Ibid.*, p. 296.

[77]   *Ob otnošenii*, p. 127; *Charakterystyka*, p. 171.

[78]   Cf., for example, E. Sapir, "La réalité psychologique des phonèmes", *Journal de psychologie normale et pathologique*, XXX, pp. 247-265; W. F. Twaddell, *On defining the phoneme* = Supplement to *Language*, XVI (1935); R. Jakobson, M. Halle, "Phonology and phonetics", *Fundamentals of Language* (The Hague, 1956) or [*Selected Writings*, I, p. 464 ff.].

[79]   S. S. Stevens, "The concept of invariance", *Handbook of Experimental Psychology* (New York-London, 1951), pp. 19-21.

outlines now appeared. These were perhaps the boldest that he ever wrote: he discussed his first attempts at uncovering the phonemic invariants lying beneath the fluctuating surface of speech, which is filled with countless combinatory and optional phonetic variations. In that provincial town of old Russia, by the light of an old-fashioned oil lamp, or perhaps even a candle, the young linguist set forth his bold predictions that a precise description of the physical equivalents of those linguistic invariants would be possible only when the analysis of speech moved away from "coarse, macroscopic observations and introspections" to more precise, experimental, microscopic methods: "Undoubtedly the recently invented physical tools, such as the telephone, the microphone, the phonograph, can render most important services to anthropophonics". In order to get to know "the least studied, acoustic side of the sounds of language" and "the relations between physiological activity, or manner of articulation, and acoustic result as a function of that activity", it was already obvious to Baudouin in 1882 that "it would be highly desirable to have devices invented that would permit us to check subjective observations made with the unaided ear. With such devices auditory (acoustic) sensations will be transferred to the more objective optic ground: sounds will be rendered by the visible forms of certain motions".[80] The prediction that "one can expect in the course of the next few decades the elaboration by laboratory means of a physical (acoustic) definition of each phoneme of any dialect" was reiterated in 1934 by L. Bloomfield and met with a sceptical reaction on the part of linguists and phoneticians shortly before the laboratory realization of these prophecies.[81]

The censure of critics condemned both Lobačevskij and Baudouin de Courtenay for their "absurd fantasies, unworthy of attention". At the same time as Lobačevskij, the German mathematician K. F. Gauss came to similar conclusions, but his fear of "Boeotian fury" – as he himself conferred – kept him from publishing them. Similarly some of Baudouin's

---

[80] *Otryvki*, pp. 4f., 61f. Baudouin complains that physicists are still "totally uninterested in such questions, and linguists in part are unprepared, in part have neither the time nor the opportunity, in part do not understand the importance of experiments" in this section of their discipline (p. 65).

[81] See W. F. Twaddell, p. 23. In general one can find in Baudouin's works many prophetic foretastes of present-day analysis of speech. The question of the phoneme as "a generalization of anthropophonic properties", which was raised in the Kazan' lectures (*Nekotorye otdely*, p. 70), later led Baudouin to the idea of the divisibility of the phoneme "into several elements not further divisible". He proposed calling these ultimate, simplest elements *kinakemes* (*Charakterystyka*, p. 164f.). The problem of resolving the phoneme into its ultimate discrete components has been raised concretely in contemporary research on distinctive features.

ideas were in the air, but their innovative radicalism, the sharpness of their heretical deviation from the dominant linguistic dogma horrified scholars who were grappling with the same complicated problems. As a matter of fact it is not an accident that distant Kazan', "lost far off in the East",[82] as the eldest of Baudouin's students put it, became the cradle of both of these bold and revolutionary doctrines. Out-of-the-way places are sometimes a fine terrain for invention. If these ideas were first published, in Kruszewski's words, "far from the Western European centers of learning, in the easternmost Russian university",[83] then this is due in no small measure to the fact that the academic tribunals were far away, the fear of criticism weaker, and so greater possibilities were open for pioneering audacity.

A proverb says that it is no good to discover America too late, after Columbus, but the premature discovery of America may turn out to be no less painful, when there are not yet the means for adopting and exploiting the new territories. Such was the fate of the Vikings, who supposedly perished in such a brave but premature expedition. Although the nineteenth-century precursors of modern linguistics were not swallowed up by the waves of the North Atlantic, the history of their lives also bears the mark of tragedy.

The only Western linguist who undertook systematic research on phonological problems at the same time as the first attempts of the Kazan' center was Jost Winteler (1846-1929), a Swiss scholar of the same generation as the two Poles, who in 1876 published in Leipzig a monograph on his native dialect entitled *Die Kerenzer Mundart des Kantons Glarus in ihren Grundzügen dargelegt*. This book, which was subsequently long forgotten, opened new horizons for dialectological field work and for the phonetic analysis and classification of speech sounds; moreover, it gave the first concrete phonological description in world linguistics. The author strictly and consistently distinguished "accidental features" (variations) from "essential properties" (invariants) on the sound level of language. In order to discover and identify these invariants, he applied a device, later called the commutation test, observing whether two sounds could, "in the same conditions" ("unter denselben Bedingungen"), differentiate the meanings of words, *e.g.* he showed the phonemic character of the two rounded vowels in the contrasting pair /štud/ 'twig' – /štvd/ 'pillar'. Shortly after the appearance of the young Swiss

---

[82]   N. Kukuranov, in the newspaper *Kamsko-Volžskaja Reč'* (1914), No. 67. (See *Prace Filologiczne*, XV, Part II, p. 467.)

[83]   *Očerk*, p. 8.

scholar's book, the militant phonetician Henry Sweet, then president of the London Philological Society, called it an uncompromising challenge to the old German philological school. At the same time Baudouin de Courtenay put it on the reading-list for his students and his own search for a strictly linguistic interpretation of speech sounds found here a new stimulus. This early and immensely promising work of Winteler's turned out, however, to be his only achievement, and in his sad memoirs, written for a Swiss periodical[84] in 1917 on the occasion of his seventieth birthday, he speaks of having felt persecuted all his life by a cruel fate: "Although for years I persistently stuck to my drafts, something kept keeping me from finishing them. Future generations will thus have something to do". He was convinced that if he had begun without too many ambitions for new ways in research, he would have ended his career as a university professor rather than as an obscure provincial teacher.

Baudouin de Courtenay could not, it is true, complain of lack of success in his academic career: he lectured in turn at the universities in Kazan', Dorpat, Cracow, Petersburg, Warsaw and Prague and earned the respect and admiration of the whole scholarly world. He never succeeded, however, in realizing the systematic structural studies of particular languages and of language in general that he had planned with such passion in his youth, and he recalled this with regret and bitterness toward the end of his life. "All the misfortunes that I have encountered for so many years put me in a pessimistic frame of mind and take away any desire to live" – Baudouin wrote in 1927 to the Czech Slavist A. Černý – "I consider myself a superfluous and useless man".[85] The feeling of constant disappointments that persecuted these great pioneers was not so much the result of external obstacles and a lack of understanding for their discoveries in the eyes of contemporaries. It was rather the fatal impossibility of applying and developing these novel ideas and the absence of an adequate theoretical basis for their inventions amid the general scientific dogmas of the time.

[84] "Erinnerungen aus meinem Leben", *Wissen und Leben* (1917), pp. 525-547, 617-647.
[85] See *Sbornik slavistických prací věnovaných IV mezinár. sjezdu slavistů v Moskvě*, Prague, 1958, p. 121. A quarter of a century earlier Baudouin, having decided to publish his youthful sketch of 1870 in the *Sbornik* for F. F. Fortunatov (= *Russ. Filol. Vestnik*, 1902), wrote in the preface: "We were then young and looked forward to the future; now we look back into the past. This review of the past arouses in me bitter feelings. Because of an inability to work and to concentrate and because of the circumstances of my life I wasted myself on trifles and instead of achieving anything solid and deserving of attention, I wrote fragments and scraps".

As long as the genetic approach was the only principle recognized by
the scientific world, a purposive structure such as language had to defy
attempts at description. As the leading Czech thinker T. G. Masaryk
declared, the philosophical censorship of that epoch "forbade any
discussion or questions whatsoever of *purpose*", even though "the frequent
abuses of teleology, especially by theologians, are an argument against
abuses, but not at all against teleology".[86] In fact confusion of teleology
and theology was one of the typical typographical errors of the time.
In the same 1870 lecture where, for the first time in modern linguistics,
Baudouin presented the basic problems of phonology, he felt obliged
to equate "the truly scientific" and "the historical, genetic orientation"
in linguistics and to deny any concern for teleology: "The development of
science proceeds by 'why?' questions (and not 'for what purpose?') and
'because' answers (and not 'in order that')".[87] The phoneme and other
linguistic categories introduced by Baudouin and Kruszewski were
clearly functional concepts, and it was not an easy task to bend them to
the genetic schema. Kruszewski felt particularly strongly that ultimate
goal of linguistics must lie in discovering the laws which govern linguistic
phenomena and that the works of linguists from Bopp to modern times
had given too weak a foundation for such a definition since the "arche-
ological orientation in linguistics" cannot replace research in general
linguistics but can be at best only a superstructure for the still non-
existent science of language.[88]

Kruszewski persevered in his search for a solution, but the short
period of the two linguists' collaboration, which had been so fruitful,
was coming to an end. Baudouin's trip abroad during the 1881-1882
academic year and his definitive departure from Kazan' in 1883, Kruszew-
ski's constant and incurable illness, which began in the following year,
and his premature death in 1887 – all of this deprived Baudouin of his
extraordinary and irreplaceable collaborator. A note of profound tragedy
for the man and the scholar sounded in Kruszewski's words after the

[86] *Naše doba*, VIII, p. 823f. Cf. R. Jakobson, "Jazykové problémy v Masarykově
díle", *Vůdce generací* (Prague, 1931), p. 104. [See below, p. 473.]
[87] *ŽMNP* (1870), pp. 279, 294. Nonetheless the purposefulness of linguistic phe-
nomena attracted the attention of the young Baudouin more than once. Cf. his con-
clusions about the "inner sense" and "organic purpose" of such phenomena as vowel
harmony in the Turanian languages and in the Rezian dialects of Slovenian: "Glotto-
logičeskie (lingvističeskie) zametki", I, *Filol. Zapiski* (1876), p. 11. "To what end, for
what purpose did they use stress?" Baudouin asks himself about the Germanic
peoples in connection with the prosodic evolution they experienced (*Programma II*,
p. 133).
[88] *Über die Lautabwechslung*, p. 3.

first paroxysm of his last illness: "Oh, how quickly I have crossed the stage".[89] Fear caused by the death of his faithful fellow combatant made Baudouin depreciate in his reminiscences of Kruszewski the significance of the loss and of the deceased both for the scholarly world and for himself, and he wearily abandoned their common achievements.[90] This extensive scholarly obituary, with its severe criticism of his late collaborator, is a painful human document, which is strangely reminiscent of the castigating and flagellant literature of the Russian nihilists in the 1860's. In later years Baudouin tried to dampen that passionate certainty with which his and Kruszewski's early works are imbued, as if the immensity of the advances that the two had made had intimidated him and as if he were burying the whole Kazan' period of creativity together with Kruszewski. It is indeed characteristic that in a volume of his early works, published in 1904 under the title *Szkice językoznawcze*, one of the first articles was his long obituary for Kruszewski. He also included his student articles and Berlin trifles as well as papers from the late 1880's and 1890's, but left out his 1870 programmatic lecture and all the Kazan' linguistic works except for a few Slavistic reviews. The whole period of Baudouin's scholarly activity that followed the years in Kazan' was strikingly different from them. Baudouin stopped publishing programs and excerpts from his courses, which he had printed regularly in Kazan', and no new ranks of Baudouin adherents came at the end of the century to the aid and reinforcement of his Kazan' circle (*lingvističeskij kružok*, as it was called by Baudouin and his students[91]), which was filling the journals of the time with declaratory articles about general problems of language.

"Linguistics must be recognized as an autonomous discipline, not to be confused with physiology or with psychology". This initial declaration of independence, entirely justified by the needs of the discipline, was proclaimed by Baudouin in his introductory Petersburg lecture (December 17/29, 1870); later, however, he deferred to the spirit of the times and did not follow his own battle cry. The place of functional investigations of speech sounds, investigations which the young Baudouin accented so strongly, was taken in his later lectures by something that he called "psychophonetics". The main object of his interest was no longer the relations between sound and meaning, but only the mental aspect of

[89] *Prace Filologiczne*, II (1888), p. 847.
[90] "Mikołaj Kruszewski, jego życie i prace naukowe", *Prace Filologiczne*, II (1888), pp. 837-849; III (1891), pp. 116-175.
[91] V. Bogorodickij, "Kazanskij period professorskoj dejatel'nosti I. A. Boduèn-de-Kurtenè", *Prace Filologiczne*, XV, Part II, p. 466.

speech sounds. Whereas so-called "phonetics proper" was understood in Baudouin's early works as a bridge between the study of sounds and grammar, now "psychophonetics" (if we are to accept its program literally) was conceived of as a bridge between phonetics and psychology. When in 1873 he had proposed a division of phonetics into an "acoustic-physiological" part and a "morphological" part, he was already inclined to equate the morphological sphere with the psychological.[92] It is no accident that this identification appears for the first time in the program that the young scholar sketched in Leipzig at a time when the neogrammarian school was growing there. The neogrammarians described analogical phenomena as "psychological" in contrast to the allegedly "physical" essence of pure sound changes. Baudouin attended the lectures of August Leskien and had frequent conversations with that outstanding cofounder of the Leipzig doctrine, and perhaps it was to him that Baudouin owed his psycho-physical dichotomy.[93]

What in the young Baudouin had been merely a terminological vagueness later created a dangerous confusion of concepts and methods. Despite all of Baudouin's boldness and originality in operating with linguistic data, his philosophical and psychological views did not go beyond the tenets that he had learned in school and the prevailing ideas of the age. Since attempts to define linguistic units from the point of view of the function, the character and the amount of information they carry were considered heretical at the end of the nineteenth century, Baudouin attempted a genetic definition of the phoneme. Trying to legitimize that essentially functional concept, he was faced with the difficult problem of the epistemological status of the phoneme: what is the modus vivendi of this entity and to what area of reality should it be assigned?

In later years Baudouin was certain that he had found the key to solving that problem in transferring the concept of the phoneme to the representational area of individuals' linguistic consciousness. In this way the phoneme, an inherently linguistic unit, the basic component of social verbal communication, was pushed into the jungle of individual introspection. Moreover, in the further development of Baudouin doc-

---

[92]   *Otčety*, p. 129.
[93]   Cf. *Otčety*, p. 124. A certain influence of Leskien's lectures on the development of the psychological trend in linguistics and also the sharp distinction made by Leipzig school between the psychological and physiological aspects of language were observed by Karol Appel, Baudouin's other Polish co-worker (besides Kruszewski), in his article "Neskol'ko slov o novejšem psixologičeskom napravlenii jazykoznanija", *Russkij Filol. Vestnik*, VI (1881), pp. 100, 102.

trine, a similar fate fell to language itself: language, the most important tool of interpersonal communication (or, as Sapir defined it, "a great force of socialization, probably the greatest that exists") was relegated to the area of individual psychology. In Baudouin's late works "individual psychic processes" are considered as the only reality in language, while its social aspect is branded a pure fiction, devoid of objective existence, or an artificial construct.

Here then is one of the numerous and striking paradoxes of the *fin de siècle*: Baudouin de Courtenay, the discoverer of one of the central concepts of modern linguistics, was convinced that he had provided a satisfactory theoretical definition of the phoneme in characterizing it as "the psychic equivalent of a sound"[94] or more circumstantially as "the fusion in one monolithic representational group of the images of the actions of the articulatory speech organs as well as the images of the acoustic shades connected with these actions – images joined in one whole by the image of *simultaneously performing* the actions and perceiving the impressions of the acoustic shades".[95] In this way a quasi-genetic conception of the phoneme was constructed by opposing it as a psychic image (or intention) to a sound, its physical realization.

Without considering the disadvantageous transfer of phonological problems from the firm ground of linguistic analysis to the hazy area of introspection and their being made dependent on such unknowns as the psychic impulses of the speaker, we find here two unjustified premises. First of all it is not clear why articulatory-auditory images are supposed to relate only to phonemes, while in fact inner speech operates not only with invariants but also with variations. For example the difference between [y] and [i] in the Polish or Russian words *był* and *bił* can exist in introspection despite the fact that these vowels are not phonemes, but combinatory variants.[96] Anticipation of the choice between the back and front variants precedes the actual phonation. Both the phonetic variables and the phonemic invariants are present in inner speech, *e.g.* both the narrow, unrounded vowel phoneme and its back and front implementations in the two Polish or Russian words cited above. Thus there is no basis for opposing a psychic phoneme to a physical sound.

To be sure Baudouin's antiquated psychologism was fundamentally just camouflage to justify his discoveries in the eyes of contemporaries – and in his own eyes, since he also was a child of his epoch. This camouflage,

[94]   *Próba*, p. 234.
[95]   *Charakterystyka*, p. 163.
[96]   *Próba*, p. 234.

however, kept the author from orienting himself in his own discoveries and from drawing the necessary conclusions. The phoneme concept in his new definition lost much of its operative value and just like his attempt to translate "morpheme" as "a part of a word endowed with autonomous psychic life", it could not find a concrete application in the linguistic research of that time. In Baudouin's later linguistic works the concept of the phoneme loses its original, basic import, and here and there one can discover the equation "phonemes, or sounds",[97] which takes us back to the time of Dufriche-Desgenettes.

Individual amazing flashes of insight were, however, scattered through his later writings, and the vital core of his linguistic achievements still lay buried in his works and courses. His best students of the Petersburg period, such as L. V. Ščerba and E. D. Polivanov, inspired by the fresh cultural currents of the new century, managed to extract this core from the superfluous chaff and to find an empirical application for their teacher's phonological inklings (cf. below, p. 425 f.).[98]

On the other hand the basic contents of the theory elaborated by Kruszewski and the young Baudouin were assimilated by Ferdinand de Saussure, who, in the last decade of the nineteenth century and especially at the beginning of the twentieth, resolutely approached the basic problems of general linguistics. His first notes on the subject included both Polish scholars in the list of those few names "that should be cited" when discussing cardinal contributions to the theory of language.[99] In 1908, while working on his course in general linguistics, Saussure sketched a review of the first systematic outline of the Geneva linguistic doctrine, which his student A. Sechehaye had just published.[100] Saussure began with the observation that past attempts in the area of theoretical linguistics – from Humboldt to H. Paul and Wundt – had contributed nothing but raw material, while "Baudouin de Courtenay and Kruszewski were closer than anyone else to a theoretical view of language, without

---

[97]   *Próba*, p. 238. It is characteristic that in the twenty-two "general theses" with which Baudouin summed up his scholarly autobiography for S. A. Vengerov's *Kritiko-biografičeskij slovar'*, V (1897) there was no space allotted to his phonological investigations, just as these problems remained untouched in his *Zarys historii językoznawstwa* (1909).

[98]   L. Ščerba declared: "Baudouin himself emphasized that he had recourse to psychological labels because of the impossibility of using any other terminology, given the contemporary state of the science. *** It seems to me that Baudouin's psychologism can easily be removed from his linguistic theories and everything will remain in place", (*Izvestija po russkomu jazyku i slovesnosti AN SSSR*, III, p. 315).

[99]   See "Notes inédites de F. de Saussure", *Cahiers Ferdinand de Saussure*, XII (1954), p. 66.

[100]   *Programme et méthodes de la linguistique théorique* (Paris-Leipzig-Geneva, 1908).

digressing from purely linguistic considerations; yet they are unknown to most Western scholars".[101] As a matter of fact, at the time when the Geneva linguist was attributing international significance to Kruszewski, the name of the researcher who had died twenty years before was quite forgotten by the Slavic as well as the Western academic world, and Baudouin's linguistic ideas were still unfamiliar to the international scholarship. Saussure carefully studied the theory of language elaborated by the two linguists, whom history has linked forever, and in his lectures, which were refashioned by Bally and Sechehaye into a posthumous book,[102] he took from the teachings of Baudouin and Kruszewski and eloquently discussed such fundamental dichotomies as linguistic statics and dynamics (or in Baudouin's and likewise Saussure's favorite formulation, kinematics); constancy and changeability (*immutabilité* and *mutabilité*), and correspondingly "the eternal antagonism between a conservative force, based on associations by contiguity, and a progressive force based on associations by similarity" (*solidarité avec le passé* and *infidélité au passé*);[103] language and speech (*langue* and *parole*); centrifugal and centripetal forces in language (*force particulatrice* and *force unifiante*); the coherent whole of the system and its parts; association by similarity, *viz.* "the bonds of kinship" (*solidarité associative* or *groupement par familles*), as opposed to "bonds of contiguity with concomitants" (*solidarité syntagmatique*); finally the "inseparable pair" of *signans* and *signatum – oboznačajuščee* and *oboznačaemoe* (*signifiant* and *signifié*).[104] The general statements about shortening of stems in favor of ending (or "the process of morphological absorption", to use Kruszewski's term), which Baudouin had launched and his disciple widely developed since his student years, entered in full into Saussure's 1906-1907 lectures on general linguistics.[105]

Saussure also obviously joined Baudouin's and Kruszewski's trend in their approach to the phonetic side of language. When at the end of the 1890's Saussure states that in the forms *srutos, sreumen, sreuo* "le phonème *u* nous apparaît sous deux formes acoustiques",[106] he is trying to "perceive unity in diversity" (*entrevoir l'unité dans la diversité*), just like Baudouin

[101] See Godel, *op. cit.*, p. 51.
[102] *Cours de linguistique générale.*
[103] *Očerk*, p. 124f.; *Prace Filologiczne*, III, p. 152f.
[104] *Očerk*, p. 65ff.
[105] See Godel, *op. cit.*, p. 61. Cf. Baudouin, *Szkice językoznawcze*, pp. 176-248; *RFV* (1902), pp. 234-248; *Prace Filologiczne*, III, pp. 121-124.
[106] *Cahiers Ferdinand de Saussure*, XII (1954), p. 52f.

when discovering *i mutabile*.[107]   It is interesting that Baudouin's later formulations find a close analogue in Saussure's courses on general linguistics, in which the phoneme is defined as a complex psychic unit that joins images of the articulatory act and of the acoustic effect.[108] At the same time, however, Saussure was apparently deterred by the ambiguity of the term "phoneme", which was still used by French linguists in the meaning given to it by its inventor, Dufriche-Desgenettes. In his third and last course he suggests that it would be safer to omit from the analysis of the linguistic sign such terms as *phonème*, "qui contient l'idée d'action vocale, de parole".[109]   However in rejecting the *term*, which had earlier been adopted from him by Kruszewski and Baudouin and used by them in a new way, Saussure was by no means burying the *idea* of elementary linguistic invariants, which he had originally put into that term and for which broad outlooks were opening in the joint research of the two Polish linguists. Saussure emphasized in his lectures that first of all "il faut *dresser le système phonologique* de l'idiome qu'on aborde".[110]   The components of that system, "the irreducible phonological units, or phonic elements of the language", constitute a finite total within any given system.

In his 1906-1907 course the Geneva linguist characterizes the structure of these linguistic components quite distinctly: "La véritable manière de se représenter les éléments phoniques d'une langue, ce n'est pas de les considerer comme des sons ayant une valeur absolue, mais avec une valeur purement oppositive, relative, négative".[111]   The 1908-1909 course makes this more precise: "Les unités phonologiques *** sont investies d'une valeur". This value is, "on the one hand, the corollary of their internal opposition to all kind of elements of the same order within a closed system" and, on the other hand, it is a result of their "syntagmatic grouping".[112]

All the details of this conception, including the terminology, have

[107]   Godel, *op. cit.*, p. 64.
[108]   *Ibid.*, pp. 161, 272.
[109]   *Ibid.*, p. 162.
[110]   *Ibid.*, p. 164.
[111]   See *ibid.*, pp. 65, 165, 272. As R. Godel has shown, Saussure avoids calling these units phonemes, although the term was inserted "unduly" and deceptively in several places by the editors of the posthumous edition of his *Cours de linguistique générale.*
[112]   See *Cahiers Ferdinand de Saussure*, XV (1957), pp. 58f., 83f. It is worth noting that Saussure does not limit himself to an examination of the "irreducible links" (*chaînons irréductibles*) in the sound chain (Godel, *op. cit.*, pp. 80, 256), but also considers the "differential elements" (*éléments de différenciation, différentiels*) of which these links, or "phonic units", are composed (*ibidem*, pp. 54, 163; *Cours*, p. 70), despite the fact that this phase of phonological analysis clashes directly with his "prin-

their source in the Kazan' discussions. If Saussure's interest in phonologi-
cal elements turns out to be connected primarily with problems of the
reconstructive method, this agrees with the role of the term *phonème* in
his *Mémoire* on the Indo-European vowel system and with the original
comparative-historical preoccupation of Baudouin and Kruszewski. The
building of a bridge, however, from diachronic problems to synchronic
ones in the phonological system was as inevitable for Saussure as it had
been for his Polish precursors. In his 1907-1908 lectures he feels obliged to
give an affirmative answer to the question of whether one can ascribe to
the "irreducible units" a certain value in the synchronic plane of language,
although, according to a student's note, "M. de Saussure ne veut pas
trancher la question".[113] His primary attitude toward the question of
alternations, which link the phonetic level with the grammatical level,
also fully corresponds to the "Kazan' tradition". In the middle of the
1890's, shortly after the appearance of Baudouin's monograph on alterna-
tions, Saussure noted that "morphology will have to deal with sounds
to the extent that the sound is the bearer of thought (alternation)",[114]
and the problem of various degrees of significance (*significativité*) of
alternating phonological units is raised repeatedly in his courses on
general linguistics.[115] In lectures on the comparative grammar of Greek
and Latin (1909-1910), Saussure, in agreement with Baudouin's views,
envisages "l'étage inférieur de la morphologie" – namely, the phonic
level of language in its relation to the grammatical level, and specifically
to the structure of the word.[116] Saussure's consideration of the elementary
units "contribuant à constituer des unités significatives"[117] gives rise to
one of the central theses of his posthumous volume: "The most important
thing in a word is not the sound itself, but the phonic differences, which
permit one to distinguish the given word from all others, for it is just
these differences that are the bearers of meaning".[118]

---

ciple of linearity" (cf. Godel, *op. cit.*, p. 203f.). Saussure's allusion, just like Baudouin's
discussion of kinakemes, is a preliminary to the "componential analysis" of present-day
phonology [see below, p. 444f.].
[113]   *Cahiers*, XV, p. 58.
[114]   Godel, *op. cit.*, p. 41.
[115]   Cf., for example, *Cahiers*, XV, pp. 62-64.
[116]   Godel, *op. cit.*, p. 166.
[117]   *Cahiers*, XV, p. 58.
[118]   *Cours*, p. 169. It is not surprising that many things in Saussure's *Cours* seemed
very familiar to Baudouin's students. In 1945 Ščerba wrote: "Thus much that Saussure
said in his profoundly reasoned and elegant exposition, which entered the public
domain and evoked universal enthusiasm in 1916, had long been known to us from
Baudouin's writings. Nonetheless some of our linguists are ready to ascribe to Saussure,

The model for this substantial assertion came from two outstanding close collaborators in the field of applied phonetics, the Englishman, Henry Sweet (1845-1912), and the Frenchman, Paul Passy (1859-1939). In the course of the seventies Sweet worked out two systems of phonetic transcription: the so-called Broad Romic, which shows only the broader distinctions of sounds (*i.e.* the differences that distinguish meanings in the given language) and 'Narrow Romic', able to show all sorts of distinctions with minute precision.[119] In his idea of a double system of transcription Sweet made use of the experience of his predecessor, the phonetician Alexander John Ellis (1814-1890), who also worked out two types of phonetic alphabets: 'Glossic', reflecting only distinctions that are essential for the given language, and 'Universal Glossic', showing all phonetic distinctions without regard for particular languages. It is interesting that Baudouin, in his striving for a consistent distinction between sounds and phonemes, suggested in his Kazan' lectures the introduction of two different systems of phonetic transcription – one for sounds and the other for phonemes without regard to variants. "It would be desirable", he wrote, "sharply to distinguish the signs for phonemes from the signs for sounds so that it would be apparent at a glance what one was talking about".[120] Baudouin apparently did not know Sweet's works on this subject during the Kazan' period, but one of Ellis' works is included in his bibliography for the Kazan' students.[121]

In their attempts to reform traditional orthography and to bring it closer to the oral speech Sweet and Passy understood the necessity for conveying in writing only "those elements of speech that have a semantic value". In his 1887 speech to the French society for spelling reform Passy declared: "We shall distinguish two sounds when they serve or may serve to distinguish two words; on the other hand we shall ignore those differences that are superfluous from the point of view of meaning".

---

in some degree or other, even the doctrine of the phoneme" – *Izbrannye raboty po jazykoznaniju i fonetike* (Leningrad, 1958), p. 14; cf. his *Izbrannye raboty po russkomu jazyku* (Moscow, 1957), p. 94 f. A similar statement occurs in Polivanov's preface to his book *Za marksistskoe jazykoznanie* (Moscow, 1931), p. 3 f.: "F. de Saussure's posthumous book, which was received by many as a kind of revelation, contains literally nothing new in the presentation and solution of general linguistic problems as compared to what was achieved here long ago by Baudouin and his school".

[119]   H. Sweet, *Handbook of Phonetics* (Oxford, 1877), p. 103 f. In the preface to his *History of English Sounds* (Oxford, 1888), p. X, Sweet characterizes Broad Romic "as a kind of algebraic representation, where each letter represents a set of similar sounds".

[120]   *Nekotorye otdely*, p. 71.

[121]   *Programma II*, p. 100; A. J. Ellis, *Universal Writing and Printing with Ordinary Letters*.

The *Association Phonétique Internationale*, founded in 1886 as the Society of Phonetics Teachers and directed mainly by Passy and Sweet, adopted in 1888 a number of provisions concerning the construction and the application of an international phonetic alphabet. According to the first of these rules, "a distinct letter must correspond to each distinctive sound, that is to each sound that can change the meaning of a word if used in place of another".[122] Similarly, in a booklet entitled *The Practical Study of Language* and printed in 1900, Sweet declared explicitly that "we have to distinguish between differences of sound on which differences of meaning depend – significant sound-distinctions – from those which are not significant". This concise differential definition, given by Sweet as a "common-sense principle" and designed "for practical purposes", later provided the theoretical basis for a strictly linguistic treatment of speech sounds. It also became the first stimulus to Leonard Bloomfield's recognition and utilization of phonemics, according to his own testimony.

At the beginning of our century Baudouin and his Petersburg followers came closer to this Anglo-French practical trend. Beginning in 1900 there arose an extensive correspondence between Sweet and Baudouin, who at the time was keenly interested in the question of the interrelations of writing and language.[123] In 1908-1909 the young Ščerba (1880-1944) visited Paris, came into direct contact with the leaders of the International Phonetic Association, and made it clear to them that the concept of a "distinctive sound" required a deeper methodological substantiation, as we find it outlined in Baudouin's quest for the essence of the phoneme. Subsequently, under the influence of Passy, whose lectures Ščerba attended at the Sorbonne, he introduced the distinctive function of the phoneme into the very definition of this concept as its point of departure.[124] Ščerba's conversations with Saussure's Paris disciple, Antoine Meillet (1866-1936), strengthened the latter's conviction that the phoneme was

[122] *The Phonetic Teacher* (August, 1888). Passy called the principle of indicating only distinctive sound differences "the golden rule of the practical phonetician".
[123] Baudouin, who from his first note "on the use of Latin alphabet in the area of the Slavic languages" (1865) had constantly studied linguistic problems of writing and spelling, worked during the years of his Petersburg professorship on the relationship between the Russian language and its orthography, to which problem he later devoted his book, *Ob otnošenii*.
[124] In his *Court exposé de la prononciation russe*, published by the Association Phonétique Internationale in 1911, Ščerba points out that in his table of Russian sounds he presents "sounds that have significative value (*i.e.* phonemes in the terminology of Baudouin de Courtenay) in bold type and nuances that have no significative value in ordinary type" (p. 2). In the introduction to his book *Russkie glasnye v kačestvennom i*

necessary for linguistic operations,[125] and on the other hand they gave to the Russian disciple of Baudouin a number of precious guideposts for the systematic analysis of the structure of language, which Ščerba utilized in his works on the Russian and Lusatian sound systems.[126] For the London phonetician, Daniel Jones, the "immense importance" (his own words) of Baudouin's theory of the phoneme became clear after he read Ščerba's brochure, published in 1911 by the Association Phonétique Internationale, and after Tytus Benni, a Polish follower of Baudouin, had personally introduced the English scholar into the latter's doctrine.[127] Finally, thanks to Polivanov's studies on the theory of phonemes as applied to oriental languages, especially Japanese, Baudouin's ideas early reached Japanese linguistics and from there, via K. Jimbo and his interpreter H. E. Palmer, entered into English linguistics.

Thus at the eve of World War I the scholarly world became acquainted with Baudouin's concerns in their various refractions. The moment at which Saussure's posthumous *Cours* was published was most favorable for a gradual diffusion of its guiding principles. In the atmosphere of intellectual ferment that dominated the world after the First World War, the ideas emanating from that book could more easily be accepted than at any time before, and it was immaterial whether all of them were the author's original finds or – as was the case with many of

---

količestvennom otnošenii (St. Petersburg, 1912), Ščerba refers to the *Exposé de principes de l'Association Phonétique Internationale* (1908), written by P. Passy, "one of the few phoneticians who have completely understood the simple idea about the necessity for distinguishing 'les éléments significatifs d'une langue' from sounds that 'n'ont aucune valeur distinctive'". He quotes Passy's view that if two sounds "do not play the role of semantic constituents", then "there is no difference between them from the linguistic point of view" (p. 10). Ščerba further tries to "give a conclusive definition of the phoneme: it is the name for the shortest general phonetic representation which can be associated in the given language with semantic representations and differentiate words"; he points at the relevance of the phoneme for the phonetic constitution of the word (p. 14).

[125] In his review of Ščerba's book *Russkie glasnye* Meillet praised the author because he followed Passy and wisely insisted on distinguishing significant phonetic differences from the wide variations devoid of semantic value – *Bulletin de la Société de Linguistique*, CXIII (1912).

[126] In the preface to his book *Russkie glasnye* Ščerba stated that the conception of linguistic phenomena which he had acquired under the influence of long and close contact with Baudouin de Courtenay was considerably strengthened thanks to A. Meillet's lectures and conversations; they showed him "how two scholars in different points of the earth, working on different material, completely independently of one another, had come to what was, to a significant extent, an identical view of linguistic phenomena" (p. VII).

[127] D. Jones, *The History and Meaning of the Term "Phoneme"* (London, 1957), p. 5f.

them – had been previously (if prematurely) formulated by other fore-runners of modern linguistics. Despite all the peculiar interplay of traditionalism and novelty in Saussure's search and despite all the vacilla-tions in his discussions of "la valeur linguistique considéreé dans son aspect matériel" (uncertainty increased still further by the intensive editorial retouching of student records used for the reconstruction of the teacher's *Cours*) the reader found in his ideas the essential scientific shift. Such a shift was indispensable in order that the theory of phonological units might become an active, operational conception and in order that linguistics might proceed with a consistent phonologic analysis of any given language. In the last century the search for linguistic invariants began in parallel with the growth of the application of invariance in the exact sciences. Historians of mathematics aver that the whole importance of the concept of invariance was grasped only when it was supported by the theory of general relativity.[128] This observation is equally applic-able to the history of linguistics. It is verily symptomatic that the same year, 1916, marked the appearance of both Einstein's *Foundations of the General Theory of Relativity* and Saussure's *Cours* with its insistence (indeed revolutionary in its consequences) on the purely relative character of the linguistic components. Still new examples of striking parallelism appeared in the further development of linguistics and of the exact sciences.

The key concept of the relativity of the sound features utilized by a given language, their dependence on the structure of the whole phonolo-gical pattern of the language, and the cognate problem of phonological oppositions – all these ideas were grasped and, in fact, drafted by Bau-douin de Courtenay in his young years; it was, however, Saussure who first built on these premises the very conception of a linguistic system. That is why, together with Baudouin's and Kruszewski's foresights, Saussure's version of these thoughts essentially stimulated the far-reaching inquiry into general and special phonology that began in world linguistics of the 1920's and has continued to develop rapidly. It is instructive that at the present stage of the discipline, in the East and the West, there is once again discussion – naturally on a new level – of the two topics that most keenly concerned both Polish precursors of phon-ology, two themes that are interrelated – namely, the question of in-variants in the diachronic plane and, on the other hand, in the analysis of alternations. The treatment of the problem of invariance and variation

[128]   See, e.g., E. T. Bell, *The Development of Mathematics* (New York-London, 1945[2]), Ch. 20.

in the field of speech sounds continues to be – let us underscore: *mutatis mutandis* – the methodological model for all other areas of linguistic analysis.

The present-day linguist finds ever new stimuli in the trailblazing work of Baudouin de Courtenay and Kruszewski, and their legacy should be collected and published anew and made available to the readers of today.

The Polish version of this study appeared in the *Biuletyn Polskiego Towarzystwa Językoznawczego*, XIX (1960), and was based on the paper given at a meeting of the Linguistic Committee of the Polish Academy of Sciences on January 12, 1958, in Warsaw, under the title "The Origin of the Concept of Phoneme in Polish and World Linguistics".

ЗНАЧЕНИЕ КРУШЕВСКОГО В РАЗВИТИИ
НАУКИ О ЯЗЫКЕ

Jan Baudouin de Courtenay (1845-1929) и Mikołaj Habdank Kruszewski (1851-1887) – два гениальных теоретика, которых польское языкознание дало мировой науке на склоне прошлого века. Второй из них, верный ученик и соратник Бодуэна, по отзыву самого учителя, превзошел последнего в философичности, обстоятельности и точности строго аналитического метода.

Крушевский, уроженец волынского города Луцка, поступил по окончании Холмской гимназии на историко-филологический факультет Варшавского университета. Научная ориентация Крушевского определилась с его первых студенческих лет. Хотя в Варшавском университете он записался на историческое отделение историко-филологического факультета, он "мало занимался историей, а работал главным образом над философией", как повествует о жизни покойного Бодуэн де Куртенэ.[1] Недаром в своих "Положениях" 1881 г. Крушевский на первом же месте заявил, что главная задача языкознания – "не восстановление картины прошлого в языке, а раскрытие законов явлений языка", и следовательно по самой своей методологической природе лингвистика оближается не с "историческими", а с "естественными" науками.[2] В том же году Бодуэн выступил с аналогичным заявлением, что задача всех подлинных наук "состоит в очищении предмета исследования от всяких 'случайностей' и произвола и в отыскивании 'правильности' и 'законности'. С этой точки зрения все науки, занимающиеся сопоставлением и обобщением подробностей, будут естественными, если выдвигают на первый план кроющуюся в явлениях стройность и правильность; останавливаясь же на одних только случайностях и частностях, все эти науки суть науки 'исторические' (в том смысле,

---

[1] "Mikołaj Kruszewski, jego życie i prace naukowe", *Prace Filologiczne*, II (1888), III (1889). Перепечатано в книге J. Baudoin de Courtenay, *Szkice językoznawcze* (Варшава, 1904). Русский перевод в *Избранных трудах по общему языкознанию* И. А. Бодуэна де Куртенэ, I (Москва, 1963).

[2] "Положения", *Русский Филологический Вестник*, V (1881), стр. 107-109.

как этот эпитет прилагается к кличке так наз. 'всеобщей истории'). При таком взгляде на вещи, вне естественных наук и математики нет места для какой бы то ни было действительной науки."[3] Несмотря на дальнейшие перемены в подходе Бодуэна к этому кругу вопросов, он признавал, что краеугольный тезис Крушевского до известной степени составляет его "самостоятельный вклад".[4]

Даровитого варшавского судента прежде всего увлекали вопросы логики и психологии; профессор М. М. Троицкий, фанатический приверженец английской мысли от Бэкона, Локка и Юма до Милля и Бэна, обстоятельно ознакомил своего ученика с методологией и проблематикой втих двух дисциплин. По воспоминаниям Бодуэна, "огромную роль играло изучение основных логических и психологических сочинений английских философов, конспектирование этих трудов, их переработка и т.д. Это была превосходная школа мышления, побуждавшая к точной формулировке собственных мыслей, а также к удачному обобщению частностей." Другой варшавский профессор Крушевского, известный славянский филолог и фольклорист М. А. Колосов, "заметив в молодом ученом пристрастие к языкознанию и недюжинные способности, посоветовал ему по окончании университета, для дальнейшего усовершенствования в этой науке, направиться в Харьков" к А. А. Потебне, у которого учился сам Колосов, или же в Казань к Бодуэну. В кандидатской работе Крушевского на тему, рекомендованную учителем, о русских заговорах и заклинаниях, законченной в начале 1875 г. и опубликованной в 1876 г.,[5] уже ясно проявляются все характерные черты его научного облика – творческая оригинальность и проникновенность, сосредоточенное внимание к 'логическим основаниям' языка и мышления на любом их культурном уровне, тонкое чутье к языковым вопросам, в данном случае к слову в его магической функции и увлечение проблемой 'стереотипных приемов' характерных для языка и для фольклора.

---

[3] "Несколько слов о сравнительной грамматике индоевропейских языков", *Журнал Министерства Народного Просвещения*, CCXIII (1881).

[4] *Szkice językoznawcze*, стр. 127.

[5] "Заговоры как вид русской народной поэзии", *Известия И. Варшавского Университета*, 1876. – Труды Колосова правильно охарактеризованы в обзоре В. В. Виноградова – "Русская наука о русском литературном языке", *Ученые Записки* Моск. Гос. Университета, CVI (1946), стр. 90: "Трезвый, но голый эмпиризм изложения, не обремененного никакими гиротезами и обобщениями, отражал кризис лингвистической мысли, порвавшей с романтическими исканиями предшествующего периода, но не открывшей еще никаких новых перспектив и задач исследования."

Учительствуя в Троицке, захолустном городе Оренбургской губ., и копя средства на лингвистические занятия под руководством Бодуэна, он перечитал в 1876 г. одну из замечательнейших работ последнего, петербургскую вступительную лекцию "О языковедении и языке", которую он же тщетно пытался осилить в начале своей университетской учебы, когда она только что вышла в феврале 1871 г.[6] На этот раз юного Крушевского особенно поразили замечания Бодуэна о различных "силах", действующих в языке, и 30 сент. 1876 г. он писал из Троицка автору:

Вы будете смеяться над тем, что меня, едва приступившего к лингвистическим занятиям, уже влечет к философским, а скорее логическим воззрениям на лингвистику, но это результат не того, что я принимаюсь за языкознание, а того, что я издавна увлекаюсь философией. *** И не знаю я, может ли меня что-либо привлечь с большей притягательной силой к языкознанию, чем этот бессознательный характер языковых сил; я только теперь приметил, что, перечисляя эти силы, Вы последовательно присовокупляете термин "бессознательный". Меня это интересует, потому что это вяжется с той идеей, которая уже давно забилась колом в мою голову, а именно с идеей о бессознательном процессе вообще, с идеей, отличающейся коренным образом от идеи Гартмана. Для выяснения этой разницы я принялся в течение каникул именно за томительное и нудное изучение философии Гартмана в переработке Козлова. Сейчас, разумеется, место Гартмана заняли ученические тетради, но я надеюсь к нему еще вернуться. – Еще один вопрос меня чрезвычайно занимает. Имеется ли в лингвистике какой-либо один закон, и если да, то какой именно общий закон, который был бы одинаково применим ко всем лингвистическим явлениям? Такой, например, общий закон, каким в психологии является закон ассоциации, и без которого, как правильно судит логика, наука перестает быть наукой. Нет ли такого труда или статьи, где бы лингвистика рассматривалась под углом зрения логики, как например рассматриваются другие науки в конце второго тома Логики Милля? Если что-либо такое существует, и если Вы не сочтете вредным подступ к учёбе с конца, то прошу указать мне.[7]

В этом замечательном документе уже ярко сказалась типичная для всех лингвистических трудов Крушевского установка на логику бессознательных процессов, а также его наустанное стремление, которое Бодуэн окрестил "пристрастием к законам" (łapczywością na prawa). Именно в основоположном тезисе о "возможности и

---

[6] "Некоторые общие замечания о языковедении и языке", *Журнал Министерства Народного Просвещения*, CLIII (1871).

[7] См. *Szkice językoznawcze*, стр. 134.

необходимости науки, для которой конечной целью должно быть открытие законов, управляющих языковыми явлениями, коренится тесная связь Крушевского с нынешней лингвистической мыслью. Непоколебимое убеждение, что "язык представляет одно гармоническое целое", и неустанные усилия вскрыть внутреннюю закономерность в его, по выражению Крушевского, "структурной системе", все это обеспечивает героическим исканиям безвременно погибшего ученого одно из руководящих мест в истории борьбы за подлинно научную теорию языка, даже если бы мы приняли отзыв, вырвавшийся у Бодуэна под позднейшим наплывом научного разочарования и усталого скепсиса, будто бы Крушевский "вообще не открыл никаких законов в языке."[8] Порвавши с тем абстрактным, математическим мышлением, в котором Бодуэн постоянно усматривал основную особенность доктрины Крушевского, он силился уверить и читателей и самого себя, что "это одни лишь методологические постулаты, т.е. субъективные 'законы' теоретического мышления, в которых нельзя усмотреть законов, связывающих изучаемые явления и факты."[9]

Восхищаясь вершинными достижениями сравнительной истории индоевропейских языков, Крушевский в то же время горячо возражал против монополии "археологического" направления в лингвистике, которое подменяет широкую проблематику общего языкознания опытами реконструкции индоевропейского праязыка, и доказывал, что даже для установления генетических филиаций "простой эмпирический прием сравнения недостаточен; на каждом шагу нам необходима помощь дедукции из фонетических и морфологических законов, прочно установленных" систематическим анализом структуры живых языков.[10]

Краткие промежутки между многочисленными университетскими лекциями и уроками русского языка и литературы в Родионовском институте благородных девиц, которые Крушевский взял на себя, "вынужденный необходимостью попечения о семье", он посвятил лихорадочной исследовательской работе, но и в этих урывочных лингвистических разысканиях всего неполных пять лет провел молодой ученый. Свою первую языковедческую работу *pro venia legendi* он представил под конец 1879 г., и ему еще не исполнилось тридцати трех лет, когда в 1884 г. он был и физически и душевно

---

[8]   *Szkice językoznawcze*, стр. 167.
[9]   "O «prawach głosowych»", *Rocznik Slawistyczny*, III (1910).
[10]   *Очерк науки о языке* (Казань, 1883).

разбит роковым недугом, положившим неумолимый конец его творческому научному пути за три года до кончины, последовавшей 12 ноября 1887 года. Уже в 1885 г. он чувствовал близость помешательства и несколько раз хотел покончить с собой, а в начале следующего года, после сурового пароксизма неизлечимой болезни, подписав прошение об отставке вскоре после своего назначения ординарным профессором, Крушевский, по рассказу Бодуэна, печально промолвил: "Ах, как быстро прошел я через сцену", и впал на другой же день в невменяемое сотояние. Во введении к *Очерку науки о языке* (1883), основоположному труду ученого, четко подведены итоги его лингвистических разысканий:

Занимаясь под руководством проф. Бодуэна де Куртенэ и будучи твердо убежден, что область языковых явлений, наравне с другими областями существующего, подчинена известным законам, в общенаучном смысле этого слова, я изучал живую речь, в надежде уяснить себе когда-нибудь эти законы. Мало по малу я пришел к некоторому цельному воззрению на язык, к некоторой – сказал бы я, если бы не боялся упрека в нескромности – теории языка. Я мечтал о том, что посвящу этому предмету несколько лет труда и не стану печатать мою работу, пока ее основные идеи не будут изложены с достаточной убедительностью. Разные причины заставляют меня печатать ее гораздо раньше, чем я предполагал. Я принужден помириться с тем, что, вместо законченной и обработанной в подробностях картины, у меня вышел пока только неполный ее абрис *** Считая эту книгу только предварительным очерком, я не теряю надежды представить в будущем обработку того же предмета в более совершенном виде *** Читатель, который умеет ценить обобщение само по себе и помнит, что не всякий настолько счастлив, чтобы располагать своим временем и иметь достаточно физических сил для продолжительной и кропотливой обработки частностей, – такой читатель, надеюсь, отнесется снисходительно к многочисленным недостаткам моей книги.[11]

Автор усматривал главную слабость научного языкознания в крайней скудости обобщений, а его очередную задачу в структурном анализе слова, тогда как предложение, второй предмет разысканий, по отзыву казанской вступительной лекции, читанной Крушевским 15 января 1880 г., "еще почти не вошло в науку о языке".[12] В глазах молодого исследователя общее языкознание настоятельно требовало именно широких, пускай с первопочатку рабочих, гипотетических

---

[11] *Очерк*, стр. 8.
[12] "Предмет, деление и метод науки о языке", *Русский Филологический Вестник*, XXXI (1894).

обобщений, даже если новая теория "на первых порах своего появления приобретает применение слишком широкое"; он ясно осознавал, что дальнейшее "усовершенствование новой теории чаще всего состоит в ее ограничении".[13] Крушевскому был присущ глубокий пафос творческого почина и развития новой научной системы.

В тех же *Известиях Казанского Университета*, где Бодуэн печатал ценнейшие обзоры своих плодотворных открытий, в 1883 году он рецензировал только что вышедший *Очерк* Крушевского как "плод мысли самостоятельной и привыкшей к логическому анализу", а также "вклад в лингвистическую литературу вообще", обогащающий ее новыми идеями,[14] и двадцать лет спустя он снова заявил, что эта книга "остается до сих пор одним из лучших общелингвистических сочинений не только на русском языке".[15] Эти отзывы несравненно важней и справедливей, чем его обширная памятка "Mikołaj Kruszewski" (*Prace filologiczne*, 1888-89), написанная в пылу авторского полемического пересмотра заветов т.н. казанской школы, созданной на рубеже семидесятых и восьмидесятых годов молодым Бодуэном и его покойным соратником.

3 мая 1882 г. Крушевский комментировал в письме к путешествовавшему за границей Бодуэну свою работу по подготовке *Очерка*:

Не знаю, каково будет заглавие моего исследования; а предмет его таков: 1) Наряду с теперешней наукой о языке необходима другая, более общая, нечто в виде феноменологии языка. 2) Некоторое (бессознательное) предчувствие такой науки можно заметить в новоявленной фракции младограмматиков. Однако проповедуемые ими принципы либо непригодны для построения на них такой науки, либо недостаточны. 3) Можно вскрыть в самом языке прочные основы такой науки.[16]

Эта для своей эпохи исключительная по прозорливости и четкости формулировок декларация вызвала недоумение и раздражение в Бодуэне, который именно в конце восьмидесятых годов, в годы юрьевской профессорской деятельности, отчасти поступился своим казанским новаторским радикализмом и попытался подменить в

[13] "Об «аналогии» и «народной этимологии»", *Русский Филологический Вестник*, II (1879).
[14] "Отзыв о кандидатской диссертации Н. В. Крушевского 'Очерк науки о языке'", *Известия Казанского Университета*, 1883.
[15] "Лингвистические заметки и афоризмы", *Журнал Министерства Народного Просвещения*, CCCXLVI-CCCXLVII (1903).
[16] См. *Szkice językoznawcze*, стр. 134-135.

языковом анализе прежние поиски внутренне-лингвистических критериев псевдопсихологическими ссылками, причем первоначальный анализ звуковых элементов под углом зрения их языковых функций шаг за шагом уступал место выморочной "психофонетике". Как ни учащались с годами уступки Бодуэна идеологическому канону ученой среды его времени, он оставался гениальным искателем, и по рассказу его дочери, цесарии Ендржеевич, в своей предпоследней беседе с нею отец, парируя замечание о психологизме его лингвистических работ, категорически заявил: "в действительности я всю свою жизнь был собственно феноменологом." Таким образом научное самоопределение Бодуэна на конечном этапе его деятельности сближается с задачами, поставленными его казанским соратником в письме безмала полувековой давности.

В основу своего подхода к языку, его строю и развитию Крушевский положил последовательное разграничение двоякого рода отношений между языковыми элементами, а именно их внутренней связи по сходству и их внешней связи по смежности. Это учение о двух лингвистических осях, навеянное классификацией ассоциаций у английских психологов и ее радикального приверженца Троицкого, но поднятое Крушевским с механистического на феноменологический уровень, выросло в его труде в стройную, целостную и необычайно плодотворную теорию языка. Считая слово первичным предметом лингвистики, исследователь прежде всего к слову применяет свой бинарный подход. Согласно *Очерку*, "каждое слово связано двоякого рода узами: бесчисленными связями сходства со своими родичами" по "материальному", т.е. лексическому звуковому составу, по грамматической форме или же по значению "и столь же бесчисленными связями смежности с разными своими спутниками во всевозможных фразах". Таким образом "слова должны укладываться в нашем уме в системы или гнезда или семьи" (все три термина синонимичны в *Очерке*). При этом обнаруживается сложная иерархия объединений: "в языке образуются более или менее многочисленные семейства слов, родственных по корню, суффиксу или префиксу." Слова одного семейства проявляют черты единообразия либо "в том материале, из которого они построены", либо "в самом своем строении." Крушевский подчеркивает, что наша память способна хранить "типы слов отдельно от самих слов". Наряду с определенными типами слов вскрывается "связь между отдельными типами", т.е. своего рода "структурные семейства, системы типов". С другой стороны, языковед обращает внимание на

"известное число общих категорий", т.е. грамматических понятий, и каждая из них в свою очередь образует особую "семью или систему", определяемую Крушевским как "посредственную или косвенную связь слов".

Если всякое слово способно "возбуждать в нашем духе другие слова, с которыми оно сходно, и возбуждаться этими словами", связанными с ним узами сходства внутреннего или внешнего, т.е. "по своему значению" или же "по своей структуре и отчасти по своим звукам", то следуя закону ассоциации по смежности "слова должны строиться в ряды"; в этом направлении опять-таки сказывается "способность слов возбуждать друг друга", и мы соответственно "привыкаем употреблять данное слово чаще с одним, нежели с другим словом."

Наряду с гнездами и рядами слов, Крушевский рассматривает гнезда морфологических элементов слова (или морфем, согласно термину, изобретенному и пущенному в ход Бодуэном), а также ряды смежных элементов в пределах слова. Многообразием ассоциаций по сходству и смежности обусловлено обособление этих единиц "в нашем сознании, или, вернее, в нашем чутье языка; только это обстоятельство и делает их морфологическими элементами слова."

Характерно, что связь по сходству между синтаксическими структурами не вошла в лингвистический кругозор Крушевского, как, к слову сказать, вопрос о парадигматике (rapports associatifs) синтаксических форм не нашел себе определенного ответа и у Соссюра, а между тем, казалось бы, четкое различение между материальным и формальным составом слова в работах Крушевского могла бы навести его на мысль о словосочетаниях, связанных между собою двоякого рода отношениями, т.е. узами сходства и смежности.

Анализируя взаимные связи слов, Крушевский отожествляет сходство с порядком сосуществования, а смежность с порядком временной последовательности, но при этом учитывает, что сосуществование двух аспектов слова – его внешнего облика и значения – базируется на ассоциации по смежности, связывающей оба этих аспекта "в неразлучную пару". Однако для нашей памяти "такая связь оказывается непрочной, недостаточной; она должна быть подкреплена ассоциацией по сходству с другими словами. Именно непрочностью и недостаточностью традиционной связи по смежности между звукосочетанием и внутренним содержанием слова,

иначе говоря, его "символическим характером", объясняет Крушевский "беспредельную изменяемость" языковых элементов. Процесс развития языка изображается в *Очерке* как "вечный антагонизм между прогрессивной силой, обусловливаемой ассоциациями по сходству, и консервативной, обусловливаемой ассоциациями по смежности". Уже в своих ранних работах исследователь пытался охватить обобщенной формулировкой различные процессы языковых изменений. В своей пробной лекции 1879 г. "Об «аналогии» и «народной этимологии»" он убедительно показал, что оба этих явления, обычно трактуемых как два различных процесса, в действительности представляют собой лишь две разновидности по существу единого процесса словесной ассимиляции, которую Крушевский характеризует как "интегрирующую силу" в языковом развитии: он рассматривает т.н. "грамматическую аналогию" как морфологическую ассимиляцию, а т.н. народную этимологию как ассимиляцию лексическую, и в своем позднем, петербургском курсе *Введения в языковедение* Бодуэн принял это обобщение своего покойного согрудника.[17] Родственным процессом представляется Крушевскому также ассимиляция фонетическая.[18] Правда, между морфологической и фонетической ассимиляцией наблюдается существенное различие в распределении обеих ассоциаций. В первом случае те или иные морфологические элементы слова перестраиваются по образцу элементов, занимающих соответствующее место в ином словообразующем ряде, во втором же случае, в фонетической ассимиляции, вместо приноровления к "сородичам" происходит односторонняя или взаимная аккомодация между "спутниками" в пределах данного ряда. В основу ассоциации по сходству морфологическая ассимиляция кладет сосуществование, а фонетическая временную последовательность. Любопытно, что статике звуковой системы Крушевский противопоставлял динамику, рассматривающую звуки речи в зависимости от временной последовательности, включая сюда в своих лекциях 1880 г. по антропофонике не только зависимость звука от смежных звуков в пределах данного звукоряда ("предмет динамики в точном смысле слова", т.е. *série syntagmatique*, согласно Соссюру), но также судьбы звука

---

[17] Сошлюсь на *Введение в языковедение* в 5ом литографированном издании (Петроград, 1917), превосходящем старшие версии и широтой, и точностью формулировок: см. И. А. Бодуэн де Куртенэ, *Избранные труды по общему языкознанию*, II (Москва, 1963).

[18] *Русский Филологический Вестник*, II (1879), стр. 120.

в исторической смене языковых этапов (*l'axe de successivité*, в концепции Соссюра).[19]

В кратком экскурсе Крушевского "О морфологической абсорпции" наблюдение его учителя Бодуэна над сокращением тем в пользу окончаний оказалось частным случаем более широкого обобщения, формулируемого "как стремление последующих морфологических единиц поглотить единицы предшествующие".[20] В *Очерке* все эти явления были осознаны как частные проявления основного процесса в языковой эволюции, усвоившего название "переинтеграция". Согласно вышеупомянутому отзыву Бодуэна о только что вышедшем труде Крушевского, "предположение во всех сторонах жизни языка всеобъемлющего процесса переинтеграции встречается *** в лингвистической литературе, впервые в его книге. Обобщение это заимствовано из других наук, занимающихся исследованием жизни в самом обширном смысле этого слова." Как поучает Крушевский, переинтеграция, базирующаяся на связях по сходству, ведет к упорядочению языковых систем. Гармонией грамматических систем мы обязаны только процессу переинтеграции, "только творчеству языка, то-есть нашей способности производить слова", вместо того, чтобы их попросту механически воспроизводить. Обсуждая выбор модели, практикуемый языком при морфологической перестройке, лингвист предостерегает перед упрощенными ссылками на присутствие формальной модели в подавляющем количестве слов. Неменьшую роль может играть тенденция к звуковому единообразию, связанная с привычностью служащих образцом звуков и звукосочетаний. Обилие слов данного морфологического типа может быть контрбалансировано различием в частоте словоупотребления, и потому наиболее ходкие слова наименее поддаются переинтеграции.

Чрезвычайно оригинальны наблюдения автора над конкурирующими вариантами, которые либо восходят к сосуществующим территориальным разновидностям, т.е. являются коренными и заимствованными дублетами, либо принадлежат двум последовательным этапам языкового развития, т.е. соотносятся как унаследованные архаизмы и новообразования. Вообще в вопросе сосуществования вариантов Крушевский да и другие лингвисты казанской школы далеко ушли вперед от привычной механистической трактовки языковых изменений. Бодуэн, потерявший в своей

---

[19] "Антропофоника", *Русский Филологический Вестник*, XXXI (1894).

[20] "О морфологической абсорпции", *Русский Филологический Вестник*, IV (1880).

памятке 1888 г. свой прежний общий язык с покойным Крушевским, поступился первоначальным пониманием вопросов переинтеграции, которую Крушевский признавал за "наиболее выдающийся процесс в развитии языка", наблюдаемый и в элементарнейших, и в сложнейших языковых явлениях. В частности, тот же Бодуэн, который с казанских лекций до последних трудов сам оперировал "нулевым элементом", усвоенным из древнеиндусского языкознания, в некрологе отказывался, наперекор Крушевскому, "считать переинтеграцией простую потерю целым какой либо составной части." Вообще в проблеме утрат автор *Очерка* обнаруживал несравненно более конструктивную точку зрения, нежели современные ему языковеды. Достаточно прочесть его вывод в курсе французской грамматики, опубликованном лишь в 1891 году В. Богородицким: отметив частичное или полное исчезновение составляющих глагольную систему форм, в частности "таких, которые бесспорно нужны языку", Крушевский заключает: "Биологические аналогии (исчезновение – необходимое условие развития)."[21] А в *Очерке* он последовательно проводит мысль, что факторы разрушительного характера являются "в высшей степени благодетельными для языка." Разрушительно действуя только по отношению к наличным в данное время системам слов, "они и только они доставляют постоянно языку новый материал, без которого немыслим никакой прогресс языка, ни структурный, ни тем более материальный, лексический." Здесь Крушевский подхватил и развил подсказанную молодым Бодуэном мысль о "забвении и непонимании производительном, положительном, вызывающем нечто новое, поощряя бессознательное обобщение в новых направлениях."[22]

Очерк утверждает, что "слова своим происхождением обязаны ассоциациям сходства", так как первоначально название дается предмету "вследствие какого-нибудь его сходства с чем-нибудь уже названным"; следует оговорить, что наряду с названием метафорического происхождения, возможны имена метонимические, данные по смежности. Равно и последующее утверждение о том, что в дальнейшем, как только из тропа слово превращается в собственный и полный знак вещи, оно становится обязано своим значением привычной смежности между внешним обликом и внутренним содержанием, недоучло живучей семантической связи слова с его

[21] "Французская грамматика", *Русский Филологический Вестник*, XXV-XXVI (1891).
[22] См. выше примечание 6.

сородичами. Однако необходимо отметить, что это упрощенное распределение ассоциаций малохарактерно для Крушевского. Напротив, он обращает внимание на нередкую благоприобретенную связь между внешним строем и значением "слов, образующих одну семью"; например предлоги, благодаря сходству своей грамматической функции, "мало по малу путем производства приобретают также сходные наружные признаки." Согласно отважному выводу автора, яркие примеры заметного внешнего сходства, сопутствующего значительному сходству внутреннему, могут быть объяснены "только участием продуктивной силы". Замечательна ссылка Крушевского на категорию числительных, парадигматическую семью слов, выстроенных в последовательный ряд, причем между смежными сочленами этого ряда в разнообразных языках проявляется четкое стремление к взаимному внешнему уподоблению.

Существенную часть языковой теории Крушевского составляет анализ морфологических единиц. Одна и та же единица в контексте различных генетически родственных слов может характеризоваться альтернацией одного или нескольких, а порой даже всех составных элементов. В качестве примера *Очерк* приводит русский глагольный корень *nos-*, выступающий в целом ряде иных звуковых разновидностей, как то *n'os-*, *n'es-*, *n'es'-*, *nos'-*, *noš-*, *naš-*. Поставив себе с самого начала задачей разработку "морфологически-этимологического отдела науки о звуках", и вообще исследование "звуков в связи со значением слов", Бодуэн де Куртенэ уделял в своих казанских курсах повышенное внимание грамматическим чередованиям звуков не столько в историческом, сколько в строго описательном, синхроническом разрезе. *Русский Филологический Вестник* 1881 г. открывается магистерской диссертацией Крушевского "К вопросу о гуне", посвященною старославянским альтернациям гласных;[23] глава – "Общие замечания о чередованиях звуков" – впервые в лингвистической литературе предлагает теорию и классификацию звуковых альтернаций. Вскоре Бодуэн напечатал в том же томе журнала отрывки из лекций 1880-81 уч. года по сравнительной грамматике славянских языков с кратким обзором типов альтернаций и с заключительным заявлением *Suum cuique*, подчеркивающим, что изложенные мысли только в известной степени составляют личную собственность автора: Крушевский, принимавший с 1878 г. активное участие в университетских занятиях Бодуэна,

[23] "К вопросу о гуне", *Русский Филологический Вестник*, V (1881).

развил в введении к своей магистерской диссертации и в его немецкой переделке "свои собственные мысли об этом предмете *** точнее и научнее". Согласно указанию Бодуэна,

бо́льшая научность изложения г. Крушевского состоит в строгом логическом анализе общих понятий, в разложении их на их составные части, в определении необходимых признаков отдельных чередований и в общей логической стройности всей системы. Равным образом заслугу г. Крушевского составляет желание дойти этим путем до определения настоящих законов в фонетике, т.е. таких законов, от которых не было бы никаких исключений. – Только теперь, когда эти мысли формулированы и представлены так наглядно г. Крушевским, возможны их дальнейшее развитие и разработка.[24]

Обзор альтернаций, включенный Бодуэном в отрывки из лекций, представляет, по его словам, дальнейшее развитие и его собственных мыслей, и мыслей Крушевского.

Еще с большей настойчивостью выдвинул Бодуэн заслуги Крушевского, обсуждая в *Ученых записках Казанского университета* (1881) труд о гуне и особенно его вводную часть:

Для надлежащего понимания статики языка необходимо определить и всесторонне исследовать нетолько отдельные звуки, но тоже их чередования, т.е. пары гомогенных (одного происхождения) звуков, различающихся между собой в антропофоническом (звуко-физиологическом) отношении. Поставленный таким образом фонетический вопрос на место "переходов" или "изменений" одних звуков в другие вводит коэкзистенцию гомогенов ***. Мысль о чередованиях звуков и об отличении их разных категорий возникла раньше г. Крушевского и, стало быть, она не составляет его личного достояния. Но формулировка этой теории в том виде, как она представлена в книге Крушевского, является результатом его самостоятельных обобщений. Только после этой формулировки и после введения в нее необходимых для научной точности технических терминов еделалось возможным дальнейшее развитие и совершенствование теории чередований. Затем, неотъемлемую собственность г. Крушевского и вместе с тем весьма важный вклад в науку представляет анализ признаков, по которым следует отличать отдельные категории чередований. Сколько мне известно, подобный аналитический метод не встречается в прежних лингвистических сочинениях и он впервые применен г. Крушевским. Этим методом г. Крушевский обязан изучению не лингвистики, а

---

[24] "Некоторые отделы 'сравнительной грамматики' славянских языков" *Русский Филологический Вестник*, V (1881).

новейшей логики, с которою он знаком основательно и отлично умеет применять ее к изучению данных из области языковедения.[25]

Заимствовав в 1880 г. у Соссюра термин "фонема", Крушевский придал ему несколько иное значение. Если сопоставление генетически тождественных морфологических единиц в родственных языках обнаруживает серию закономерных фонетических соответствий, то общий прототип этого многообразного потомства, т.е. инвариант, лежащий в основе позднейшей разноязычной вариации и отличный от всех прочих элементов праязыковой звуковой системы, получил в знаменитом трактате юного Соссюра *Mémoire sur le système primitif des voyelles dans les langues indoeuropéennes* (1878) наименование "фонема".[26]

Крушевский применил тот же термин к чередованию различных фонетических единиц, входящих в тождественную морфологическую единицу в рамках одного и тогоже языка. Историческим инвариантом по отношению к таким вариациям является общий звуковой прототип, тогда как синхроническим инвариантом служит одинаковое положение альтернантов внутри данной морфологической единицы, и, наконец, общие звуковые свойства обоих альтернантов. Согласно одному из заключительных тезисов магистерской диссертации Крушевского, "без принятия фонем невозможно научное изложение фонетики и морфологии." Понятие фонемы было для него неразрывно связано с проблемой инвариантности и вариаций, но если в работах Крушевского этот термин был прикреплен к отдельным альтернантам, Бодуэн в вышеупомянутом экскурсе 1881 г. прозорливо признал необходимым "обобщение известных фонем в фонемы более общие, в фонемы высшего порядка" и приведение раздельных альтернантов "к более общему знаменателю".

Вопрос об односторонней или же двусторонней предсказуемости был остро поставлен Крушевским и лег в основу замечаний Бодуэна о "чисто фонетической дивергенции", как напр. русское чередование *е* закрытого перед "мягкими" согласными и открытого в прочих положениях ([ét'i]–[étu]) или заднего *у* после "твердых" согласных и переднего *i* в прочих положениях ([darý]–[car'í]). Идея комбинаторных вариантов и их общего знаменателя внутри одной и той же морфологической единицы естественно влекла за собой дальнейший

[25]   К вопросу о гуне. Исследование Н. В. Крушевского", *Ученые Записки Казанского университета*, 1881, No. 3.

[26]   О происхождении этого термина см. выше, стр. 396 сл.

шаг, т.е. розыск словоразличительных элементов, представленных в различных звукосочетаниях различными комбинаторными вариантами – розыск, в конечном итоге независимый от наличия или отсутствия подобных вариаций в пределах одной и той же морфемы. До такого этапа на пути, справедливо охарактеризованном Бодуэном, как "научный процесс все большего и большего обобщения", Крушевский видимо не дошел, хотя вопрос о функциональных тождествах и различиях в звуковом строении словесного материала не был ему чужд. Свои "общие замечания о чередовании звуков" сам Крушевский считал "первой и не совсем бесплодной попыткой поставить фонетику на строго-научную почву", т.е. подойти к звукам речи под углом зрения их лингвистических функций,[27] но в этой многосторонней проблематике он остановился на одной лишь теории альтернаций в звуковом составе морфологических единиц. В итогах научной деятельности покойного языковеда, полемически подведенных Бодуэном, остается в силе веское возражение, что привычное деление предложений на слова, слов на морфологические единицы – морфемы, а последних на "голые безотносительные к значению (*bezznaczeniowe*) звуки" обнаруживает в своей заключительной стадии "неоправданный и противоречащий логике прыжок", потому что в лингвистических единицах различной емкости, а именно в предложениях, словах и морфемах, основную роль играет значение. Следовательно звуки соизмеримы с лингвистическими, значимыми единицами, лишь поскольку первые трактуются в их отношении к значению. Иными словами, "морфемы разлагаются не на звуки, но на фонемы", причем различение связей по сходству и по смежности оказывается приложимо не только к предложениям, словам и морфемам, но также к фонемам и их сочетаниям. "В каждом из этих планов мы находим и системы, или гнезда, – в силу ассоциации по сходству, и с другой стороны ряды – в силу ассоциации по смежности."

Справедливо учтя, что проблематика фонемы отнюдь не исчерпывается "подвижными компонентами морфемы", т.е. "фонемами альтернирующими", Бодуэн в своих работах девяностых годов не нашел лингвистического обоснования "фонетических атомов" (как он окрестил мельчайшие единицы речевой цепи в семидесятых годах) и предпринял бесплодную попытку подменить внутриязыковую интерпретацию мнимо психологическим определением:

---

[27]   "Ответ г. Brückner'у", *Русский Филологический Вестник*, VII (1882).

фонема превратилась в "психический эквивалент звука". На этом этапе понятие фонемы потеряло оперативную значимость, и даже граница между фонемами и их комбинаторными вариантами оказалась стерта.[28] Однако в последнем двадцатилетии своей жизни Бодуэн, поддержанный одним из его даровитейших учеников – Л. В. Щербой, постепенно проникается мыслью о "связях фонетических представлений с представлениями морфологическими и семантическими".[29] В петроградском курсе *Введения в языковедение* Бодуэн категорически заявляет, что фонемы "становятся языковыми ценностями и могут быть рассматриваемы лингвистически" исключительно в силу морфологизации и семантизации, т.е. именно в силу своей связи с морфологическими и семантическими представлениями.[30]

В той же главе своего курса Бодуэн, издавна осознавший необходимость распространить на звуковой состав речи дихотомию Крушевского, непосредственно подошел к вопросу разложения фонетических атомов: "семасиологизуются и морфологизуются не цельные, неделимые фонемы", а только более дробные произносительно-слуховые элементы ["кинакемы", согласно авторскому словоновшеству] как их составные части." Таким образом фонема оказывается комплексом простейших, далее неделимых, членораздельных компонентов речи. В 1910 г., резюмируя свои размышления о "звуковых законах", Бодуэн отчетливо предугадал основоположную для дальнейшей стадии лингвистического анализа предпосылку: "фонемы представляют собой не отдельные ноты, а аккорды, слагающиеся из нескольких элементов", тогда как Соссюр в своем курсе того же года по сравнительной морфологии учил: "Il n'y a rien de plus uniforme, plus pauvre, que l'ordre de la langue: la

---

[28] "Próba teorji alternacyj fonetycznych", *Rozprawy Wydzialu filologicznego Akademii Umiejętności w Krakowie*, XX (1894); *Versuch einer Theorie phonetisches Alternationen* (Страсбург, 1895); "Fonema, fonemat", *Wielka encyklopedia powszechna ilustrowana*, XXII (Варшава, 1895). Любопытно, что открытие фонетических атомов вовсе не упомянуто в автобиографических итогах исследовательской деятельности, подведенных Бодуэном к концу века: см. *Критико-библиографический словарь русских писателей и ученых* под редакцией С. А. Венгерова, V (СПб., 1897), стр. 18-45.

[29] "O związku wyobrażeń fonetycznych z wyobrażeniami morfologicznymi i semazjologicznymi", *Comptes rendus des séances de la Société des sciences et des lettres de Varsovie*, I (1908).

[30] См. выше примечание 17. Ср. также "Różnica między fonetyką a psychofonetyką", *Comptes rendus des séances de la Société des sciences et des lettres de Varsovie*, XX (1927).

parole (comme la musique sans les accords) est linéaire."[31] Возможность самостоятельной роли отдельных звуковых "качеств" (напр. в паре русских слов *гнил* и *гниль*) отмечалась уже Крушевским. Но извлечь из этих путеводных замечаний конкретные аналитические выводы предстояло ученикам и последователям обоих пионеров.

"В любой естественной науке такие работы, как Brugmann'a и de Saussure'a произвели бы сильное движение: они были бы разбираемы и переводимы, вызвали бы целый ряд новых работ" писал Крушевский, рецензируя в *Русском Филологическом Вестнике* 1880 г. их недавние труды, "но в лингвистике, где чуть не у каждого специалиста свой метод, своя подготовка, свои задачи, и где вследствие этого весьма немногие специалисты способны понимать друг друга – замечательные открытия Brugmann'a и еще более замечательные de Saussure'a прошли едва замеченными." Рецензент зорко учел методологическое значение соссюровского опыта "сделать из морфологии путеводную нить при исследованиях фонетических".[32] Немецкую переработку вступительного этюда к диссертации о гуне Крушевский сам выпустил отдельной брошюрой *Über die Lautabwechslung* (Казань, 1881),[33] так как германские языковедческие журналы отказались ее печатать под предлогом, что "она занимается больше методологией чем языкознанием". Тем не менее, авторские идеи просочились на запад. Глава младограмматиков Ч. Бругман, которого названная брошюра предостерегала против злоупотребления термином и понятием "звуковых переходов", предлагая взамен синхроническую идею чередований, тем не менее заявил в журнале *Literarisches Centralblatt* 1882 г., что "каждый языковед, относящийся с интересом и пониманием к принципам истории языка, прочтет эту статью с удовольствием и пользой." Именно на брошюре Крушевского В. Радлов построил свой доклад о звуковых альтернациях в тюркских языках, опубликованный в Трудах Берлинского Международного Востоковедческого Съезда 1881 года.[34]

---

[31] См. французское резюме Бодуэна "Les lois phonétiques", *Rocznik Slawistyczny*, III (1910), и R. Godel, *Les sources manuscrites du Cours de linguistique générale de F. de Saussure* (Женева-Париж, 1957), стр. 206.

[32] "Новейшие открытия в области арио-европейского вокализма", *Русский Филологический Вестник*, IV (1880).

[33] *Über die Lautabwechslung* (Казань, 1881).

[34] "Die Lautalternation und ihre Bedeutung für die Sprachentwickelung, belegt durch Beispiele aus den Türksprachen", *Abhandlungen des 5. Internat. Orientalisten-Congresses gehalten zu Berlin in 1881* (Берлин, 1882).

Бодуэн, посетивший Париж в конце 1881 года, был в ноябрьском заседании предложен, а в декабрьском выбран в члены парижского Société de Linguistique и оба раза преподнес Обществу по одной своей работе и по одной Крушевского (сперва его немецкую брошюру, а затем диссертацию о гуне).[35] На том же декабрьском заседании Общества его вице-секретарь, Ferdinand de Saussure, посвятил свой доклад фонетике романских говоров Швейцарии, а в январе в присутствии Соссюра и романиста Л. Авэ (L. Havet) состоялся доклад Бодуэна по вопросам слявянской фонетики. Это был казанский, наиболее динамический и творческий период в работе польского лингвиста, и семь лет спустя в письме к Бодуэну Соссюр с отрадой вспоминал о их парижских беседах, а в ноябре 1891 г., заняв новосозданную кафедру сравнительной истории индоевропейских языков в Женевском Университете, он в начале курса, как свидетельствуют его записки, подчеркнул необходимость изучения живых языков для понимания общих принципов языка, с другой же стороны бесплодность и методологическую несостоятельность изучения отдельных языков, если бы такая работа не сопровождалась последовательным стремлением "à venir illustrer le problème général du langage." В качестве ученых, успешно сочетающих крайнюю специализацию с даром крайнего обобщения Соссюр назвал романских языковедов Гастона Пари, Павла Мейера и Г. Шухардта, германиста Германа Пауля и славистов Бодуэна де Куртенэ и Крушевского.[36] В то время только что вышла в немецкой версии вторая половина *Очерка* Крушевского (см. ниже, стр. 447). Наконец, набрасывая свой, по обыкновению так и не дописанный критический отзыв о книге своего ученика, Альбера Сешеэ, *Programme et méthodes de la linguistique théorique* (Париж-Женева, 1908), Соссюр отметил, что старшие опыты по теории языка, начиная от Гумбольдта до Германа Пауля и Вундта содержат один лишь подготовительный материал: "Бодуэн де Куртенэ и Крушевский стояли ближе чем кто-либо иной к теоретической концепции языка, не выходя при этом за пределы чисто-лингвистических

---

[35] См. E. Benveniste, "Lettres de Ferdinand de Saussure à Antoine Meillet", Appendice II, *Cahiers Ferdinand de Saussure*, XXI (1964), и его же памятку "Ferdinand de Saussure à l'Ecole des Hautes Etudes", *Ecole Pratique des Hautes Etudes*, Annuaire (1964/1965). В библиотеке Женевского университета хранятся три работы Крушевского, подаренные автором Соссюру – *Über die Lautabwechslung* (с пометками последнего), *К вопросу о гуне* и *Лингвистические заметки*.

[36] "Notes inédites de F. de Saussure", *Cahiers Ferdinand de Saussure*, XII (1954), стр. 66.

умозаключений; между тем, они остались неизвестны миру западных ученых."[37]

Глубокое убеждение Крушевского в донаучности всего, что было сделано в области теоретической лингвистики, подверглось резкому осуждению в вышеупомянутом некрологе, вышедшем из под пера Бодуэна, но полностью разделяется Соссюром. Как низко последний расценивал прославленные труды предшественников, свидетельствует его знаменательная беседа 19 января 1909 г., цитируемая в книге Роберта Годеля, *Les sources manuscrites du Cours de linguistique générale de F. de Saussure* (1957). Рассматривая вопрос о необходимости разработать общую грамматику, он заявил: "Нет темы труднее; пришлось бы подвергнуть обсуждению и следственно опровергнуть всё, что Герман Пауль и современники написали по этому поводу." Соссюр был, без сомнения, основательно знаком с работами Крушевского, привезенными в Париж Бодуэном, по меньшей мере с рассуждением *Über die Lautabwechslung*; между прочим, вышеназванный романист Л. Авэ, от которого Соссюр в 1878 г. перенял термин 'фонема', прочел названную боршюру и рекомендовал ее читателям *Revue critique*. Явно усвоил Соссюр и немецкую версию *Очерка науки о языке*, озаглавленную *Prinzipien der Sprachentwickelung* и печатавшуюся горячим приверженцем этой работы, фонетиком и лингвистом Ф. Техмером в его *Internationale Zeitschrift für allgemeine Sprachwissenschaft* с 1884 до 1890 г.[38]

Идеи Крушевского явно оказали глубокое и благотворное влияние на теоретическую мысль Соссюра, в частности на его лекции по общему языкознанию, читанные в 1906-11 гг., т.е. как раз в ту эпоху его деятельности, которая отразилась в примечательном наброске рецензии на Сешэ. Оригинальное учение польского лингвиста о гармоническом целом языковой системы и ее частей и о двух структурных принципах, лежащих в основе языка, нашло себе точное соответствие в соссюровском *Cours de linguistique générale*. Вторая часть этого курса, "Синхроническая лингвистика", безусловно восходит, особенно в своих последних главах, к названному синтетическому труду Крушевского. Вплоть до деталей перенято его

---

[37] R. Godel, стр. 51. Ср. повторные сетования А. Мейе на незнакомство западного ученого мира с идеями Бодуэна: А. А. Леонтьев, "Бодуэн и французская лингвистика", *Известия Академии Наук СССР*, Серия литературы и языка, XXV (1966), стр. 331 сл. Что касается Крушевского, то он оставался недооценен и полузабыт и в польской, и в русской, и в международной научной печати.
[38] "Prinzipien der Sprachentwickelung", *Internationale Zeitschrift für allgemeine Sprachwissenschaft*, I (1884), II (1885), III (1886), V (1890).

противопоставление двух типов языковых отношений: с одной стороны ассоциация по смежности, связывающая языковые единицы в ряды, и соответственно в лекциях Соссюра учение о "синтагматических отношениях" между членами линейного ряда (*suite linéaire*), с другой же стороны ассоциация по сходству, своего рода "узы сродства", группирующие весь наличный состав языковой системы в множество координированных семейств или гнезд, а в передаче Соссюра *solidarité associative* (со ссылкой на тип ассоциации не в самом термине, но в его определении) и характерное пояснительное обозначение 'groupement par familles'. Через женевский *Cours* основоположная мысль *Очерка* о двух языковых осях, синтагматической и, как нынче принято говорить, парадигматической, прочно вошла в современную международную лингвистику. Этой дихотомией, как и рядом других идей Крушевского, воспользовался и Бодуэн в своих поздних трудах, особенно в петербургских литографированных курсах *Введения в языковедение*, но следует отметить, что концепция Крушевского в этом плане несравненно систематичней, последовательней и шире, чем у Бодуэна и Соссюра. Она дает надлежащее место и объяснение принципу т.н. "аналогии" и перебрасывает мост из синхронической лингвистики в диахронию, тогда как в лекциях Соссюра подсказанная Крушевским антиномия между неизменностью и изменчивостью знаков, их солидарностью с прошлым и неверностью прошлому оказалась лишена внутреннего обоснования, а вопросы грамматической аналогии и народной этимологии остались неприкаянными. Вопрос о языковом производстве, увлекательно развернутый в связи с дуализмом сходства и смежности, не нашел себе отклика ни у Бодуэна, ни у Соссюра, да и вообще были надолго преданы забвению два смелых тезиса Крушевского, один о "вечном творчестве языка", выдвинутый в *Очерке* с прямой ссылкой на Гумбольдта, а другой, замыкающий

---

[39] В интересах истории творческой лингвистической мысли необходимо изучить и напечатать поныне неизданные труды Крушевского, отмеченные в статье М. В. Черепанова "Язык как система в понимании Н. В. Крушевского", *Ученые Записки Глазовского Гос. Пед. Института им. В. Г. Короленко*, VII (1958): "Неопубликованные рукописи Н. В. Крушевского из личного архива В. А. Богородицкого, находящегося в распоряжении наследницы Богородицкого А. Н. Мироносицкой: 1. Курс лекций, читанный Н. В. Крушевским в 1883-84 учебном году в Казанском университете, – "Сравнительная фонетика древнейших представителей ариоевропейской семьи языков"; 2. Рукопись по сравнительному языкознанию и лингвистической палеонтологии; 3. Рефераты, посвященные отдельным трудам К. Бругмана, Г. Пауля, Г. Мейера, Г. И. Асколи, Л. Мазинга, В. Ягича, А. Куна, П. А. Лавровского, Г. Курциуса" (стр. 26).

книгу и открывающий на будущее время жгучую дискуссию: "Развиваясь, язык вечно стремится к полному общему и частному соответствию мира слов миру понятий."

Написано в Кембридже, Масс., зимой 1965-6 г., для подготовленного к печати тома избранных сочинений Крушевского в польских переводах Е. Куриловича и К. Поморской.

KRUSZEWSKI'S PART IN THE DEVELOPMENT OF LINGUISTIC SCIENCE

Summary

After his Warsaw studies in logic and psychology, Mikołaj Kruszewski (1851-1887) felt attracted to linguistics which he conceived as an inquiry into the logic of the unconscious and as a search for general laws which govern the structure of language. He went to Kazan and became not only the most outstanding disciple and collaborator of Baudouin de Courtenay but grew into one of the greatest theoreticians of language among the world linguists of the late nineteenth century, although his activities in this field lasted less than five years and were brought to a premature end by a mortal disease in 1884.

Kruszewski clearly realized the inadequacy of the neogrammarian tenet and the need for a new and more general science of language. He was aware that firm foundations for a planned phenomenology of language must be sought and found in language itself. A consistent distinction of two intralingual relations – similarity and contiguity – underlies his entire approach to language, its structure, and development. In connection with this dichotomous view, the diverse varieties of linguistic changes proved to be unifiable into more general classes under two synthetic labels – "integration" and "reintegration". The cardinal novelty of Kruszewski's theory is displayed both in his morphological analysis of words and in the phonemic (strictly, morphophonemic) analysis of morphological units which in his studies found a "more exact and more scientific" treatment than in the original suggestions of his teacher, as Baudouin himself repeatedly confessed. In the late 80s and 90s, Baudouin de Courtenay, who left Kazan first for Dorpat and then Cracow, succumbed to a skeptical attitude toward his own and Kruszewdki's theoretical endeavors of their Kazan years; however, in his later Petersburg teaching and writing he vindicated and developed the chief ideas

of his deceased associate. These two Polish searchers were the only linguists in the world who approached a genuine theoretical conception of language, according to Saussure's acknowledgment of 1908, and his Geneva courses in general linguistics evince a deep and fruitful influence of Kruszewski's thought. Yet in such crucial questions as, for instance, the creative aspect of language and the relationship between verbal signs and concepts, Kruszewski stands closer than Baudouin and Saussure to the scientific vistas of today.

POLISH-RUSSIAN COOPERATION IN THE SCIENCE
OF LANGUAGE

The Polish and Russian cultures are closely related in spite of the frequent mutual antagonisms between the two countries. Polish-Russian coopera- tion has been particularly intimate and productive in the field of lin- guistics, and this solidarity seems to reflect an intrinsically linguistic phenomenon. The Slavic unity is in the first place a linguistic unity. The propinquity of the Slavic languages creates strong ties in some cultural spheres, and the more such a sphere is connected with language, the stronger are these ties. Thus the poetry of different Slavic nations presents many common traits, and likewise the science of language (a science usually influenced by the scientists' vernacular) shows markedly similar features in the various Slavic areas.

Slavic unity comprises: (1) a common patrimony, (2) convergences in the historical development of different Slavic languages, and (3) their interpenetration. If we find in Polish and Russian a large stock of common cultural terms, it results chiefly from two great developments: (1) the diffusion of Church-Slavonic culture, particularly of the Church- Slavonic vocabulary which still forms the basic stratum of the Russian standard language and which, since the tenth century, has influenced Polish ecclesiastical terminology through the Czech medium, and (2) the great development of West Slavic culture, in particular the growth and expansion of language and literature (Czech in the 14th and 15th and Polish in the next two centuries). In the 17th century, Polish was in Russia as Czech had been formerly in Poland, the language of polite society. In Moscow at that time, Polish was deemed an occidentalized variety of the Slavic tongue. Monk Avraamij disparaged the contem- porary passion for Polish as in the preceding century Górnicki had satirized the Polish obsession with the Czech language. Not only through Ukrainian but also directly, Polish enriched the Russian vocabulary with numerous words, partly indigenous, partly Czech in origin, and a great many of these words became deeply rooted. Even in the phonemic and

grammatical structure an ancient mutual attraction between the two languages is noted by Polish and Russian investigators. Just these various ties connecting both languages allowed Juljan Tuwim, the first poet of modern Poland, to make his unrivaled translations from great Russian poets, and the striking likeness of the verbal mind of the two speech communities was one of the effective stimuli for extraordinary understanding between Russian and Polish linguists in the van.

Polish linguists occupy a place of honor in the study of Russian (Lehr-Spławiński) as do Russians in the investigation of Polish (Kul'bakin, Trubetzkoy, Bubrix). But above all we want to sum up the almost traditional Polish-Russian cooperation in general linguistics and the import of this joint work for universal science.

Linguistics has long since become one of the greatest achievements of Polish scholarship. Russian universities have had some noted Polish philologists and linguists. Among the oldest let us mention J. Sękowski, who unfortunately left his promising research on Arabic and on comparative metrics for a very dubious journalistic career, and W. Grygorowicz, the founder of Slavic studies at Kazan University. In the same university — already made famous by Lobačevskij and other enquiring spirits — there arose during the seventies and early eighties a linguistic trend which for a long time has been known as the "Kazan School". This school, which side by side with the Geneva school founded by F. de Saussure played a decisive revolutionary role in the history of modern linguistics, was created by two Polish scientists of genius: Jan Baudouin de Courtenay (1845-1929), and the unjustly forgotten Mikołaj Kruszewski (1851-1887).

Baudouin launched shoals of suggestive working hypotheses. Before the neogrammarians he discovered the leading principles of their doctrine; before Hugo Schuchardt he posed the crucial problem of mixed languages; and he was one of the first among the linguists of our epoch to tackle linguistic structure from the point of view of its functions and to strive to find the basic phonological and grammatical units. However, the sharpsighted savant was not able to found and synthesize his revealing ideas under the pressure of the predominant scientific and philosophic creed of his time. This marked discrepancy was a source of continuous dissatisfaction for Baudouin and drove him from one field to another, from linguistics to political journalism, from town to town. The untimely death of Kruszewski, his disciple and inspiring collaborator, aggravated Baudouin's tragic loneliness.

Kruszewski's thinking was more philosophical, exact, bold, and pene-

trating. He knew how to draw all the inferences from the premises of his teacher. Less dependent on the contemporary ideology, he clearly foresaw the further development of his science. His letter to Baudouin of May 21, 1882 is an eloquent example of his clairvoyance: "Besides the present science of language another one, more general, is necessary, something in the nature of phenomenology.*** The principles preached by the neogrammarians are either unsuited to building up such a science or insufficient. The constant bases of this science may be found in language itself."

F. F. Fortunatov (1848-1914), the leader of the so-called Moscow school, improved the methods of historical linguistics, whereas Baudouin's essential achievements concern the synchronic aspect of language. In general linguistics Fortunatov's main contributions belong to the field of morphology, and Baudouin's, to phonologic problems. Fortunatov's search was also far ahead of his time, but often he felt handicapped by the naive empiricism typical of the second half of the nineteenth century. Never satisfied with his results, he published little and wrote no conclusive work.

Russian disciples of the Pole Baudouin de Courtenay, particularly L. V. Ščerba (1880-1944) and E. D. Polivanov (1891-1938), and on the other hand a Polish pupil of the Russian Fortunatov — Jan Wiktor Porzeziński (1870-1929) — succeeded in laying the foundations for further development of both theories, made apparent their most dynamic and productive elements, and gave them international currency (Ščerba's activities in the International Phonetic Association, Polivanov's influence on Japanese linguistics, and Porzeziński's manual — *Introduction into Linguistics* — in its Russian and German versions.

Intellectual circles in Moscow "fervently sympathized with the national aspirations of the Polish people" (cf. N. Trubetzkoy in *Slavia* IX, 199 f). The renowned Moscow Slavist V. N. Ščepkin with pious exaltation revealed the great Polish poetry to Russian students, and his colleague, the home-sick Polish patriot Porzeziński, was tied to his Moscow pupils by a true and intimate friendship. He went home but never forgot them as they never forgot their mild teacher of a severe linguistic methodology. One of the best works of his prominent student (*Polabian Studies* by Trubetzkoy) was dedicated to the memory of Porzeziński.

"The search for truth" (*szukanie prawdy*) was Porzeziński's constant slogan and it perfectly expresses the spirit of disinterested cooperation between Polish and Russian linguists. Whereas the greatest historian of Russian, A. A. Šaxmatov, in his studies of 1911, 1915, and even of 1920

had looked assiduously for Polish-related elements of prehistoric origin in Byelorussian and adjacent Great Russian dialects, on the contrary Porzeziński's critical answer in *Prace Filologiczne of* 1926 categorically denies any existence of such Lekhitic elements in Eastern Slavic.

The initial mutual isolation of the two schools was completely overcome by the spiritual grandsons of Baudouin and of Fortunatov. Baudouin's theory did not attract Porzeziński, but his Moscow pupils (N. S. Trubetzkoy, R. O. Jakobson, N. F. Jakovlev, and others) looked for a synthesis of these two doctrines. Baudouin's teachings on phonemes, freed from their antiquated psychologism and proven by Fortunatov's "ironclad" methodology (according to the epithet propounded by L. P. Jakubinskij, one of Baudouin's and Ščerba's most spirited disciples), became the starting point for *phonology*. This new branch of linguistics spread everywhere in the Old and New World and revealed the vitality and significance of Baudouin's legacy for modern science. Nowadays it is universally acknowledged, but even recently some of Baudouin's learned compatriots favored German neogrammarians over his "doctrinary radicalism", while Soviet linguists and the Czech-Russian "Prague School" stressed his leading part in the growth of linguistic theory. Polivanov and Ščerba asserted that Russian science inspired by Baudouin had nothing to learn from F. de Saussure's *Cours de linguistique générale*.

Young Russians, Czechs, Slovaks, and Poles were persevering pioneers of structural linguistics both in phonology and in the study of poetic language. A new field which had been neglected by linguists of a purely genetic orientation was opening up: no routine stopped exploration, and the palpable purposefulness of poetic language made it particularly suitable for functional study. In Petersburg, Baudouin's pupils and especially the latters' students, and at the same time in Moscow, some "grandsons" of Fortunatov attempted to include poetics in the scope of linguistic problems. There arose the so-called formal school which, chiefly in the twenties, made essential contributions to the theory of poetry, to its semantics, general metrics, and to the analysis of sound texture. These works were published only in Russian, and they did not penetrate beyond the Slavic world, whereas the phonological research became universally known. Yet in Slavic countries, especially in Czechoslovakia and in Poland, they found not only imitators, but also excellent and original continuers. The incipient, rigorously mechanistic conception of form and function gave rise to an acute crisis in the formal school, and this crisis was the most productive in Polish and Czechoslovak science, where *formalism* evolved into a subtle *structuralism*. The last works of the

Prague Circle (J. Mukařovský, etc.) and the Polish group (M. Kridl, F. Siedlecki, etc.) widened the horizons of poetics and of all the "science of signs" (semiotic) and displayed a new, fruitful symbiosis of three Slavic creative trends.

A Polish critical anthology of Russian "formalist" studies on poetic language was printed in 1939, but the whole huge volume was reduced to ashes in the Warsaw printing-house under the German yoke. "We still exist", wrote an outstanding scholar from occupied Poland[1] — "The conditions are hard*** Yet on the whole we hold out!" He stated how painful it was not to know what was happening with the Prague Circle and with the Russian searchers and even to be unaware of what he himself and his Warsaw comrades had to expect. The addresser passed to the pending questions of the international philosophy and science and warningly admonished those "who after the death of N. S. Trubetzkoy are to carry the whole responsibility for the outlooks of structural linguistics in the world forum of humanities (*na światowem forum nauk humanistycznych*)!"

This summary of a paper read May 23, 1943 in the Polish Institute of Arts and Sciences in America appeared in the *Bulletin* of this Institute, I (1943).

---

[1] [This letter, sent to the present author June 3, 1941 by the late Franciszek Siedlecki, the investigator of the Polish verse and the selfless editor of the above-mentioned anthology, has been published in the periodical *Kultura i Społeczeństwo*, IX (Polish Academy of Sciences, 1965), No. 1, p. 16ff.].

HENRY SWEET'S PATHS TOWARD PHONEMICS

> I'll take it down first in Bell's Visible Speech; then in Broad Romic ....
> Bernard Shaw, *Pygmalion*

"The freshness and originality of his mind *** ever open to new ideas, and fresh points of view *** the saving virtues of imagination and humor *** truthfulness, simplicity, and courage";[1] "unhesitating candor *** natural simple candor *** unflinching candor".[2] While reading these and many similar testimonials in the various memoirs on Henry Sweet, I unwittingly fused these appraisals with the powerful impression I retained from the first, circumstantial conversation with J. R. Firth in a New York tavern toward the end of the 1940s and our last heart-to-heart talk of June 1960 in his enchanting Lindfield home.

When recollecting Firth's pointed views and remarks, when re-reading Sweet's books and papers, or when listening to the intent discussions among young English linguists, I once more experience the same salient feature which strikes a foreign observer in English poetry and philosophy from the Middle Ages till our own time. What fascinates me in all these domains and likewise in the centuries of English painting, which so often has been unjustly underrated, is the singular gift of the prominent thinkers and artists: their unusual courage to see the world with their own eyes irrespective of the environmental usage, habit and predilection.

The years when the novelty of Sweet's approach to language and its sound pattern found a particularly clear and explicit formulation were 1876-7. In 1876 he wrote the first version of his treatise on the "Practical Study of Language" and published an elaborate attempt "to upset some

---

[1] Henry Cecil Wyld, "Henry Sweet", *Archiv für das Studium der neueren Sprachen und Literaturen*, N.S. xxx (1913), pp. 1-8.
[2] C. L. Wrenn, "Henry Sweet", *Transactions of the Philological Society* 1946, pp. 177-201.

of the conventional dogmas of philology, logic, and grammar".[3] In the following year he printed a revised edition of the same study.[4] Then, probably spurred on by two successive academic defeats, first at London University College, then in Oxford, and at the same time inspired by his chairmanship in the Philological Society, Sweet brought out his *Handbook of Phonetics*, prefaced in Christiania, Aug. 27, 1877,[5] and outlined a wide research program in his Presidential Address delivered at the anniversary meeting of the Philological Society 18 May 1877.[6]

Sweet's linguistic doctrine proceeds from the thesis that "language is essentially based on the dualism of form and meaning". Hence all attempts to disregard this dualism and "to reduce language to strict logical or psychological categories, by ignoring its formal side, have failed ignominiously. The form of language is its *sounds*. The science which teaches us to observe, analyse, and describe the sounds of language is phonology".[7] Sweet constantly insisted on the importance of phonology as the indispensable foundation of all linguistic study "whether that study is purely theoretical, or practical as well". He was prone to believe that this is now generally recognized, "except in hopelessly obscurantist circles".[8]

The same indispensable dualism of form and meaning compelled Sweet to recognize that the sound shape of language cannot be exhaustively investigated without constant reference to meaning. Not only in the seventies but in the whole nineteenth century one could hardly find another study of speech sounds which put forward and utilized the notion of "significant sound-distinctions" with such a zeal and tenacity, as it is done in Sweet's *Handbook* of 1877. He consistently separates those definite distinctions of sound "which *may* correspond to differences of meaning" from all other "differences which are not significant and cannot alter the meaning".[9]

It is true that this classification of sound-distinctions is confined to

[3]   Henry Sweet, "Words, Logic, and Grammar", *Transactions of the Philological Society* 1875-6, pp. 470-503. Reprinted in: Henry Sweet, *Collected Papers*, arranged by H. C. Wyld (Oxford, 1913), pp. 1-33.
[4]   Henry Sweet, "Language and Thought", *Journal of the Anthropological Institute* (May, 1877).
[5]   Henry Sweet, *A Handbook of Phonetics* (Oxford, 1877).
[6]   Henry Sweet, "Presidential Address on English Philology and Phonology", *Transactions of the Philological Society* 1877-9, pp. 1-16. Reprinted in: *Collected Papers*, pp. 80-94.
[7]   *Collected Papers*, p. 85.
[8]   *A Handbook*, p. v; *A New English Grammar Logical and Historical* (Oxford, 1892), p. xii.
[9]   *A Handbook*, see especially pp. 103f., 182f.

those portions of the book which deal with the graphic representation of sounds, namely the last Part, entitled "Sound-Notation", and the Appendix with an Exposition of the Principles of Spelling Reform. It is also true that the system of sound-notation, which under the label *Broad Romic* was introduced by Sweet in order to "indicate only those broader distinctions of sound which actually correspond to distinctions of meaning in language", was expressively designated by its inventor "for practical purposes" in opposition "to the scientific Narrow Romic". The latter, like Bell's *Visible Speech*, was constructed "for an accurate analysis of sounds generally" and was "too minute for many practical purposes".[10] The idea of a double notation goes back to A. J. Ellis's gradual efforts to complement the explicit system by a more practical one, where "many of the delicate distinctions which are necessary in a complete phonetical alphabet are neglected" (1848). The last improvement of Ellis's notational experiments was his 'veri eezi' *Glossic* of 1871, coupled with the *Universal Glossic* which aimed "at giving simbelz faur dhi moast mine·ut foanet·ik anal·isis yet achee·vd".[11]

Besides the *Broad Romic*, another application of simplified sound notation was Sweet's project of reformed English spelling. He was, like Ellis, a staunch supporter of the reform and vehemently discussed its basic principles. In Sweet's opinion, "the prejudices, especially of our upper class, are too strong to be overcome by reason", but "in the end truth and reason will triumph over those arch-enemies of progress", and "the longer reform is delayed, the more sweeping it will be when it comes".[12]

Thus the signification of speech sounds was approached by Sweet only within the framework of applied linguistics and merely in connection with graphic questions – the 'practical' variant of sound-notation and the spelling reform. In the *Handbook* these questions are systematically treated with regard to the functions performed by the speech sounds in

[10]   Ibid., pp. 103, 105.
[11]   Alexander John Ellis, *The Ethnical Alphabet, or Alphabet of Nations* (London, 1848), p. 1; idem., *On Early English Pronunciation*, III (London, 1871): 'Glossic', pp. xiii-xx; see p. xiii f. In 1878 Sweet himself acknowledged and determined his indebtedness to "the pioneer of scientific phonetics in England": "I thus formed the two systems, *Broad* and *Narrow Romic*, mainly on the basis of Mr. Ellis' *Paleotype*, from which the latter differs mainly in the values assigned to the letters. To the relation between my two systems corresponds that between Mr. Ellis' *Glossic* and *Universal Glossic*, which are, however, based not on the Roman values of the letters, as in the case with Paleotype, but on an attempt to retain their present English value" (*Collected Papers*, p. 117f.). Both *Glossic* and *Broad Romic* carry out a "rougher phonetic notation for purely practical purposes" (ibid., p. 120).
[12]   *Collected Papers*, p. 88; cf. *A Handbook*, p. 169ff.

language, whereas the chapters devoted to sounds and their combinations pay no attention to those functions.

Such an inconsistency can be partly explained by the disregard of these questions in the influential contemporaneous writings of German phoneticians. "The fact that the majority of those who have worked at phonetics in Germany have been physiologists and physicists rather than practical linguists" accounts in Sweet's view for certain defects of the German school.[13] Obviously no attention was paid to the linguistic functions of the sounds by these physiologists and physicists, but also in the authoritarian linguistic trend of that time, in the school of the *Junggrammatiker*, the strictly genetic approach suppressed any functional problem.

Despite that critical attitude to 'the tendencies of German study' which unites Henry Sweet with William Dwight Whitney and Ferdinand de Saussure, and despite his consistently antiauthoritarian, rebellious spirit, neither Sweet nor any other linguist of the Victorian era was able to advance a frontal attack against the narrowly causal, genetic bias of his epoch, and the forerunners' valor and greatness was in bold sallies and flanking movements. Applied linguistics, or in Sweet's terms, 'the practical study of language', was that flank, where he succeeded in raising new problems and in trying new methods.

Although it is the *Narrow Romic* that has been declared 'scientific' by Sweet, he sees that the *Broad Romic* is necessary for what we would call today general phonemics, namely for treating the relations of sounds without going into those "minute details" on which differences of meaning cannot depend. The *Broad Romic* is further necessary for the "treating of a single language" and for writing passages of any length in this language.[14] But although the question of relation between sound and meaning is discussed only in connection with notation, we are reminded by the author that "the notation of sounds is scarcely less important than their analysis: without a clear and consistent system of notation it is impossible to discuss phonetic questions intelligibly or to describe the phonetic structure of a language".[15] In other words, the phonemic analysis and 'broad' notation imply each other.

J. R. Firth was right when he stated that 'the phoneme idea' is implicit in Sweet's *Broad Romic*,[16] yet we could add that the theoretical founda-

[13]   *A Handbook*, p. vi f.
[14]   *A Handbook*, p. 103; cf. *The Practical Study of Languages* (New York, 1900), p. 25.
[15]   *A Handbook*, p. 100.
[16]   J. R. Firth, "The word 'phoneme'", *Le Maître Phonétique*, Third Series, XII (April, 1934), pp. 44-46.

tions of phonemics are implicit in Sweet's exposition of the principles which underlie both the *Broad Romic* and the representation of speech sounds in a rational spelling.

It was clear to the author that the reason for the disregard of 'minuter shades', or 'delicate distinctions' does not lie in their smallness but uniquely in their incapacity of changing the meaning. "Thus the first elements of the diphthongs in 'by' and 'out' vary considerably: some people sound them broad as in 'father', some flat as in 'man', with various intermediate sounds. And yet the meaning of the words remains unchanged. The distinction between the vowels of 'men' and 'man', on the other hand, though really slighter than that of the different pronunciations of 'by' and 'out', is a distinctive one."[17]

As a rule, Sweet refrained, according to his own acknowledgment, from "attempting to settle questions of priority of discovery". Two linguists of world rank, Henry Sweet and Jan Baudouin de Courtenay, both born in 1845, simultaneously and independently of each other coped with the same problems. In 1877, at the same time as Sweet's *Handbook*, there appeared in the *Bulletin (Izvestija) of Kazan University* the "Reports on Baudouin de Courtenay's Studies in Linguistics during 1872 and 1873" with a brief plan of inquiry into "the mechanism of speech sounds, their correspondencies and their dynamic relationship, based on connections between sound and meaning". Two "Detailed Programs of Baudouin de Courtenay's Lectures" of 1877 and 1878 were printed in the *Bulletins* of the same university in 1878 and 1881. They contain a more elaborated outline of phonetic studies, expressly divided into two parts – one dealing with the physiological and physical aspect of speech sounds, and the other, "phonetics in the true sense of the word", treating "sounds in connection with word meaning". Whereas Sweet confined his phonemic research to the level of applied linguistics, Baudouin de Courtenay assigned to this research an important place in linguistic theory. He superposed this "morphologico-etymological part of the science of speech sounds" as a thoroughly linguistic discipline upon the auxiliary description of articulations and their acoustic effects.[18] On the other hand, it was Sweet who opened up new vistas in his definition and classification of sound distinctions. His rigorous delimitation of the two notations – broad and narrow – was a gratifying way toward an empiric

---

[17]   *A Handbook*, p. 182.
[18]   For more detailed data on "The Kazan School of Polish Linguistics and Its Place in the World Development of Phonology", see above, pp. 394-428.

implementation of Baudouin's theoretical bipartition of phonetics.[19]

"It would be curious to know what the old school of German philologists think of Winteler's work on the phonology and grammar of one of the dialects of Switzerland", said Sweet in his Presidential Address of 1877.[20] The same work appears among the reference books in Baudouin de Courtenay's Program cited above. Jost Winteler, born in 1846, was the third great precursor of modern phonemics among the linguists of Sweet's and Baudouin's generation, and his epoch-making monograph[21] most probably influenced Sweet's use of minimal pairs for commutation tests (e.g. *men-man* or French *pécher-pêcher*) as well as his consistent discrimination between 'distinctive differences' and mere 'variations'. The concept of invariance underlies both Sweet's and Baudouin's phonological studies of the seventies, while the invariants remain nameless in these writings. The term *phonème*, proposed in 1873 by A. Dufriche-Desgenettes simply to translate into French the German *Sprachlaut*,[22] was accepted and popularized by the Romance philologist L. Havet.[23] The young F. de Saussure, striving for a reconstruction of the Indo-European sound pattern, took over this label and used it to designate any element of this pattern which, whatever its articulation, proved to be "*distinct de tous autres phonèmes*".[24] Mikołaj Kruszewski, the closest student and collaborator of Baudouin de Courtenay and one of the keenest spirits in linguistic science of the last century, caught up Saussure's term, proposed to apply it to the various aspects of phonological invariance,[25] and jointly with his teacher opened the way to the modern development of this name and concept.

Sweet did not search after names for the invariants in question but only for 'general symbols' to specify these invariants in notation and spelling. "Thus, the innumerable varieties of diphthongs possible can all be classed under a few general categories *** and if we simply provide unambiguous signs for these general categories, we can ignore the endless

[19] *A Handbook*, p. 105. Baudouin hinted for the first time at the need for discrimination between two ways of transcription only in 1881, when his selected lectures on Slavic comparative grammar appeared in the review *Russkij Filologičeskij Vestnik*.
[20] *Collected Papers*, p. 87.
[21] Jost Winteler, *Die Kerenzer Mundart des Kantons Glarus in ihren Grundzügen dargelegt* (Leipzig, 1876).
[22] See *Revue Critique*, I (1873), p. 368.
[23] Cf. L. Havet, "OI et UI en français", *Romanie* (1874), p. 321.
[24] Ferdinand de Saussure, *Mémoire sur le système primitif des voyelles dans les langues indo-européennes* (Leipzig, 1878-9), p. 121.
[25] Mikołaj Kruszewski, *Über die Lautabwechslung* (Kazan, 1881), p. 14. Cf. p. 442 ff. of this volume.

shades of difference within them, because these differences do not alter the meaning or application of the words in which they occur."[26] He uses two general symbols (ai, au) "for a variety of diphthongs, all of which may be classed under one of two distinct types, both beginning with back or mixed non-rounded vowels [this 'or' is a deviation from the purely functional approach underlying the *Broad Romic*] and ending with approximations to (i) and (u) respectively".[27]

Sweet sought specifying terms not for units but for their relations. His whole definitely relational conception of phonological invariance is based on the notion of "significant distinctions", opposed to "not significant", "superfluous", or as we would say now, redundant differences. What matters on this level is not the sound but its distinctive properties. "Hence we have to distinguish not so much between *sounds* as between *groups of sounds*." As an example of the "important distinctions of these groups" Sweet quotes that of 'close' and 'open'.[28] A further radical and valuable contribution to the sifting of "superfluous sound-distinctions" is Sweet's "general rule that only those distinctions of sounds require to be symbolized in any one language which are *independently significant*". Thus, in English, it would be superfluous to indicate the distinction of narrow and wide since "the quantity would always imply the distinctions of narrow and wide". Of "two criteria of significance" only one proves to be relevant.[29]

Sweet is fully aware that "if we confine our attention to definite distinctions *** which may correspond to differences of meaning, we find that each language utilizes only a few of these distinctions".[30] But in addition to such intralingual restrictions in the inventory of "independently significant distinctions" there are universal restrictions. If two vowels, even "formed in a totally different way", "are never employed together in the same language to distinguish the meanings of words, *** they may be considered as variations of the same vowel". Thus, the extraction of invariants from intralingual variations is quite logically complemented by a daring and novel search for interlingual, universal variations and for corresponding invariants.[31] Of course, this kind of consideration is claimed by the author to serve merely "practical

---

[26]   *A Handbook*, p. 103.
[27]   *The Practical Study*, pp. 18f.
[28]   *A Handbook*, p. 183.
[29]   Ibid., p. 104.
[30]   Ibid., pp. 103, 182f.
[31]   [Some linguists as J. D. McCawley, *Langages*, VIII (1967), 113f. are still unable to grasp this precept.]

purposes", but now it is clear that under the narrowly genetic and causational orientation of that age, only an emphasis on 'ordinary practical purposes' gave the linguist a chance to tackle the purposiveness of language and permitted him some insight into its means-ends model.

Both for Baudouin de Courtenay and for Sweet it was self-evident that differences of word meaning could not depend on a stress which was automatically tied to the first or some other syllable of the word. Hence, according to Sweet's "common-sense principle", "if a language always has the stress on the first syllable, the stress does not require to be marked at all". But this principle is applied by Sweet not only to the cases of probability one, but also, and this is a pertinent innovation, to the cases of a probability less than one: "If the majority of words have the stress on the first syllable, then it is necessary to mark it only when it falls on some other syllable." For example, in English, "it need not be marked in *foutograf* (photograph)".[32]

Binary oppositions requiring a symbol only for the mark but not for its absence were clearly viewed by Sweet: Since in Greek "there are only two breathings, *** the absence of the rough breathing is enough to show that the other one is meant".[33] The same rule is applied to the pair of Swedish word-tones where the simple tone "is practically merely the negation of the compound tone, and may therefore be either a rise or fall according to the context".[34]

The 'less accurate' Broad Romic was conceived by its author "as a kind of algebraic notation"[35] and thus was seen to be an advanced and generalized scientific operation. A similar tendency toward an algebraization of linguistics was professed by Baudouin de Courtenay and F. de Saussure.[36]

Sweet's phonetics, and especially its avowedly practical sections, have played an outstanding international role. Since the late eighties, Paul Passy's campaign for a reform of French orthography and his leading activities in the International Phonetic Association, especially his continuous struggle for the 'golden rule' of broad notation, affirm and develop Sweet's principles. At the beginning of our century, closer links were established between Baudouin's school and Sweet's followers in the

---

[32] *A Handbook*, p. 190; *The Practical Study*, p. 19. Cf. the question of absolute and relative predictability discussed by A. A. Zaliznjak in *Simpozium po strukturnomu izučeniju znakovyx sistem* (Moscow, 1962), p. 55.

[33] *The Practical Study*, p. 19.

[34] *A Handbook*, p. 155.

[35] *A History of English Sounds from the Earliest Period* (Oxford, 1888), p. x.

[36] Cf. p. 401 above and p. 568 below.

Phonetic Association, especially between Lev Ščerba and Passy, and the former's theoretic and descriptive studies, a transitional stage from Baudouin's doctrine to modern phonemics, were inspired by Sweet's and Passy's elicitation of significant distinctions. From 1900 there arose an abundant linguistic correspondence between Sweet and Baudouin de Courtenay, partly due to the latter's concern with the relation between language and writing. If these letters still exist, they should be published, and in general one can only emphatically repeat the concluding words of A. Brandl's obituary notice on Sweet: "Möge sein Nachlass treue Herausgeber finden!"[37]

When in 1943 L. Bloomfield was asked what were the works that gave an impulse to the phonemic part of his manual,[38] he referred to Sapir and Trubetzkoy, but first and foremost to Sweet's note on "Significant Sound-Distinctions",[39] from which, as the author of *Language* confessed, actually arose his term and idea of 'distinctive features'.

Another trait closely linked with Sweet's functional attitude toward speech sounds, and likewise connecting the 'science man' of the 1870s with modern research, is his predilection for descriptive linguistics. It is characteristic that even in the preface to his *History of English Sounds from the Earliest Period*, the author criticized the "one-sidedly historical spirit" of the German philological tradition[40] or, as he said in 1874, the "mainly historical and antiquarian" tendencies of German scholarship.[41]

In his famous Presidential Address of 1877 Sweet condemned the exclusively genealogical orientation of comparative philology which values "the forms of later languages solely according to the amount of light they throw on older forms".[42] Both in his address and in a later study devoted to Linguistic Affinity,[43] Sweet outlined a new set of comparative problems. On the one hand, "divergence between cognate languages *** raises the question, how far does the possibility of change of structure extend?"[44] On the other hand, "nothing can be more important than the comparison of the 'parallel developments' in such

[37]   *Archiv für das Studium der neueren Sprachen und Literaturen*, N.S. xxx (1913), p. 11.

[38]   Leonard Bloomfield, *Language* (New York, 1933), Ch. V-VIII.

[39]   *The Practical Study*, p. 18f.

[40]   *A History*, p. xi.

[41]   Henry Sweet, "Report on Germanic and Scandinavian", *Transactions of the Philological Society* 1873-4, pp. 439-446. Reprinted in *Collected Papers*, pp. 73-79. See p. 75.

[42]   *Collected Papers*, p. 92.

[43]   Henry Sweet, "Linguistic Affinity", *Otia Merseiana*, ii (1900-1), pp. 113-126. Reprinted in *Collected Papers*, pp. 56-71.

[44]   *Collected Papers*, p. 63.

distinct languages as the Romance and the Neo-Sanskrit, English and Persian, etc.".[45] The diffusion of linguistic phenomena asks for a systematic study, since the possibilities of mixture has proved to be "greater than was suspected by the founders of comparative philology". "There is no necessary limit to mixture of vocabulary. *** The possibility of syntactic influence is clearly proved" and "there is clear evidence that different languages may influence one another morphologically".[46]

Again, it was Sweet who had broached an unwonted problem which has become a crucial topic in present-day linguistics: "In the first place, there can be no doubt that contiguous languages often show striking phonetic resemblances even when they are not cognate or only remotely so." This statement is supported by references to "marked phonetic peculiarities" spread out "without regard to linguistic relationship" in the Caucasus, in Eastern Asia or in Southern Africa.[47]

Beside similarities due to kinship or contiguity of languages Sweet observed genetically independent "agreements in general structure" and for instance proposed a comparison of some features of Modern English "to those of Chinese, the Turanian, and even of some savage languages". From such a typological comparison independent of genetic relations, Sweet infers "the all-important principle that every language and every period of a language has an individuality of its own, which must be respected".[48] The corollary of this principle is "the recognition of a science of *living*, as opposed to dead, or antiquarian philology". This general conclusion of Sweet's, exactly like his *Broad Romic*, he links with the practical study of language; he lucidly foresees, however, that this science "is the indispensable foundation" of the various linguistic branches, and even "of historical and comparative philology".[49]

On the practical level Sweet displays a consistently functional approach, and discussing "the delicate distinctions of the English verb" he asks ironically: "What can historical philology contribute to the analysis of *will love, shall love, is loving*, etc.?" The 'injurious' misuse of the historical viewpoint is drastically attacked by Sweet and appears to him "as reasonable as it would be to insist on every one having Macaulay's *History of England* permanently chained round his neck, because history

[45]   Ibid., p. 92.
[46]   Ibid., p. 60f.
[47]   Ibid., p. 61f. [Cf. below p. 484f.]
[48]   Ibid., pp. 62, 92.
[49]   Henry Sweet, "The Practical Study of Language", *Transactions of the Philological Society* 1882-4, pp. 577-599. Reprinted in *Selected Papers*, pp. 34-55. See p. 49f.; cf. p. 91.

is an improving study".[50] Meanwhile, Sweet's view of synchrony is far from deadly statics, and 'changes in progress' are discussed by him with gripping ingenuity.[51]

There appears one more concept, conjugate with the functional method of approach and quite alien to the predominant linguistic doctrine of the late nineteenth century. This was the idea of totality, emphasized by Sweet against the disintegrating spirit of the current dogma: "I, for one, am strongly of the opinion that our present exaggeratedly analytical methods *** are a failure compared with the synthetic methods of the Middle Ages, by which sentences were grasped as wholes", whereas at present they are "put together like pieces of mosaic work". The critic concludes that "any real reform will involve, partially at least, a return to these older methods".[52] It is remarkable that similarly to Sweet, his older American contemporary Charles Sanders Peirce also, while anticipating the development of a semiotic science in the future, deplored and assailed its present status and invoked the Schoolmen's superior legacy.

Neither of these two giants received a chair from his alma mater or from any other university. After a long "series of academic disappointments and rebuffs" and "1901 – the year of the most incredible of all his academic defeats, *** Oxford's failure to offer to Sweet what was then the sole professorship of comparative philology" in England,[53] he vainly tried to persuade the Vice-Chancellor of Oxford University that beside the Chair of Comparative Philology, "there ought to be another Professorship of the Science of Language (philosophical grammar, etc.)".[54] In H. C. Wyld's opinion, "no man surely was ever more sensitive, and more easily wounded by maliciousness, callousness, and brutality, even when these were veiled by a soft voice and sleek manners".[55]

In an earlier note, commenting on Sweet's failure of 1901, Wyld reports that in a company of prominent German *Junggrammatiker* the only explanation considered satisfactory for the shocking and unbelievable fact that Sweet never became professor was the whimsical surmise "that *Sweet* stood for *Süss*, which was clearly a Jewish name, and that Israelites were not much more popular in England than in Germany'.[56]

---

[50]   Ibid., pp. 34, 36; *A Handbook*, p. 201.
[51]   *A Handbook*, p. 195f.
[52]   *Selected Papers*, p. 34.
[53]   C. L. Wrenn, op. cit., pp. 182, 193, 195.
[54]   J. R. Firth, "The English School of Phonetics", *Transactions of the Philological Society* 1946, pp. 92-132. See p. 131.
[55]   H. C. Wyld, op. cit., p. 8.
[56]   H. C. Wyld, "Henry Sweet", *The Modern Language Quarterly*, iv (1901), pp. 73-79.

As I wrote in my afore-cited paper about Baudouin de Courtenay and his school, "the proverb says that it is wrong to discover America too late, after Columbus, but also a too early discovery may be detrimental".[57] The great precursors of the modern science of language – John Hughlings Jackson (1835-1911), Charles Sanders Peirce (1839-1914), Henry Sweet (1845-1912), Jan Baudouin de Courtenay (1845-1929), Jost Winteler (1846-1929), Mikołaj Kruszewski (1851-1887), and Ferdinand de Saussure (1857-1913) – each of them in his own way bears a stamp of tragedy on his whole life.

In the final Annual Address of the President, delivered by Henry Sweet at the Anniversary Meeting of the Philological Society, 7th May 1878, under the eloquent heading "The Future of English Philology", it was stated:

There is one form of charlatanry to which I will call your attention, and which is specially insidious and dangerous, veiling itself under the disguise of conscientiousness and accuracy. It may be termed the *mechanical* view of language, and is based on the assumption that language *** is not governed by general laws, but consists merely of a mass of disconnected details.[58]

The scholar who dared to look far ahead and to defy the creed of his time was proscribed to become *le savant maudit*.

---

[57]   See above p. 414f.
[58]   Henry Sweet, "English and Germanic Philology", *Transactions of the Philological Society* 1877-9, pp. 373-419. Reprinted in *Collected Papers*, pp. 95-140.

ЯЗЫКОВЫЕ ПРОБЛЕМЫ В ТРУДАХ
Т. Г. МАСАРИКА

Язык – сообщение об окружающем, закрепление мысли, выражение чувства. Орудие могучее и опасное. Опасное тем, что легко принять слово за дело, отожествить языковую фикцию с понятием. Неумолимая критика языка – необходимая предпосылка правильного постижения вещей. Иначе мы рискуем приписать реальность "фиктивным объектам", проецировать словесность в действительность. Таково одно из основных положений философского учения Франца Брентано и мыслителей близких к Брентано. Тесная связь мировозрения Масарика с философией его венского учителя Брентано бесспорна.

Масарик (1850–1937) – логик, эстетик, социолог и политик – постоянно настаивает на своезаконности языка, предостерегает перед отожествлением речи с мыслью, учитывает первостепенную для мысли и чувства важность совершенного владения языком. Он не устает подчеркивать, что язык не самоцель, но средство, которым необходимо умело и искусно пользоваться.

Проблему науки о языке и ее методологии Масарик подробно рассматривает в своей книге *Základové konkretné logiky* ("Основы конкретной логики", 1885). Масарик был к этому времени вполне в курсе европейской лингвистической мысли. По свидетельству его писем 1875 года, он уже тогда увлекался языковедческими вопросами, включая слывшие заповедными темы, как происхождение речи и нужда во всемирном литературном языке. В Венском университете он слушал таких выдающихся представителей языкознания 70-х годов, как славист Миклошич и профессор сравнительного языкознания Фридрих Мюллер. Здесь же он сошелся с профессором чешского языка, автором первого опыта чехословацкой диалектологии, А. В. Шемберой. Работая в Лейпцигском университете (1876-1877), Масарик имел возможность близко познакомиться с младограмматической школой, которая именно в Лейпциге со-

здавала в то время свою новую доктрину. Это была вообще эпоха повышенного интереса к основоположным проблемам языка – и притом не только в лингвистических, но одновременно и в философских кругах. В конце 70-х и начале 80-х годов ширится интерес к языку также в чешской науке, и выходит целый ряд примечательных работ по общему языкознанию, по психологии, культуре и эстетике языка. В чешскую лингвистику начинают проникать младограмматические принципы, и журнал Масарика "*Атенеум*" становится одним из органов пропаганды нового направления в языкознании.

Основная проблема, которую ставит Масарик, это место языкознания среди других наук. В своей книге, особенно в ее немецкой переработке 1887 г., *Versuch einer concreten Logik*, и в позднейших трудах он настаивает на автономии лингвистики. Масарик преодолевает точку зрения Шлейхера, который усматривал в языковедении отрасль естествознания, но он не идет и за теми лингвистами 80-х и последующих годов, которые пытались трактовать науку о языке как своего рода надстройку над социологией или же психологией. "Слово, речь", говорит Масарик, "это особый мир рядом с миром идей и с миром материальным; поэтому, если даже языкознание методологически зависит от психологии и социологии, то эта зависимость носит иной характер, нежели отношение между биологией и химней, где первая зиждется на последней."

Опираясь на труды Брентано и его ученика Антона Марти, Масарик решительно разграничивает язык и мысль, он подчеркивает, что строгого параллелизма между ними нет, и что изменение языка не означает неиременного изменения психики. Он напоминает о существовании бессловесного мышления и предостерегает против смешения слов и понятий. Выдвигая изучение отношений между речью и мышлением и, в частности, между высказыванием и суждением, как одну из насущных задач лингвистической теории, Масарик уделяет особое внимание работе Марти (1884), подвергшего систематическому разбору книгу Миклошича *Subjectlose Sätze* (1883), которой и Брентано (ноябрь 1883), и непосредственно вслед за ним Масарик (декабрь 1883) уже посвятили вдумчивые рецензии. Однако отрицанне тождества между языком и мышленнием, конечно, не означает отрицания связи. Главную ценность языкознания Масарик видит именно в том, что "познавая речь, мы проникаем в духовную жизнь говорящего и говорящих".

Масарик проводит ясную границу между психологней и прочими

науками: "В то время, как последние занимаются содержанием представлений, суждений, чувств и стремлений, психология рассматривает непосредственно эти процессы". Масарик не смешивает психических предпосылок, факторов языковой деятельности, с продуктом этой деятельности – с речью.

Позиция представителей крайнего психологизма чужда Масарику; с их точки зрения, лишь индивидуальная речь реальна, тогда как коллективный язык для них просто-напросто научная абстракция. Масарик не следует за этими, по его выражению, "слепыми эмирипками". Напротив, он полагает, что "с объективной точки зрения, именно социология является подлинной наукой о человеке, ибо человек по самой природе своей – ens politicum, и только путем абстракции мы изучаем себя в психологических рамках как обособленную личность". Не переоценивая значения индивидуальной психологии в роли объяснительницы языковых явлений, Масарик в то же время скептически относится к этнической психологии, как ее понимали гербартианцы Лацарус и Штейнталь, а с другой стороны Вундт. По мнению Масарика, эта новая дисциплина отличается от социологии своими скорее образными, нежели логическими определениями.

Что касается отношения между языкознанием и социологией, то взгляд Масарика на язык как на социальную институцию находится в тесной связи с концепцией американского лингвиста Уильяма Уитнея, теоретические труды которого фигурируют на первом месте в списке рекомендованных Масариком языковедческих пособий (1885). Но уже в этих самых "Основах конкретной логики" автор настаивал на тех поправках к учению Уитнея, которые мы позднее находим в работах Фердинанда де Соссюра и его учеников. "Возникает вопрос", пишет Масарик, "является-ли языкознание самостоятельной наукой; в особенности можно было бы спорить, не относится-ли оно так или иначе к социологии. Я думаю, что языкознание – самостоятельная наука, потому что у него свой особый предмет, отличный и в бытии, и в становлении от тех явлений, которыми занимается социология и история. Как бы не была тесна связь развития речи и письма с возникновением и развитием внутренней жизни, все же это совершенно особый предмет, который должен сам по себе изучаться своею собственной наукой." Характерно, что социолог Масарик полемизирует с теми лингвистами, которые принципиальную базу истории языка видят в социологии. Масарик признает значительную связь лингвистики с

социологией, философии языка с философией истории, но он осуждает присущее многим лингвистам поверхностное подражание методам других наук и настаивает на разработке своезаконной лингвистической методологии, без которой существование языкознания как самостоятельной науки невозможно. Он осуждает "логическую сумятицу и неразбериху", присущую младограмматической эпохе бури и натиска, и ищет объяснения для этого недуга в юной незрелости современной ему науки о языке и в недостатке фундаментального и логического образования у многих языковедов. Масарику удалось отстоять принцип автономии языкознания против тех лингвистов, которые усматривали в своей науке некоего рода надстройку над одной из смежных дисциплин, а также против Огюста Конта, неоднократно служившего Масарику философским и социологическим образцом. Чешский философ решительно осудил Конта за то, что в своей классификации наук последний "забыл про языкознание".

Согласно принципам членения наук, формулированным в "Основах конкретной логики", Масарик различает практическое (прикладное) и теоретическое языкознание; последнее опять-таки подразделяется на абстрактную науку или "философию речи" и на конкретную науку о языке, в свою очередь слагающуюся из двух секций – специальной и всеобщей. Первая изучает отдельные языки или группы языков, вторая охватывает и подытоживает сведения о языках всего мира. Масарик настойчиво подчеркивает, что "специальная" разновидность конкретного языкознания не может базироваться на его другой разновидности, то есть на "всеобщей" науке о языках, но обе эти секции должны последовательно исходить из соответствующей абстрактной дисциплины, и научная конкретная грамматика без абстрактной, философской базы неосуществима.

Конт размежевывал статическую и динамическую социологию. Масарик применил это разграничение к лингвистике. Известно, какую продуктивную роль впоследствии приобрело разграничение статической и динамической трактовки языка в работах Бодуэна-де-Куртенэ, Соссюра и их учеников. Масарик был первым, кто выдвинул программное требование статической лингвистики как самостоятельной дисциплины. Помимо Конта, на него, явно, оказал влияние в этом отношении Брентано, работавший в 80-х годах над размежеванием генетической и описательной психологии. Прилагая к языкознанию доктрину Брентано, Антон Марти еще в 1884 г. отмечал, что как бы ни было ценно объяснение происхожде-

ния языкового факта, наряду с этим необходимо и описание фактов
как таковых; оно служит непременной предпосылкой объяснения;
смешение объяснения с описанием вредит объяснению. Но про-
грамма описательного языкознания как особой дисциплины была
дана лишь в позднейших трудах Марти. Между тем Масарик уже
в 1885 г. пишет: "Где есть развитие, там нечто развивается. В нашем
случае это речь, и ее сущность должна абстрактно и конкретно
изучаться наряду с ее развитием. Поэтому и перед абстрактным
языкознанием, и перед конкретной грамматикой стоят две главных
задачи, которые соответствуют социальной динамике и статике:
охарактеризовать не только возникновение и развитие речи, но и
ее сущность. Эта вторая задача языкознания решалась бы таким
образом не только в конкретной грамматике, но и в общем стати-
ческом языкознании. Это была бы своего рода абстрактная и общая
грамматика, интерпретирующая все правила, которых придержи-
вается та или иная конкретная речь в своей фонетике, в слово-
образовании, словоизменении, синтаксисе и т.д." Этот тезис Маса-
рика не прошел бесследно для чешской лингвистики. Так например,
Вилем Матезиус, первый чешский поборник функционально-
структурной лингвистики, отметил в своем прозорливом исследо-
вании "*O potenciálnosti jevů jazykových*" (1911), что различие между
статическими и динамическими проблемами языкознания он
впервые усвоил в студенческие годы под влиянием "Основ конкрет-
ной логики" Т. Г. Масарика.

Тезисы Масарика о статическом языкознании остро контрасти-
руют с господствовавшим в то время учением младограмматиков,
сводящим науку о языке к истории языка. Если в 1885 г. Масарик
еще делал уступку доктрине Германа Пауля, заверяя, что "изучение
конкретной речи должно руководиться историческим методом", то
в немецкой версии 1887 г. этот пункт исчезает; впрочем, уже и в
первоначальной, чешской редакции Основ ему сопутствовала много-
значительная оговорка: как в абстрактном так и в конкретном языко-
знании "действует всеобщее правило, что изучение развития любого
предмета должно быть связано с изучением самого предмета; и
это правило следует снова и снова напоминать историкам всех
областей".

В вопросе об отношении между статической и динамической
лингвистикой Масарик пошел дальше, чем Соссюр. В то время как
Соссюр учит, что языковые изменения должны рассматриваться
безотносительно к языковой системе, переживающей эти изменения,

ибо между системой и ее изменениями нет никакой связи, Масарик уже в 1885 г. решительно настаивает на тезисе, что "изучение эволюции всякого предмета должно быть связано с изучением самого предмета", ибо "тот, кто не знает самого предмета, не поймет его эволюции". В то время как для Соссюра изменения слепы и бесцельны, Масарик преодолевает механистическую традицию и учит: "Причинное объяснение узко формально в том смысле, что каузальные законы констатируют только известную регулярность отношений между причинами и следствиями; откуда, отчего и к чему эта регулярность, и откуда, отчего и к чему эти причины, этого мы из каузального объяснения не узнаём и не можем узнать. Социолог за этими вопросами обратится к телеологическому объяснению, несмотря на то, что Конт своею позитивистскою полицией запретил помыслы и разыскания о цели. Однако позитивистский запрет абсурден. Социология, подобно естественным наукам, особенно биологии, без телеологической интерпретации не обойдется. Допускаю, конечно, что можно злоупотреблять телеологией, и в этом отношении особенно теологи немало погрешили, но это только довод против злоупотреблений, а отнюдь не против телеологии. Вопрос о цели снова и снова встает на очередь. Сосуществование целого ряда явлений обнаруживает свою целенаправленность. Многие явления сами по себе представляются бесцельными, нецелесообразными, но в их соотношении проявляется целевая установка. В разнобое между целеустремленностью и фактическим, непредвиденным следствием может таиться своя особенная целесообразность, и т.д." Только теперь мы в состоянии учесть, как плодотворна может быть эта позиция для исторического языкознания.

В 1927 г. мы слышали рассказ Т. Г. Масарика про его беседу с основоположником чешского исторического языкознания Яном Гебауером (1838–1907) о явственно логическом ходе исторического развития чешского языка. В контексте вышеприведенных телеологических размышлений вполне естествен и понятен этот вывод.

В работах Масарика разбросано множество теоретических и конкретных замечаний по различным вопросам языкознания. Мы находим здесь и ценную характеристику сравнительного метода как в историческом, так и в типологическом аспекте, и требование, чтобы исторический подход был в современной школе подчинен статической точке зрения, и рассуждения об отношении между языкознанием и филологией, между диалектами и литературным

языком, между исследовательским подходом к родной и к чужрй речи. Масарик выдвигает в качестве актуальнейшей задачи для чешской лингвистики всестороннюю характеристику современного чешского языка, как письменного, так и разговорного. Он ставит интересные конкрㆍтные проблемы перед историей чешского литературного языка. Он метко затрагивает в своих замечаниях даже специальные проблемы морфологии и акцентологии. Масарик набрасывает подробную программу чешской исторической поэтики и попутно дает ряд замечаний об отдельных ее задачах.

Известно, какое выдающееся, можно прямо сказать, центральное место занимㅓст в творчестве Масарика политика, или, по его определению, "практическая социология". Сквозь политические сочинения и речи Масарика красной нитью проходят проблемы политики языковой. Отчасти это объясняется тем, что национальный вопрос, с которым языковый вопрос тесно связан, составляет одну из основ политической концепции Масарика; нельзя забывать и того существенного факта, что борьба за языковое право была в теченꙇе тысячелетия одним из лейтмотивов чешской истории. Но я думаю, этих доводов недостаточно, чтобы объяснить тот интимный пафос, то глубоко личное и страстное отношение, которое ясно слышится в каждом выступлении Масарика в защиту родного языка. Здесь, повидимому, сказались и особенности авторской биографии. Масарик в молодости познал всю трагедию двуязычности. Шаг за шагом, с трудом приходилось ему усваивать родной язык. Он болезненно переживал муки слова. Об этом красноречиво свидетельствуют его лейпцигские письма другу Леандру Чеху. С ранних лет до последнего времени Масарик решительно выступает против детской двуязычности, за право широкого пользования родным языком. Он неизменно подчеркивает, что только родной язык может быть для человека совершенным орудием мысли, живым выражением чувства и воли, благодарным материалом для поэтического творчества.

Новейшие разыскания в этой области оказались близки по выводам: ср. напр. Йрогло Бикчентай, *Мышление на родном и на чужих языках* (Москва, 1929).

Так же, как Масарик защищал своезаконность языкознания по отношению к родственным наукам, он равно настаивает и на своеобычности практического языкового вопроса. Он интерпретирует язык как самостоятельную политическую силу. Признавая важность языка как определителя народности, он в то же время

высказывается против отожествления обоих понятий. Национальное единство необязательно сопряжено с языковым единством, и обратно – возможно языковое единство без единства национального. Значение языкового вопроса различно при несхожих социальных, культурных и национальных обстановках. Нельзя говорить о языковом вопросе вообще – безотносительно к исторической эпохе, к народу, классу. Очень интересны замечания Масарика о разнородной роли языкового вопроса в феодальных и в демократических условиях, о его неодинаковой роли для городского пролетариата и для крестьянства. Однако при всей важности социальных и экономических факторов, "нельзя сводить язык ни к экономическим, ни к политическим условиям".

Рассматривая под углом зрения языковой политики вопрос языковой близости, Масарик руководствуется исключительно статическим критерием. Но в вопросах, что такое особый язык, что такое особый народ, и этот объективный критерий его не удовлетворяет. Одно лишь "наличие языковых и прочих различий" не дает ответа. Решающими факторами Масарик считает самоопределение и соотношение сил (т.е. возможность для данного коллектива осуществить такое самоопределение). Рассматривая украинский и белорусский языковой сепаратизм, он отмечает, что "в этом и во всех подобных случаях языковой вопрос часто приобретает особое значение там, где еще нет всесторонней и интенсивной культурной жизни". В таких условиях "и незначительные языковые отличия привлекают к себе большее внимание, и приписывается важность особенностям зачастую местного диапазона; в Германии много очень несхожих с литературным языком диалектов, но она сохранила единство литературного языка; в еще большей мере это верно по отношению к Франции". Мы видим, что Масарик последовательно выдвигает на первый план отношение говорящих к речи, оценку языка говорящим коллективом. Отношение говорящего коллектива к языку (эта языковая политика в широком смысле слова) должно было бы составить наряду с языком как таковым предмет особой лингвистической рубрики. Но эта рубрика у большинства лингвистов в загоне, многие даже не учитывают ее существования. Тем большего внимания заслуживают экскурсы Масарика в эту область.

Масарик затрагивает в своих замечаниях по языковой политике множество проблем. Здесь и вопрос языкового смешения, и различные стороны языкового законодательства, и идея международного языка, и наблюдения над языковым распорядком в отдельных

славянских странах. Большинство этих экскурсов носит практический характер, однако обычно попутно намечается и теоретическая сторона проблемы. Например, говоря о романтических проектах всеславянского языка, Масарик отмечает, что эти потуги наивны и что вспомогательным всеславянским языком естественно является язык русский, – "немцы ему учатся, и мы ему должны учиться". Параллельно автор выдвигает проблему критического изучения этих проектов и указывает вчерне возможное объяснение.

Попытаюсь подвести итоги. Для всего, что писал Масарик о языке, характерна практическая установка. Он либо имеет в виду непосредственное жизненное применение научных достижений, либо выступает в роли планомерного организатора чешской науки. Он ставит принципиальные и конкретные задачи перед чешской лингвистикой (в частности – поэтикой), обращает внимание на наиболее плодотворные методы, предостерегает перед смешением понятий и перед бездушным собранием материала, намечает направление исследования. Если мы сравним отбор и трактовку языковых проблем у Масарика и у немецких философов той же эпохи (напр., Брентано, Гуссерль, Вундт), различие целей выступит особенно наглядно. Масарик не стремится построить систему языковой философии, его задача – установить предпосылки для развития отдельных наук.

Думается, что этот пламенный организаторский пафос Масарика – характерное проявление чешского мироощущения. Эта черта неизменно поражает русского, когда он подходит к любому из многообразных периодов чешской культурной истории. Главная сила чешских языковедов эпохи национального пробуждения не в том, что они изучили родную речь, а в том, что они ее организовали, что они новочешский литературный язык собственно создали. Подобные явления мы наблюдаем и в прочих чешских общественных науках, а особенно в чешском реформатском движении, начиная с Яна Гуса. Организационно-практический характер творчества Масарика – явление глубоко-традиционное. Это, может быть, единственная подлинная и непрерывная чешская традиция. Практика Масарика выделяется на фоне этой традиции тем, что она сознательно и планомерно теоретически обоснована.

FRANZ BOAS' APPROACH TO LANGUAGE

When trying to sum up the linguistic heritage of Franz Boas, I vividly relive our long conversations on the science of language-talks, or rather delightful lessons, where the great master initiated me into the problems which absorbed him during the last years of his life. How he loved this science! In the autumn of 1942 a telephone call from Boas informs me that he has been ill, but is feeling better today, and he asks me to visit him. – In the afternoon? – "No, at once, later I may be worse, and I would like so much to have a linguistic talk." And in order to justify such haste he adds: "It has been so hard to spend ten whole days without scientific work." There is something of Marcus Aurelius in this sentence as well as in Boas' whole life.

Linguistics has often erroneously been thought to play a subordinate role among his manifold activities. It is true that he came to the humanities from an entirely different field; at first Boas specialized in physics and geography, and he always declared himself a self-made-man in "the science dealing with the mental phenomena", particularly in linguistics. The only linguist he met in his student years was Steinthal, but Boas was not yet interested in language, and afterwards he regretted never having attended the lectures of that enquiring thinker. Self-instruction can be dangerous, but in Boas' case it was his great power: he remained free of the various prejudices and antiquated ideas which weighed heavily on linguistics and ethnology. He came from the natural sciences with a demand for reliable and rigid methods, but he had no ambitions to force naturalistic habits on the humanities. On the contrary, he asserted and espoused the autonomy of the humanities, and precisely because of his perfect mastery of both domains – the natural and the social sciences – he never confounded them but carefully distinguished "human language, one of the most important manifestations of mental life", and cultural phenomena in general from their "biological premises". He repeatedly insisted upon the impossibility of explaining

a linguistic or some other cultural structure as a product of the natural environment, and he acknowledged both his former exaggerated belief in the importance of geographical determinants with which in his youth he had started his first expedition (1883-84), and his "thorough disillusionment in regard to their significance as creative elements in cultural life", a resolute disillusionment which is reflected already in his first piece of ethnological work – *The Central Eskimo* (written in 1885).

It is worth mentioning that this very trip to Baffinland definitely turned the interest of the scientist from geography to ethnology, and the leading place in his wide ethnological work belongs to linguistics. The first Boas' study on American Indians and his first contribution to *Science* (1886) was devoted to language. Curiously enough it is a "letter from Berlin": his field research on the language of the Bella-Coola in British Columbia took place at a Berlin exhibition to which some natives of this tribe had been brought. Thereafter, the languages of British Columbia became a favorite field of exploration for Boas. On one of these languages, Kwakiutl, he worked continually for more than a half century, and his last finished manuscript, which occupied the final years and days of his life, is a comprehensive linguistic analysis of Kwakiutl (Grammar; Dictionaries of Suffixes and Words; Texts with Translations). It is the most exhaustive description of any Indian language so far and is an exemplary description, which should be published as soon as possible.

Language was considered by Boas not only as part of ethnological phenomena in general but as "one of the most instructive fields of inquiry" and his motivation is thoroughly remarkable: "The great advantage that linguistics offers in this respect", Boas says in his magnificent introduction to the *Handbook of American Indian Languages* (1911), "is the fact that, on the whole, the categories which are formed always remain unconscious and that for this reason the processes which lead to their formation can be followed without the misleading and disturbing factors of secondary explanations, which are so common in ethnology***."

This statement seems to us one of the most daring, most fertile and original ideas ever uttered by Boas. As a matter of fact, it is just this unconscious character of linguistic phenomena which has made and still makes so many difficulties for the theoreticians of language. Even for the great Ferdinand de Saussure there was an insoluble antinomy. In his opinion, every state in the life of a language is a "fortuitous state" inasmuch as "individuals are in a great degree unconscious of the language laws". Boas proceeded from exactly the same starting point:

although "the fundamental ideas of language" are in constant use by a speech community, normally they do not emerge into the consciousness of its members. But whereas the traditional doctrine was permanently inhibited by "the unconsciousness of linguistic processes", Boas (and also Sapir, who in this respect followed him faithfully) knew how to draw the correct conclusions from such premises: the individual consciousness usually does not interfere with the grammatical or phonemic pattern of language and consequently does not "give rise to secondary reasoning and to re-interpretations". The conscious individual re-interpretations of fundamental cultural institutions are capable of obscuring and complicating not only the real history of their formation but also their formation itself. On the other hand, the formation of linguistic structures, as Boas emphasizes, can be followed and unfolds itself without these "misleading and disturbing factors". Elementary linguistic units function without the necessity of each unit itself entering into consciousness and becoming a separate subject of unschooled thought. They can hardly be isolated one from another. This relative non-interference of the individual consciousness with language explains the rigid and obligatory character of its pattern – a whole where all parts hold firmly together. The weaker the consciousness of the customary habits, the more their devices are stereotyped, standardized, and uniform. Hence the clear-cut typology of the diverse linguistic structures and, above all, the universal unity of their fundamental principles which repeatedly impressed Boas' mind: "relational functions" are the necessary elements of every grammatical and of every phonological system in the world.

Among the various ethnological phenomena, the linguistic processes (or rather operations) exemplify most strikingly and plainly the logic of the unconscious. For this reason – Boas insists – "the very fact of the unconsciousness of linguistic processes helps us to gain a clearer understanding of the ethnological phenomena, a point the importance of which cannot be underrated." The place of language with regard to the other social institutions and the significance of linguistics for a thorough understanding of the diverse ethnological patterns had never before been stated so precisely. And modern linguistics can still give some suggestive lessons to researchers in the various branches of social anthropology.

In accordance with these general views, Boas endeavors "to subject the whole range of linguistic concepts to a searching analysis", and in his descriptive studies of various Indian languages he tries to seize their "inner form" and to attain the most objective, most literal, and

least distorted translation of their unconscious categories into the language of scientific formulations. From the start he distinctly saw the cardinal task in its double aspect: as a limited number of sounds and sound-clusters have been selected by each single language (and moreover by human language in general) from the infinitely large mass of possible sounds and sound-clusters, so the infinitely varied range of ideas has been reduced by classification in each single language (and moreover in human language in general) to a lesser number. Thus the search has to specify the bilateral "selection of material used for expression": the choice of sound features to discriminate concepts and the choice of conceptual features to be "recognized by the symbol of the same sound complex". This two-sided selection converts foreign bodies into linguistic values; it creates fixed PHONEMIC units from the sound matter and fixed SEMANTIC units from the conceptual matter.

In the synthetic sketch "Language" which he wrote for *General Anthropology* (1938) Boas clearly presented the system of phonemes and grammatical devices as the necessary basis of linguistic analysis. He wholly understood that the linguistic problem of sound selection was fruitfully solved by the "phonemic principle", and he appreciated Sapir's important achievements in this matter. The need to spare himself in his last years forbade him to alter the technics of his work, but he excellently familiarized himself with this new field of research. Once, a year before his death, Boas gave an instructive talk to some linguists on the structure of Kwakiutl. He mentioned in passing that the Kwakiutl accent is on the first syllable, if it is long, and on the second syllable, if the first is short. Since a short syllable comprises one *mora* and a long syllable two *moras*, I proposed to reduce both these conditional statements to a common denominator: the accent falls on the syllable containing the second mora of the word. Then we hearers went home under the impression that this approach remained strange to Boas, but some months later in explaining to Lévi-Strauss and me another Indian prosodic pattern, he suddenly added "or, as you would say" and immediately translated the accent rule in question into my combined count of moras and syllables. He wonderfully grasped and understood the language of others.

As a matter of fact, ethnology and particularly linguistics was for Boas first and foremost a means to understand his fellow man and to perceive himself from without. Soon after he had entered the field of ethnology, he tried to define its aims (1883): "The data of ethnology prove that not only our knowledge, but also our emotions are the result

of the form of our social life and of the history of the people to whom we belong. If we desire to understand the development of human culture we must try to free ourselves of these shackles.*** It is impossible to determine a priori those parts of our mental life that are common to mankind as a whole and those due to the culture in which we live. A knowledge of the data of ethnology enables us to attain this insight. Therefore it enables us also to view our own civilization objectively." The Copernican struggle for science to overcome the stubborn, narrow-minded, self-confident egocentrism still continues. We have come to know that our space as well as our time is only one among the innumerable varieties both of space and of time. Boas' task in the development of linguistics could be compared with the historic role of Lobačevskij, Einstein, and other fighters against self-centered tradition. In the "Introduction" cited, Boas opens his "Discussion of Grammatical Categories" with the following lucid statement: "Grammarians who have studied the languages of Europe and western Asia have developed a system of categories which we are inclined to look for in every language. It seems desirable to show here in how far the system with which we are familiar is characteristic only of certain groups of languages, and in how far other systems may be substituted for it."

Of course, this trend in linguistics could be traced as far back as Humboldt's time. Nevertheless, the "Indo-European imperialism" continued until quite recently either deliberately or unconsciously to dominate the study of "exotic" languages. And only with Boas' attacks did a real change of approach begin. He did not content himself with declaratory slogans and criticism of older grammars "modeled strictly on the (quasi-) Latin scheme, which obscures the characteristic psychological categories of Indian languages". Above all, he showed convincingly "that each language has a peculiar tendency to select this or that aspect of the mental image which is conveyed by the expression of the thought". Different languages differently select those aspects of experience "that must be expressed". Such "obligatory aspects are expressed by means of grammatical devices", whereas some other aspects are taken as non-obligatory and are expressed by lexical means. And each language in its own way chooses the concepts to be expressed by single simple terms or by combinations of distinct terms, by entirely heterogeneous or by related terms.

Numerous grammatical descriptions of various Indian languages by Boas and his followers still more successfully shake off and eliminate every linguistic prejudice, every familiar and school-acquired habit of

the authors, and every tendency to impose categories derived from our languages upon foreign languages. Already in his earliest linguistic reflections ("On Alternating Sounds", *AA* 1889), Boas endeavored to prove that everyone "apperceives the unknown sounds by the means of the sounds of his own language" and therefore in linguistic records we must carefully avoid misspellings "due to the phonetic system of our native language". The modern outlines of the various languages of the U.S.S.R. present the closest and most valuable counterpart to these fruits of the American school. Boas saw the necessary sequel of such work in exhaustive scientific dictionaries which would with the greatest accuracy interpret the value of native words without any of the ordinary concessions to our own semantic patterns. He emphasized this problem of semantic accuracy in his last public address (before the American Ethnological Society, May 13, 1942), and he tried to embody his program in the aforementioned Kwakiutl dictionary.

Thus Indian languages came to be treated scientifically for the first time, but the significance of Boas's linguistic investigation goes much further. We have familiarized ourselves with unfamiliar languages, we have looked at them from within in order to find an objective approach to our own languages, and already this Boasian *principle of relativity* has – in Emeneau's words – "yielded striking results when applied to the long-known, familiar material". Moreover, this principle modifies our ideas not only about this or that language, but about language in general. We had learned that each language is arbitrary in its classifications, but this traditional (particularly Whitney's and Saussure's) statement was subjected by Boas to an essential restriction: indeed, the "Introduction" states that each language may be arbitrary, but solely "from the point of view of another language" in space or in time. To the native speakers of a language, be it "primitive" or "civilized", none of its classifications are arbitrary. Such classifications develop "in each individual and in the whole people entirely sub-consciously" and build a kind of linguistic mythology which may direct the attention of the speaker and some mental activities of the given speech community along definite lines. Thus linguistic forms exert an influence not only upon poetry and beliefs but even upon speculative thought and "scientific views, which are apparently based entirely on conscious reasoning". In itself every grammatical pattern, a "civilized" as much as a "primitive" one, is in permanent conflict with logical reasoning, but nevertheless every language is at the same time "sufficiently pliable" to any terminological needs of culture and "to more generalized forms of thinking", which "give a

value to new, formerly unidiomatic esxressions". Civilization requires only an adaptation of vocabulary and phraseology, while grammar may remain intact.

Thus "it is not justifiable to consider languages as hindering or favoring cultural development". When a native of the far North saw a camel for the first time, he put it down as a distorted horse. Similarly, we are subconsciously inclined to take unfamiliar, remote linguistic structures as backward, defective, or perverted. We are subconsciously still living in the Ptolemaic Universe, and we still believe we stand in the center of the world. "It is somewhat difficult for us to recognize that the value which we attribute to our own (form of) civilization is due to the fact that we participate in this civilization." By numerous examples Boas demonstrated how utterly unwarranted such an overestimation of our own linguistic habits is. For instance, he pointed out our first person plural as a "logical laxity" avoided by many exotic languages, where we find "the more logical distinction" between 'I and you' and 'I and he'. And in his last published linguistic study "Language and Culture" (1942) Boas wittily remarked that we would read our newspapers with much greater satisfaction if, in the same way as Kwakiutl, our language, too, would compel them to state whether their reports were based on self-experience, on inference, or on hearsay, or the reporter had dreamed it.

Descriptive linguists found in Boas one of its leading representatives, but description was never for him a self-sufficient, ultimate aim. "In order to give each language its proper place", Boas requires us "to compare as well the phonetic characteristics as the characteristics of the vocabulary and those of the grammatical concepts." He truly belongs to comparative linguistics in the broadest sense of this term.

The first anniversary of Boas's death falls fifty years after the death of William D. Whitney. Both were enabled to have their say to the end, whereas the last of the three great men lost by American linguistics, Edward Sapir, could be commemorated by the sad Kwakiutl verb *wibālisEm* 'to perish without reaching the end'. The work of these three prominent representatives of American linguistic tradition was equally essential in descriptive and in comparative linguistics.

Whitney, whose ideas exercised a mighty, decisive influence over international linguistic thought, was particularly praised by European scientists (as for instance Leskien, Masaryk and Saussure) for his convincing demonstration that linguistics belongs to the social and not to the natural sciences. Both Boas and his pupil Sapir continued to battle with the old naturalistic error in the science of language. One of the

most tenacious survivals of the traditional naturalism was Schleicher's *Stammbaum* theory, an idea – or rather a myth – which in spite of all criticism still pressed heavily on comparative linguistics. Boas began by embracing this tenet, and in the "Classification of the Languages of the North Pacific Coast", a paper read at the Chicago International Congress of Anthropology (1893), he taught: "The structural resemblance of the two languages (Tlingit and Haida) *** can be explained by the assumption of a common origin", and although in vocabulary" the similarities are doubtful*** nevertheless, the structural resemblance must be considered final proof". At this point Boas, contrary to Major J. W. Powell's classification of the North American languages, had even surpassed the precepts of orthodox Indo-Europeanists, who derive the evidence for cognation exclusively from the *material* likeness of words or morphemes. These precepts were transgressed by many observers of exotic languages, who often found an impressive *structural* similarity between grammatical or phonemic patterns with scarce correspondences in roots and affixes. The more deeply Boas delved into indigenous linguistic life, the more slearly he saw that side by side with *differentiation* stands *integration*, another and opposite factor which works widely. This time it was ethnology – and especially its notion of *diffusion* – which served as an example for linguistics.

Many significant facts made it impossible to infer a common origin from any striking similarity in neighboring languages: evidently unrelated but contiguous languages frequently manifest a range of common features in their grammatical and phonemic structure. Grammatical and phonemic peculiarities are distributed over large continuous areas and spread over one part of some related languages (or even over one part of a single language) without extending to the other part. Certain grammatical and phonemic types have a wide continuous distribution without corresponding lexical similarities. Some neighboring languages with similar phonemic features are morphologically quite distinct, and vice versa. The areas of specific grammatical or phonemic features do not coincide, so that one and the same language happens to be linked by different features with quite different languages.

In America Boas discerned various vast areas which have common grammatical or common phonemic characteristics. As early as in the "Introduction" he envisaged the diffusion of phonetic, syntactic and even morphological traits "beyond a single linguistic stock", and the evidence seemed to him "to be in favor of the existence of far-reaching influences of this kind", though he considered them "still obscure". Meanwhile,

convincing examples continued to accumulate, and the fact of the frequent occurrence of morphological or phonemic convergence between contiguous but unrelated languages became indisputable for Boas who, since his introductory paper to the *International Journal of American Linguistics* (1917), again and again returned to the subject. But there remained still a certain wavering in his explanation of these surprising facts. Thus in "The Diffusion of Cultural Traits" (*Social Research*, 1937), he appealed to an "actual intermingling of tribes", although nearly at the same time in *The Mind of Primitive Man* (1938) he soundly stressed that "assimilation of cultures occurs everywhere without actual blood-mixture, as an effect of imitation. Proof of diffusion of cultural elements may be found everywhere. Neither differences of race nor of language are effectual barriers for their spread." Let us add that differences of language in particular are no hindrance to the diffusion of phonemic or grammatical devices. Integration is a natural trend in linguistic intercourse, and this trend naturally does not remain confined to the bounds of a single language or linguistic family.

At first Boas did not realize the full implications of his discovery. He surmised that the conditions favoring such diffusion must have been much more frequent in primitive America, Africa or Oceania than in Europe or Asia. Meanwhile just in Europe and Asia wide continuous areas of single phonemic as well as morphological features which spread without regard to the genetic relation of languages were disclosed by some Old World linguists quite independently of Boas' inquiry. Then a phonemic atlas of the world was planned, and even the preliminary drafts showed that wide continuous distribution of pivotal phonemic and grammatical features is generally typical of linguistic life.

Boas gradually generalized his Americanist experience, and his attitude toward the "genealogical tree" became still more critical. "The whole theory of an *Ursprache* for every group of modern languages must be held in abeyance until we can prove that these languages go back to a single stock and that they have not originated, to a large extent, by the process of acculturation" (1920). For a long time Boas thought he was isolated in these views. Only in the last years did he learn about parallel investigations in Prague, Copenhagen, Oslo, and elsewhere in Europe. He came to read Trubetzkoy's "Gedanken über das Indogermanenproblem" in *Acta Linguistica* 1939. This posthumous paper brilliantly develops the following idea: 'Es gibt eigentlich gar keinen zwingenden Grund zur Annahme einer einheitlichen indogermanischen Ursprache, von der die einzelnen indogermanischen Sprachzweige abstammen

würden. Ebenso gut denkbar ist, dass die Vorfahren der indogermanischen Sprachzweige ursprünglich einander unähnlich waren, sich aber durch ständigen Kontakt, gegenseitige Beeinflussung und Lehnverkehr allmählich einander bedeutend genähert haben, ohne jedoch jemals miteinander ganz identisch zu werden." "It's all right", Boas told me cheerfully and heartily when he returned the book. The bitterness of loneliness had disappeared.

Perhaps the long inattention of his colleagues to Boas' favorite idea was partly his own fault. He often presented his discoveries as a mere criticism of current theories. News on the discovery of America would be given by Boas as a refutation of the hypothesis of a shorter route to India, while data on the new part of the world would be mentioned only casually. He fervently insisted on "the limitations of the comparative method", but he did not strive to make clear that in fact his outlook upon diffusion was designed first of all to widen the scope of historical comparison and to develop a historical geography of the linguistic world. Historical research, as Boas recognized perfectly well, "remains equally valid, whether we assume purely genetic relationship or whether we ask ourselves whether by contact languages may exert far-reaching mutual influences" (1936).

Among linguists Boas was often held to be interested solely in synchronic study, and some approved of him, others did not. He himself, however, never wearied of repeating that such a study is merely a way toward history. For him, every social science was in the final analysis a historical science: "Anthropology deals with the history of human society" (1938) and the study of languages purposes "to unravel the history of the growth of human language" (1920). This maxim evidently carries on Whitney's tradition. In Boas' opinion, the diachronic, historical approach transcended the synchronic method, not only as the aim of inquiry transcends its means, but likewise as explanation transcends mere description. From such a viewpoint one could scarcely understand a phenomenon without knowing "how it came into being". And under these circumstances an exact classification of the now existing types could "only be a substitute for the genesis and history". Boas did not look for general laws beyond the historical aspect of language. For him, synchrony was merely a domain of casual particulars.

However, Boas was rather disappointed by the search for the general laws that govern and explain the historical evolution of culture and particularly the development of language: although linguistic data offer us many strikingly similar phenomena in remote parts of the world

and disclose their independent origin, any attempt to ascribe them to similar, unilinear developments fails. Quite similar structures can arise in altogether different ways from dissimilar sources and can evolve in divergent directions. Similarity of structure does not imply a similar line of development. As this discrepancy became clearer, Boas found the search for the evolutionary laws of language (and of social life in general) ever less profitable and more hopeless.

Such an experience was indeed discouraging for some linguists who held to the belief that the only conceivable laws in language are evolutive. But Boas saw that the conditions determining the course of historical happenings "are *logically* entirely *unrelated*" (1930), and on the other hand his attention was attracted more and more by "general forms" of language "that are *determined logically*" (1924). He had a clear inkling of these general devices which – either positively or negatively – underlie every linguistic pattern, and which determine the typology of languages. A further step had to be made, and actually in the recent development of linguistic thought a new problem claims our attention: research on the laws that govern and explain the *structure* of languages. Such synchronic or more correctly *panchronic* laws are superimposed on historical linguistics: without understanding a linguistic structure as such, we could scarcely explain "how it came into being".

These structural laws prove to be both determinable and interpretable if they are submitted to an internal linguistic test. For instance, the question, why most languages do not carry out the same sharp, logical distinctions in the plural as they do in the singular, was quoted by Boas (1896) as "difficult to answer". But recently Viggo Brøndal, the great Danish linguist who died on the same day as Boas, pointed out the general linguistic tendency to avoid an excessive complexity within a morphological formation: often forms which are complex in regard to one category of classification are relatively simple in regard to another category. In accordance with this "law of compensation" the plural, as a grammatical number which is more thoroughly specified than singular, usually contains a smaller and never a larger set of distinctions.

The stubborn tradition which identified the scientific explanation with the genetic approach and reduced synchronic linguistics to a mere description influenced also Boas; nevertheless his linguistic theory came ever nearer to the fundamental problem of structural laws. And at this crucial point American linguistic thought of today and tomorrow will have to develop the legacy of the great teacher, the splendid heritage from which generations of linguists on two continents will continue to

draw new problems, observations, and suggestive ideas.

Written in Cornwall Bridge, Connecticut, summer 1943, for the *International Journal of American Linguistics*, X (1944).

[To p. 478: *Qwakiutl Grammar with a Glossary of the Suffixes* by F. Boas has been published in the *Transactions of the Am. Philos. Society*, N.S. XXXVII, part 3.]

"The man killed the bull." Boas's glosses to this statement in his compendious outline *Language* (1938) form one of his keenest contributions to linguistic theory. "In language," Boas says, "the experience to be communicated is classified from a number of distinct aspects" (1938, p. 127). Thus in the sentences 'the man killed the bull' and 'the bull killed the man', two opposite word sequences express a different experience. The "topics" (a generic term suggested by Yuen Ren Chao for the subject and object) are the same, man and bull, but the agent and patient are distributed differently.

Grammar, according to Boas, singles out, classifies, and expresses various aspects of experience and, moreover, performs another important function: "it determines those aspects of each experience that *must* be expressed." Boas astutely disclosed the obligatoriness of grammatical categories as the specific feature which distinguishes them from lexical meanings:

When we say, "The man killed the bull", we understand that a definite single man in the past killed a definite single bull. We cannot express this experience in such a way that we remain in doubt whether a definite or indefinite person or bull, one or more persons or bulls, the present or past time are meant. We have to choose between aspects and one or the other must be chosen. The obligatory aspects are expressed by means of grammatical devices (1938, p. 132).

In our verbal communication we are faced with a set of two-choice situations. If the action reported is 'kill', and 'the man' and 'the bull' function as agent and patient respectively, the English speaker has to select between (A) a PASSIVE and an ACTIVE construction, the first focused upon the patient, and the second upon the agent. In the latter case, the patient and, in the former, the agent may but does not have to be designated: 'The man killed (the bull)' and 'The bull was killed (by the man)'. Since the mention of the agent in passive constructions is optional, the omission cannot be regarded as elliptical, whereas a sentence like 'Was

killed by the man' is a salient ellipsis. Once having chosen the active construction, the speaker must, furthermore, make such binary selections as (B) PRETERIT (remote) or NON-PRETERIT: 'killed' vs. 'kills'; (C) PERFECT – in Otto Jespersen's interpretation (1924, 1954) retrospective, permansive, inclusive – or NON-PERFECT: 'has killed' vs. 'kills', 'had killed' vs. 'killed'; (D) PROGRESSIVE (expanded, continuative) or NON-PROGRESSIVE: 'is killing' vs. 'kills', 'was killing' vs. 'killed', 'has been killing' vs. 'has killed', 'had been killing' vs. 'had killed'; (E) POTENTIAL or NON-POTENTIAL: 'will kill' vs. 'kills', 'would kill' vs. 'killed', 'will have killed' vs. 'has killed', 'would have killed' vs. 'had killed', 'will be killing' vs. 'is killing', 'would be killing' vs. 'was killing', 'will have been killing' vs. 'has been killing', 'would have been killing' vs. 'had been killing' (I omit the other auxiliary verbs of the duplex series 'will' – 'shall' and 'can' – 'may' which likewise have but a preterit and a non-preterit form).[1]

The auxiliary verb 'do', used in assertorial, verificative constructions – ostensible affirmation, 'nexal negation', and 'nexus-question' (Jespersen's terms, 1924) – is not combinable with other auxiliary verbs, and therefore the number of possible selections between (F) ASSERTORIAL and NON-ASSERTORIAL is substantially reduced: 'does kill' vs. 'kills' and 'did kill' vs. 'killed'.[2] Since any nexal negation and any nexus-question has a patently assertorial, verificative modality (a 'verdictive' modality, according to Willard Quine's terminological suggestion), in these cases a simple verbal form ('kills', 'killed') is compulsorily replaced by a 'do' construction, and there is no two-choice situation, whereas the distinction between a confirmation and a simple positive statement requires a choice of one of two possible constructions – 'the man does kill the bull' or 'the man kills the bull', 'he did kill' or 'he killed'. Thus the lack (or at least the quite unusual character) of such interrogative constructions as "killed he" or "read you" in the formal pattern of English has a semantic motivation.

A diagram can sum up this survey of selective verbal categories in personal positive constructions: of each two opposites the more specified, 'marked' category is designated by a plus, and the less specified, "unmarked" one, by a minus; parenthesized minuses indicate the non-existence of corresponding pluses.

The choice of a grammatical form by the speaker presents the listener

---

[1] Neither progressive perfect nor progressive potential are used in the passive, because two non-finite forms of the auxiliary verb 'to be' are incompatible.

[2] Besides the indicative, this auxiliary verb is used in imperative constructions only: 'do kill!' vs. 'kill!'

SELECTIVE CATEGORIES

VERBAL FORM	A	B	C	D	E	F
kills	−	−	−	−	−	−
killed	−	+	−	−	−	−
has killed	−	−	+	−	−	(−)
had killed	−	+	+	−	−	(−)
will kill	−	−	−	−	+	(−)
would kill	−	+	−	−	+	(−)
will have killed	−	−	+	−	+	(−)
would have killed	−	+	+	−	+	(−)
is killing	−	−	−	+	−	(−)
was killing	−	+	−	+	−	(−)
has been killing	−	−	+	+	−	(−)
had been killing	−	+	+	+	−	(−)
will be killing	−	−	−	+	+	(−)
would be killing	−	+	−	+	+	(−)
will have been killing	−	−	+	+	+	(−)
would have been killing	−	+	+	+	+	(−)
does kill	−	−	(−)	(−)	(−)	+
did kill	−	+	(−)	(−)	(−)	+
is killed	+	−	−	−	−	(−)
was killed	+	+	−	−	−	(−)
has been killed	+	−	+	(−)	−	(−)
had been killed	+	+	+	(−)	−	(−)
will be killed	+	−	−	(−)	+	(−)
would be killed	+	+	−	(−)	+	(−)
will have been killed	+	−	+	(−)	+	(−)
would have been killed	+	+	+	(−)	+	(−)
is being killed	+	−	−	+	−	(−)
was being killed	+	+	−	+	−	(−)

with a definite number of bits of information. The compulsory character of this kind of information for any verbal exchange within a given speech community and the considerable difference between the grammatical information conveyed by diverse languages were fully realized by Franz Boas, thanks to his astonishing grasp of the manifold semantic patterns of the linguistic world:

The aspects chosen in different groups of languages vary fundamentally. To give an example: while for us definiteness, number, and time are obligatory aspects, we find, in another language, location – near the speaker or somewhere else, source of information – whether seen, heard [i.e., known by hearsay], or inferred – as obligatory aspects. Instead of saying "The man killed the bull," I should have to say, "This man (or men) kill (indefinite tense) as seen by me that bull (or bulls)" (Boas 1938, p. 133).

Those who might tend to draw inferences about culture from a range of grammatical concepts are immediately warned by Boas: aspects that

must be expressed may be abundant in some languages and sparse in others, but "a paucity of obligatory aspects does not by any means imply obscurity of speech. When necessary, clarity can be obtained by adding explanatory words." To denote time or plurality, those languages which have no tense or grammatical number resort to lexical means. Thus the true difference between languages is not in what may or may not be expressed but in what must or must not be conveyed by the speakers. If a Russian says: *Ja napisal prijatelju* 'I wrote a friend', the distinction between the definiteness and indefiniteness of reference ('the' vs. 'a') finds no expression, whereas the completion of the letter is expressed by the verbal aspect, and the sex of the friend by the masculine gender. Since in Russian these concepts are grammatical, they cannot be omitted in communication, whereas after the English utterance "I wrote a friend", interrogations whether the letter has been finished and whether it was addressed to a boy-friend or to a girl-friend, can be followed by the abrupt reply – "it's none of your business."

Grammar, a real *ars obligatoria*, as the Schoolmen used to call it, imposes upon the speaker its yes-or-no decisions. As Boas repeatedly noted, the grammatical concepts of a given language direct the attention of the speech community in a definite direction and through their compelling, obtrusive character exert an influence upon poetry, belief, and even speculative thought without, however, invalidating the ability of any language to adapt itself to the needs of advanced cognition.

Besides those concepts which are grammaticalized and consequently obligatory in some languages but lexicalized and merely optional in others, Boas described certain relational categories compulsory all over the world: "the methods by means of which these *** relations are expressed vary very much but they are necessary elements of grammar." Here belongs, for instance, the distinction between subject and predicate, and between predication and attribution, as well as grammatical reference to the addresser and addressee. This problem of indispensable, universal categories in grammar was outlined by Boas and his inquisitive disciple Sapir (1921) in defiance of the neogrammarian aversion to any search for universals and is crucial for linguistics today.

What aspects of information are obligatory for any verbal communication all over the world and what others only for a certain number of languages? This was for Boas the paramount question which divided universal grammar from the grammatical description of single languages and which, furthermore, enabled him to draw a demarcation line between the domain of morphology and syntax with their compulsory rules and

the freer field of vocabulary and phraseology. In English, as soon as one uses a noun, the two choices – one between plural and singular and the other between definite and indefinite – are necessarily made, whereas in an American Indian language having no grammatical devices for number and definiteness, the distinction between 'the thing', 'a thing', 'the things', and 'things' may be either simply passed over or deliberately supplemented by lexical means.

It was clear to Boas that any difference of grammatical categories carries semantic information. If language is a tool serving to convey information, one cannot describe the constituent parts of this instrument with disregard of their functions, just as a description of an automobile without any reference to the tasks of its working parts is incomplete and inadequate. Boas never gave up the key question: what is the informational difference between the grammatical processes observed? He would not accept an antisemantic theory of grammatical structure, and any defeatist allusion to the imaginary obscurity of the notion of meaning seemed to Boas itself obscure and meaningless.

His work with native informants, in particular with his long-term guest from a Kwakiutl tribe, discloses Boas' scrupulous and objective approach. He intently observed how the unusual New York experience of the Indian crossed with the native pattern. In conversation Boas loved to depict the indifference of this man from Vancouver Island toward Manhattan skyscrapers ("we build houses next to one another, and you stack them on top of each other"), toward the Aquarium ("we throw such fish back in the lake"), or toward the motion pictures, which seemed tedious and senseless. On the other hand, the stranger would stand for spellbound hours in the Times Square freak shows, with their giants and dwarfs, bearded ladies and fox-tailed girls, or in the Automats, where drinks and sandwiches appear miraculously, and where he felt transported to the universe of Kwakiutl fairy-tales. In the same way, his whimsical tangling of the Indian vernacular and English presented Boas with invaluable clues to the particularities of Kwakiutl grammatical concepts.

Bilingual equations, but first and foremost the interpretation of concepts through equivalent expressions, is precisely what linguists understand by 'meaning' and what corresponds to Charles Peirce's (1934) semiotic definition of a symbol's meaning as its 'translation into other symbols'. Thus meaning can and must be stated in terms of linguistic discriminations and identifications, just as, on the other hand, linguistic discriminations are always made with regard to their semantic value. The responses of speakers to their language, or – as one could say now –

'metalinguistic operations', are equational propositions which arise as soon as there is uncertainty whether both interlocutors use the same verbal code, and how far one's utterance is understood by the other. Such metalinguistic interpretations of a message through paraphrases or synonyms, or through actual translation into another language, or even into a different set of signs, play a tremendous role in any process of language learning, whether by infants or by adults. These equational propositions occupy an important place in the whole corpus of utterances, and, along with all other specimens from a given corpus, they may be submitted to distributional analysis (is it said, and in what contexts, that "A is B", that "B is A", and/or that "A is not B" and "B is not A"?). Thus the strictly linguistic technique of distributional analysis appears to be wholly applicable to problems of meaning, both grammatical and lexical, and meanings can no longer be regarded as 'subjective intangibles'. The elicitation of meanings through the metalinguistic operations of native speakers is a more reliable and objective device than the appeal to these natives for an evaluation of sentences in regard to their acceptability. Ellipses or anacolutha, inadmissible in an explicit and punctilious style, could be easily condemned by an informant despite their colloquial, emotive, or poetic use.

Chomsky has made an ingenious attempt to construct a "completely non-semantic theory of grammatical structure." This intricate experiment is actually a magnificent *argumentum a contrario*, particularly useful for the pending inquiry into the hierarchy of grammatical meanings. The examples brought to discussion in Chomsky's *Syntactic Structures* (1957) may serve as interesting illustrations to Boas's delimitation of the grammatical class of meanings. Thus parsing the allegedly nonsensical sentence 'Colorless green ideas sleep furiously' (1957, p. 15) we extract its pluralized topic 'ideas', said to develop a 'sleeping' activity, and both terms are characterized – the 'ideas' as 'colorless green' and the 'sleep' as 'furious'. These grammatical relations create a meaningful sentence which can be submitted to a truth test: do things like colorless green, green ideas, sleepy ideas, or a furious sleep exist or not? 'Colorless green' is a synonymous expression for 'pallid green' with a slight epigrammatic effect of an apparent oxymoron. The metaphoric epithet in 'green ideas' is reminiscent of Andrew Marvell's famous 'green thought in a green shade' and of the Russian idiom 'green boredom' (*zelenaja skuka*) or of Tolstoj's 'horror red, white and square' (*Vse tot že užas krasnyj, belyj, kvadratnyj*). In its figurative sense the verb 'sleep' means 'to be in a state like sleep, as that of inertness, torpidity, numbness', e.g., 'his hatred never

slept'; why, then, cannot someone's ideas fall into sleep? And, finally, why cannot the attribute 'furious' emphatically render a frenzy of sleep? Dell Hymes actually found an application for this sentence in a senseful poem written in 1957 and entitled "Colorless Green Ideas Sleep Furiously".

But even if we pedantically censor any image-bearing expression and deny the existence of green ideas, also then, as in the case of 'quadrature of the circle' or 'pigeon's milk', the nonexistence, the fictitiousness of these entities has no bearing on the question of their semantic significance. The possibility of questioning their being is the best warning against a confusion of ontological irreality with senselessness. There is, furthermore, no reason for assigning to the kind of constructions here discussed "a lower degree of grammaticalness". In a comprehensive dictionary of Russian the adjective signifying "pregnant" was labeled *femininum tantum* because – *beremennyj mužčina nemyslim* 'a pregnant male is inconceivable'. This Russian sentence, however, uses the masculine form of the adjective, and the 'pregnant male' appears in folklegends, in newspaper hoaxes and in David Burliuk's poem: *Mne nravitsja beremennyj mužčina, prislonivšijsja k pamjatniku Puškina* 'I like the pregnant man leaning against the Puškin momument'. The masculine occurs, moreover, in a figurative use of the same adjective. Similarly, a French girl in a primary school claimed that in her mother tongue not only nouns but also verbs have gender, e.g., the verb *couver* 'hatch' is feminine, since "hens hatch but roosters don't". Nor for grading levels of grammaticalness can we use ontological argument to exclude the pretended "inverse non-sentences" like 'golf plays John' (Chomsky 1957, p. 42). Cf. such perspicuous utterances as 'John does not play golf; golf plays John'.

Actual agrammaticalness deprives an utterance of its semantic information. The more the syntactic forms and the relational concepts which they carry appear to be obliterated, the less feasible is the truth test of the message, and phrasal intonation alone holds together such *mots en liberté* as "silent not night by silently unday" (e.e. cummings) or 'Furiously sleep ideas green colorless' (N. Chomsky). An utterance such as 'It seems to move toward the end' in the agrammatical version 'Move end toward seem' can hardly be followed by a question: "Is it true?" or "Do you really mean it?" Thoroughly degrammaticalized utterances are nonsensical indeed. The constraining power of the grammatical pattern, recognized by Boas and opposed by him to our relative freedom in word selection, becomes particularly manifest through a semantic inquiry into the field of nonsense.

Written in the Center for Advanced Study in the Behavioral Sciences (Stanford, California), 1959, for *The Anthropology of Franz Boas: Essays on the Centennial of His Birth*, ed. American Anthropological Association, Memoir LXXX.

REFERENCES

Boas, Franz, "Language". In *General anthropology* (Boston, 1938).
Chao, Y. R., "How Chinese logic operates", *Anthropological Linguistics* 1: 1-8, 1959.
Chomsky, N., *Syntactic Structures* (The Hague, Mouton and Co., 1957).
Jespersen, O., *The philosophy of modern grammar* (London, New York, 1924).
——, *A modern English grammar on historic principles* (Reprinted) (London-Copenhagen, 1954).
Peirce, C. S., *Collected Papers*, Vol. 5 (Cambridge, Harvard University Press, 1934).
Sapir, E., *Language* (New York, Harcourt, Brace and Co., 1921).

ANTOINE MEILLET ZUM GEDÄCHTNIS

Die Sprachwissenschaft hat mit Antoine Meillet ihren führenden Meister verloren, der eine ausnehmende Universalität des Rundblickes mit einer gleich ausnehmenden schöpferischen Persönlichkeit verband. Das bekannte Wort, daß den großen Mann vor allem das klare Bewußtsein kennzeichne, was noch nicht getan sei und was getan werden müsse, ist auf den verstorbenen Sprachforscher durchaus anwendbar. In seinen Untersuchungen, programmatischen Aufsätzen, Vorlesungen, Jahresübersichten der linguistischen Weltliteratur, in seiner pädagogischen Tätigkeit, in seinen anregenden Kundgebungen auf internationalen Fachkongressen beeilte er sich, mit Feuereifer das großzügige Gebäude zu Ende zu bauen, die nächsten Aufgaben seiner Disziplin klar zu umreißen und zu verteilen, die Forschungsarbeit aus getrennten privaten Unternehmungen zu einem planmäßigen gemeinsamen Werk zu gestalten. "Die Wissenschaft", klagte er, "ist schlecht organisiert, ja eigentlich überhaupt nicht organisiert *** weder die Untersuchungen, noch die Veröffentlichung ist organisiert." Meillet setzte sich für eine koordinierte internationale Forschungsarbeit ein, die frei von nationalistischen Vorurteilen wäre, und verfocht unermüdlich den internationalen Charakter der wahren Wissenschaft. Er setzte beharrlich seine Arbeit fort, trotz der schweren Krankheit, die ihn niederwarf, und ließ seinen Kampfposten nicht im Stich, bis ihn der Tod just in dem Augenblick ereilte, da sich die gesamte wissenschaftliche Welt zur Feier des 70jährigen Jubiläums ihres berühmten Altmeisters rüstete.

Die slavischen Probleme waren keine bloße Episode in Meillets Biographie. Seine slavistische Tätigkeit umfaßt nahezu 40 Jahre, beginnend mit den gründlichen *Recherches sur l'emploi du génitif-accusatif en vieux-slave* (1897), die derartige Grundfragen der slavischen Grammatik wie den Fallsynkretismus und die Kategorie der belebten Wesen breit aufrollten, und abschließend mit der jüngsten Umarbeitung des Grundrisses *Le slave commun*, der die Fragen der slavischen Lautgeschichte und Formlehre mit den Daten der modernen Indogermanistik folgerichtig verband

und ein scharfes Augenmerk auf die Tendenzen der slavischen Sprachent-
wicklung richtete. Mannigfaltig sind Meillets Beiträge zur historischen
Forschung der slavischen Sprachen: die fruchtbaren Studien über die
Lauterscheinungen des slavischen Wortanfangs und über slavische Beto-
nungsverschiebungen, die in slavistischen Zeitschriften gedruckt worden
sind, die kritischen Revision der Frage der baltisch-slavischen Sprach-
einheit im Buche *Les dialectes indo-européens*, die ebenso wie seine Revi-
sion der Frage der slavischen Einheit eine lebhafte Diskussion hervorrief,
die reichhaltige zweibändige Sammelschrift *Études sur l'étymologie et le
vocabulaire du vieux-slave* (1902, 1905), die neben interessanten laut-
geschichtlichen und etymologischen Notizen sowie wertvollen Unter-
suchungen über altkirchenslavische Wortbildung das grundlegende Werk
über die Verbalaspekte in der slavischen Übersetzung des Evangeliums
enthält. In dieser Arbeit äußert sich mit klassischer Deutlichkeit jene
Fähigkeit, die Meillet beim Forscher so hoch schätzte und die er selbst
im höchsten Maße besaß – die Fähigkeit, "selbst bei den kleinsten Unter-
suchungen niemals die Bedeutung zu übersehen, die sie für die allgemeine
Sprachwissenschaft haben könne", die glückliche "Verbindung des Sinnes
für allgemeine Ideen mit dem Spürsinn des Beobachters". Gerade in der
Frage der slavischen Verbalaspekte, worüber so viel geschrieben wurde
und wird, äußert sich anschaulich jene Fruchtlosigkeit der "poussière
d'explications", jene Zwecklosigkeit des atomistischen Verfahrens, vor
welchen Meillet stets warnte, indem er aufforderte, hinter dem Einzelnen
das Allgemeine, hinter dem Teil die Ganzheit, hinter den Sondererschei-
nungen das gesamte System, beispielsweise hinter den einzelnen Bedeu-
tungen (sens particuliers) des Aspektes seinen generellen Wert, sein
notwendig einheitliches Wesen zu sehen. In seiner feinfühligen Bespre-
chung des Buches von Mazon über die russischen Verbalaspekte äußert
Meillet das Bedauern, daß der Verfasser "die Werteinheit eines jeden
Aspektes nich bloßgelegt hat", indessen "ist der grammatische Wert,
der das Einzige vom Grammatiker zu beachtende ist, einheitlich". In
seinen Analysen bekannter slavistischer Werke hebt Meillet mehrmals als
Grundfehler die Tatsache hervor, daß die Arbeit "zu sehr aus Einzelheiten
bestehe, die getrennt betrachtet werden", und daß "die Ganzheiten un-
genügend aufgedeckt bleiben". "Il faut tenir compte de la structure de
la langue", mahnt er immerzu im Kampfe um die immanente Sprach-
analyse; in seiner programmatischen Kundgebung auf dem 1. linguisti-
schen Kongreß kämpft er um die Autonomie der Sprachwissenschaft; er
verurteilt jene in der Slavistik nicht seltenen Arbeiten, worin der Philologe
den Linguisten erdrückt; er warnt vor einer Unterschiebung der Psycho-

logie an Stelle der Linguistik, weil psychische Prozesse "lediglich eine der Bedingungen" des Sprachphänomens sind; mehr als irgendeiner von den westlichen Linguisten beharrt er auf der sozialen Beschaffenheit der Sprache, zugleich aber spricht er sich entschieden gegen die Versuche aus, die Sprachwissenschaft den anderen Sozialwissenschaften zu unterordnen, z.B. der Kulturgeschichte; und eben diese streng linguistische Auffassung der sprachlichen Gegebenheit versetzt ihn in die Lage, lange vor der heutigen phonologischen Strömung (im J. 1911!) die prinzipielle Frage vom bedeutungsunterscheidenden Wert der Phoneme als Hauptgegenstand der Lautlehre mit aller Deutlichkeit zu stellen.

Beruht Meillets Bedeutung für die slavische Sprachlehre vor allem darin, daß er als Forscher an die slavischen Sprachfakten und als Kritiker an slavistische Bücher mit dem ganzen Rüstzeug des modernen abendländischen wissenschaftlichen Denkens und methodologischer Erfahrung herantritt, so widmet er anderseits dem slavischen Material in seinen epochemachenden Werken zu vergleichenden Grammatik der indogermanischen Sprachen viel mehr Raum, als beispielsweise Brugmann. Er bringt jedoch in den europäischen wissenschaftlichen Umlauf nicht nur die reichen slavischen Sprachfakten, sondern auch die wertvollen Errungenschaften der slavischen Sprachforschung. So erinnert er mehrmals an die bahnbrechende Rolle der ausgezeichneten Lehre Baudouin de Courtenays, die "zu einer Zeit, da die allgemeine Sprachwissenschaft nicht in der Mode war", fast unbemerkt blieb, und er spricht mit hoher Anerkennung von dessen Schülern und Fortsetzern; ebenso anerkennend spricht er von der Schule der großen Forscher Fortunatov und Šaxmatov, er sieht in ihr die äußerste Errungenschaft des junggrammatischen Gedankens, er ist entzückt von der Strenge ihrer Grundsätze und der Kühnheit ihrer Hypothesen, ohne welche es unmöglich wäre, die Dynamik der Spracherscheinungen sich real vorzustellen und die nacheinanderfolgenden Zustände der Sprache und somit ihre Geschichte zu rekonstruieren: "l'école russe de Moscou a été la première à le voir et à procéder ainsi d'une manière systématique". Die Arbeiten der russischen Sprachforscher auf dem Gebiete der Syntax sind seines Erachtens unübertrefflich. Dieser anerkennende Standpunkt der ruhmvollen russischen wissenschaftlichen Tradition gegenüber könnte den jüngeren Pariser Slavisten als Muster vorgehalten werden.

Meillet selbst hat zugestanden, daß sein wahres Element die historische Sprachwissenschaft sei, zugleich aber äußerte er sich entschieden gegen die Reduzierung der Linguistik auf die Sprachgeschichte, weil die historische Tatsache bloß eine Voraussetzung der sprachlichen Synchronie

ist. Doch fügt er einsichtsvoll hinzu, die Synchronie dürfe nicht verein-fachend als eine Ebene geschildert werden: es ist zwar richtig, daß das Gewordene vom synchronischen Standpunkt dem Seienden gleich ist, doch ist auch unter diesem Gesichtspunkt das Werden vom Sein zu unter-scheiden. Wie tief der Forscher auch in die Probleme der sprachlichen Synchronie eingedrungen ist, davon zeugen die Handbücher der pol-nischen und der serbokrotatischen Grammatik, die er gemeinsam mit Willman-Grabowska und Vaillant verfaßte, namentlich die Einteilung der Zeitwörter daselbst.

Überwindung des Atomismus und schöpferische Synthese sind nicht nur Meillets Grundsätze in der Erforschung der Sprachveränderungen – das sind die Triebkräfte der ganzen Arbeit des dahingegangenen Denkers, die ihn zwangen, den ganzen vielgestaltigen Reichtum der sprachlichen Problematik zu erschließen und namentlich auf dem slavischen Gebiete gleich auf die Fragen der Sprachgeschichte die der Sprachbeschreibung, gleich auf die Fragen der Spracherforschung die des Aufbaues der Sprach-kultur zu stellen, eine Koordinierung der slavischen Forschungs- und Aufbautätigkeit, die immer noch ungenügend organisiert und zu sehr anarchistisch ist – "trop peu comparable d'un domaine a l'autre" – zu suchen und diese slavischen Aufgaben in die der Weltkultur einzugliedern.

Geschrieben für die *Slavische Rundschau*, IX (1937).

NIKOLAJ SERGEEVIČ TRUBETZKOY

(16. April 1890 – 25. Juni 1938)

Beim ersten Internationalen Linguistenkongress sagte Meillet auf Trubetzkoy hinweisend: "Er ist der stärkste Kopf der modernen Linguistik". – "Ein starker Kopf", bestätigte jemand. – "Der stärkste", widerholte nachdrücklich der scharfsichtige Sprachforscher.

In der Geschichte des hohen russischen Adels haben recht wenige Geschlechter so merkliche und dauernde Spuren im öffentlichen und geistigen Leben des Landes hinterlassen. Der Vater des Verstorbenen, Fürst Sergej Trubetzkoy (1862-1905), Professor und Rektor der Moskauer Universität, war ein hervorragender, tiefdenkender Philosoph. Der Gedanke des Logos in seinem historischen Werden und Wandeln ist sein Grundthema. Einem aufmerksamen Beobachter wird der intime Zusammenhang zwischen dieser Lehre und der Frage des Sohnes nach dem inneren Sinne der Sprachumgliederung kaum entgehen. Der Bruder des Philosophen und ebenfalls Philosoph, Evgenij Trubetzkoy, schildert kunstvoll in seinen Erinnerungen (*Iz prošlogo*, Wien, s. a.) das Gemeinsame und das Unterscheidende an drei Generationen seines Geschlechtes: "von einem Gedanken und einem Gefühl restlos erfasst, legt man in diesen Gedanken eine Temperaments- und Willenskraft hinein, die keine Hindernisse kennt und deshalb unbedingt das Ziel erreicht". Aber der Inhalt des dominierenden Gedankens wechselt mit jeder Generation. Der Urgrossvater von Nikolaj Trubetzkoy war von selbstgenügsamen architektonischen Linien beherrscht, sein Alltag wurde ihrem strengen Stil unterworfen, "und deswegen gab es im Leben keinen grösseren Systematiker". Im Sein des Grossvaters "verinnerlichte sich die Baukunst und verwandelte sich in eine anderartige, magische Architektur, die der Klänge" – es kam die Tonkunst. In der nächsten Generation "trat als Tochter der Musik die Philosophie auf". Und schliesslich, fügen wir hinzu, wird in der schöpferischen Welt Nikolaj Trubetzkoy's die überirdische Idee des Logos durch die verkörperte, empirische Wortsprache ersetzt. Und wenn auch der Sprachgelehrte sich von jedem allzuabstrakten Philoso-

phieren entschieden lossagte, findet man kaum in der gegenwärtigen
Linguistik eine andere Lehre, die dermassen vom wahren philosophischen
Geist durchdrungen ist und so ergiebig die Philosophie fördert. Mit dem
aufrührerischen Neuerungsgeist vereinigt Trubetzkoy eine urwüchsige
Kraft der Tradition; ja es lebt in seinem Lebenswerke nich nur die Logos-
problematik seines Vaters, sondern auch der ererbte Musikgeist, der ihn
zur Kunstsprache, zum Vers und zwar ausschliesslich zum Singvers lockt
und seine feinen Beobachtungen über die Wechselbeziehungen zwischen
dem sprachlichen und musikalischen Rhythmus lenkt. Die russischen
Bylinen und Schnaderhüpfel, das mordwinische und polabische Volkslied,
Puškins Nachklänge der serbischen Epen und die altkirchenslavische
Hymne enthüllen ihm ihre Schallgesetze.

Aber auch die architektonische Einstellung des Urahns lebt in N. S.
Trubetzkoy fort. Sie kommt in Form und Inhalt zum Vorschein: einer-
seits in seinem klassisch klaren Still und besonders in der durchsichtigen,
harmonischen Komposition, andererseits in seiner seltenen Klassifizier-
rungskunst, die einen genialen und leidenschaftlichen Systematiker
offenbart. Man könnte nicht diesen "Systemzwang" als Grundsatz seines
Schaffens genauer beschreiben, als es Trubetzkoy selbst gemacht hat.
In seinem Buch *K probleme russkogo samopoznanija* (1927) mahnt er jeden
Volksgenossen zur persönlichen und nationalen Selbsterkenntnis und
insbesondere zum Anerkennen und Begreifen des turanischen Einschlags,
den der Verfasser als einen massgebenden Bestandteil der russischen
Geschichte und Psychologie hervorhebt (vgl. bes. seine unter den Initialen
I. R. herausgegebene Broschüre *Nasledie Čingisxana*, Berl. 1925), und
er schildert diesen "turanischen Geist" mit einer geradezu introspektiven
Überzeugungskraft, die Meillet so bewundert hat:

Der turanische Mensch unterwirft jeden Stoff einfachen und schematischen
Gesetzen, die ihn zu einer Ganzheit zusammenschmelzen und dieser Ganz-
heit eine gewisse schematische Klarheit und Durchsichtigkeit verleihen.
Er grübelt nicht gerne an überfeinen und verwickelten Einzelheiten und
befasst sich lieber mit deutlich wahrnehmbaren Gebilden, die er in klare
und schlichte Schemata gruppiert. *** Diese Schemata sind kein Ergebnis
einer philosophischen Abstraktion .*** Sein Denken und seine ganze
Wirklichkeitsauffassung finden spontan in den symmetrischen Schemata
eines sozusagen unterbewussten philosophischen Systems Platz. *** Es wäre
aber ein Fehler zu denken, der Schematismus dieser Mentalität lähme
den breiten Schwung und Ungestüm der Phantasie. *** Seine Phantasie ist
weder dürftig, noch feig, sie hat im Gegenteil einen kühnen Schwung, aber
die Einbildungskraft ist nicht auf den minuziösen Ausbau und nicht auf das

*Auftürmen von Einzelheiten gerichtet, sondern sozusagen auf die Entwick-
lung in Breite und Länge; das derartig aufgerollte Bild wimmelt nicht von
mannigfaltigen Farben und Übergangstönen, sondern ist in Grundtönen,
in breiten, bisweilen riesenhaft breiten Pinselstrichen gemalt. *** Er liebt
die Symmetrie, die Klarheit und das stabile Gleichgewicht.*

Trubetzkoy sah ein, dass dieser Geist der allumfassenden strengen
Systematik für die ursprünglichsten Errungenschaften der russischen
Wissenschaft und für sein eigenes Schaffen im besonderen höchst ken-
zeichnend ist. Er besass eine seltsame und leitende Fähigkeit, in allem
Wahrgenommenen das Systemartige aufzudecken (so hat er, schon tod-
krank, wenige Wochen vor dem Ende, auf den ersten Blick die Phonemen-
reihen des Dunganischen und des Hottentottischen treffend erraten,
welche für die angesehenen Fachkenner dieser Sprachen unnachgiebig
blieben). Auch sein merkwürdiges Gedächtnis war stets auf das Systemar-
tige gerichtet, die Tatsachen lagerten sich als Schemata ab, die sich
ihrerseits zu wohlgestalteten Klassen ordneten. Nichts war ihm dabei
fremder und unannehmbarer als eine mechanische Katalogisierung. Das
Gefühl eines inneren, organischen Zusammenhangs der einzuteilenden
Elemente verliess ihn nie, und das System blieb nie, von der übrigen Gege-
benheit gewaltsam entrissen, in der Luft hängen. Im Gegenteil erschien
ihm die gesamte Wirklichkeit als ein System der Systeme, eine grossartige
hierarchische Einheit von vielfachen Übereinstimmungen, deren Bau
seine Gedanken bis zu den letzten Lebenstagen fesselte. Er war für eine
ganzheitliche Weltauffassung innerlich vorausbestimmt, und einzig im
Rahmen der strukturalen Wissenschaft hat er sich selbst tatsächlich
vollständig gefunden. Gleich empfindlich für sprachliche Fakta und für
neue sprachwissenschaftliche Gedanken, fühlte er mit Scharfblick die
für seinen folgerichtigen und eigenartigen Systemaufbau geeignet waren.

In einer unveröffentlichten und unbeendeten autobiographischen Skizze
erzählt Trubetzkoy: "Meine wissenschaftlichen Interessen erwachten sehr
früh, noch im Alter von 13 Jahren, wobei ich ursprünglich hauptsächlich
Volks- bzw. Völkerkunde studierte. Ausser der russischen Volksdichtung
interessierte ich mich besonders für die finnougrischen Völker Russlands.
Seit dem Jahre 1904 besuchte ich regelmässig alle Sitzungen der Moskauer
Ethnographischen Gesellschaft, mit derem Präsidenten Prof. V. F. Miller
(dem bekannten Forscher auf dem Gebiete des russischen Volksepos und
der ossetischen Sprache) ich in persönliche Beziehungen trat." Es war
eine Blütezeit der russischen Volkskunde und Folkloristik, von der
ruhmvollen historischen Schule Millers geleitet. Die ungemein lebens-
kräftige, archaische und vielsprachige Volksüberlieferung Russlands, ihre

altertümlichen ethnischen Kreuzungen, ihre bunten und eigenartigen Formen, ihr ständiger Einfluss auf das Schrifttum und ihr reicher historischer und mythologischer Gehalt boten den Forschern eine unerschöpfleche Quelle. Dieser Problematik widmete sich begeistert der heranwachsende Trubetzkoy; der Mittelschulbesuch blieb ihm erspart, er studierte zu Hause, gewann dadurch viel freie Zeit für seine wissenschaftlichen Erstlingsversuche und war mit fünfzehn Jahren ein reifer Forscher. Er veröffentlichte im Organ der erwähnten Gesellschaft "Ètnografičeskoe Obozrenie" ab Jahr 1905 eine Reihe bemerkenswerter Studien über die Spuren eines gemein-ugrofininschen Totenkultritus im westfinnischen Volksliede, über eine nordwestsibirische heidnische Göttin in den alten Reiseberichten und im Volksglauben der heutigen Vogulen, Ostjaken und Votjaken, über die nordkaukasischen Steingeburtssagen usw. Auch das Sprachstudium ist ursprünglich für Trubetzkoy nur ein Hilfsmittel der historischen Ethnologie und besonders der Religionsgeschichte. Diese Fragen haben ihn übrigens auch später stets angelockt, wie es beispielsweise seine Bemerkungen über die Spuren des Heidentums im polabischen Wortschatz (*ZfslPh* I, 153 ff.) oder über die Iranismen der nordkaukasischen Sprachen (*MSL* XXII, 247 ff.) verraten, und noch im letzten Lebensjahr plante er, anlässlich des neusten, seiner Überzeugung nach ganz widersinnigen Versuches, die Echtheit des Igorliedes zu bestreiten, eine Studie über die heidnischen Namen dieses wertvollen Denkmals (den Gottesnamen *Dažъbogъ* legte er als ein archaisches Compositum mit der Bedeutung "gib Reichtum" aus und gleichfalls die parallele Bildung *St[ъ]ribogъ*).

Zum Studium der kaukasischen Sprachen wurde der junge Trubetzkoy von Miller angeregt und unter dem Einfluss des Ethnographen und Archäologen S. K. Kuznecov begann er sich mit den finnisch-ugrischen und paläosibirischen Sprachen zu befassen und gewann dabei allmählich ein unmittelbares Interesse für die vergleichende und allgemeine Sprachwissenschaft. Er stellte auf Grund der alten Reiseberichte ein Wortverzeichnis nebst einem kurzen grammatischen Abriss der gegenwärtig aussterbenden kamtschadalischen Sprache auf und entdeckte kurz vor seiner Matura "eine Reihe von auffallenden Entsprechungen zwischen dem Kamtschadalischen, Tschuktschisch-Korjakischen einerseits und dem Samojedischen andererseits, nämlich auf dem Gebiete des Wortschatzes". Seine Arbeit brachte ihn in einen lebhaften wissenschaftlichen Briefwechsel mit den drei Pionieren der ostsibirischen Volks- und Sprachkunde, Joxel'son, Šternberg und besonders Bogoraz; als der letzte aber aus Petersburg nach Moskau kam und seinen gelehrten Korrespondenten

persönlich kennen lernte, war er direkt beleidigt zu erfahren, es handle sich um einen Schulknaben!

Trubetzkoy trat 1908 an die historisch-philologische Fakultät der Moskauer Universität ein. Ursprünglich hatte er die Völkerkunde im Auge, da sie aber im Lehrprogramm dieser Fakultät fehlte, wählte er, um "haupsächlich Völkerpsychologie, Geschichtsphilosophie und die methodologischen Probleme zu studieren", die philosophisch-psychologische Abteilung; als er aber sah, dass er sich hier nicht einlebe, und dass ihn der linguistische Interessenkreis immer fester halte, ging er im dritten Semester, zur aufrichtigen Betrübnis seiner bisherigen Lehrer und Kollegen, die in ihm die grosse Hoffnung der russischen Philosophie begrüssten, in die sprachwissenschaftliche Abteilung über. Doch blieb ihm für das ganze Leben eine gediegene philosophische Schulung und ein hegelianischer Einschlag, den besonders die suggestive Wirkung seines geistvollen Kollegen und Freundes, des frühverstorbenen Samarin, befestigt hat. Auch die Grundfragen der Völkerpsychologie, Soziologie und Historiosophie haben nie aufgehört, den Forscher zu beschäftigen. Die seit den Schuljahren geplante Trilogie über die Kulturproblematik, -wertung, -entwicklung und über ihre nationale Fundierung, mit besonderer Rücksicht auf die russischen Verhältnisse, wurde teilweise in der spannenden, auch ins Deutsche und Japanische übersetzten Monographie *Europa und die Menschheit* (*Evropa i čelovečestvo*, 1920) verwirklicht, teils in den Studien der erwähnten russischen Sammelschrift *Zum Problem der russischen Selbsterkenntnis*. Diesen Arbeiten folgte eine Reihe Aufsätze über Nationalitätenfrage, über Kirche und über Ideokratie, von denen nur ein Teil veröffentlich wurde, und das Meiste zugrundegegangen ist. Die Erwägungen Trubetzkoys, gegen jede naturalistische (sei es biologische oder geradlinig evolutionistische) Auffassung der Geisteswelt und gegen jeden überlegenen Egozentrismus scharf gerichtet, wurzeln zwar in der russischen ideologischen Tradition, brachten aber viel Persönliches und Bahnbrechendes und wurden besonders durch die reiche sprachwissenschaftliche Erfahrung des Verfassers und durch seine enge, beinahe zwanzigjährige Mitarbeit mit dem hervorragenden Geographen und Kulturhistoriker P. N. Savickij vertieft und zugespitzt. Die Lehre der beiden Denker über die Eigenart der russischen (eurasischen) geographischen und historischen Welt gegenüber Europa und Asien wurde zur Grundlage der sogen. eurasischen ideologischen Strömung.

Trubetzkoy absolvierte Anfang 1913 das Programm der sprachwissenschaftlichen Abteilung. Die Fakultät billigte seine Arbeit über die Bezeichnungen des Futurums in den wichtigsten indogermanischen Sprachen,

deren Nachklang ("Gedanken über den lateinischen a-Konjunktiv") in der *Festschrift Kretschmer* zu finden ist, und nahm seine Angliederung an das Universitätslehrkorps zwecks Vorbereitung zur akademischen Lehrtätigkeit einstimmig an. "Der Umfang", schreibt Trubetzkoy, "und die Richtung des Unterrichtes in der sprachwissenschaftlichen Abteilung befriedigte mich nicht: mein Hauptinteresse lag ausserhalb der indogermanischen Sprachen. Wenn ich mich aber doch für diese Abteilung entschloss, so tat ich es aus folgenden Gründen: Erstens war ich schon damals zur Überzeugung gekommen, dass die Sprachwissenschaft der einzige Zweig der "Menschenkunde" sei, welcher eine wirkliche wissenschaftliche Methode besitzt, und dass alle anderen Zweige der Menschenkunde (Volkskunde, Religionsgeschichte, Kulturgeschichte usw.) nur dann aus der "alchemischen" Entwicklungsstufe in eine höhere übergehen können, wenn sie sich in Bezug auf die Methode nach dem Vorbilde der Sprachwissenschaft richten werden. Zweitens wusste ich, dass die Indogermanistik der einzige wirklich gut durchgearbeitete Teil der Sprachwissenschaft ist und dass man eben an ihr die richtige sprachwissenschaftliche Methode lernen kann. Ich ergab mich also mit grossem Fleisse den durch das Programm der sprachwissenschaftlichen Abteilung vorgeschriebenen Studien, setzte aber dabei auch meine eigenen Studien auf dem Gebiete der kaukasischen Sprachwissenschaft und der Folkloristik fort. Im Jahre 1911 forderte mich Prof. V. Miller auf, einen Teil der Sommerferien auf seinem Gute an der kaukasischen Küste des Schwarzen Meeres zu verbringen und in den benachbarten tcherkessischen Dörfern die tscherkessische Sprache und Volksdichtung zu erforschen. Ich leistete dieser Aufforderung Folge und setzte auch im Sommer 1912 meine tscherkessischen Studien fort. Es gelang mir, ein ziemlich reichhaltiges Material zu sammeln, dessen Bearbeitung und Veröffentlichung ich bis nach der Absolvierung der Universität verschieben musste. Grossen Nutzen bekam ich bei meiner Arbeit vom persönlichen Verkehr mit Prof. Miller, dessen Ansichten über Sprachwissenschaft freilich etwas altmodisch waren, der aber als Folklorist und als tüchtiger Kenner der ossetischen Volkskunde mir viele wertvolle Ratschläge und Anweisungen gab."

Die Fortunatovsche Schule, die damals beinahe alle linguistischen Lehrstühle der Moskauer Universität beherrschte, wurde von Meillet sehr richtig als die höchste Verfeinerung und philosophische Vertiefung des junggrammatischen Verfahrens bezeichnet. Die Gesetzmässigkeit jedes sprachlichen Geschehens, die Form als das massgebende Sprachspezifikum und die Notwendigkeit, jede einzelne Sprachebene als ein autonomes Teilganzes zu betrachten wurden hier folgerichtig bis zu Ende

gedacht, wenn auch dabei die Begriffe der mechanischen Kausalität und der genetischen Psychologie ihre Geltung stets bewahrten, und die Auffassung der sprachlichen Empirie wie ehedem rein naturalistisch blieb. Die Universitätslehrer Trubetzkoys – der strenge Komparatist W. Porzeziński, der feinfühlende, künstlerisch veranlagte Slavist V. N. Ščepkin und der klassische Philologe M. M. Pokrovskij waren durchwegs unmittelbare Schüler Fortunatov's die die Lehre und die hohe linguistische Technik des grossen Denkers und Forschers treu übermittelten, aber was für sie ein unabänderliches Dogma war, wurde für den freisinnigen Schüler zum Ausgangspunkt einer gründlichen, mitunter vernichtenden Kritik. Nichtsdestoweniger bleibt Trubetzkoy ein wahrhafter Forsetzer der Moskauer Schule, er behält im wesentlichen ihre Auswahl der Forschungsprobleme und ihre Kunstgriffe, er sucht während der ersten Periode seiner sprachwissenschaftlichen Tätigkeit ihren Gesichtskreis zu erweitern und ihre Prinzipien genauer zu fassen und fortzubilden, – er steigert die Aktiva der Schule und sucht dann im letzten Lebensdezennium sich von ihren obenangedeuteten Passiva Schritt für Schritt zu befreien.

Schon als Student versuchte Trubetzkoy die vergleichende Methode in der Fortunatovschen Prägung aus der Indogermanistik auf die nordkaukasischen Sprachen zu übertragen. Im Früjahr 1913 hielt er am Tifliser Kongress der russischen Ethnologen zwei Vorträge über mythologische Relikte im Nordkaukasus und einen über den Bau des ostkaukasischen Verbums, und er arbeitete eifrig an der vergleichenden Grammatik der nordkaukasischen Sprachen, die die Urverwandtschaft der beiden nordkaukasischen Zweigen – des ost- und westkaukasischen, ausführlich begründen sollte, während die Frage der vermeintlichen Verwandtschaft dieser Sprachfamilie mit den kartvelischen Sprachen ihm als vorläufig unlösbar erschien. Diese Arbeit und seine reichhaltigen sprachlichen und folkloristischen Aufzeichnungen aus dem Nordkaukasus, bes. aus dem Tscherkessenland, gingen leider in Moskau während des Bürgerkrieges, zusammen mit zahlreichen Studien aus der altindischen, ostfinnischen und russischen Verslehre, verloren, und nur einen kleinen Teil seiner kaukasologischen Erfahrung gelang es dem Sprachgelehrten wiederherzustellen. Trotzdem arbeitete er auch im Ausland auf diesem verwickelten Gebiet unermüdlich weiter, veröffentlichte in den Fachzeitschriften eine Reihe bahnbrechender Studien, und seinem ursprünglichen Misstrauen zuwider musste er dabei unvermeidlich, unter dem Druck des eigenartigen Forschungsstoffes, auf die Frage der "typologischen Verwandtschaft" und derjenigen der Nachbarsprachen im besonderen stossen.

So kam er zum Problem der "Sprachbunde" (s. *Evrazijsk. Vremennik* III, 1923, 107 ff. und die Akten des I., II. und III. Linguistenkongresses), dessen Tragweite ihm immer deutlicher wurde (vgl. *Sbornik Matice slovenskej* XV, 1937, 39 ff. und *Proceedings* des III. Kongresses für phonet. Wissenschaften, 499).

Von der fremden Sprachwissenschaft war es die deutsche, die in den Gesichtskreis der Moskauer Schule stets gehörte, und Trubetzkoy wurde gemäss der Tradition nach Leipzig geschickt, wo er im Wintersemester 1913-1914 die Vorlesungen von Brugmann, Leskien, Windisch und Lindner besuchte, das Altindische und Avestische intensiv studierte und mit den rhythmisch-melodischen Studien Sievers' sich kritisch auseinandersetzte. Von Leskien behielt er den Eindruck einer gewaltigen Persönlichkeit, der das Geleise der junggrammatischen Doktrin allzueng wurde; überhaupt kehrte der junge Gelehrte mit der Vorstellung einer gewissen hemmenden Müdigkeit der deutschen Linguistik zurück, stellte ihr entschlossen die Antriebskraft der neuen französischen Sprachwissenschaft gegenüber, bewunderte auch die Frische der Gedanken in den *Principes de linguistique psychologique* von J. van Ginneken, und diese neuen, abweichenden Strömungen befestigten seinen Kritizismus und spornten sein Suchen an. Diese beiden Elemente waren für ihn naturgemäss verbunden, und er betonte ständig, der Kritizismus müsse konstruktiv sein, sonst entarte er unvermeidlich in eine selbstgenügende anarchische Zerstörungsarbeit, die der Forscher direkt hasste. Die beiden öffentlichen Probevorlesungen, mit denen die Habilitationsprüfungen Trubetzkoy's 1915 abgeschlossen wurden – *Die verschiedenen Richtungen der Vedaforschung* und *Das Problem der Realität der Ursprache und die modernen Rekonstruktionsmethoden* – wurden zu programmatischen Erklärungen eines schöpferischen Revisionismus, und die ersten konkreten Schritte auf diesem Wege liessen nicht auf sich warten.

Im akademischen Jahre 1915-1916 hielt Trubetzkoy als neu approbierter Privatdozent für vergleichende Sprachwissenschaft an der Moskauer Universität Vorlesungen über Sanskrit und beabsichtigte im nächsten Jahr Avestisch und Altpersisch vorzutragen. Er befasste sich damals, wie er selbst erzählt, hauptsächlich mit iranischen Sprachen, weil diese von allen indogermanischen am meisten auf die kaukasischen Sprachen eingewirkt hatten, welche doch sein Hauptinteresse heranzogen; plötzlich aber traten für ihn die slavischen Sprachen in den Vordergrund. Den Anlass gab das neue Buch des führenden russischen Slavisten A. A. Šaxmatov *Abriss der ältesten Periode in der Geschichte der russischen Sprache* (1915). Der persönlichste Schüler Fortunatov's mit einer breiten

Tatsachenkenntnis und einer seltenen Intuition ausgerüstet, versuchte hier zum ersten Mal die Summe seiner eigenen Forschung und derjenigen der ganzen Schule zu ziehen und die Lautentwicklung des Urslavischen in seinem Umbau ins Russische als ein Ganzes systematisch aufzudecken. Aber gerade bei dieser synthetischen Fassung trat die ungenügend strenge, allzumechanische Rekonstruktionsweise Šaxmatov's zu Tage. Es brach eine Zeit der Gärung und der Umwertung im Nachwuchs der Moskauer Schule an, eine Zeit der Verfeinerung und Steigerung der methodologischen Forderungen, und man wetteiferte im Aufsuchen und in der Aufklärung der Fehlgriffe des *Abrisses*, ja ein ganzes Kolleg des jüngsten Schülers Fortunatov's, N. N. Durnovo, wurde der Besprechung des neuen Buches gewidmet. Doch das wesentlich Neue am lebhaft bestrittenen und von der jüngeren Generation völlig anerkannten Vortrage über die Šaxmatovsche sprachgeschichtliche Konzeption, welchen Trubetzkoy im damaligen Zentrum des Moskauer linguistischen Lebens, in der Dialektologischen Kommission gehalten hat, lag in der durchdringenden Tragweite dieser kritischen Analyse: sie zeigte, dass manche grundsätzliche Fehler Šaxmatov's schon im Verfahren Fortunatov's wurzeln, nämlich in seinen Entgleisungen von den eigenen Grundprinzipien. Trubetzkoy suchte diese Widersprüche zu beseitigen und die Grundsätze der Schule methodologisch genau und folgerichtig, ja genauer als ihr Urheber selbst, anzuwenden. "Ich fasste", sagt Trubetzkoy, "den Plan, ein Buch unter dem Titel *Vorgeschichte der slavischen Sprachen* zu schreiben, worin ich mit Hilfe einer perfektionierten Rekonstruktionsmethode den Vorgang der Entwicklung der slavischen Einzelsprachen aus dem Urslavischen und des Urslavischen aus dem Indogermanischen zu schildern beabsichtigte."

Als Trubetzkoy nach den stürmischen Erlebnissen der Revolutionszeit nach abenteuerlichem und lebensgefährlichem Wandern durch den Kaukasus des Bürgerkrieges zerlumpt und verhungert beim Rektor der Rostover Universität, trotz dem harten Widerstand der Diener gegenüber dem verdächtigen Vagabunden, erscheint und dort (1918) Professor der slavischen Sprachen wird, ergibt er sich vollständig seinem Buche, beendet im wesentlichen die Lautgeschichte und skizziert die Formenlehre, doch Ende 1919 muss er wieder jählings die Flucht ergreifen, und seine ganze Arbeit geht wiederum im Manuskript verloren. Er steht in Konstantinopel vor der tragisch-grotesken Wahl, Schuhputzer zu werden oder weiter heldisch und von seiner heldischen Frau unterstützt, trotz allen Ränken des Schicksals wieder um die Wissenschaft zu kämpfen. Es gelingt ihm, sich in Sofia als Dozent für vergleichende Sprachwissenschaft niederzu-

setzen, und zwei Jahre später (1922) wird er, besonders dank dem klarsehenden Gutachten Jagić's, Professor der slavischen Philologie an der Universität Wien.

Mit der Beharrlichkeit eines Glaubeneiferers sucht Trubetzkoy seine eingebüsste *Vorgeschichte* wiederherzustellen, ja er baut sie um und erweitert sie. Folgende Grundgedanken lenken die Arbeit: es ist ebenso verfehlt die urslavischen Vorgänge auf eine Zeitebene zusammenzuwerfen, wie die Eroberungen Cäsars und Napoleons als synchronisch auffassen zu wollen; das Urslavische hat eine lange und verwickelte Geschichte, und mittels einer relativchronologischen Analyse ist die vergleichende Sprachwissenschaft imstande, sie aufzudecken und aufzuzeichnen; die gleichzeitigen sowie die nacheinanderfolgenden Ereignisse müssen in ihrem inneren Zusammenhange untersucht werden, und hinter den Einzel-, bäumen darf man nicht den Wald als Ganzes, die Leitlinien der Entwicklung übersehen. Fortunatov lehnt zwar im Grundsatz die naturalistische Stammbaumtheorie entschieden ab, doch bleiben trotzdem ihre Überreste in seiner sprachhistorischen Forschungsarbeit und eigentlich in der üblichen komparatistischen Praxis überhaupt vorhanden, wogegen Trubetzkoy die Schleichersche sprachgenealogische Auffassung zugunsten der Wellentheorie restlos und konsequent aufgibt; demzufolge betrachtet er die einzelnen slavischen Sprachen in ihrer Anfangsperiode als blosse Mundarten innerhalb des Urslavischen; die Anfänge seiner Differenzierung erklärt er geistreich durch die "Unterschiede im Tempo und in der Richtung der Verbreitung gemeinurslavischer Lautveränderungen" und durch die daraus folgende verschiedenartige Reihenfolge dieser Veränderungen in den einzelnen Dialekten. Das Urslavische als "Subjekt der Evolution" lebt, wie Trubetzkoy überzeugend zeigte, bis zur Schwelle unseres Jahrtausends, als der letzte gemeinslavische Lautwandel, der Verlust der schwachen Halbvokale, sich zu verbreiten anfing.

Es erschienen in den slavistischen Zeitschriften der zwanziger Jahre bloss einzelne, wenn auch ausgezeichnet zusammenfassende Bruchstücke des lautgeschichtlichen Teils der *Vorgeschichte*, und doch darf man sagen, es gebe kaum in der Weltliteratur eine junggrammatische Schilderung der Sprachdynamik, die dermassen ganzheitlich vorgehe. Selbst die offenbaren fremden Einflüsse, wie z. B. die Lehre Meillets von den ursprachlichen Dialekten oder die Gedanken Bremers und Hermanns über die relative Chronologie, sind hier so tief und organisch bis zu den feinsten logischen Folgerungen verarbeitet, dass das Werk eine selten persönliche Prägung behält. Weshalb wurde dieses Buch nie vollendet? Kaum war da ein Zufall, wenn auch mehrere zufällige Hindernisse im Wege standen.

Am Anfang der Arbeit war für Trubetzkoy (ähnlich wie für Fortunatov und Leskien) die indogermanische Erbschaft im Urslavischen das bemerkenswerteste, und Spuren der versunkenen morphologischen Kategorien hier zu suchen blieb stets seine grosse Vorliebe und Kunst (vgl. *Slavia* I, 12 ff. und *ZfslPh* IV, 62 ff.). Doch musste er in Wien die einzelnen slavischen Sprachen und Literaturen vortragen, und seine Lehrpflichten nahm er, der geborene und vollkommene Lehrer, bis zu einer asketischen Opferwilligkeit ernst (vgl. den Nachruf seines besten linguistischen Schülers A. V. Isačenko in der *Slav. Rundsch.* X). Er stellte sich zur Aufgabe, jede dieser Sprachen in ihrer Entwicklungsgeschichte selbständig durchzuprüfen. So bekam in seinen Vorlesungen die Vorgeschichte der slavischen Sprachen ihre gesetzmässige Fortsetzung, die auch auf die prähistorischen Stufen mehrmals ein neues Licht warf und auch für diesen Fragenkreis Ergänzungen und Korrekturen forderte. Auch auf die Entwicklung der einzelnen slavischen Sprachen wendet Trubetzkoy das streng vergleichende Verfahren an; dem Fortunatovschen Gedanken treuer als Fortunatov selbst, betont er bei seiner bahnbrechenden Darstellung der russischen Lautgeschichte (*ZfslPh* I, 287 ff.), die komparatistische Methode spiele hier naturgemäss "eine grössere Rolle als die reinphilologische", und folgerichtig erfasst er die den rechtgläubigen Komparatisten sonderbarerweise entgangene Notwendigkeit, das Altkirchenslavische durch den Vergleich seiner čechischen und bulgarischen Rezension wiederherzustellen. Nur Weniges von diesen durchdachten Studien ist im Drucke erschienen, und erst wenn seine Aufzeichnungen zu den sprachhistorischen Vorlesungen herausgegeben werden, und wenn es uns hoffentlich gelingt, seine zahl- und inhaltreichen linguistischen Briefe (Trubetzkoy's Lieblingsgattung!) zu veröffentlichen, wird die Tiefe, Breite und Originalität seiner Forschungsbeute noch anschaulicher hervortreten.

Einerseits erweiterte sich das Programm der *Vorgeschichte*, andererseits wurde seine Verwirklichung durch literarhistorische Vorlesungen und kulturwissenschaftliche Studien verzögert. Doch waren die einen wie die anderen auch für die Linguistik ergebnisreich. Die Probleme der dichterischen Sprache, in der heimatlichen wissenschaftlichen Tradition mannigfaltig vertreten, von F. E. Korš (einem der ruhmvollen "Moskauer" neben seinen Mitgenossen Fortunatov und Miller) geistvoll gepflegt und von den russischen Wortkünstlern unseres Jahrhunderts praktisch und theoretisch zugespitzt, mündeten um die Revolutionsjahre in der Fassung der jungen Sprach- und Literaturforscher Russlands in ein harmonisches System der streng linguistisch (bzw. semiotisch) fundierten

Poetik (bzw. Ästhetik). Trubetzkoy, den die Fragen der linguistisch geprüften Metrik von Jugend an lockten, näherte sich allmählich den Prinzipien dieser (in den slavischen Ländern heutzutage einflussreichen) "formalistischen Schule", verstand ihre mechanistischen Entgleisungen zu überwinden, zeigte das Schaffen Dostoevskijs in einem ungewohnten, doch für die Dichtung als solche massgebenden, rein linguistischen Aspekt und legte vor allem die Grundsteine zur Untersuchung der alt-russischen Wortkunst, – eine Tat, die nicht nur eine unbekannte Welt eigenartiger und erhabener Kunstwerte wissenschaftlich entdeckt, sondern zugleich die methodologisch wichtige Frage der Werthierarchien im allgemeinen aufrollt. Die kulturwissenschaftlichen Skizzen Trubetzkoy's brachten ihm die Problematik der Schriftsprache nah und bereicherten die Sprachwissenschaft durch seine schöne Studie über die Rolle des Kirchenslavischen für das Russische, eine der glänzendsten Leistungen des Gelehrten, die für das Problem des hybriden Sprachbaus von grund-sätzlicher Bedeutung ist und in der Frage der Radiationszone des cyrilli-schen Alphabets sich geradezu als prophetisch erwies (s. *K probleme russkogo samopoznanija*). Für die schöpferische Entwicklung Trubetzkoys waren die Gebiete der Wortkunst und der Sprachkultur besonders dadurch wichtig, dass sie ihn unmittelbar vor die Fragen des synchronischen Systems und der Zielstrebigkeit stellten.

Je mehr sich der Forscher mit der Lautgeschichte befasste, desto klarer sah er ein, dass "die Lautentwicklung wie jede andere historische Entwicklung ihre innere Logik besitzt, die zu erfassen die Aufgabe des Lauthistorikers ist", doch letzten Endes trat das teleologische Prinzip in einen unversöhnlichen Konflikt mit der herkömmlich naturalistischen Behandlung der lautlichen Geschehnisse. Die *Vorgeschichte* wuchs in die Vereinung ihrer eigenen Grundlage um. Trubetzkoy war durch und durch historisch eingestellt, und solange das Problem des Phonems und der Phonemsysteme sich auf die Synchronie beschränkte, liess es ihn, wie ehemals auch Fortunatov und seine Schüler, kühl und passiv. Die Lehren Saussure's, Baudouin de Courtenay's und Ščerba's lagen ausser-halb seiner Problematik, da sie "sich einfach von der Sprachgeschichte abwandten". Er billigte zwar (*Slavia* II, 1923, 452 ff.; *BSL* XXVI, 3, 1925, 277 ff.) meinen Versuch einer phonologischen Prosodie, gleich wie die Untersuchung N. F. Jakovlev's über den kabardinischen Phonembestand, aber einzig die Frage der panchronischen prosodischen Gesetze lässt eine Spur in seiner eigenen Arbeit. Erst als das phonologische Problem auf das Gebiet der Sprachgeschichte übergeht und ihn Ende 1926 ein aufgeregter langer Brief erreicht, der die Frage aufwarf, ob es nicht

geeignet wäre, die naturwidrige Kluft zwischen der synchronischen Analyse des phonologischen System einerseits und der "historischen Phonetik" andererseits dadurch zu überbrücken, dass jeder Lautwandel als ein zweckbedingtes Ereignis unter dem Gesichtspunkt des gesamten Systems untersucht werden soll, bringt diese Frage den Empfänger, nach seinem eigenen Ausdruck, aus dem Konzept. Er gesteht bald zu, es gebe hier keinen Mittelweg. Und als Trubetzkoy meine Thesen für den Haager Linguistenkongress (Korrelationsbegriff, allgemeine Solidaritäts-gesetze, historische Phonologie) zugesandt bekam, schrieb er, er füge gern auch seine Unterschrift hinzu, bezweifle aber, dass die Fragestellung verstanden wird. Indessen erwies es sich im Haag, dass in der jungen Linguistik verschiedener Länder ein unabhängiges und doch konvergentes Streben nach einer strukturalen Auffassung der sprachlichen Sychronie und Diachronie losbricht; das wirkte freudig ermunternd, und wenige Monate später schrieb Trubetzkoy, er habe in den Sommerferien unter anderm über Vokalsysteme nachgedacht, zirka vierzig aus dem Gedächt-nis untersucht und manches Unerwartete habe sich dabei herausgestellt. Es war *in nuce* die Untersuchung "Zur allgemeinen Theorie der phonolo-gischen Vokalsysteme" (*TCLP* I, 1929, 39 ff.). Man vermutete zwar schon, das phonologische System wäre keine mechanische "Und-Verbindung", sondern eine geordnete gesetzmässige Gestalteinheit, aber erst er baute einen wesentlichen Abschnitt dieser Systemlehre konkret auf. Er zeigte, dass die Vielheit der Vokalsysteme auf eine beschränkte Anzahl sym-metrischer, durch einfache Gesetze bestimmter Modelle hinausläuft, und stellte ihre Typologie fest. Karl Bühler sagt mit Recht, Trubetzkoy habe "fur die Vokalphoneme einen Systemgedanken vorgelegt, der an Trag-weite und einleuchtender Einfachheit dem Systemgedanken seines Landsmannes, des Chemikers Mendeleev, gewachsen sein dürfte".

Im Geiste eines wirklichen kollektiven Schaffens, in dem Trubetzkoy eine russische Erbschaft sah, wurde dann an der neuen Disziplin gearbei-tet. Er pflegte unsere Zusammenarbeit mit einem Staffellauf zu vergleichen. Bald erhielt dieser Aufbau eine noch breitere Grundlage – die gemein-samen Anstrengungen des Prager linguistischen Cercle. "Die verschiede-nen Entwicklungsstufen des Cercle, – schreibt Trubetzkoy, – die ich mit ihm gemeinsam erlebte, tauchen in meinem Gedächtnis auf – erst die bescheidenen Versammlungen beim Vorsitzenden (V. Mathesius), dann die heroische Zeit der Vorbereitungen zum ersten Slavistenkongress, die unvergesslichen Tage der Prager phonologischen Konferenz und viele andere schöne Tage, die ich in der Gesellschaft meiner Prager Freunde erlebt habe. Alle diese Erinnerungen sind in meinem Bewusstsein mit

einem seltsamen erregenden Gefühl verbunden, denn bei jeder Berührung mit dem Prager Cercle erlebte ich einen neuen Aufschwung der schöpferischen Freude, die bei meiner einsamen Arbeit fern von Prag immer wieder sinkt. Diese Belebung und Anregung zum geistigen Schaffen ist eine Äusserung des Geistes, welcher unserer Vereinigung eigen ist und aus der kollektiven Arbeit der befreundeten Forscher entsteht, die in einer gemeinsamen methodologischen Richtung gehen und von gleichen theoretischen Gedanken bewegt sind." Hier möchten wir aber vor allem den massgebenden persönlichen Beitrag Trubetzkoys in knappen Worten zum Gedächtnis bringen.

Glücklich verband er den Korrelationsbegriff mit der Lehre Saussure's über die phonologische Gegenüberstellung eines Vorhandenseins und Nichtvorhandenseins und entwickelte mit Martinet den damit eng zusammenhängenden Begriff der Oppositionsaufhebung (*TCLP* VI); Jakovlevs treffenden Anregungen folgend, vollbrachte er eine scharfe Analyse aller konsonantischen Korrelationen (*TCLP* IV) und baute eine tragfähige Systematik der Grenzsignale auf (*Proceedings* II); er machte den ersten, tastenden Versuch einer Einteilung der phonologischen Oppositionen (*Journ. de Psych.* XXXIII); er besprach eingehend die Technik der phonologischen Sprachbeschreibungen (*Anleitung zu phonologischen Beschreibungen*, 1935) und gab einige mustergültige Beispiele: das Konsonantenverzeichnis der ostkaukasischen Sprachen (*Caucasica* VIII), die Morphonologie des Russischen (*TCLP* V, 2) und die erschöpfenden Monographien über das Polabische (*Sitzb. Ak Wiss. Wien, phil-hist. Kl.*, CCXI, Abh. 4) und das Altkirchenslavische. Zur letzteren sind bisher nur die Vorstudien veröffentlicht, aber hoffentlich erscheint bald auch das beinahe fertiggeschriebene Handbuch.[1] Es ist interessant, dass die beiden Monographien tote Sprachen behandeln, deren Phonembestand erst durch eine sorgfältige Analyse des Schriftsystems in seinem Verhältnis zum phonologischen System festgestellt wird, und auch in diesem Sinne sind die beiden Arbeiten wirkliche Meisterstücke, die die Fortunatovsche Tradition fortsetzen und würdig krönen: das Problem der Wechselseitigkeit zweier autonomen Systeme – der Schriftnorm und der Lautnorm lockte stets die Aufmerksamkeit der Moskauer Schule; die polabische Spielart dieses Problems fesselte schon Porzeziński sowie Ščepkin, und Trubetzkoy beabsichtigte, seine *Polabischen Studien* dem Andenken des ersten zu widmen; der altkirchen-

---

[1] [Trubetzkoys *Altkirchenslavische Grammatik* erschien in den *Sitzb. Ak. Wiss. Wien, phil.-hist. Kl.*, CCXXVIII, Abh. 4 (1954).] Die Bibliographie der gesamten veröffentlichten Schriften Trubetzkoy's ist in *TCLP* VIII gedruckt.

slavischen Schrift und Orthographie gelten die feinsten Beobachtungen Fortunatov's und in der neueren Zeit die ursprünglichsten Erwägungen Durnovos, an die Trubetzkoy anknüpft; "Alphabet und Lautsystem" wird ihm zum Ausgangspunkt seiner phonologischen Forschung, und er glaubt, eine autonome Graphemenlehre nach dem Vorbild der Phonemenlehre entstehen zu sehen (*Slovo a Slovesnost* I, 133).

Die Phonologie der beiden toten Sprachen ist zwar bei Trubetzkoy streng synchronisch gefasst, doch die Projektion des statischen Querschnittes in die Vergangenheit ist für ihn offenkundig eine Vorstufe der diachronischen Forschung. Als Anthithese der historischen Phonetik, welche die erste Etappe seines Schaffens beherrschte, trat in der weiteren Etappe die synchronische Phonologie ein, die Diachronie wurde von jetzt an nur in zwei episodischen Beiträgen angetastet (*Festschrift Miletič* 1933, 267 ff. und *Księga referatów* des II. Slavistenkongresses 1934, 133 ff.), und doch bleibt die Lautgeschichte die verborgene Triebkraft seines Suchens, und Trubetzkoy strebt zur historischen Phonologie als dialektischer Synthese. Er weiss, wie grosse und grundsätzlich neue Aufgaben hier den Forscher erwarten, wie eingehend das Rekonstruktionsverfahren sich ändern muss, wie viele Überraschungen der weitere Fortschritt der phonologischen Geographie, bes. ein entsprechender Weltaltlas, beibringen kann, und wie selbst das Problem einer Ursprache, beispielsweise des Urindogermanischen, in einem wesentlich neuen Lichte hervortritt (vgl. *Acta Ling.* I, 81 ff.). In seinem Handbuch des Altkirchenslavischen versucht Trubetzkoy, die methodologische Erfahrung der Phonologie auch auf das Gebiet der Formenlehre zu erweitern (ausser dem Kasuskapitel hielt er diesen Teil des Werkes im grossen und ganzen für fertig). Der systematische Aufbau der strukturalen Morphologie, besonders einer Typologie der morphologischen Systeme kommt für ihn an die Reihe, sowie die gleichlaufende (in *Mélanges Bally*, 75 ff. angedeutete) syntaktische Problematik. Und endlich schwebte ihm eine strukturale Betrachtung des Wortschatzes als eines gesetzmässigen Systems immer deutlicher vor (vgl. *TCLP* I, 26 f.).

Doch das alles zu verwirklichen war ihm leider nicht mehr vergönnt, und er ahnte es. Unermüdlich schrieb er, mit dem Tode im Herze, an den *Grundzügen der Phonologie* (*TCLP* VII), seinem herrlichen Synthesebuch, das er als den Etappeabschluss betrachtete und als eine fördernde Grundlage zu den sich immer mehrenden phonologischen Sprachbeschreibungen sowie zu einer weiteren sachlichen, fruchtbaren theoretischen Diskussion.

"Die Lebensfrist ist schon kurz, – schrieb einst *Sergej Trubetzkoy*, – und man muss sich beeilen, alles, was noch möglich, aus der geistigen Ernte einzuheimsen, – nur dass es nicht zu spät sei." – "Dieses Vorgefühl täuschte leider nicht, – fügt sein Bruder hinzu, – das Herz hielt nicht aus *** und er verschied in der vollen Blüte seiner Kräfte *** Vor Entrüstung und Schmerz um der Anderen willen verschmachtete er und starb." Das tragische Schicksal des Vaters wiederholte sich buchstäblich. Der Mensch, der das Zeitalter rühmte, in dem die gesamte Wissenschaft die atomisierende Weltauffasung durch den Strukturalismus zu ersetzen suchte, und der zu seinen grössten und wackersten Vorkämpfern gehörte, scheute in seinem bewegten Leben einzig die seelenlose Vertilgung der Geisteswerte.

Geschrieben in Charlottenlund (Dänemark), Juni 1939, und veröffentlicht in *Acta Linguistica*, I (1939).

SERGEJ KARCEVSKIJ

August 28, 1884 – November 7, 1955

The Linguistic Circle of Prague was founded in 1926, and when, two years later, its founders grew into a tightly knit team, they worked on the preparation of the first two volumes of the *Travaux du Cercle*, both dedicated to the First International Congress of Slavic Philologists, invited to Prague in 1929. Each of the collaborators was expected to make a novel contribution to some of the crucial problems of linguistic theory. Sergej Karcevskij (*alias* Serge Karcevski), one of the first promoters of the Circle, teemed with new ideas but failed to meet the last deadline for the presentation of his paper, and I can still see him frenziedly improvising this essay in a snug little Prague café. The succinct product of this swift endeavor was perhaps one of the most illuminating of his theoretic studies. Far from being sketchy, it was a ripe fragment of that fundamental book of synthesis, fostered in his mind but never achieved.

In point of fact, each of Karcevskij's publications was conceived by him only as a kind of preview of this ultimate performance – the Book in which he believed to the last days of his life. Everything that he wrote had been fully weened in his mind, and his chiseled formulations, either in Russian or, perhaps even more, in French, reveal a most enlightening resolution of the problems tackled. Also when some aspects of these questions received merely a cursory glance, the attentive reader knew that they had been not less probed in the author's mind.

In his essay published in the first volume of the *Travaux du Cercle linguistique de Prague* under the eloquent title "Du dualisme asymétrique du signe linguistique", Karcevskij deals with the oscillation of language between two poles, definable as the *general* and the *particular*, the *abstract* and the *concrete*, the *social* and the *individual*, the *stable* and the *mobile*. To him, the form (*signans*) and function (*signatum*) of a verbal sign "se trouvent dans un état d'équilibre instable" gravitating, the former to homonymy and the latter toward synonymy, and he claimed that it is in this very play between the two "que réside la *vie* de la langue".

There is no doubt as to who initiated the author into the puzzles of linguistic antinomies. Born in the Siberian city of Tobolsk, the young Sergej Karcevskij emigrated in 1907 to Geneva, where he studied linguistics under Ferdinand de Saussure, Charles Bally, and Albert Sechehaye. He was torn by two rival talents, creative writing and scholarship, and his first stories printed in Russian periodicals were a success and elicited the approbation of Maxim Gorkij. The fascination of Saussure and his school, however, won him over completely to linguistics, but throughout his life his approach to language, and the style in which he wrote about it, carried the artist's stamp. Karcevskij became an apostle of the Saussurian school. He was the first who in 1917–1919, during his shortlived return to Russia, fired the young generation of Moscow linguists with the *Cours de linguistique générale* and applied its precepts to the study of contemporary Russian.

Saussure's lectures, Bally's and Sechehaye's training, the subsequent discussions in the Moscow Dialectological Commission of the Russian Academy of Sciences with the progeny of Fortunatov's school,[1] and especially a longer collaboration with the master of Russian syntax, A. Peškovskij, then the guidance of Antoine Meillet during the young scholar's lectureship in Strasbourg (1920–1922) and, in the late twenties, when teaching in Prague, his ever closer contact with the rising Prague Circle, in particular with its Russian linguists – all this influenced the research of Karcevskij until 1927 when he received his doctorate from the University of Geneva. He taught there until 1954, first as privat-docent and finally as professor.

Whatever new stimuli Karcevskij may have encountered after his Geneva studies, the fundamentals of his life work never changed. He sought an ever more precise and explicit presentation of the "idées générales sur le langage, tel qu'il est vu à travers notre langue maternelle", and, like his first and greatest teacher, he was never content to stop at the stage attained, so that a life-long meditated keywork on general linguistics was never written – neither by master nor by disciple. Karcevskij left, however, precious preliminaries to this *summa linguistica:* a few articles aimed directly at questions of general linguistics and a higher number of longer studies describing Russian primarily, but with consistent reference to linguistic theory. Two books are particularly important: *Système du verbe russe* (Prague, 1927) and *Povtoritel'nyj kurs russkogo jazyka* (Moscow, 1928), characterized by the author as "an elementary intro-

---

[1] Cf. his polemic article "O formal'no-grammatičeskom napravlenii", *Russkaja Škola za Rubežom*, Nr. 12 (1925).

duction to the science of language, based uniquely on the mother tongue".

Nurtured on Saussure's ideas of synchronic linguistics, Karcevskij rigorously circumscribed his scope of observation to his native tongue: contemporary, urban Russian. Material from other languages is only incidental in his studies, and even his book reviews deal almost uniquely with investigations of modern Russian. "In my work I am a man of one love – he used to say – and this love is the Russian language." Any scission between the linguistic explorer and the native informant was profoundly alien to this scholar. The negative side of such a self-imposed limitation was the excessive influence of the Russian language pattern on Karcevskij's approach to some problems of general linguistics. But for the language under observation, this ascetic limitation guaranteed the highest accuracy and thoroughness of analysis. Karcevskij was the first linguist of the Saussurian trend to attempt a systematic description of such a typically "grammatical" language as Russian; the earlier research of this school was concentrated on the more "lexicological", occidental languages.[2] This circumstance necessitated the search for new analytic and descriptive devices, and modern linguistics owes to Karcevskij more than one illuminating discovery.

His gradual dissolution of Russian speech from its amplest to its minutest constituents enabled him to outline several cardinal processes and to discern their semantic values. His grasp of intonations in their relation to syntactic structure, and to the various roles of the utterance within the dialogue, surpasses the limits of Russian philology and has influenced the theory and concrete study of intonation in international science.[3] Linguistics will respond to his appeal to pursue the pivotal inquiry into the structure of the dialogue as the primary form of discourse.

None of the experts in syntax would ever by-pass Karcevskij's classification of elementary combinations (Saussure's *syntagmes*). Meillet was right in considering Karcevskij's analysis of Russian verbal categories a remarkable achievement[4] and, as V. Vinogradov points out, it is this work on the system of the Russian verb that gave such an impetus to investigations of verbal derivation.[5] His remarks on Russian nominal

[2]   Cf. F. de Saussure, *Cours de linguistique générale*, Ch. VI, § 3.
[3]   See particularly his papers "Sur la phonologie de la phrase", *TCLP*, IV (1931), and "Phrase et proposition", *Mélanges J. van Ginneken* (1937).
[4]   *BSLP*, XXVIII (1928), p. 44.
[5]   V. Vinogradov, *Izučenie russkogo literaturnogo jazyka za poslednee desjatiletie v SSSR* (Moscow, Akademija Nauk SSSR, 1955), p. 19; see Karcevskij's *Système du verbe russe* (1927), and "Remarques sur la psychologie des aspects en russe", *Mélanges Ch. Bally* (1939).

derivation are no less stimulating.[6] Karcevskij actively participated
in the initiatory Prague discussions on the phonemic level of language
and was particularly concerned with the relation between the phonemic
and graphic pattern.[7] The experienced teacher competed in Karcevskij
with the inquisitive analyst, and several noteworthy Russian essays were
devoted by him to pedagogical questions concerning his mother tongue
and language in general.

The theory of linguistic antinomies was due to Saussure's doctrine;
Karcevskij's thought, however, shows a significant shift in emphasis.
Strikingly enough, in epigraphs to his studies he draws upon the synthe-
sizing spirit of German classical tradition. He is much less concerned
with opposites in themselves than – as he echoes Goethe – "das geistige
Band". He goes back to Kant in his reaffirmation that "Begriffe ohne
Anschauungen sind leer, Anschauungen ohne Begriffe sind blind".
Nothing was more innate to Karcevskij's spirit than asymmetrical dual-
ism, the unceasing dramatic conflict of opposites. It is exactly like him
to say: "Or ce qu'il y a de véritablement nouveau, c'est leur rapport,
leur croisement, et non les coordonnées elles-mêmes."

Determined to cope with static linguistics as preached by his teacher, he
focusses upon the verb as the most dynamic among the parts of speech and,
moreover, upon the most dynamic factor in the life of language, namely
the *productivity* of grammatical categories.[8] Of all morphological pro-
cesses, the least predictable, that of derivation, enthralls him. In the
description of the present stage of Russian, neology and other innovations
repeatedly draw his attention.[9] The intersection of morphology and
syntax attracts him to the captivating problem of the common semantic
value of preverbs and corresponding prepositions, and the interplay of
two rival aspects of language, the cognitive and the emotive, inspires
his ingenious insight into interjections and especially into the curious
link between them and conjunctions.[10]

One may repeat about Karcevskij what he himself stated when analyzing
the Russian perfective present: "Pour lui, le passé et l'avenir se rejoignent

---

[6] "De la structure du substantif russe", *Charisteria G. Mathesio* (1932).

[7] Cf. his articles "Remarques sur la phonologie du russe", *Cahiers Ferdinand de Saus-
sure*, III (1943), and "Sur la rationalisation de l'orthographe russe", *Belićev zbornik*
(1937).

[8] Cf. particularly his study "Autour d'un problème de morphologie", *Annales
Academiae Scientiarum Fennicae*, B XXVII (1932).

[9] Cf., for instance, his *Jazyk, vojna i revoljucija* (Berlin, 1923).

[10] Cf. his "Introduction à l'étude de l'interjection", *CFS*, I (1941).

facilement."[11] And thus, when returning to his work, which at present belongs to the past, "on empiète sur l'avenir".

Written in Nassau, Bahama Isls., January 1956, for the *Cahiers Ferdinand de Saussure*, XIV.

[11] *Mélanges Bally*, p. 248.

EFFORTS TOWARD A MEANS-ENDS MODEL
OF LANGUAGE IN INTERWAR CONTINENTAL
LINGUISTICS

When a few linguists connected with the Prague Circle came, in 1928, to the Hague International Congress, with the drafts of their replies to the fundamental questions proposed by the Congress committee, all of them felt that their deviations from traditional dogma would remain isolated and perhaps severely opposed. Meantime both in the formal and even more in the private discussions at the First Congress of Linguists, there proved to be partisans of similar views and paths among the younger scholars from different countries. Students, pioneering solitarily and at their own risk, discovered to their great surprise that they were fighters for a common cause.

A young, informal organization of researchers concerned with theoretical problems, the Prague Linguistic Circle became a nucleus of the new trend. This team presented to the First International Congress of Slavists (Prague, 1929) a detailed program of crucial propositions in linguistic theory and practice and supported it with the first two volumes of the *Travaux du Cercle Linguistique de Prague*, a series which continued until 1939 and played a considerable role in international scholarly pursuit. In 1930, the Circle convoked the International Phonological Conference of Prague, where the basic principles of the new approach to language and especially to its sound pattern were vividly and intensely discussed.

Since those years, the label "Prague School" has become current in the linguistic world. No doubt the Prague Circle took an important part in the international efforts toward a thoroughly scientific linguistic methodology, and the Czech cultural tradition and its growth in the twenties and thirties actually favored such an initiative. When we look at the interwar period *sub specie historiae*, we find, however, that what was often taken for Prague's specific contribution to the development of modern linguistics appears to a high degree to have been a common denominator of several convergent currents in the scholarly life of various

European countries at that time. Typical of the Prague ambiance in the 1920's and '30's was its receptivity to the diverse cultural impulses from West and East. The Prague Linguistic Circle, founded by the far-sighted Czech scholar Vilém Mathesius in 1926, was modeled upon an earlier vanguard organization of young Russian inquirers, the Moscow Linguistic Circle, and upon the newly created Linguistic Society of America. The cooperation between scholars of different nations was the pivotal point of the Circle's activities. Thus, for instance, in 1928, the year of its consolidation, among the thirteen papers read in the Circle, five were Czech, one French, and seven Russian; three of these last were by visitors from the Soviet Union: Tomaševskij, Tynjanov, and Vinokur.

When one compares the linguistic creeds of the Czech, German, or Russian collaborators of the Prague Linguistic Circle – for example, the views of Mathesius, F. Slotty, or N. S. Trubetzkoy, with those which were professed in the same period, e.g., by A. W. de Groot and H. Pos in Holland, E. Benveniste and L. Tesnière in France, A. Sommerfelt in Norway, V. Brøndal and L. Hjelmslev in Denmark, J. Kuryłowicz in Poland, A. Rosetti in Rumania, Z. Gombocz and Gy. Laziczius in Hungary, E. D. Polivanov and D. V. Bubrix in Russia, or, on the other hemisphere, E. Sapir and B. L. Whorf, it would be easy to find individual features characterizing the contribution of each of these outstanding innovators, but we could hardly find a unifying pattern for the Prague group which would distinguish it as a whole from the other scholars mentioned above. At the same time, there is a typical drift which unites the work of all these explorers and strictly distinguishes them both from older tradition and from some different doctrines which found their outspoken expression likewise in the '30's.

The title of this paper defines this common drift as aiming toward a means-ends model of language. These efforts proceed from a universally recognized view of language as a tool of communication. Statements about language as a tool, instrument, vehicle, etc., can be found in any textbook, but, strange as it seems, the apparently self-evident inference from this truism was not drawn in the linguistic tradition of the last century. Thus the elemental demand to analyze all the instrumentalities of language from the standpoint of the tasks they perform emerged as a daring innovation. The prolonged neglect of any inquiry into the means-ends relationship in language – a neglect which still survives in some academic biases – finds its historical explanation in the inveterate fear of problems connected with goal-directedness. Therefore questions of genesis outweighed those of orientation, search for prerequisites supplanted the examination of aims.

The study of sound production with reference to its acoustic effects and the analysis of speech sounds with consistent regard for the various tasks they perform in language were among the first achievements in the systematic build-up of the means-ends model of language. It would be mistaken, of course, to deny the precursory hints to these problems in the thought of single linguists from earlier periods, and an end-directed attitude to sound analysis can be traced, as it has been shown, to Baudouin de Courtenay, Kruszewski, Winteler, and Sweet; but none of these scholars had actually developed the principles and technique of such an analysis, because all of them were still dominated by the genetic schooling of their century.

It was precisely the reference to the tasks performed by the phonic elements of language which enabled the investigators to replace step by step the grossly material, metrical description of speech sounds by a relational analysis and to dissolve the sound-flow continuum into discrete constituents. The same strictly relational attitude was applied also in morphologic and syntactic inquiry and essentially changed and simplified our design of the grammatical system – revealed its internal logic. Since relativity, as is known, is indissolubly linked with the principle of invariance, a systematic search for phonological and grammatical invariants became the fundamental device of linguistic analysis. The ever higher focusing upon the tasks fulfilled by sound elements revealed an intimate connection between the differentiation of grammatical constituents and categories and the stratification of the sound pattern used to express them.

The emphasis on the duality of any verbal sign, taken over by F. de Saussure from Stoic and Scholastic tradition, necessarily brought new results when the relation between the two aspects of the sign, its *signans* and *signatum*, was consistently revised from the means-ends angle, and the two Saussurian "basic principles" – the arbitrariness of the sign and the linearity of the *signans* – proved to be illusory.

In the study of the two basic linguistic operations – selection and combination, or, in other terms, the paradigmatic and syntagmatic aspects of language – it is the paradigmatic aspect that was particularly elucidated in the work on the means-ends model. The selection of units or of their combinations is a purposive operation, in contradistinction to those purely redundant combinations which admit no selection. The problem of a careful discrimination between autonomous and combinatory variants was successfully attacked on both the phonological and grammatical levels. One of the most intricate networks, the strikingly hierarchic

make-up of the paradigmatic pattern, was subjected to penetrating scrutiny, particularly in the research of Kuryłowicz. The consistent concern with meaning, a true yield of the entire trend, and the systematic analysis of grammatical meanings with a rigorous distinction between general and contextual meanings demanded a similar exploration of lexical meanings, and the imperative need to treat vocabulary as "a complex system of words mutually coordinated and opposed to each other" was comprehensively advocated by Trubetzkoy at the First Congress of Slavists.

In the "Thèses" inaugurating the first volume of the *Travaux* and in later deliberations the Prague Circle, insisting on purposiveness in language, outlined an inquiry into languages of diverse functions and paid due attention to their different patterning. In this study of the various linguistic aims, the poetic function obtained the most fruitful treatment. The sense for the multifarious character of language saved the Prague group from an oversimplified, bluntly unitarian view; language was seen as *a system of systems* and especially Mathesius' papers on intralingual coexistence of distinct phonemic patterns opened new outlooks.

The regard for the various "functional dialects", or, in other words, the different styles of language radically altered the view of linguistic change. The two stages of a change in progress were reinterpreted as two simultaneous styles of language; the change was conceived as a fact of linguistic synchrony, and as any fact of synchrony it demanded a means-ends test with respect to the whole system of language. Thus historical linguistics experienced a complete metamorphosis. If in the previous stage of Indo-European studies, as Benveniste stated in 1935, "l'effort, considérable et méritoire, qui a été employé à la description des formes n'a été suivi d'aucune tentative sérieuse pour les interpréter", henceforth, he pointed out, it would be necessary to consider the reconstructed language no longer as a repertory of immutable symbols but "comme une langue en devenir", and, furthermore, to envisage the functions of the elements involved.

The role of comparison in linguistics became vastly expanded and diversified when the traditional preoccupation with the inherited communalities (*Sprachfamilien*) was supplemented by a vivid concern with the affinities acquired (*Sprachbünde*, in Trubetzkoy's coinage), and thus time and space found their intrinsic place in the means-ends model of language. Finally, the third and most far-reaching form of comparison, the typological one, leading to the introduction of universals into the

model of language, was sketched in the '20's as the final goal of that international trend in linguistics which was christened by the Prague Circle in 1929 "functional and structural analysis".

If that label, however, is avoided in our survey, this is only because during the last decades the terms "structure" and "function" have become the most equivocal and stereotyped words in the science of language. In particular, the homonyms *function* 'role, task' – viewed from the means-ends angle – and *function* as correspondence between two mathematical variables, are often used promiscuously, and as Lalande's *Philosophical Dictionary* justly warns, "there is here a source of confusion which makes certain pages of our time scarcely intelligible."

The *Sturm und Drang* through which linguistics, as so many other fields of knowledge, passed in the interwar years has given place to the large-scale work of our time on the foundations of a far-ranging and exact science of language. It is a joint and responsible labor in which the former differences between workshops of single countries or even single continents step by step lose their pertinence. Likewise many recent sectarian discussions between separate schools suddenly give the impression of belonging to a remote past. Among the models of language which play an ever greater part in contemporary linguistics, pure or applied, questions of the means-ends model gain a new level and relevance.

Written in 1962 for *Trends in Modern Linguistics* (Utrecht-Antwerp, 1963).

AN EXAMPLE OF MIGRATORY TERMS AND
INSTITUTIONAL MODELS

(On the fiftieth anniversary of the Moscow Linguistic Circle)

The *Deutsches Wörterbuch* by J. and W. Grimm testifies: "Aufs leben
übertragen *familienkreis, gesellschaftskreis, freundeskreis* u.ä. wie lat.
circulus, frz. *cercle*, immer noch mit dem begriffe einer bleibend oder für
den augenblick 'abgeschlossenen', andere 'ausschliessenden' zahl, in
deren 'mitte' man sich denkt oder frei bewegt, in der man durch seinen
'austritt' eine 'lücke' lässt *** Mit einer an sich wunderlichen unter-
scheidung der gleichbed. *zirkel* und *kreis*, jenes, das vornehme, weil
franz.-lat. wort von der höheren gesellschaft gebraucht; niemand wird
wohl vom *häuslichen* oder *freundeszirkel* reden, aber *höhere zirkel* ist ganz
geläufig*** Aber bei kunst und wissenschaft tritt wieder *kreis* ein und ist
zirkel unmöglich" (V, Leipzig 1873, col. 2148). "KREISCHEN ***
kleiner kreis: *den sogenannten weltleuten suchte ich nun abzupassen ***
worum sich ihre ideen drehen *** und wo ihr kreischen sich zuschliesst*"
(quotation from Göthe's letter; ibid., col. 2153). Close philosophical
groups have been frequently designated by such labels; cf. the term
Wiener Kreis now of international currency.

   In the early nineteenth century Russian intellectuals, stimulated by the
intensive cultural life of their Western contemporaries, supplied the Ger-
man term *Kreis* with a native equivalent – *krug*, literally 'geometrical
circle' and figuratively 'association, gathering, assembly'; in particular
the diminutive *kružok*, plur. *kružki*, became widely used. H. Koenig's
Literarische Bilder aus Russland (Stuttgart and Tübingen 1837), based
chiefly on testimonies of N. A. Mel'gunov, who took active part in the
Moscow philosophical circle (*kružok ljubomudrov*) of the 1820's, pointed
out: "Die deutsche Philosophie ist weit früher, als in Frankreich und
England, wo es heute noch am rechten Sinn für dieselbe fehlt, in Russland
bekannt geworden" (p. 171). The author notes that in the twenties
German thought, and in particular the Schellingian doctrine, enjoyed an
extraordinary influence among the young Russian generation, while the
first acquaintance with his system had been made in Moscow University

even earlier and Kantian philosophy had been taught there since the end of the eighteenth century: "Aber nicht bloss in Verbreitung des deutschen Geschmacks und deutscher Richtungen unterscheidet sich die junge Generation von der früheren; sie will noch viel mehr – ein tieferes Eindringen, ein philosophiches Ergründen jener Richtungen des deutsches Geistes" (p. 172f.).

It was precisely during the twenties and thirties that the *kružki* assumed an outstanding role in Russia's philosophical and literary life. Their growing significance was carefully documented in the monograph by M. Aronson and S. Rejser, *Literaturnye kružki i salony* (Leningrad 1929). Although the members of such novel fellowships fully realized and stated their dynamic, creative and flexible character in comparison with the rigidly ordered and conventional academic societies, throughout the twenties they frequently applied the traditional labels *obščestvo* 'society' and *sobranie* 'assembly' also to their own pioneering teams. However, their discriminative designation *kružki* already figured in the reports of outside observers. Thus, for instance, on July 20, 1826, A. C. Benckendorff, the notorious chief of gendarmes, was notified by his regular informer M. J. von Fock that the reasons for the Decembrists' revolt were still being vividly discussed "vo mnogix kružkax" (in many *kružki*) of Saint Petersburg.

The seething, varied Russian intellectual life of the thirties, with its new trends in philosophy, ideology, science and literature, was concentrated primarily in the divers *kružki* famed for their influence and mutual disputes. Their appellation – *kružok* – and their structural foundation became quite standardized. Each of them met in the home or study of its initiators and attempted to maintain an informal atmosphere; each included but a limited number of active, mainly young and identically oriented, participants; each favored discussion and was patently opposed to ready-made authoritative doctrines; each tended to promote some collective tasks.

Although in the late nineteenth century the role of *kružki* in Russian cultural development became for various intrinsic and extrinsic reasons incomparably weaker, nonetheless the crystallized concept and name of

[1] In the *Trudy Moskoskogo Numizmatičeskogo Obščestva*, I (1893), p. 3ff., V. K. Trutovskij presented an instructive illustration to the comparative semantics of the terms *kružok* and *obščestvo*. In the early 1880's, the initiative of the noted Moscow numismatist, A. V. Orešnikov, brought into existence an organization called *Moskovksij kružok numizmatov* with meetings held in the homes of its members for private, informal debates. Somewhat later these gatherings were transferred to the quarters of the Imperial Archeological Society and became more official in character; the first regular

kružok never vanished.[1] Wherever a young group struggled jointly for some new trends and ideas, the inherited behavioral pattern and its designation *kružok* were applied again and again. Thus, for instance, during the late seventies and early eighties, at the home of Baudouin de Courtenay in Kazan' the so-called *lingvističeskij kružok* of his students and collaborators used to meet every Saturday evening to exchange communications and opinions; this gave rise to the "Kazan' linguistic school", according to the memoirs of V. Bogorodickij, an outstanding member of this group (*Prace Filologiczne*, XV-2, p. 466). The designation *Kazanskij lingvističeskij kružok* actually appears in Baudouin's and Kruszewski's writings.[2]

In connection with language study the term *kružok* entered into Hungarian, when in the late nineteenth century a noted German philologist in Budapest, Joseph Budenz, took Russian lessons from an employee of Russia's general consulate. The instructor called the regular, informal tavern meetings with his pupil and the latter's colleagues their *kružok*; weekly gatherings for drinks and free scientific discussions became customary among the Budapest linguists under the old label *Kruzsok*. Both this custom and its name have survived until the present and have been adopted by Hungarian scholars of other fiields, as well.

In Russian literary life, "a new wave" of significant *kružki* emerged, as Aronson's monograph states, around the turn of the century. The author cites such typical Symbolist and Acmeist gatherings as the famous Wednesdays in Vjačeslav Ivanov's "Tower", Gumilev's *Guild of Poets*, and finally the theoretical counterpart of the turbulent Futurist displays, *Opojaz*, the Petersburg Society (*Obščestvo*) for the Study of Poetic Language, which arose at a time when youth played a particularly independent, creative, combative and frequently decisive role. Toward the end of 1916 the farsighted O. M. Brik issued the initial pronouncement of this fermenting group, the first *Sbornik po teorii poètičeskogo jazyka*, and a few weeks later, in February 1917, he called B. M. Èjxenbaum, L. P.

---

address was presented in 1885 by I. I. Hornung, and the Circle elected its first president. Voices were raised in favor of changing the *kružok* into a "solidly organized scholarly society", formal statutes were drafted, and after years of bureaucratic delays, in 1888 the ministry of education approved the establishment of the *Moskovskoe Numizmatičeskoe Obščestvo*.

[2]   M. Kruszewski, *Russkij Filologičeskij Vestnik*, VII (1882), p. 136: "Доклад*** был читан в здешнем лингвистическом кружке, у проф. Бодуэна-де-Куртенэ." J. Baudouin de Courtenay, *Žurnal Ministerstva Narodnogo Prosveščenija* CCXLVII (1903), p. 35 ff., repeatedly refers to the activities of the *Kazanskij lingvističeskij kružok* in the late seventies and early eighties and emphasizes "the important role played in the life and original development of the Kazan' linguistic circle by Kruszewski".

Jakubinskij, V. B. Šklovskij, and the present author to a joyous dinner meeting in his flat at which the creation of this new association was decided upon.

Its nearest correlative, *Moskovskij lingvistčeskij kružok* (Moscow Linguistic Circle), was founded in 1915 by Moscow University students concerned with linguistics and folklore. But, as a century earlier, such circles easily attracted the hostile attention of the police, and in order to avoid any annoying complications we approached our favorite teacher, D. N. Ušakov, the moving spirit of the Moscow Dialectological Commission (*MDK*) associated with the Russian Academy of Sciences, and asked him whether our group could not act under the auspices of this Commission. The Dialectological Commission in turn, according to Ušakov's reminiscences, had arisen a decade earlier, in 1904, "from a small circle of young men engaged in the study of Russian. The Academician A. A. Šaxmatov, good genius of young scholars, enabled this circle to become a firmer institution, namely, a commission attached to the Academy's Section of Russian Language and Literature, and suggested that the Academician F. E. Korš be named chairman of the new Commission (*Trudy Moskovskoj Dialektologičeskoj Komissii*, IV/1915, p. 16f.). On Ušakov's benevolent proposal, the program of our Circle, drafted and signed by its seven founders – F. N. Afremov, P. G. Bogatyrev, A. A. Buslaev, R. O. Jakobson, N. F. Jakovlev, S. I. Ragozin, and P. P. Svešnikov – was submitted to the Academy at the end of 1914 by the President of the Dialectological Commission, F. E. Korš, who was kindly disposed to our plans. The answer of the Academy, formulated and signed by Šaxmatov as Secretary of its Section of Russian Language and Literature, authorized us "to form a circle of young linguists (*kružok iz molodyx lingvistov*) affiliated with the Dialectological Commission and having as its aim the study of linguistics, poetics, metrics, and folklore". With Korš's preliminary agreement we intended to elect him our honorary president, but at the opening of the inaugural meeting on March 2, 1915, our *kružok* learned of his death (4.V.1843–1.III.1915) and rose in silent homage to this great and daring investigator of language, verse, and oral tradition. The schedule of activities discussed at that meeting by students of some eighteen or twenty – the seven founders and two further members of the Circle, L. I. Bazilevič and G. G. Dinges – adhered closely to Korš's investigatory precepts: a collective inquiry into the verse and language of the Russian byliny recorded in the eighteenth century (Kirša Danilov's collection), detailed investigation of the Moscow city dialect and folklore, and further development of our teachers' research in Russian linguistic geography.

As the later active member and secretary of this *kružok*, G. I. Vinokur, reported in the *Naučnye Izvestija* of the Academic Center of the Commissariat for Education, II (Moscow, 1922), *MLK* "from the beginning of its activities viewed as its task the elucidation of linguistic problems of both practical and poetic language, as well as questions of folklore and ethnology*** The work of the *kružok* was defined as laboratory research*** The methods of inquiry were elaborated by joint collective research."

During the first years of its activities *MLK* met at the homes of its members and tried to maintain its informal character. In the spring of 1917, shortly after the revolution, *Moskovskij lingvističeskij kružok* became the official name of the group; from 1918 the Circle had its own assembly room and library, and throughout 1919 and 1920 it attracted all the young searchers in linguistics and poetics who worked in Moscow or visited there.

On its fifth anniversary the Circle sent a message of thanks and esteem to Šaxmatov, who answered May 30, 1920, shortly before his untimely death, expressing his deep appreciation of our unanimous scientific efforts under the difficult conditions of the civil war.[3] On this date the Circle counted 34 active and three honorary members – N. N. Durnovo, W. Porzeziński, and D. N. Ušakov.

Numerous communications and debates attempted to elaborate new methods of linguistic analysis with particular reference to the diverse functions of language, and especially to its poetic function. The foundations of a scientific metrics were laid during spirited and fruitful discussions with the active participation of B. V. Tomaševskij, O. M. Brik, S. P. Bobrov, B. I. Jarxo, S. I. Bernštejn, S. M. Bondi, and others. The principles of phonemic analysis, anticipated by B. A. Kušner, who in 1919 delivered a series of intensely debated lectures on "The Elements of Sound" (*Èlementy zvučanija*) in language, poetry, music, and signal systems, were approached in B. V. Hornung's paper on "phonosemantic units" (spring of 1922) and developed by N. F. Jakovlev on the basis of rich, new Caucasian materials, whereas E. D. Polivanov's address of 1920 on problems of convergence and divergence opened new vistas in phonemic diachrony. The Circle aimed at a profitable exchange of views between theoreticians and masters of poetry and offered membership to the poets

---

[3] Приношу глубокую благодарность за приветствие, присланное мне Кружком в день празднования им своего пятилетия. Нынешнее тяжелое время требует от русских людей величайшего напряжения, а оно возможно только при условиях взаимной поддержки.

V. V. Majakovskij, B. L. Pasternak, N. N. Aseev, and O. E. Mandel'štam.
Majakovskij's reading of his newly written epic poem "150.000.000" in the
Circle at the beginning of 1920 was followed by an animated discussion.
The same poet commented on several papers read in *MLK* (Jakobson's
on Xlebnikov's poetic language, Gurskij's on abbreviations in industrial
terminology, Brik's on questions of new poetry). A. E. Kručenyx
lectured in 1921 on supraconscious language (*zaumnyj jazyk*) in poetry, and
a meeting in 1923 opened by Pasternak and Mandel'štam was devoted to
methods suitable for the analysis of poetic language. The Moscow Circle
maintained close relations with *Opojaz*; there were, however, notable
differences in the guiding interests of the two associations; *MLK* placed
much stronger emphasis on linguistics and was inclined to interpret poetry
as language in its aesthetic function.[4] In vehement disputes on linguistic
essentials – phenomenology of language and the strictly empiricist ap-
proach; the place of phonetics and semantics in the science of language;
the problem of the Humboldtian internal form; criteria for the delimita-
tion of poetic and ordinary language; or finally the relation between
language and culture – the Moscow team lost its former unity of purpose
and principles. New institutions, like for instance the State Academy for
the Study of Arts (*GAXN*), attracted the most active workers of *MLK*,
and in the summer of 1924, during the tenth year of its existence, the
Moscow *kružok* was formally dissolved.[5]

[4]   Cf. R. Jakobson and P. Bogatyrev, "Slavjanskaja filologija v Rossii za gg. 1914-
1921", *Slavia*, I (1922), p. 458.
[5]   As to the end of *Opojaz*, its gradual extinction in the late twenties impelled Ju. N.
Tynjanov to compose a telling epitaph:

> Был у вас
> Арзамас,
> Был у нас
> Опояз
> И литература.
> Есть "заказ"
>   Касс,
> Есть "указ"
>   Масс,
> Есть у нас
> Младший класс
> И макулатура.
> Там и тут
> Институт
> И publит,
> И главлит,
> И отдел культурный,
> Но главлит
>   Бдит,

It was in the heated debates of *MLK* that "structural laws" became the catchword of linguistics and poetics, but chiefly because of economic and technical difficulties during the early 1920's, most of the valuable studies connected with the *kružok* unfortunately remained unpublished and were in great part lost; nonetheless, many of their pathbreaking ideas have entered into international circulation, and the pattern of the Moscow association, together with its name, was echoed in the West.[6] The outstanding Czech linguist, V. Mathesius, who since 1920 was familiar with the efforts and accomplishments of the *Moskovskij lingvističeskij kružok*, nourished for several years the idea of a similar Czech experiment. In March of 1925, the tenth anniversary of the Russian model, he discussed this project with his pupil B, Trnka and two Russian linguists: S. Karcevskij and the present author. On October 16 of the following year, the inaugural meeting of the *Pražsky linguistický kroužek* (Prague Linguistic Circle), was held in Mathesius' study at Charles University. The paper "Der europäische Sprachgeist" read by a young German visitor, Henrik Becker, was heard and commented by the first five members of the new-born association (B. Havránek, Jakobson, Mathesius, J. Rypka, Trnka), which attracted also a Hungarian guest, GyulaLaziczius, captivated by the Russian quest for the fundamentals of phonology. This meeting was followed by subsequent monthly, or even more frequent, gatherings – some in the same study, some in the homes of the fellows; later, with the number of participants increasing, the meetings were held in lecture halls of the university and finally in private rooms of Prague cafes in order to reaffirm the independent and unconventional character of the association. Papers delivered by the ancient members of *MLK* and *MDK* (such as P. G. Bogatyrev, S. I. Karcevskij, B. V. Tomaševskij, N. S. Trubetzkoy, Yu. N. Tynjanov, G. I, Vinokur) belong to the top events in the life and scientific growth of the *kroužek*. Following the lines of *MLK*, *PLK* became a meeting ground for young scholars and such leading men of the Czech literary vanguard as V. Nezval, K. Teige, and L. Vančura. In the tradition of *MLK*, where the outstanding philos-

---

И агит
    Сбит;
Это ж всё быт,
    Быт литературный.

[6] As R. M. Cejtlin states in her instructive monograph *Grigorij Osipovič Vinokur* (Moscow, 1965), p. 15, "the typographic output gives no complete insight into the creative atmosphere of the twenties. It was a period when diverse learned societies and searchers' associations became unusually active, and their largely original lectures and debates rather than books and journals determined the scholarly opinions of that epoch."

opher of Husserl's school, G. G. Špet, played an important role, *PLK* in turn invited E. Husserl and R. Carnap for deliberations on the phenomenology and logic of language (1935).

The name of this new fellowship, a loan translation from Russian, was criticized by Bohemists who stressed that in Czech the word *kroužek* was associated not with scholarship but rather with self-education, philanthropy or entertainment. Nevertheless, the term gained complete acceptance and even generated a second-degree diminutive, *kroužeček*, introduced by Mathesius in the 1930's to designate more intimate and limited gatherings of young *PLK* members in his home. Similar criticism arose when the first publications of the *kroužek* appeared in 1929 under the French title *Travaux du Cercle Linguistique de Prague*. While some biased Czech natives disapproved of the use of foreign languages in the Prague periodical, purists of French felt a closer connection of the term *cercle* with companionship, sportsmanship, amusements, or merely literary interests than with science. Cf. Daudet's witty chapter – *Quand Tartarin de Tarascon allait au cercle* – with its culmination: "Là-dessus le brave homme entrait faire son bezique avec le commandant." However, the label *Cercle Linguistique* was not only rapidly accepted as the international name of the *Pražský kroužek* but even became a model for the designation of similar groups elsewhere.

Inspired by the vigorous participation of *PLK* at the International Congress of Linguists in Geneva, Danish linguists founded the *Cercle Linguistique de Copenhague* – in Danish, *Lingvistkredsen* – in September, 1931, again without precedent in the designation of a scientific group by the word *kreds*, and five years later, the *Travaux du Cercle Linguistique de Copenhague* was inaugurated. Active cooperation and mutual discussion linked both Circles. The Prague proposal of issuing a joint journal was accepted and elaborated by V. Brøndal and L. Hjelmslev, but the tragic political events of 1938 forced us to leave the long planned *Acta Linguistica* in the hands of our Danish friends.

Originally conceived as a small, informal group, our *kroužek* was incorporated in 1930 and, according to the first paragraph of its statutes signed by seventeen members, the aim of the association was "to further the progress of linguistic research based on a functionally structural method" (*Zpráva o činnosti Pražského linguistického kroužku za první desitiletí hejo trvání*, Brno 1936). As Mathesius intimated in his majestic decennial survey (*Slovo a slovesnost*, II, 1936, p. 137ff.), any isolationism was alien to the spirit of the Prague *kroužek*; scholarly chauvinism was repudiated by an emphasis on international ties; linguistic seclusiveness

was discarded by a wide application of linguistic methods to poetics and ethnology; and narrow-minded fear of teamwork was counterbalanced by compelling collective tasks. The joint efforts of the *kroužek* proved to be particularly gratifying in connection with international congresses of linguists, phoneticians, and Slavists. In 1929 the *Theses* of the circle were formulated in French and Czech, submitted to the Prague Slavistic Congress and defended in its plenary meetings by special papers and detailed replies to opponents. In the interest of historical truth, an allusion in Mathesius' aperçu calls for clarification; it must be stated that it was precisely because of the predominant role of *PLK* that the first volume of the Congress' *Transactions*, which encompassed its plenary meetings, was the only one that was never published, and even the materials prepared for this volume vanished mysteriously.

The self-liquidation of *PLK* in the late forties under the pernicious pressure of Marrism and other obscurant, antistructuralist biases and slanders was a pathetic event,[7] but among all the distinguished achievements of Czechoslovak scholarship, the work of the late *kroužek* (or in the alternate, synonymous term "the Prague linguistic school") still enjoys the widest diffusion both in the West and in the East. We refer to two surveys of 1964: T. V. Bulygina's "Pražskaja lingivstičeskaja škola" in the book *Osnovnye napravlenija strukturalizma* (Academy of Sciences of the U.S.S,R.) and J. Vachek's *Prague School Reader in Linguistics*, followed by his summary book of 1966, *The Linguistic School of Prague* (both published by Indiana University Press).

[7]   The fatal role in the nefarious ravage of the *kroužek* was played by the professional slanderer Petr Sgall. His amazingly illiterate and base denunciations published in the Prague journal *Tvorba* of 1951 and forced upon the periodical of the Circle, *Slovo a slovesnost*, defamed *PLK* for propounding structural linguistics. The latter, according to Sgall, "has served only to prolong the domination of the bourgeoisie and to justify this domination". He condemned the Circle also for the "mendacious" recognition of a difference between the poetic and referential functions in language and for succumbing to the vicious influences of Saussure, Husserl, and Carnap. Yet, according to Sgall, "the genuine evil spirit of our linguistics is Roman Jakobson, who deceived and deluded many of our excellent linguists *** The role of Jakobson as the chief pillar of structuralism in linguistics *** is one of the refined ideological weapons used for the disorientation of the outstanding representative intellectuals of the left and for a struggle against the proletarian Weltanschauung." This "cosmopolitan enemy who endeavored to devastate our science by his pseudo-theories" naturally found "his last refuge in the den of American imperialists." Thus "the veiled enemy Jakobson ends up in the dustheap of history." The unscrupulous prosecutor finishes by calling for the crushing rout of "cosmopolitanism in our linguistics" and by summoning the former structuralists to repent of their blunders and "by means of criticism and self-criticism to eradicate both the false theories of structuralism and their survivals". This coerced "self-criticism" resulted in the disastrous self-destruction of the *kroužek*, a ruin which caused real bewilderment among the linguists of the West and East.

Soon after the École Libre des Hautes Études was established in New York, several linguists connected with this school and with Columbia University "started a movement to form a group and hold regular meetings to discuss linguistic problems" (see *Word*, I, 95), and a free association, incorporated after some delay, commenced its scientific activities on October 30, 1934, under the name *Linguistic Circle of New York* (with the subtitle *Cercle Linguistique de New York*). Thus the chain of consecutive calques, *lingvističeskij kružok → linguistický kroužek → cercle linguistique*, each with a city name as modifier, was supplemented by an English equivalent. Once again it was questioned whether the term *circle* was appropriate for a linguistic association because scholarship hardly enters into the traditional semantic field of this noun.

In 1945 the young association started a journal "devoted to the study of linguistic science in all its aspects" and the first president of the Circle, the late Henri Muller, outlined its aims in the editorial: "joint and harmonious strengthening of labors on urgent problems which demand co-ordinated collective efforts", strengthening of "co-operation between American and European linguists of different schools', and struggle against both European and American isolationism in present-day linguistic thought (*Word*, I, 3f.).

First the name of the newly launched association and two years later the title of its journal aroused an onomastic debate in the steering committee of the circle. It was objected that the strong extralinguistic connotations of the English vocable "word" inhibit the use of this term as a synecdochic representant of "language." Therefore the editorial declared that "the title seemed to some of our friends too ambiguous": Why WORD? "Because the word, in its various aspects, is a focal point of the science of language." (F. de Saussure, E. Sapir and V. V. Vinogradov were quoted to reinforce this assertion). Moreover, "not only linguistics but also sociology, anthropology, and logic deal with the word. With the title WORD we intend to emphasize the multiform natural structure of linguistic reality and the necessity for studying language in all the fulness of its various functions and relations." This attitude was exemplified by opening the sequence of articles with two interdisciplinary studies – one on the social frame of language (Alf Sommerfelt) and the other on the similar application of structural analysis in linguistics and anthropology (Claude Lévi-Strauss). Hardly anyone today would fret over the title, which reflects the name of the Czech journal started by *PLK* ten years earlier – *Slovo a slovesnost* (Word and Literature). Incidentally, the Russian term *slovesnost'*, designating oral and written production as well as

the study of it, had been introduced into literary Czech in the early nine-teenth century by V. Hanka and J. Jungmann. When it was proposed for the title of our Prague journal in order to stress the intimate ties between the word and verbal art and correspondingly between linguistics and poetics, it also met initially with bitter criticism in the *krouzek* as being bookish, vague and uncustomary.

A number of organizations on the same pattern have emerged in different parts of the world, from the *Cercle Linguistique de Tokyo* with its *Travaux* of the 1930's, the Slovak *Bratislavský lingvistický krúžok*, created at the end of 1945 and suppressed in the early fifties,[8] and the *Circolo Linguistico Fiorentino*, active since September 1945,[9] to the Bucharest *Cerc de poetică şi Stilistică* which was founded in 1961 *sub auspiciile Centruiui de Cercetări Fonetice şi Dialectale* attached to the Rumanian Academy (cf. the debut of *MLK*) and has issued an interesting volume of *Studii de Poetică şi Stilistică* (1966), and finally the *Linguistic Circle of Canberra* cooperating with the Australian National University and publishing its valuable *Papers* and *Monographs* since 1963.[10] Thus the terms Czech *krouzek*, Slovak *krúžok*, Danish *kreds*, French *cercle*, English *circle*, Italian *circolo*, Rumanian *cerc*, never before connected with scholarly assemblies, were brought into use as names of free associations for research in linguistics and poetics. Our survey has been confined to a few representative examples.

The historical filiation of the linguistic circles and their names is note-worthy as we observe the fiftieth anniversary of the Moscow *kružok*, the fortieth of the Prague *krouzek*, the thirty-fifth of the Copenhagen *Kreds*, and the twentieth of the Bratislava *krúžok* and of the Florentine *Circolo*, the *Kreds* and *Circolo* still *in flore*, whereas the Linguistic Circle of New York, in its fourth decade, is passing through a grievous and lingering crisis. May I conclude, however, by repeating that the indispensable, essential premise for the organizational and terminological diffusion

---

[8] See its journal *Slovo a tvar*, I-IV (1947-50), ed. by E. Pauliny, and *Recueil Linguis-tique de Bratislava*, I (1948); cf. M. Darovec's testimony in *Slovenské pohlady*, LXXXII, No. 9 (1966), p. 53 ff.

[9] This circle organized by C. Battisti, G. Devoto, and B. Migliorini has no chart and its informal, weekly meetings (870 till early 1967) debate chiefly research in progress.

[10] The new *Circolo Filologico-Yinguistico Padovano*, according to the preface of its president G. Folena to its first *Quaderni – Ricerche sulla lingua poetica contemporanea* (1966) – has been built "per favorire ogni volta che è possibile l'inconto con studiosi lontani, e soprattutto per incoraggiare i giovani a esprimersi, a confrontare metodi e indirizzi diversi e a scegliere fra questi liberamente la propria via, in un contatto non sole interdisciplinare, com'è di moda dire oggi, ma personale e umano".

sketched above has been "a common denominator of several convergent currents" in the scientific search of different countries (see above, p. 522 f.).

A revised and expanded version of the paper written in Cambridge, Mass., 1964-1965, for *Omagiu lui Alexandru Rosetti* (Bucharest, 1965).

P. S. to p. 536f.

On november 9, 1968, the Executive Committee of the Linguistic Circle of New York made the pompous decision to change the name of the Circle to "International Linguistic Association", and its President's circular of December 28 of that year gave the following ludicrous comment on this decision:

Ours is no longer a circle. Dictionaries usually define *circle* as 'a pleasant little group,' and give *club*, *coterie*, and *set* as synonyms. Furthermore, the relationship that could have been drawn years ago between our organization and the circles of Prague, Copenhagen, and Paris no longer exists.

LA SCUOLA LINGUISTICA DI PRAGA

Negli ultimi anni, questo nome è più volte comparso nella stampa scientifica di varî paesi, per indicare il gruppo di linguisti riuniti nel Circolo linguistico di Praga fondato e presieduto da V. Mathesius. Il suo programma teorico è formulato nelle pubblicazioni del Circolo.

Il contenuto essenziale di questo movimento consiste in un nuovo complesso di principî metodologici. Perciò lasceremo da parte le opere di linguisti di Praga o in generale cecoslovacchi il cui valore non è dovuto alla novità teorica, ma alla novità del materiale studiato e al perfezionamento dei metodi tradizionali nello studio di questo materiale (per citare un solo esempio, ricordiamo le brillanti scoperte di B. Hrozný nel dominio della lingua hittita). D'altronde bisogna sottolineare che quello che chiamiamo un nuovo complesso di principî metodici non è un seguito di dichiarazioni astratte e di vacui manifesti: si tratta di un sistema teorico bene sviluppato, all'elaborazione del quale hanno partecipato linguisti, filosofi della lingua e cultori di estetica; di più, un sistema che non vuol perdere il contatto con l'empiria linguistica, e che non è, in fondo, che un esame di fatti linguistici in quanto entità.

Un linguista cèco, nel fare la bibliografia delle critiche rivolte alle opere del Circolo linguistico di Praga, osservava non senza meraviglia che le analisi apparse nella stampa francese, olandese, scandinava, romena, ungherese, finnica ecc. non avevano p ovocato reazioni critiche nella linguistica cecoslovacca. A questo proposito, mi ricordai le tristi parole pronunziate un giorno dallo storico cèco Peisker, un venerando vecchio, poi morto, oppositore ed eretico tutta la vita: «Occuparsi di scienza da noi! Ma la scienza è un dialogo, e da noi non si fa che una serie di monologhi». Durante la riunione fonologica di Praga (1930) un eminente linguista polacco K. Nitsch, mi diceva: «Strano! oggi si cerca di risolvere qui i più complicati problemi di linguistica generale, e nella Praga d'anteguerra, per esempio nel gabinetto di Gebauer, non si poteva nemmeno immaginare una discussione su questioni di principio».

I tre giudizî che abbiamo ricordati hanno come punto di partenza lo stesso fenomeno: la cultura d'un piccolo paese esige una disciplina eccezionale e la ferma volontà di limitarsi. L' «arte per l' arte» degl' infiniti dibattiti, la pittoresca polifonia dei problemi da risolvere simultaneamente, tutto ciò è per i paesi minori uno spreco di forze superiore ai loro mezzi. Quello che li distingue subito dalle culture dei paesi maggiori, è la linea severa della loro evoluzione. La dialettica della storia è messa a nudo in modo sorprendente; s'impone un' economia ascetica nella scelta dei fini e dei mezzi.

Alla fine del secolo XIX, la linguistica cèca aveva un problema grave da risolvere: si trattava d' orientarsi nel materiale linguistico dei testi antichi, di raccogliere e sistemare i materiali per la grammatica storica e per il dizionario della lingua cèca. Questo lavoro fu rapidamente compiuto nelle sue grandi linee dalla scuola di J. Gebauer, a cui si deve un edificio imponente, solido e semplice come la mentalità del suo fondatore. Non artistiche rifiniture, non il lampo d' un' idea che basta a sé stessa, non la girandola d' ipotesi seducenti che troviamo nella storia della lingua russa creata da Šaxmatov. Al contrario, i materiali raccolti pesano parecchio, e dietro il peso dei materiali e la lineare semplicità delle formule si nasconde la soggettività delle costruzioni, che si presentano sotto forma di verità pedagogiche, montre Šaxmatov non le presenta che come base di discussione. L' «imperativo sociale» esigeva da Gebauer una norma scientifica a lunga scadenza, senza probabilità d'una prossima revisione. Al più piccolo tentativo di discussione, Gebauer ricordava che la discussione fermava i lavori di costruzione. Ogni deviazione, anche nei particolari (p. es. le giustificate obiezioni di A. Havlík contro la cronologia dei testi epici antichi), era severamente condannata. I problemi di principio durante quel periodo erano risolutamente messi da parte: si assicura che Gebauer si sia pronunziato con tutta la sua autorità contro la creazione d'una docenza di linguistica generale. Era naturale che questo positivismo estremo e questo culto fanatico dei fatti isolati dovesse condurre a una reazione radicale. Ed ecco Praga che, agli inizî del secolo, era l'arena della micrologia erudita, è ora il centro d'un penetrante pensiero teorico.

Al tempo di Gebauer, la lotta per smascherare i falsi monumenti della antica poesia cèca era servita di segnale per la mobilitazione di tutte le forze vive nel dominio delle scienze dello spirito. Occorreva armare efficacemente la critica dei testi; e la linguistica storica ne era il più efficace ausiliare. Così i progressi della linguistica storica servivano in primo luogo agli interessi della filologia. È interessante constatare che la

maggior parte degli allievi di Gebauer sono piuttosto filologi che linguisti.

«Il ventesimo secolo è il secolo in cui la scienza ha preso uno slancio meraviglioso, quale non s' è mai avuto nella storia dell' umanità, e in cui le nostre concezioni scientifiche si sono mutate radicalmente». Così un dotto eminente, il Vernadskij. La concezione strutturalistica trasforma notevolmente la linguistica: le ricerche scientifiche non sono tanto arricchite da nuovi materiali (la scienza d' anteguerra aveva messo in circolazione un materiale considerevole) quanto fecondate dalla rivelazione di rapporti esistenti tra i fatti linguistici che sembravano precedentemente senza coerenza, e dai contatti istituiti tra fatti linguistici e fatti d' altro ordine. La scoperta di questi rapporti e delle leggi che li governano suppone una preparazione teorica molto larga e un grande lavoro collettivo coordinato. Appunto con questa parola d' ordine sono mobilitate le giovani forze della linguistica cèca, e anche qui il tratto caratteristico è l'unità dei problemi e l'uniformità della metodologia: nessun'altra teoria è stata opposta nella linguistica cèca contemporanea alle considerazioni teoriche del Circolo di Praga: il «dialogo» manca sempre.

Nella vita intellettuale cèca non si conosce la ricchezza di gamme colorate né l' abbondanza di delicate sfumature che si suole ammirare nelle grandi culture neolatine. Per contro, le forze sono più concentrate e meglio organizzate, e gli sforzi che mirano alla meta proposta sono bene coordinati. V. Mathesius ha molto giustamente riconosciuto in un suo studio sulla scienza cèca, che l'«ardire corporativo» è destinato a far progredire la scienza cèca: questo tratto nazionale caratteristico in certo modo compensa la mancanza di ardire individuale, che crea dei pionieri pronti a combattere per i proprî problemi a loro rischio e pericolo. Da queste premesse sorse il Circolo linguistico di Praga, fondato nel 1926 come associazione libera. Ma già nel 1929, durante il congresso degli slavisti a Praga, esso si presentava come un' organizzazione combattiva e disciplinata, con tesi programmatiche precise. La novità della struttura di questo Circolo, in confronto col tipo tradizionale delle società scientifiche, appare nel fatto ch' esso rinunzia al compito d'un parlamento di diverse correnti e proclama apertamente nello statuto che esso mira a collaborare al progresso delle ricerche linguistiche sulla base del metodo funzionale e strutturale, e che l' attività d' un membro del Circolo che si svolgesse in opposizione a questo programma lo farebbe escludere dalla organizzazione. Appunto il carattere organizzato del Circolo gli ha permesso di prendere parte attiva allo sviluppo del lavoro fonologico internazionale e soprattutto alla prima riunione fonologica. Senza queste

premesse, sarebbe stata impossibile anche la campagna vittoriosa del Circolo, che ha screditato davanti al gran pubblico la critica linguistica degli imitatori cèchi del famigerato *Sprachverein* tedesco.

Per chi confronti la concezione del Circolo linguistico e la dottrina che dominava la linguistica cèca in un passato ancora recente, le tesi del Circolo possono sembrare un elemento estraneo insinuatosi nella scienza cèca. Ma non bisogna dimenticare che la linguistica ha in quel paese un ricco passato. Fin dal secolo XIV, si hanno bei dizionarî terminologici cèchi, e al confine tra il secolo XIV e XV Jan Hus scriveva un buon trattato sui fonemi e le lettere cèche. L'epoca della grammatica storica di Gebauer ha nascosto i periodi anteriori. Per esempio, si suol credere che la linguistica generale e specialmente la semantica facciano difetto nella scienza cèca. Eppure proprio all'università di Praga insegnava nel secolo passato Bolzano, le cui idee profonde hanno recentemente servito di base alla grammatica generale di Husserl. Queste tesi non sono rimaste senza traccia in Boemia, e nell' opera di un adepto cèco del Bolzano, V. Zahradník, troviamo una netta delimitazione del mondo dei segni linguistici e del mondo degli oggetti. Nella stessa università di Praga insegnava alla metà del secolo scorso Schleicher, e il suo allievo cèco I. J. Hanuš poneva arditamente dei problemi interessanti nel campo della stilistica e della semantica. Poco dopo si collocano le ricerche semantiche del cèco Č. Šercl, che hanno trovato un ammiratore e un continuatore nel noto filosofo russo contemporaneo Bulgakov.

I principî del Circolo trovano numerosi addentellati nei periodi anteriori della linguistica cèca. La tesi dell' importanza della linguistica sincronica, divulgata dalla pubblicazione del *Cours de linguistique générale* di F. de Saussure, è già implicita nell' opera del professore tedesco di Praga, A. Marty, sulle proposizioni impersonali.[1] Ma la formula programmatica della differenziazione sistematica della linguistica «statica» (cioè sincronica) da quella «storica» fu per la prima volta formulata con grande precisione da T. G. Masaryk.[2] A questa tesi di Masaryk si ricollegano i linguisti cèchi contemporanei che lavorano nel campo della sincronia (Rocher, Mathesius). Nella questione dei rapporti fra queste due discipline la concezione di Masaryk è molto più vicina alla tesi del Circolo che il punto di vista saussuriano. «Non è il caso», dicono le tesi del Circolo, «di porre delle barriere invalicabili fra i metodi sincronici e diacronici, come fa la scuola di Ginevra. Se si considerano in linguistica

---

[1] *Ueber subjektlose Sätze und das Verhältnis der Grammatik zu Logik und Psychologie* (*Gesammelte Schriften*, II[1]) (Halle, 1918).

[2] *Základové konkretné logiku* (1885); *Versuch einer konkreten Logik* (1887).

sincronica gli elementi del sistema della lingua dal punto di vista della loro funzione, non si potrebbero giudicare i cambiamenti subiti dalla lingua senza tener conto del sistema colpito da detti cambiamenti." E Masaryk scriveva nel 1885: «La linguistica è soggetta alla regola generale secondo cui lo studio dell' evoluzione di ogni cosa dev' esser legato allo studio della cosa stessa – non si può ripeterlo con bastante insistenza agli storici di tutte le specialità. ... Quegli che non conosce la cosa in sé stessa, non comprenderà la sua evoluzione.» La concezione strutturalistica del legame fra l' essenza della cosa e la sua evoluzione è in stretto rapporto, in Masaryk e nei lavori del Circolo, con l' interpretazione teleologica del processo storico, mentre per il Saussure i mutamenti sono ciechi e sprovvisti di senso.

Non abbiamo l' intenzione di sostenere qui il carattere autoctono della scuola linguistica di Praga. La questione di sapere a chi essa va debitrice nello sviluppo della linguistica sincronica non c'interessa. È alla logica concreta di Masaryk, ovvero alla scuola di Baudouin de Courtenay, che già poco dopo il '70 realizzava nei suoi lavori la distinzione fra statica e dinamica, o infine al *Cours* di F. de Saussure? A chi si ricollega il Circolo linguistico nella sua difesa dell' autonomia della lingua poetica? È alla scuola formalistica contemporanea russa o al notevoli studî sul verso di Zubatý che risalgono all' Ottanta? Poco importa sapere donde i lavori del Circolo hanno ricevuto la concezione hegeliana della struttura del sistema e della sua dialettica. È alla scienza russa o, come risulta da un recente lavoro di Čiževskij, la tradizione di Hegel non ha mai avuto interruzioni ed è sempre stata produttiva? oppure anche qui la parte decisiva è stata quella della teoria del Saussure (in cui gli elementi della dottrina di Hegel sulle antinomie sono penetrati, come sembra, per mezzo delle *Antinomies linguistiques* del hegeliano V. Henry)? Del resto, esiste un antico hegelismo più propriamente cèco nella scienza della lingua. Fin dal 1843, M. F. Klácel criticava finemente nei suoi Elementi scientifici della grammatica cèca (*Počátky vědecké mluvnictví českého*) «il metodo empirico grossolano», che trasforma l'oggetto studiato in «un mucchio di sabbia in cui ogni granello resta separato». Il Klácel non ha cessato di ripetere ai linguisti cèchi che soltanto riconnettendo al tutto le conoscenze parziali si giunge a una vera comprensione, e che il vero cammino della scienza della lingua consiste nella fusione dialettica dell' analisi e della sintesi.

Quello che abbiamo avuto occasione di constatare relativamente alla storia della lingua è valido anche per la storia della scienza. «Ciò che è essenziale, non è il fatto stesso del prestito, ma la sua funzione dal punto

di vista del sistema in cui esso entra : ciò che è essenziale è che esista una spinta per l'innovazione di cui si tratta.»[3] È fuor di dubbio che la scuola linguistica di Praga è il risultato di una simbiosi del pensiero cèco e russo, come la linguistica russa contemporanea porta le tracce della simbiosi della scienza russa e polacca. È fuori di dubbio che la scuola di Praga ha tenuto anche conto dell' esperienza della linguistica occidentale : i lavori della scuola di Ginevra, la linguistica americana, l'anglistica moderna, le ricerche dei dotti olandesi : tutto codesto non poteva restare senza influsso. L'originalità della scuola appare nella scelta delle idee nuove e nella loro unione nella totalità d'un sistema. La Cecoslovacchia è situata a un quadrivio di culture diverse, e il carattere proprio della sua cultura, fin dal tempo di Cirillo, consiste nella fusione creatrice.

Che il Circolo linguistico di Praga non sia un episodio occasionale ed estraneo nel quadro della vita culturale della Cecoslovacchia contemporanea, lo si vede dal fatto che i due libri più caratteristici della moderna filosofia cèca, la Teleologia come forma della conoscenza scientifica di K. Engliš,[4] e le Basi della conoscenza di J. L. Fischer, [5] malgrado tutta la differenza delle conzezioni fiosofiche degli autori, sono molto vicine alle tendenze del Circolo. Lo spirito del libro dello strutturalista Fischer mira a mostrare il fallimento della concezione filosofica del naturalismo, che riconduce la realtà a una polvere atomica, e non vede che rapporti di quantità e di causalità meccanica. Il libro di Engliš insegna che lo studio causale della condotta umana va a vuoto ; che invece d' un rapporto di causa e di risultato si tratta d' un rapporto di mezzo e di fine, e che questo rapporto va interpretato secondo il metodo teleologico. Dai processi e dagli oggetti osservati, questo metodo fa risaltare i «postulati», cioè i contenuti ideali che noi ci rappresentiamo come voluti dal soggetto. Engliš separa nettamente il metodo teleologico dalla psicologia : il voluto del postulato non è una realtà psichica, ma una forma logica dell' interpretazione ; non soltanto un individuo fisico, ma anche p. es. uno stato è concepito come soggetto d' un postulato. La nascita delle norme esige un' interpretazione teleologica, che deve tener conto del fatto della concorrenza dei fini e della loro gerarchia. Le «qualità» di cui si occupa il peniero teleologico sono, al contrario, delle qualità causali, qualità di rapporto, capaci di polarizzazione.

Quantunque già i neogrammatici avessero dichiarato, rivedendo la dottrina di A. Schleicher, naturalista in linguistica, l' indipendenza della

---

[3]   *Travaux du Cercle linguistique de Prague*, II, p. 98.
[4]   *Teleologie jako forma vědeckého poznání* (Praga, 1930).
[5]   *Základy poznání* (Praga, 1931).

linguistica rispetto alle scienze della natura, la linguistica rimaneva ciononostante, salvo rare eccezioni, sulle rotaie del naturalismo tradizionale. I problemi d'ordine causale continuavano a predominare, senza tener conto che è la questione dello scopo e non delle cause della parola che nasce nello spirito di chi ascolta come la reazione più pronta e più naturale. L'indifferenza verso la questione della finalità della lingua toglieva alla scienza la possibilità di svelare la diversità delle funzioni della lingua e l' influenza delle diverse funzioni sulla sua forma. Le lingue più «volute» nella loro struttura, particolarmente la lingua letteraria e soprattutto la lingua poetica, restavano inesplorate nella loro particolarità specifica. F. de Saussure ha fatto un notevole passo avanti rispetto ai neogrammatici ortodossi: si è reso conto che accanto al fatto empirico, cioè alla parola individuale, esiste la lingua come norma sociale, e che questa lingua è un sistema di valori relativi che non può essere compreso dalla scienza che dal punto di vista funzionale. Ma egli non ha tratto da ciò tutte le conseguenze, e non ha inteso che la dinamica del sistema d'una lingua, cioè la nascita d'una norma, dev' essere affrontata, del pari che la statica, dal punto di vista teleologico. Perciò il nuovo metodo non trovò applicazione nel campo della linguistica storica.

Ma anche nella linguistica sincronica le ricerche concrete sono ancora ricche di sopravvivenze del vecchio naturalismo. L' esempio più notevole ne è l' analisi dei suoni del linguaggio. I linguisti concepivano la lingua come un idioma estraneo e incomprensibile, come se non si trattasse che d' una catena di percezioni acustiche sprovviste di senso. I suoni del linguaggio si registravano e si misuravano dal punto di vista fisiologico e fisico, con l' aiuto degli strumenti più esatti e più sensibili. Ma si dimenticava completamente che i suoni sono emessi per comunicare qualche cosa, che hanno uno scopo, e che le innumerevoli differenze di suoni che appaiono nella parola non hanno, tutte, le medesime funzioni e lo stesso grado d' importanza. Fra queste differenze vanno messe in rilievo le opposizioni volute (*postulati* nella terminologia di Engliš), capaci di differenziare in una data lingua i significati.

Una nuova disciplina linguistica, la fonologia, studia queste opposizioni e il loro rendimento funzionale: essa rileva il repertorio delle opposizioni significative in una data lingua, il sistema che formano fra loro, i diversi tipi di rapporto in questo sistema, come le opposizioni polarizzate o correlazioni. Per citare un solo esempio, si confronti la quantità in italiano e in latino: in italiano esistono, certo, vocali lunghe e vocali brevi, ma esse non sono volute e messe in opposizione come tali; mentre in latino si oppone consciamente un presente *lĕgo* con *ĕ* breve a

un perfetto *lēgi* con *ē* lunga. Diciamo allora che la quantità in italiano può essere oggetto di studio per la fonetica, ma non per la fonologia.

L' analisi fonologica dell' inventario dei suoni di una data lingua differisce radicalmente dall' analisi naturalistica di cui si occupa la fonetica. La fonologia non esclude la fonetica, ma mentre la prima è una parte della linguistica e studia i fonemi in qualità di elementi costitutivi di una determinata lingua, la fonetica descrive dal punto di vista naturalistico il materiale sonoro di cui questa lingua si serve.

Abbiamo detto qualche parola di più sulla fonologia, data la parte attiva che ha in essa la Scuola di Praga. Ma anche nella grammatica la liquidazione della concezione meccanicistica non è meno attuata. Ancor oggi nella maggior parte dei casi non si tiene abbastanza conto che le forme grammaticali sono valori puramente oppositivi, e che si tratta veramente di un sistema e non di un conglomerato di forme, i significati fondamentali delle forme sono spesso ancora a torto identificati con i significati statisticamente predominanti, ecc.

Il Circolo linguistico tenta non solo di trasporre l' esperienza della fonologia nel dominio della grammatica, ma anche di applicare le conquiste metodologiche della nuova linguistica alle scienze che si occupano d'altri valori culturali, p. es. all'etnografia e alla musica.

L' organizzazione della collaborazione sistematica con i dotti che lavorano nella stessa direzione nei campi scientifici prossimi, e lo sviluppo della collaborazione con i linguisti stranieri d' analogo orientamento, tali sono i compiti attuali del Circolo linguistico di Praga.

Scritto a Brno nel 1932 e tradotto da B. Migliorini per la rivista *La Cultura*, XII (1933).

DIE ARBEIT DER SOGENANNTEN
"PRAGER SCHULE"

Die Bezeichnung "Prager Schule" wird in den letzten Jahren in der internationalen Fachliteratur für diejenige Gruppe slavischer und deutscher Sprach- und Literaturforscher verwendet, welche im Jahr 1926 den von V. Mathesius geleiteten "Cercle linguistique de Prague" gegründet hatten und für das folgerichtig strukturalistische, ganzheitliche Verfahren auf dem Gebiete der Sprach- und Literaturwissenschaft, sowie der Zeichenlehre überhaupt, kämpfen. Die Prager Gruppe ist ein kennzeichnendes Beispiel für Tendenzen, welche heutzutage gemäss einer inneren Notwendigkeit in der Weltwissenschaft hervortreten: aber es ist auch nicht überflüssig, ihrer Verbundenheit mit der Prager sprachwissenschaftlichen Tradition nachzugehen. Wenn auch die Prager Linguistik bis vor kurzem unter dem Zeichen des geradlinigen Positivismus stand, so begegnet man hier in der weiteren Vergangenheit einer wiederholten intensiven Bemühung um eine Phänomenologie der Sprache: die leidenschaftlichen und fruchtbaren Prager Disputationen der Realisten und Nominalisten an der Wende des XIV. und XV. Jahrhunderts, die Panglottie des Comenius und die eigenartigen Betrachtungen über Sprachkultur im Barock, die Prager Tätigkeit Bolzanos und seiner Schüler, die Bestrebungen tschechischer und slovakischer Hegelianer im Sinne einer Dialektik der Sprache, endlich die bahnbrechende Unterscheidung von historischer und statischer sprachwissenschaftlicher Problematik in den Arbeiten Masaryks aus den 80er Jahren, die für die Unterordnung der sprachlichen Diachronie unter die Synchronie und für teleologische Auffassung des sprachlichen Werdens eintreten. Doch Eigenart und Schöpfertum erweisen sich nicht nur im rein bodenständigen, sondern ebensosehr in der Auswahl und Verknüpfung übernommener Elemente. Die Lage am Scheideweg verschiedener Kulturen ist für die tschechoslovakische Welt seit jeher kennzeichnend. Es wird auch niemand leugnen, dass die "Prager Schule" das Ergebnis einer Symbiose von tschechischem und russischem Denken ist, und dass sie auch die Erfahrung der westeuropäischen und amerikanischen

Wissenschaft verwertet hat. Auch mit der modernen Entwicklung der übrigen Geisteswissenschaften in der Tschechoslovakei sind gewiss charakteristische Berührungen vorhanden, daher besonders die Betonung und allseitige Verwendung des teleologischen Gesichtspunktes.

Wohl ist für die Sprachgemeinschaft das sprachliche "Wozu" bedeutend wichtiger als das "Weshalb". Aber die naturalistisch eingestellte Sprachforschung hat diese Werthierarchie auf den Kopf gestellt. So wurde bei der Erforschung der Sprachlaute gerade von ihren sprachlichen sinngebenden Zwecken abgesehen. Nicht genug daran, es wurde merkwürdigerweise den akustischen Gegebenheiten eine viel geringere Aufmerksamkeit geschenkt als ihren artikulatorischen Voraussetzungen. Die Phonologie, die von Anfang an zum Brennpunkte der Forschungsarbeit des Prager Cercle geworden war, sucht die Lautlehre mit der Bedeutungslehre zu verknüpfen und sie somit effektiv in die Sprachwissenschaft einzugliedern. Das phonologische System einer Sprache wurde dabei notwendigerweise als ein System der sozialen Lautwerte aufgefasst. Die Einteilung der lautlichen Unterschiede, ihre Typologie und ihre Erforschung auf der Raum- und Zeitachse (phonologische Geographie und historische Phonologie) musste neu aufgebaut werden. Während der Arbeit zeigte es sich, dass die Unterscheidung von bedeutungsbildenden und bedeutungslosen Lautphänomenen einer Sprache allzu simplistisch und das Verhältnis des Lautlichen zum Semantischen mannigfaltig ist. So sind z.B. die unmittelbar sinngebenden Lautmittel, die an sich einen Zeichenwert besitzen (nämlich die wortabgrenzenden, satzgliedernden und expressiven Mittel) von den wortunterscheidenden Lautmitteln, die als blosse Bestandteile von Zeichen fungieren, streng auseinanderzuhalten.

Die phonologische Forschung steuert mit ihrer reichen Erfahrung zum Aufbau der beiden grammatischen Teilgebiete der strukturalen Sprachlehre, Morphologie und Syntax, bei. Obzwar theoretisch anerkannt, wird doch allzu oft in der Forschungspraxis vergessen, dass die sprachlichen Zeichen und im besonderen die grammatischen Formen reine Gegensatz-Werte sind, dass diese Werte durch den Bau des gesamten Systems bestimmt werden und dass die Formenlehre noch weniger als die Lautlehre von der Bedeutungsfrage absehen darf. Die allgemeine Bedeutung eines grammatischen Gegensatzes in einer gegebenen Sprache (z.B. des Gegensatzes zweier Kasus, zweier Rede- oder Satzteile oder von Wort und Wortgefüge) wird zum Grundproblem der strukturalen Grammatik.

Die teleologische Auffassung der Sprache hat die zielbewusstesten Sprachzweige, wie es die Schriftsprache und die dichterische Sprache sind,

zum dankbarsten Feld der Forschung und der methodischen Prüfung
erhoben, während die Junggrammatik diesen Sprachbereichen ratlos
gegenüberstand. Die Rolle der Absicht im Sprachleben wurde meistens
verkannt, oder es wurde ihr ein planloser Charakter zugeschrieben
(Marty); aber es gibt in unserem Verhältnis zur Sprache mehrere Situ-
ationen, in welchen die Sprache zum unmittelbaren Gegenstand unserer
Aufmerksamkeit wird. Diese Umwandlung der Sprache aus einem blossen
Mittel in einen selbständigen Gegenstand unserer Wertung und Absicht
kann als Sprachkultur bezeichnet werden; in diesem Falle verliert nun
die These von der Planlosigkeit der Sprachentwicklung ihre Gültigkeit.
Mit der Erweiterung und Erhöhung der Forderungen der Sprachpäda-
gogik, -kritik und -politik wächst die Planmässigkeit der Sprachentwick-
lung. Die Fragen der Sprachkultur werden mit der fortschreitenden
Demokratisierung der Sprachkultur und mit der wachsenden Mannig-
faltigkeit der Sprachfunktionen immer dringlicher. Diesen grundsätz-
lichen Fragen und ihrer praktischen Anwendung auf die tschechoslo-
vakische Sprachkultur schenkt der Prager Cercle besondere Aufmerk-
samkeit. Als Kriterium bei der Beteiligung der Linguisten an dem Sprach-
aufbau kann nur die Frage nach der Angemessenheit der gegebenen
Sprachmittel zu dem gegebenen Zweck, nicht aber die Frage nach der
genetischen Begründung und Reinheit der fraglichen Sprachform gelten.
Der archaisierende Purismus wird scharf bekämpft.

Den Bau des dichterischen Werkes linguistisch zu beherrschen, war
die Aufgabe, die sich die russische formalistische Schule vor zwei Jahr-
zehnten folgerichtig gestellt hatte; ursprünglich wurde aber das dich-
terische Werk als Summe der Kunstgriffe betrachtet. Diese Bestimmung
bedurfte einer wesentlichen Richtigstellung: es handelt sich nämlich nicht
um eine mechanische Summe, sondern um ein System der Kunstgriffe;
diese sind gesetzmässig aufeinander bezogen und bilden somit eine kenn-
zeichnende Hierarchie. Der poetische Wandel besteht in Verschiebungen
dieser Hierarchie, es ändert sich die Hierarchie der Kunstgriffe im Rah-
men einer gegebenen dichterischen Gattung, die Hierarchie der Gattungen,
die Hierarchie der verschiedenen Künste und das Verhältnis der Kunst zu
den Nachbargebieten der Kultur und im besonderen das Verhältnis der
Wortkunst zu den übrigen Aussagetypen. Durch die Aufrollung dieser
Aufgaben gab die Poetik der ganzen Sprachwissenschaft mehrere
fruchtbare Antriebe, sie stellte die grundlegende Frage nach dem gesetz-
mässigen Verhältnis zwischen dem Teil und dem Ganzen und schlug eine
Brücke zwischen der synchronischen und historischen Problematik, in-
dem sie nachwies, dass die Verschiebung nicht bloss der Diachronie,

sondern auch der Synchronie angehört: die Verschiebung wird unmittelbar erlebt, sie ist ein wesentlicher Kunstwert.

Die vergleichende Analyse der Dichtungs- und Darstellungssprache zeigte, dass der Unterschied in einer verschiedenen Hierarchie der beiden Funktionen – der darstellenden and der dichterischen – besteht: die beiden Funktionen sind jedoch miteinander untrennbar verbunden. Fehlt die darstellende Funktion, d.h. die Einstellung auf den Gegenstand, hört das Zeichen auf, Zeichen zu sein; damit aber das Zeichen den Gegenstand vertreten kann, müssen wir das Zeichen als solches erleben (dichterische Funktion!) und uns über den Dualismus Zeichen – Gegenstand im klaren sein.

Die Fragestellung der "Prager Schule" auf dem Gebiete der Poetik fasst die Bedeutung des dichterischen Wortes und des dichterischen Werkes im ganzen nicht als Bestandteil der bezeichneten Gegebenheit auf, sondern als solchen des Zeichens selbst. So wird die dichterische Semantik, bzw. die Semantik der anderen Kunstarten aufgebaut und ein lehrreiches Material zur allgemeinen Zeichenlehre (Semiotik) zustande gebracht, indem nämlich die vergleichende Kunstanalyse zeigt, welche Elemente für die dichterische Sprache und für das sprachliche Zeichensystem selbst spezifisch sind und welche hingegen Allgemeingut der Zeichenwelt überhaupt sind.

Vortrag im Kopenhagener Linguistischen Zirkel am 12. September 1936. Veröffentlicht im *Bulletin du Cercle Linguistique de Copenhague*, I.

MUSIKWISSENSCHAFT UND LINGUISTIK

Der Vortrag, den G. Becking, Professor der Musikwissenschaft an der Deutschen Universität in Prag, jüngst im *Pražský linguistický kroužek* gehalten hat, gehört zu den bedeutendsten Ereignissen des Prager wissenschaftlichen Lebens der letzten Zeit. Schon auf dem phonetischen Kongreß, der im Juli d.J. in Amsterdam stattfand, hatten einerseits Becking in seinem Vortrage über die Musikalität der serbokroatischen Voksepen, andererseits der Vorsitzende des Kongresses J. van Ginneken in seiner einleitenden Rede den auffallenden Parallelismus zwischen den phonologischen Grundproblemen und den Grundproblemen der modernen Musikwissenschaft betont, aber erst der erwähnte Vortrag Beckings hat die Tragweite dieser Zusammenhänge aufgedeckt. In klarer Form und mit zahlreichen, auch für einen Laien einleuchtenden Beispielen skizzierte der Forscher eine überzeugende vergleichende Charakteristik der Musikwissenschaft und der Phonologie.

Ein afrikanischer Eingeborener spielt eine Weise auf seiner Bambusflöte. Der europäische Musiker wird viele Schwierigkeiten haben, die exotische Melodie treu nachzuahmen, aber es gelingt ihm endlich die Tonhöhen festzustellen, und er ist überzeugt, daß er das afrikanische Musikstück genau wiedergibt. Doch der Eingeborene ist damit nicht einverstanden, da der Europäer die Klangfarbe der Töne nicht genügend beachtet hat. Nun wiederholt der Eingeborene dieselbe Weise auf einer anderen Flöte. Der Europäer meint es sei eine andere Melodie, da sich die Tonhöhen gemäß dem abweichenden Bau des neuen Instrumentes vollkommen geändert haben aber der Eingeborene schwört, es sei dasselbe Stück. Der Unterschied liegt darin, daß für den Afrikaner die gleiche Klangfarbe die Hauptsache ist, wogegen für den Europäer die Tonhöhe. Das Wichtige in der Musik ist nicht die naturalistische Gegebenheit, nicht diejenigen Töne, die realisiert werden, sondern die, die gemeint werden. Der Eingeborene und der Europäer hören denselben Ton und meinen dabei ganz verschiedene Dinge, da sie ihn in

Bezug auf zwei verschiedene musikalische Systeme auffassen; der Ton fungiert in der Musik als "System-Ton". Die Realisationen können mannigfaltig sein, der Akustiker stellt es genau fest, aber das musikalisch Maßgebende ist, daß das Musikstück als identisch erkannt werden muß. Es besteht also zwischen einem musikalischen Wert und seinen Realisierungen genau das gleiche Verhältnis wie in der Sprache zwischen einem Phonem und den Lauten, die dieses gemeinte Phonem in der Rede vertreten.

Der Unterschied zwischen den mittelalterlichen Neumen und den modernen Noten ist kein bloßer Schriftunterschied, sondern spiegelt den wichtigen Unterschied zweier musikalischer Systeme wider: im Gregorianischen Choral handelt es sich im diametralen Gegensatz zur europäischen Musik der Neuzeit nicht um die Tonhöhe, sondern um die Tonbewegung. Der enge Zusammenhang zwischen dem phonologischen Bau einer Sprache und der entsprechenden Schrift, der besonders in den Vorträgen N. S. Trubetzkoys und A. Artymovyčs im *Aroužek* betont wurde, bildet eine nahe Parallele.

Becking versucht eine Typologie der musikalischen Systeme aufzustellen. Er unterscheidet "eindimensionale Systeme", wo bloß die Zahl der Stufen in der Leiter relevant ist, "zweidimensionale Systeme", wo sich das Prinzip der inneren Verwandtschaft im Tonmaterial behauptet, "dreidimensionale Systeme", die durch die Funktion im Zusammenklang charakterisiert werden, und endlich "vierdimensionale Systeme", in denen der Einzelton auch noch die Funktion seines Akkordes im harmonischen Tonalitätssystem vertritt. Die Gesetzmäßigkeit des Systembaues erinnert an die Typologie der phonologischen Systeme. Als Beispiele demonstriert der Gelehrte für den ersten Typus die Musik der montenegrinischen Guslaren, für den zweiten eine Symphonie von der Insel Bali, für den dritten ein Werk der englischen Kirchenmusik des 14. Jahrhunderts und für den vierten Typus eine venezianische Barockkomposition. An einigen anschaulichen Beispielen enthüllt Becking den Fehler derjenigen Forscher, die in ein Musiksystem Gesichtspunkte eines anderen Systems hineinlesen, z.B. ein eindimensionales System als eine "schlecht gespielte" chromatische Reihe auffassen.

Auch die Entwicklungsprinzipien eines Musiksystems sind, wie der Vortrag zeigt, den phonologischen Sprachveränderungen verwandt. Entweder wird ein irrelevanter Unterschied zu einem relevanten, oder es findet das Gegenteil statt. Gewöhnlich sind Verluste und Gewinne relevanter Unterschiede miteinander verknüpft.

Zum Schlusse skizzierte Becking den Grundunterschied zwischen der

Musik und der Sprache. Zwar gibt es in der Musikgeschichte Einzelfälle, wo gewisse Musikformen zu einem eindeutigen Ausdruck werden (in der italienischen Oper, bei Wagner usw.). Es ist bemerkenswert, daß die höchstgeordneten Elemente eines gegebenen Systems öfters eine mystische Bedeutung haben. Aber im allgemeinen ist in der Musik im Unterschied zur Sprache das Tonsystem an sich das Bedeutende, das Tonsystem, welches mit der Weltanschauung unzertrennbar verknüpft ist.

Die Ausführungen Beckings sind nicht nur für den Musik-, sondern auch für den Sprachforscher von allergrößter Wichtigkeit. Er erhält neuen Stoff für fruchtbare Vergleichungen: ähnlich sind in der Musik und in der Sprache, das Verhältnis der Klangwerte und ihrer Realisierungen, das Verhältnis zwischen diesen Werten und der Schrift, die Grundsätze der Mutationen. Die Musikwissenschaft lehrt uns, daß benachbarte Völker und Stämme oft eigenartige "musikalische Bünde" bilden, so z.B. besitzen die Völker des Fernen Ostens ein besonderes musikalisches System, das sich nach Becking durch die Ausnützung einer ungemeinen Menge von kleinen Intervallen auszeichnet. Es ist höchst interessant, daß es dieselben Völker sind, die einen "phonologischen Bund" bilden, welcher durch das Vorhandensein von Tonverlaufunterschieden im phonologischen System charakterisiert wird. Es ist notwendig, die Grenzen und die Merkmale der einzelnen musikalischen und phonologischen Bünde zu vergleichen. Die Strukturgesetze der Musik und die der dichterischen Schallform sind ein besonders dankbares Material für das vergleichende Studium. Linguistisch formuliert, besteht die Eigenart der Musik gegenüber der Dichtung darin, daß ihre Gesamtheit von Konventionen (*langue* nach der Terminologie von Saussure) sich auf das phonologische System beschränkt und keine etymologische Verteilung der Phoneme, also keinen Wortschatz besitzt.

Die Musikwissenschaft muß die Errungenschaften der Phonologie ausbeuten: das ganzheitliche Verfahren, die Theorie des Systembaus usw. So wäre z.B. die phonologische Lehre, wonach ein Unterschied zweier korrelativer Werte immer ein Gegensatz eines merkmalhaltigen und eines merkmallosen Wertes ist, auch für die Musikwissenschaft von Bedeutung.

Veröffentlicht in der *Prager Presse*, 7.XII.1932.

RESULTS OF A JOINT CONFERENCE OF
ANTHROPOLOGISTS AND LINGUISTS

I might say that I liked everything at this Conference. There is only one negative side for me: I have to sum up its linguistic results. First, I could begin with the statement that the Conference was extremely successful. However, I have studied the theory of communication and I know that a statement contains information only when there is a two-choice situation. But for a man who closes a Conference there is no two-choice situation: it can never be heard from him that the Conference was not successful.

I should like to present all the linguistic results of this Conference as I see them. Of course, I will interpret them and shall not be the translation machine that, as our friend Y. Bar-Hillel so excellently showed, does not understand and therefore translates literally. Once there is interpretation, there emerges the principle of complementarity promoting an interaction between the tool of observation and the thing observed. I will try, however, to be as objective as I can.

What in my opinion is the most important result of this Conference? What has struck me? First, the great unanimity. There was an amazing unanimity. Of course, when I say unanimity, it doesn't mean uniformity. You see, it was a polyphonic structure. All of us here – I might say – sounded differently, but we all were like allophones assigned to one and the same phoneme.

Of course, the most symptomatic fact was a clear-cut liquidation of any kind of isolationism, and isolationism is just as hateful in scientific as it is in political life. There were no longer any such slogans as Linguistics *versus* Anthropology, Linguistics of the Western Hemisphere *versus* Linguistics of the Eastern Hemisphere, Formal Analysis *versus* Semantics, Descriptive Linguistics *versus* Historical Linguistics, Mechanistic View *versus* Mentalism and so on. This does not mean that there are no tasks of specialization and that there is no need of focusing upon certain limited problems, but these are mere ways of experimentation

and not different biases. As was expressed here really to the point, we can't actually isolate elements but only discriminate them. If we treat them separately in the process of linguistic analysis, we must continue to remember the artificial character of such a separation. We can discuss language on the morphemic level without reference to the phonemic level. We can discuss the formal level without reference to the semantic level, and so on. But we understand that when we do so, it is simply like an acoustical filtering – we can exclude high frequencies or, on the contrary, low frequencies, but we know that it is only a method of scientific experiment. It is likewise very interesting to observe blindman's buff: how does a person act when blindfolded? What can we say about language when we don't know its meanings? Again, it is very instructive to observe a person run when his movements are hampered as in the so-called sack races, but no one will say that it is more efficient to run with a sack than without one. Thus we realize ever more clearly that our optimum goal is the observation of language in all its complexity. To paraphrase Terence's saying, *Linguista sum; linguistici nihil a me alienum puto.*

Now, if we study language together with anthropologists, their help is most welcome and stimulating, because again and again anthropologists repeat and prove that language and culture imply each other, that language must be conceived as an integral part of the life of society, and that linguistics is closely linked to cultural anthropology. I need not discuss here this relation which was so revealingly presented by C. Lévi-Strauss. But I should like to second D. Bidney in what he contributed to the afternoon discussion: there is an even closer genus to embrace the species *language*. Language is an instance of that subclass of *signs* which under the name of *symbols* have been astutely described by Chao, who indeed symbolically embodies the best in both Western and Eastern thought. Therefore, when specifying language we must, with H. L. Smith, observe other symbolic patterns for comparison, the system of gestures, for instance, so stimulatingly tackled by Kulešov, M. R. Critchley, and now by F. Birdwhistell. It presents, I agree, instructive similarities to language and – let us add – not less prominent differences. In the impending task of analyzing and comparing the various semiotic systems, we must remember not only the slogan of F. de Saussure that linguistics is part of the science of signs, but, first and foremost, the life-work of his no less eminent contemporary, and one of the greatest pioneers of structural linguistic analysis, Charles Sanders Peirce. Peirce not only stated the need for a semiotic but drafted, moreover, its basic lines. His fundamental ideas and devices in the theory of symbols, and particularly of linguistic

symbols, when carefully studied, will be of substantial support for the investigation of language in its relation to other systems of signs. We will then be able to discern the peculiar features of a linguistic sign. Now, one can only agree with our friend N. McQuown who realized perfectly that there is no equality between systems of signs, and that the basic, the primary, the most important semiotic system is language: language really is the foundation of culture. In relation to language, other systems of symbols are concomitant or derivative. Language is the principal means of informative communication.

For the study of language in operation, linguistics has been strongly bulwarked by the impressive achievement of two conjoined disciplines – the mathematical theory of communication and information theory. Although communication engineering was not on the program of our Conference, it is indeed symptomatic that there was almost not a single paper uninfluenced by the works of C. E. Shannon and W. Weaver, of N. Wiener and R. M. Fano, or of the excellent London group. We have involuntarily discussed in terms specifically theirs, of encoders, decoders, redundancy, etc. What, precisely, is the relation between communication engineering and linguistics? Is there perhaps some conflict between these two approaches? Not at all! As a matter of fact, structural linguistics and the research of communication engineers converge in their destinations. Then what, actually, is the use of communication theory for linguistics and vice versa? We must confess that, in some respects, the exchange of information has found on the part of the engineers a more exact and unambiguous formulation, a more efficient control of the technique used, as well as a promising possibility of quantification. On the other hand, the immense experience of linguists with language and its structure permits them to expose the inconsistencies and failings of the engineers when dealing with linguistic material. Along with the cooperation of linguists and anthropologists, I believe that most productive will be a consistent cooperation of linguists, and perhaps of anthropologists too, with the communication engineers.

Let us analyse the basic factors participating in linguistic communication: any speech event involves a message and four items connected with it – the sender, the receiver, the topic of the message, and the code used. The relation between these four items is variable. E. Sapir analysed the linguistic phenomena prevalently from the point of view of their "cognitive function", which he conceived as the primary function of language. But this emphasis of the message on its topic is far from being the only possibility. At present, the emphasis of the message on its other

factors begins to attract greater attention among linguists both in this country and abroad, in particular the emphasis on the communicators – the sender and receiver. Thus we welcome Smith's keen observations of those linguistic components which serve to characterize the speaker and his attitude to what he is speaking about and toward the listener.

Sometimes these different functions act separately, but normally there appears a bundle of functions. Such a bundle is not a simple accumulation but a hierarchy of functions, and it is very important to know what is the primary and what the secondary function. I was pleased with all the stimuli which I found on this problem in Smith's paper. I shall, however, not use his very rich terminology. I must confess that I agree on this point with V. Ray. New terms are very often a children's disease of a new science or of a new branch of a science. I now prefer to avoid too many new terms. When we discussed phonemic problems in the twenties, I myself introduced many new terms, and then I was by chance liberated from this terminological disease. When I was in Sweden, B. Collinder, who dislikes phonemics, said that he would like me to do a book for the Linguistic Society of Uppsala: "Only, please, no phonemics!" I was just completing my book on the phonemics of children's language and aphasia, and I simply eliminated the phonemic terms, upon which he said: "Now it's fine!" The book was, in fact, widely understood, and I, in turn, understood that it was possible, even in discussing totally new problems, to emancipate the work from new terms. I don't care whether I say "linguistics" and you say "micro-linguistics". I call the different sections of linguistics by traditional terms – you prefer the compounds "microlinguistics" and "metalinguistics". Although the traditional terms are perfectly satisfactory, "microlinguistics" does no harm. The coinage "metalinguistics" is – I agree with Y. R. Chao and others – a little bit dangerous, because metalinguistics and metalanguage mean other things in symbolic logic. Since it is better to have unclouded interdepartmental relations with logicians, one should rather avoid such ambiguities. Besides, you would be surprised if a zoologist, in describing what a certain animal eats and in what part of the world it is to be found, would call such questions meta-zoology. But I don't object – I still follow my late teacher A. M. Peškovskij who said: "Let's not quibble about terminology; if you have a weakness for new terms, use them. You may even call it 'Ivan Ivanovich', as long as we all know what you mean."

Returning now to the linguistic functions – I mentioned the emphasis on the topic, on the sender, on the receiver; and we see how many new things we are able to do when analysing this paramount problem of

sender and receiver. Moreover, there is the possibility of an emphasis either on the code or on the message. This emphasis of the message on its own self is called the poetic function. I am very happy that, if not at this Conference at least at the next, as it was said, this function will form part of the discussion. A. Hill's and H. Whitehall's successful seminar on poetic language at this Linguistic Institute is one of the eloquent proofs that the problems of poetic language enter into the foreground of American linguistics. I am happy that, as Whitehall intimates in his excellent pamphlet recently published by the Foreign Service Institute, a bridge is finally being built between linguistics and literary criticism in this country. The proper subject of inquiry into poetry is precisely language, seen from the point of view of its preponderant function: the emphasis on the message. This poetic function, however, is not confined to poetry. There is only a difference in hierarchy: this function can either be subordinated to other functions or appear as the organizing function. The conception of poetic language as language with a predominant poetic function will help us in understanding the everyday prosaic language, where the hierarchy of functions is different, but where this poetic (or aesthetic) function necessarily exists and plays a palpable role both in the synchronic and diachronic aspect of language. There are instructive border cases: the largest linguistic *code unit* functions at the same time as the smallest *poetic whole*, and in this marginal area the research of our friend D. B. Shimkin on proverbs is a fascinating theme, since the proverb is both a phraseological unit and a poetic work.

We mentioned the factors involved in the speech event, but we did not touch upon their interchangeability, the roles of sender and receiver merging or alternating, the sender or the receiver becoming the topic of the message, and the other interactions of all these factors. The most essential problem for speech analysis is that of the code common to both sender and receiver and underlying the exchange of messages. No communication is feasible without a certain stock of what the engineers, and especially D. M. MacKay, one of the nearest to linguists among them, call preconceived possibilities and prefabricated representations. When I read all that was written by the communication engineers, especially American and English (in particular E. C. Cherry, D. Gabor, and MacKay), on message and code, I realized of course that both these conjoined aspects have been for a long time familiar to the linguistic and logical theories of language here and abroad under various dichotomous names such as *langue–parole, Language–Speech, Linguistic Pattern–Utterance, Legisigns–Sinsigns, Type–Token, Sign-design–Sign-event*, etc.

But at the same time I must confess that the *Code–Message* concepts of communication theory are much clearer, much less ambiguous, and much more operational than the traditional presentation of this dichotomy in the theory of language. I believe that it's preferable to work at present with these well-defined, measurable and analysable concepts without replacing them by new, once again somewhat vague terms, such as the "common core".

Communication theory seems to me a good school for present-day linguists, just as structural linguistics is a useful school for communication engineering. I think that the basic reality facing a linguist is the interlocution – the exchange of messages between sender and receiver, between addresser and addressee, between encoder and decoder. There occur attempts to revert to a very, very old, I should say pre-Whitneyan, stage of our science in considering individual speech as the only reality. As I already mentioned, individual speech doesn't exist without an exchange. There is no sender without a receiver – oh, yes, there is, if the sender is drunk or pathological. As to non-exteriorized, non-uttered, so-called inner speech, it is only an elliptic and allusive substitute for the more explicit, enunciated speech. Furthermore, dialogue underlies even inner speech, as demonstrated from Peirce to L. S. Vygotskij.

With the customary great interest I read the paper on *Idiolect*, distributed by my old friend C. F. Hockett. This paper confines the idiolect to a single individual's habits of speaking at a given time, not including his habits of understanding the speech of others. If my Cambridge utterances over a longer period were observed and tape-recorded, one would never hear me use the word "idiolect". Nevertheless now, when speaking with you, I use it because I am adapting myself to my potential opponents, for instance, to Hockett. I use many other terms in the same way. Everyone, when speaking to a new person, tries, deliberately or involuntarily, to hit upon a common vocabulary: either to please or simply to be understood or, finally, to bring him out, he uses the terms of his addressee. There is no such a thing as private property in language: everything is socialized. Verbal exchange, like any form of intercourse, requires at least two communicators, and idiolect proves to be a somewhat perverse fiction.

There are indeed many stimuli to be gained for linguists from the theory of communication. A normal communication process operates with an encoder and decoder. The decoder receives a message. He knows the code. The message is new to him, but, by virtue of this code, he interprets the message. To comprehend this operation we now have the great

help of psychology. One of the most pleasant experiences we had during this conference was Osgood's brilliant report on the psycholinguistic analysis of decoding and encoding processes.

The receiver understands the message thanks to his knowledge of the code. The position of the linguist who deciphers a language he doesn't know is different. He tries to deduce the code from the message: thus he is not a decoder; he is what is called a cryptanalyst. The decoder is a virtual addressee of the message. The American cryptanalysts who, during the war, read the Japanese secret messages were not the addressees of these messages. Obviously, the linguist must develop the technique of cryptanalysts; and, naturally, when one deals too long with a technique, one begins to believe that it is the normal procedure. But, as a matter of fact, such a procedure is quite marginal and exceptional in usual communication, and even the task of a linguist is to start with the job of the cryptanalyst but to end up as a normal decoder of this language. His ideal is to become like a member of the speech community studied. The cryptanalyst observes allophones and looks for the phonemes. But the phonemes, the invariants, are much more intimately known to the decoder, the member of the speech community, than are the variations. He doesn't care what the allophones are. He wants to pick out the phonemic contrasts in order to understand the text. (By the way, the terms "allophone" and "contrast" are in my parlance further examples of the verbal adaptation of the speaker to his listeners; otherwise, I would say "variant" and "opposition".)

In the field of interaction between message and code, this Conference has shown great progress. We have discussed here, on various levels, the relation between two participants in speech communication. As we well know, one of the essential duties of language is to bridge space – to span distance – to create a spatial continuity – to find and establish a common language through the air. Of course, where distance is involved, there emerge still greater and more numerous dialectal differences. If there are two neighboring speech-communities, the code is not the same, but still there is no hermetic isolation of either speech community. This may occur only as an abnormal, rather pathological case. As a rule, there is a tendency to understand the members of the other speech community, and we heard the illuminating paper of my tried friend Twaddell, which showed us how such a mechanism works. This is the "code switching" of the communication engineers. W. F. Twaddell always senses not only the problem of present-day linguistics but also the problem of tomorrow. Just as his monograph on defining the phoneme

was a spur to search for a strictly scientific phonemic analysis, his new paper calls for thorough attention to the focal linguistic problem of code-switching.

We proceed now to the puzzles of bilingualism, graphically discussed by Mary R. Haas and J. B. Casagrande. We are still on the same problem of bridging space. Here almost nothing stems from a common core. The codes become still more and more different. But there is always a certain correspondence, a certain relation between the two codes. There is the possibility of a search for at least a partial understanding, and there are in such relations interlingual mediators, interpreters – bilingual people. Here we reach a very relevant, decisive point. Bilingualism is for me the fundamental problem of linguistics, because the division into departments is artificial – the department of French, the department of Italian, etc. Are the contiguous languages in complete segregation? If there is an iron curtain, we know how easily such a curtain is penetrated by various forms of verbal communication. We know that there exist bilingual areas or bilingual groups of speakers, and the sociology of language presents us with interesting accounts of them. Since bilingual people can obviously speak to and influence a higher number of listeners, they consequently have a higher power, a higher prestige. What is then the result? There is an adaptation on the part of the bilingual person from one language to another and a subsequent diffusion of certain phenomena stimulated by bilingual people among non-bilingual people. As was pointed out in that most important paper of A. Sommerfelt's, we face the question of the diffusion of patterns – of phonemic patterns, of grammatical categories, of what Sapir called the grammatical processes. We shall see how enormous this diffusion is when we obtain the Atlas begun in Oslo before the last war, the atlas of such phenomena, carto-graphed regardless of the boundaries and relationships of the languages carrying these phenomena. I spoke with one of the most sober among linguists, Haas, and with one of the most sober among anthropologists, Ray. The extent of such a phonemic and grammatical diffusion among neighboring languages of clearly different origin appeared to us so sur-prising, so difficult to explain that we were unanimous in stressing the urgent need for a systematic, international study of these phenomena. This task does not at all eliminate the problem of genetic kinship, but the problem of affinity is no less important – and, without knowing exactly what affinity is, we will never detect the genetic features.

So much for space. Now we must confront the factor of time. It was not discussed at this Conference, but it was examined in the luminous

mimeographed paper by Hill, distributed here. We were accustomed to textbooks advocating a complete split between synchronic and diachronic linguistics. They were presented as two entirely diverse methodologies, two basically different problems. This is, in my opinion, obsolete and I am in complete agreement with the views of Hill: the history of a language can only be the history of a linguistic pattern, a linguistic system, which undergoes different mutations. Each mutation must be analysed from the point of view of the pattern as it was before the mutation and after it. Here we come to an important point. I formulate it in other terms than Hill, but I hope that we will be no less in accord. It seems to me that the great mistake and confusion, the sharp separation between synchrony and diachrony, was to a high degree due to a confusion between two dichotomies. One is the dichotomy of synchrony and diachrony, and the other is the dichotomy between static and dynamic. Synchronic is not equal to static. When at a movie I ask you what you see at a given moment on the screen, you won't see statics – you'ill see horses running, people walking, and other movements. Where do you see statics? Only on the billboards. The billboard is static but not necessarily synchronic. Suppose a billboard remains unchanged for a year – that is static. And it is completely legitimate to ask what is static in linguistic diachrony. I'm sure it would interest Hahn if I try to define what has been static, unchangeable, immutable in Slavic from the early Middle Ages, or from Common Indo-European, until the present. This is a static problem but at the same time a diachronic one.

Let us tackle the dynamic problems. I'll use as an example a change I have observed from my childhood: there has occurred a certain salient change in the vowel pattern of contemporary Standard Russian. In the unstressed, especially pretonic position, the two phonemes /e/ and /i/ were distinguished by our grandparents' generation in Moscow. In the parlance of our and the younger generation, these two phonemes merged in one /i/. For the intermediate generation, that of our parents, this distinction is optional. What does this mean? It means: the intermediate generation has a code that contains this distinction. When discrimination is needed to avoid ambiguities or to make speech particularly clear, both phonemes are distinguished in pronunciation. But in a slurred, slovenly, so to speak elliptic style, this distinction, along with certain others, may be omitted: speech becomes less explicit. Thus, for a certain time, both the starting point and the finish of a mutation appear to coexist as two stylistic layers and, moreover, when the time factor enters into such a system of symbolic values as language, it becomes a symbol itself and

may be used as a stylistic means. For instance, when we speak in a more conservative way, we use the more archaic forms. In Moscow Russian, the generation of our parents did not use the distinction between un-stressed /e/ and /i/ in familiar talk: rather the newer fashion of fusing both phonemes was followed to produce the impression of being younger than one really was. Suppose that one generation always makes this distinc-tion, and the succeeding one doesn't make it at all, But it can never happen that only one generation exists, and that the whole preceding generation dies on one and the same day. Thus both patterns must for a time coexist, and usually there is some intercourse between the two generations, and the receiver of one of them is accustomed to recode the message from a sender of the other generation. Thus a change is, at its beginning, a synchronic fact, and, insofar as we don't wish to oversimplify, the synchronic analysis must encompass linguistic changes, and, vice versa, the linguistic changes can be comprehended only in the light of synchronic analysis.

One problem becomes particularly pressing for structural linguistics. We haven't discussed this question here, but it must be raised at one of the nearest Conferences – it is a problem which has been alluded to so much in this country and abroad and which is still at the laboratory stage. I mean the problem of linguistic typology – the typology of patterns and the universal laws that underly this typology. What elements may occur together and what elements may not? What elements necessarily occur together? Which element B implies which element A, and what elements don't imply each other? Which elements imply the absence of which other element?

The discussion introduced by C. E. Osgood touching upon aphasia and the related problem of children's language bring us directly up against the general laws of patterning. When I broach these problems, there inevitably appears a skeptical opponent who says: but we don't know all languages, so how can you tell that a certain structural pheno-menon doesn't occur? Very well, but we know a high enough number of languages to be able to say that if we subsequently find one exception to the supposed law, it will be a mere fraction of one per cent, and the law will preserve the value of a weighty statistical statement with probability less than one but still very close to one. Furthermore, there are laws of patterning where it is highly improbable that even solitary deviations will be found. Languages that don't admit vowels at word-beginnings are not rare, but I doubt the existence of languages that don't admit initial consonants.

If there are general laws underlying the various phonemic and grammatical systems, we will hardly find general laws of linguistic change. There will only be observations on tendencies, statements on the higher or lower probability of various changes. For the possibility of a change, the only limitation is that there are no changes achieving a state that would contradict the general structural laws. This higher validity of static versus dynamic laws is not confined to linguistics. The developments of modern science record a similar conclusion in different fields. Thus we have learned – I quote – that quantum mechanics is morphically deterministic, whereas the temporal processes, the transition between stationary states, are governed by statisctical laws: in comparison with classical mechanics, quantum mechanics gains in morphic determinism what it loses in temporal determinism. To those who are easily frightened by far-reaching analogies I retort that I, too, dislike dangerous analogies, but I like analogies that are to me fruitful. Whether such interdisciplinary analogies are dangerous or fruitful the future will show.

Finally, one of the most symptomatic features of this Conference was that we lengthily and passionately discussed questions of meaning. There were speakers who stated: a few years ago it would hardly have been possible. Well, that they were not discussed before also proved useful. Deliberations have their own agenda. One cannot discuss everything at one time. There are still those who say that questions of meaning have no meaning for them, but when they say "no meaning" they either know what it means, and *eo ipso* the question of meaning becomes meaningful, or they don't know, and then their formula becomes meaningless.

I think Smith's expression, "differential meaning", is excellent. I should only like to add that any linguistic meaning is differential. Linguistic meanings are differential in the same sense that phonemes are differential sound units. A linguist knows that speech sounds present, besides phonemes, contextual and optional, situational variants (or, under other labels, "allophones" and "metaphones"). Correspondingly, on the semantic level we observe contextual meanings and situational meanings. But variations cannot be acknowledged without the existence of invariants. On the level of meaning as well as on that of sound, the problem of the invariants is decisive for the analysis of a given language at a given stage. These invariants, puzzling for the cryptanalyst, are familiar to the habitual decoder who listens to a new context and nevertheless knows beforehand what its words mean, granted he belongs to the same speech community and is not a pathological case. The normal decoder recognizes the sound tokens through the phonemes, and the meanings of words and mor-

phemes in the given message through the word-designs and morpheme-designs in his code. If, however, you dislike the word "meaning" because it is too ambiguous, then let us simply deal with semantic invariants, no less important for linguistic analysis than the phonemic invariants.

Smith, who has the rare gift of very concrete exemplification and presentation and operates with "differential meaning" as tangibly as with his rich uncle in the charming story he told us, said that we must find out whether the meaning is the same or different. He certainly realizes as well as we that it's easier to proclaim the principle of *Sameness* and *Otherness* than to resolve whether actually two *Sign-Events* implement the same *Design*, or whether the two *Tokens* are to be assigned to two different *Sign-Types*. Identification and differentiation are but two sides of one and the same problem, the main problem of the whole of linguistics on both its levels – *signans* and *signatum*, to use the good old terms of St. Augustine, or "expression" and "content" as L. Hjelmslev christens them in his glossematic life work. This problem of identification and differentiation both on the level of "expression" and "content" is for us linguists an intrinsic linguistic matter.

It is true that some theoreticians claim that syntax deals with the relation between signs, and semantics with the relation between signs and things. Let us, within the framework of synchronic linguistics, examine: what is the difference between syntax and semantics. Language entails two axes. Syntax is concerned with the axis of concatenation, semantics with the axis of substitution. If, for instance, I say "the father has one son", then the relations between "the", "father", "has", "one", and "son" are relations within the sequence; they are syntactic relations. If I compare the contexts "the father has one son", "the mother has one son", "the father has one daughter", "the father has two sons", I substitute certain signs for others, and the semantic relations we deal with are no less linguistic than the syntactic relations. Concatenation implies substitution.

When I insist on the intrinsically linguistic character of semantics, is this novel? No, it has been said very clearly; but things that have been said very clearly are very often totally forgotten. It was insistently stated from 1867 by Peirce, who, I repeat, must be regarded as a genuine and bold forerunner of structural linguistics. As he said, the sign, in order to be understood, and the linguistic sign in particular, requires not only the two participants of the given speech event but needs, moreover, an "interpretant". According to Peirce, the function of such an interpretant is performed by another sign or set of signs that occur together

with the given sign, or might occur instead of it. Her is the basis for our further deliberations on linguistic operations with meanings, and I'm sure they will be our main concern in the future. No doubt we will argue – argue about terminology, technical devices, some facets of theory – but the milestones are in view.

We learn still more how to incorporate grammatical meanings into structural analysis as the vivid discussion led by our Yale friends F. G. Lounsbury and R. S. Wells revealed. But even in interpreting the less schematically patterned lexical meanings, we can and must remain within the framework of linguistic methodology. Even if we were to cling to the study of various contexts and confine this study to distributional analysis, lexical meaning still enters within its scope: a reversible equation sentence – A is B, B is A – is also a context; and one of the most illuminating of Peirce's theses propounds that the meaning of a sign is the sign it can be translated into. When I read in today's newspaper: "OPA permits pork price rises", I personally don't know what OPA is, but I do know the meaning of the words *permits*, *price*, *rises*, and *pork*. How can pork be defined from a linguistic point of view? "Pork is pig meat used as food." Such an equational context is perfectly acceptable for the speech community, as well as the reverse statement that pig meat used as food is called *pork*. This statement informs us, as a matter of fact, only about the lexical meaning of the word *pork* in English. There are different ways of interpreting the word *pork* in other signs. We used a circumlocution, and we always may: as Peirce incisively defined the main structural principle of language, any sign is translatable itself into another sign in which it is more fully developed. Instead of an intralingual method, we may use an interlingual way of interpretation by translating the word *pork* into another language. The method would be intersemiotic if we would resort to a non-linguistic, for instance, to a pictorial sign. But in all these cases we substitute signs. Then what about a direct relation between sign and thing?

To the very interesting discussion on the problem of pointing in the paper distributed by Z. S. Harris and C. F. Voegelin, may I contribute a few remarks? Suppose I want to explain to a unilingual Indian what Chesterfield is, and I point to a package of cigarettes. What can the Indian conclude? He doesn't know whether I mean this package in particular, or a package in general, one cigarette or many, a certain brand or cigarettes in general, or, still more generally, something to smoke, or, universally, any agreeable thing. He doesn't know, moreover, whether I'm simply showing, giving, selling, or prohibiting the cigarettes to him. He

will gather what Chesterfield is, and what it is not, only if he masters a series of other linguistic signs which will serve as interpretant of the sign under discussion.

In *Gulliver's Travels*, do you remember the sage of Balnibarbi who decided "that since words are only names for things, it would be more convenient for all men to carry about them such things as were necessary to express the particular business they are to discourse on"? There proved to be, however, an inconvenience, pointed out by Swift, who was as clever in satire as in the science of communication: "if a man's business be very great, and of various kinds, he must be obliged in proportion to carry a greater bundle of things upon his back" and he risks sinking under their weight. It would be difficult to converse in things about "a whale", even more embarrassing about "whales", and hardly possible to communicate about "all whales" or "absent whales". Even if one miraculously succeeded in collecting all the whales of the world, how would he convey in things that they were indeed all?

As symbolic logic has persistently reminded us, "linguistic meanings", constituted by the pattern of analytic relationship of one expression to other expressions, do not presuppose presented things. Linguists, on the contrary, did their utmost to exclude meaning and any appeal to meaning from linguistics. Thus, meaning remains a no man's land. This game of give-away must end. For years and decades we have fought for the annexation of speech sounds to linguistics, and thereby established phonemics. Now we face a second front – the task of incorporating linguistic meaning into the science of language.

I realize that my remarks on pending problems are as fragmentary as a movie prevue, but you will understand them if Peirce is right in stating that any sign may be translated into another more explicit sign.

INTRODUCTION TO THE SYMPOSIUM ON THE STRUCTURE OF LANGUAGE AND ITS MATHEMATICAL ASPECTS

This Symposium arose through the fortunate initiative of the American Mathematical Society which fully realized that the attention of linguists, logicians and mathematicians has become focused upon problems of mutual interest.

The need for an ever closer contact between linguistics and mathematics was clearly understood at the threshold of our century by the two great anticipators of the modern structural analysis of language – Baudouin de Courtenay, and Ferdinand de Saussure. As early as 1894, Saussure noted: "Les quantités du langage et leurs rapports son régulièrement exprimables *dans leur nature fondamentale*, par des formules mathématiques", and somewhat later, discussing the problem of simplest expression for linguistic concepts, he stated: "L'expression simple sera algébrique ou elle ne sera pas." Finally, in 1911, when working on his last course in general linguistics, Saussure pointed out that this science appeared to him as a system of geometry: "On aboutit à des théorèmes qu'il faut démontrer."

Attacking, since the 1870s, the crucial questions of the relation between continuity and discreteness in language, Baudouin de Courtenay attempted to utilize in the study of language some of the basic notions of contemporaneous mathematics, and in his historical survey of linguistics, published in 1909, he expressed his conviction that this study would become ever closer to the exact sciences. Upon the model of mathematics it would, on the one hand, deploy "ever more quantitative operations" and, on the other, develop "new methods of deductive thought". In particular "just as mathematics converts all the infinities to denumerable sets amenable to analytic thought", Baudouin expected somewhat similar results for linguistics "from improved qualitative analysis".

While Baudouin referred to the mathematical model for the analysis of language, at about the same time, before the 4th International Congress of Mathematicians in 1909, E. Borel discussed the antinomy of the de-

numerable infinities and appealed to the fundamental role of language in mathematical operations, "car les prétendus systèmes entièrement logiques reposent toujours sur le postulat de l'existence de la langue vulgaire; ce langage commun à des millions d'hommes, et avec lequel ils s'entendent à peu près entre eux, nous est donné comme un fait, qui impliquerait un grand nombre de cercles vicieux, s'il fallait le créer *ex nihilo*." The linguistic inference therefrom became Bloomfield's thesis according to which "mathematics is merely the best that *language* can do" (1933). If "mathematics, the ideal use of language", is a mere superstructure over the common language, the interrelation between this superstructure and its basis must be of primary interest for mathematicians and linguists alike.

Both the theoretician of language and the investigator of languages in their single stages or in evolution, as well as the workers in the rapidly developing branches of applied linguistics, are attracted by the manifold mathematical disciplines: mathematical logic, in particular, the theory of recursive functions and automata; the topological, algebraic and quantitative facets of mathematics; the theory of communication and probabilistic models. One cannot but agree with the mathematician J. Hadamard, who in 1943 acknowledged the progress of the structural trend in the science of language by declaring linguistics to be a bridge between mathematics and humanities.

LINGUISTICS AND COMMUNICATION THEORY

Norbert Wiener refuses to admit "any fundamental opposition between the problems of our engineers in measuring communication and the problems of our philologists".[1] There appear indeed striking coincidences and convergences between the latest stages of linguistic analysis and the approach to language in the mathematical theory of communication. Since each of these two disciplines is concerned, although in different and quite autonomous ways, with the same domain of verbal communication, a close contact between them has proved to be of mutual use and undoubtedly will become ever more beneficial.

The stream of oral speech, physically continuous, originally confronted the mathematical theory of communication with a situation "considerably more involved" than in the case of a finite set of discrete constituents, as presented by written speech.[2] Linguistic analysis, however, came to resolve oral speech into a finite series of elementary informational units. These ultimate discrete units, the so-called "distinctive features", are aligned into simultaneous bundles termed "phonemes", which in turn are concatenated into sequences. Thus form in language has a manifestly granular structure and is subject to a quantal description.

The primary aim of information theory, as stated for instance by D. M. MacKay, is "to isolate from their particular contexts those abstract features of representations which can remain invariant under reformulation".[3] The linguistic analogue to this problem is the phonemic search for relational invariants. The diverse possibilities for measurement of the amount of phonemic information which are foreseen by the communication engineers (distinguishing between "structural" and "metrical"

[1] *Journal of the Acoustical Society of America*, vol. 22 (1950), p. 697.
[2] C. E. Shannon and W. Weaver, *The Mathematical Theory of Communication* (Urbana, The University of Illinois Press, 1949), pp. 74ff., 112f.
[3] *Cybernetics: Transactions of the Eighth Conference* (New York, Josiah Macy Jr. Foundation, 1952), p. 224.

information content) may give both to synchronic and to historical linguistics precious data, particularly important for the typology of languages both in a purely phonological aspect and in the intersection of phonology with the lexicogrammatical level.

The dichotomous principle underlying the whole system of distinctive features in language has gradually been disclosed by linguistics and has found corroboration in the binary digits (or to use the popular portmanteau, *bits*) employed as a unit of measurement by the communication engineers. When they define the selective information of a message as the minimum number of binary decisions which enable the receiver to reconstruct what he needs to elicit from the message on the basis of the daa already available to him,[4] this realistic formula is perfectly applicable to the role of distinctive features in verbal communication. As soon as "the way of recognizing universals through their invariants" had been attempted and an overall classification of distinctive features had been outlined according to these principles, the problem of translating the criteria proposed by linguists "into mathematical and instrumental language" was raised in D. Gabor's lectures on communication theory.[5] Recently there has appeared an instructive study by G. Ungeheuer offering a tentative mathematical interpretation of the distinctive features in their binary patterning.[6]

The notion of "redundancy", taken over by communication theory from the rhetorical branch of linguistics, acquired an important place in the development of this theory, has been challengingly redefined as "one minus the relative entropy", and under this new aspect has reentered present-day linguistics as one of its crucial topics. The necessity of a strict distinction between different types of redundancy is now realized in the theory of communication as well as in linguistics, where the concept of redundancy encompasses on the one hand pleonastic means as opposed to explicit conciseness (*brevitas* in the traditional nomenclature of rhetoric) and on the other hand explicitness in contradistinction to ellipsis. On the phonological level, linguists have been accustomed to delimit phonemic, distinctive units from contextual, combinatory, allophonic variants, but the treatment of such interconnected problems as redundancy, predictability, and conditional probabilities in communication theory furthered a clarification of the relationship between the two basic linguis-

[4]   *Communication Theory*, ed. by W. Jackson (New York, Academic Press, 1953), p. 2.
[5]   *Lectures on Communication Theory* (Massachusetts Institute of Technology, Cambridge, Mass., 1951), p. 82.
[6]   *Studia Linguistica*, vol. 13 (1959), pp. 69–97.

tic classes of sound-properties – the distinctive features and the redundant features.

A phonemic analysis, when consistently purposing the elimination of redundancies, necessarily provides an optimal and unambiguous solution. The superstitious *belief* of some theoreticians unconversant with linguistics that "there remain no good reasons for the distinction between distinctive and redundant among the features"[7] is patently contradicted by innumerable linguistic data. If, for example, in Russian the difference between advanced vowels and their retracted counterparts is always accompanied by the difference between preceding consonants, which are palatalized before the advanced vowels and devoid of palatalization before the retracted vowels, and if on the other hand the difference between palatalized and non-palatalized consonants is not confined to a vocalic neighborhood, the linguist is obliged to conclude that in Russian the difference between the presence and lack of consonantal palatalization is a distinctive feature, while the difference between the advanced and retracted vowels appears as merely redundant. Distinctiveness and redundancy, far from being arbitrary assumptions of the investigator, are objectively present and delimited in language.

The prejudice treating the redundant features as irrelevant and distinctive features as the only relevant ones is vanishing from linguistics, and it is again communication theory, particularly its treatment of transitional probabilities, which helps linguists to overcome their biased attitude toward redundant and distinctive features as irrelevant and relevant respectively.

Preconceived possiblitities, according to MacKay, "is the key phrase in communication theory", and a similar claim comes from linguistics. In neither discipline has there been any doubt about the fundamental role of selective operations in verbal activities. The engineer assumes a "filing system" of prefabricated possibilities more or less common to the sender and receiver of a verbal message, and Saussurian linguistics speaks correspondingly about *langue*, which makes possible an exchange of *parole* between interlocutors. Such an "*ensemble* of possibilities already foreseen and provided for"[8] implies a code, conceived by communication theory as "an agreed transformation – usually one-to-one and reversible"[9] – by which one set of informational units is converted into another set, for

---

[7]   *Word*, vol. 13 (1957), p. 328.
[8]   *Cybernetics: Transactions of the Eighth Conference* (New York, The Technology Press of Massachusetts Institute of Technology, 1952), p. 183.
[9]   C. Cherry, *On Human Communication* (New York-London, 1957), p. 7.

instance, a grammatical unit into a phonemic sequence and vice versa. The code matches the *signans* with its *signatum* and the *signatum* with its *signans*. Today, with respect to the treatment of coding problems in communication theory, the Saussurian dichotomy *langue/parole* can be restated much more precisely and acquires a new operational value. Conversely, in modern linguistics communication theory may find illuminating information about the stratified structure of the intricate linguistic code in its various aspects.

Although the framework of the linguistic code has been adequately outlined in linguistics, it is still frequently overlooked that the finite ensemble of "standard representations" is limited to lexical symbols, their grammatical and phonological constituents, and the grammatical and phonological rules of combination. Only this portion of communication may be defined as a mere "activity of replicating representations". On the other hand, it is still opportune to recall that the code is not confined to what communication engineers call "the bare intelligence content" of speech, but that likewise the stylistic stratification of the lexical symbols and the allegedly "free" variation, both in their constitution and in their combination rules, are "foreseen and provided for" by the code.

In his program for the future science of signs (semiotics) Charles Peirce stated: "A Legisign is a law that is a Sign. This law is usually established by men. Every conventional sign is a legisign."[10] Verbal symbols are cited as a salient example of legisigns. Interlocutors belonging to one given speech community may be defined as actual users of one and the same linguistic code encompassing the same legisigns. A common code is their communication tool, which actually underlies and makes possible the exchange of messages. Here is the essential difference between linguistics and the physical sciences, and this difference has been distinctly and repeatedly singled out in the theory of communication, especially by its English school, which insists on a clear-cut line of demarcation between the theory of communication and of information. Nevertheless, this delimitation, strange as it seems, is sometimes disregarded by linguists. "The stimuli received from Nature," as Colin Cherry wisely stresses, "are not pictures of reality but are the evidence from which we build our personal models."[11] While the physicist creates his theoretical construct, imposing his own hypothetical system of new symbols upon

[10]   *Collected Papers*, vol. 2 (Cambridge, Mass., Harvard University Press, 1932), p. 142f.
[11]   *Op. cit.*, p. 62. Cf. W. Meyer-Eppler, *Grundlagen und Anwendungen der Informationstheorie* (Berlin-Göttingen-Heidelberg, Springer-Verlag, 1959), p. 250ff.

the extracted *indices*, the linguist only recodes, translates into symbols of a metalanguage those extant *symbols* which are used in the language of the given speech community.

The constituents of the code, for instance, the distinctive features, literally occur and really function in speech communication. Both for the receiver and for the transmitter, as R. M. Fano points out, the operation of selection forms the basis of "information-conveying processes".[12] The set of yes-or-no choices underlying any bundle of these discrete features is not an arbitrary concoction of the linguist, but is actually made by the addressee of the message, insofar as the need for their recognition is not cancelled by the prompting of the verbal or non-verbalized context.

Both on the grammatical and on the phonological level, not only the addressee in decoding the message, but also the encoder may practice ellipsis; in particular, the encoder omits some of the features, or even some of their bundles and sequences. But ellipsis, too, is governed by codified rules. Language is never monolithic; its overall code includes a set of subcodes, and such questions as that of the rules of transformation of the optimal, explicit kernel code into the various degrees of elliptic subcodes and their comparison as to the amount of information requires both a linguistic and an engineering examination. The *convertible code* of language, with all its fluctuations from subcode to subcode and with all the current progressing changes which this code is undergoing, is to be jointly and comprehensively described by the means of linguistics and communication theory. An insight into the dynamic synchrony of language, involving the space-time coordinates, must replace the traditional pattern of arbitrarily restricted *static* descriptions.

The linguistic observer who possesses or acquires a command of the language he is observing is or gradually becomes a potential or actual partner in the exchange of verbal messages among the members of the speech community, a passive or even active fellow member of that community. The communication engineer is right when defending against "some philologists" the absolutely dominant "need to bring the Observer onto the scene" and when holding with Cherry that "the participant-observer's description will be the more complete".[13] The antipode to the participant, the most detached and external onlooker, acts as a cryptanalyst, who is a recipient of messages without being their addressee

---

[12]   *The Transmission of Information* (Massachusetts Institute of Technology, Research Laboratory of Electronics, Technical Report No. 65) (1949), p. 3f.
[13]   *For Roman Jakobson* (The Hague, Mouton & Co., 1956), p. 61f.

and without knowledge of their code.[14] He attempts to break the code through a scrutiny of the messages. As far as possible, this level of linguistic investigation must be merely a preliminary stage toward an internal approach to the language studied, when the observer becomes adjusted to the native speakers and decodes messages in their mother-tongue through the medium of its code.

As long as the investigator knows no *signatum* of a given language and has access to nothing but *signans* he willy-nilly has to strain his detective capacities and obtain any possible information about the structure of this language from the external evidence. The present state of Etruscology is a good example of such a technique. But if the linguist is familiar with the code and has mastered the conventional transformations by which a set of *signantia* is converted into a set of *signata*, then it becomes super-fluous for him to play Sherlock Holmes, unless he aspires to finding out how wide and reliable data could be obtained by such a mock scrutiny. It is difficult, however, to simulate ignorance of a familiar code: smuggled-in meanings distort one's allegedly cryptanalytic approach.

Obviously "the inseparability of objective content and observing sub-ject", singled out by Niels Bohr as a premise of all well-defined knowledge,[15] must be definitely taken into account also in linguistics, and the position of the observer in relation to the language observed and described must be exactly identified. First, as formulated by Jurgen Ruesch, the infor-mation an observer can collect depends upon his location within or out-side the system.[16] Furthermore, if the observer is located *within* the communication system, language presents two considerably different aspects when seen from the two ends of the communication channel. Roughly, the encoding process goes from meaning to sound and from the lexicogrammatical to the phonological level, whereas the decoding process displays the opposite direction – from sound to meaning and from features to symbols. While a set (*Einstellung*) toward immediate constituents takes precedence in speech production, for speech perception the message is *first* a stochastic process. The probabilistic aspect of speech finds conspicuous expression in the approach of the listener to homonyms, whereas for the speaker homonymy does not exist. When saying /sʌn/, he knows beforehand whether "sun" or "son" is meant, while the listener depends on the conditional probabilities of the context.[17] For the receiver,

---

[14] Cf. R. Jakobson and M. Halle, *Fundamentals of language* (The Hague, Mouton & Co., 1956), pp. 17–19.
[15] *Atomic Physics and Human Knowledge* (New York, John Wiley & Sons, 1958), p. 30.
[16] *Toward a Unified Theory of Human Behavior*, ed. by R. R. Grinker (New York, Basic Books, 1956), p. 54.
[17] See *International Journal of Slavic Linguistics and Poetics*, vol. 1/2 (1959), p. 286f.

the message presents many ambiguities which were unequivocal for the sender. The ambiguities of pun and poetry utilize this input property for the output.

No doubt there is a feedback between speaking and hearing, but the hierarchy of the two processes is opposite for the encoder and decoder. These two distinct aspects of language are irreducible to each other; both are equally essential and must be regarded as *complementary* in Niels Bohr's sense of this word. The relative autonomy of the input pattern is documented by the widespread temporal priority of a passive acquisition of a language both by infants and adults. L. Ščerba's request for a delimitation and elaboration of two grammars – "active" and "passive" – recently reemphasized by young Russian scholars is equally important for linguistic theory, for language teaching, and for applied linguistics.[18]

When a linguist deals with one of the two aspects of language *à al Jourdain,* namely without realizing whether his observations are devoted to output or to input, that is still less dangerous than the arbitrary compromises frequently made between the output and input analyses – for example, an output grammar discussing general operations without appeal to meaning, despite the necessary priority of meaning for the encoder. At present, linguistics is receiving particularly valuable suggestions from communication theory for the somewhat neglected study of the verbal input.

MacKay warns against the confusion between the exchange of verbal messages and the extraction of information from the physical world, both abusively unified under the label "communication"; this word has for him an inevitably *anthropomorphic* connotation "which bedevils discussion".[19] There is a similar danger when interpreting human inter-communication in terms of physical information. Attempts to construct a model of language without any relation either to the speaker or to the hearer, and thus to hypostasize a code detached from actual communication, threaten to make a scholastic fiction out of language.

Beside encoding and decoding, also the procedure of recoding, code switching, briefly, the various facets of translation, is becoming one of the focal concerns both of linguistics and of communication theory, here and in Western and Eastern Europe. Only now do such fascinating problems as those of ways and degrees of mutual understanding among speakers of

[18] See I. Revzin, *Tezisy konferencii po mašinnomu perevodu* (Moscow, Pervyj Moskov. Gos. Ped. Inst. Inostrannyx Jazykov, 1958), pp. 23–25.
[19] *Cybernetics: Transactions of the Eighth Conference* (New York, 1952), p. 221.

such closely cognate languages, as, for instance, Danish, Norwegian and Swedish, begin to attract the attention of linguists[20] and promise to give lucid insight into the phenomenon known in communication theory under the label "semantic noise" and into the theoretically and pedagogically important problem of overcoming it.

Incidentally, both linguistics and communication theory for a certain period were tempted to treat any concern with meaning as a kind of semantic noise and to exclude semantics from the study of verbal messages. At present, however, linguists display a tendency to reintroduce meaning while utilizing the very instructive experience of this temporary ostracism. Also in communication theory a similar trend may be observed. According to Weaver, the analysis of communication "has so penetratingly cleared the air that one is now, perhaps for the first time, ready for a real theory of meaning", and especially for handling "one of the most significant but difficult aspects of meaning, namely the influence of context".[21] Linguists are gradually finding the way of tackling meaning and in particular the relation between general and contextual meaning as an intrinsic linguistic topic, distinctly separate from the ontological problems of reference.

Communication theory, after having mastered the level of phonemic information, may approach the task of measuring the amount of grammatical information, since the system of grammatical, particularly morphological categories, like the system of distincitive features, is ostensibly based on a scale of binary oppositions. Thus, for instance, 9 binary choices underlie over 100 simple and compound conjugational forms of an English verb which appear, for example, in combination with the pronoun *I*.[22] The amount of grammatical information carried by the English verb can subsequently be confronted with the corresponding data on the English noun or on the verb and noun of various languages; the relation between the morphological and syntactic information in English has to be compared with the equivalent relation in other languages, and all these comparative data will present important auxiliary material for a

---

[20]   See particularly E. Haugen, *Nordisk Tidskr.*, vol. 29 (1953), pp. 225–249.

[21]   Shannon and Weaver, *op. cit.*, p. 116. Cf. D. M. MacKay, "The place of 'meaning' in the theory of information", *Information Theory*, ed. by C. Cherry (New York, Basic Books, 1956).

[22]   1. Preterit (*vs.* non-preterit), 2. perfect, 3. progressive, 4. expective, 5. morally determined, 6. contingent, 7. potential, 8. assertorial, 9. passive. Cf. R. Jakobson, *American Anthropologist*, vol. 61, no. 5, Part 2 (1959), pp. 139–141 [above, pp. 489ff.]; W. F. Twaddell, *The English Verb Auxiliaries* (Providence, Brown University Press, 1960).

linguistic typology of languages and for the inquiry into linguistic universals.

The amount of grammatical information which is potentially contained in the paradigms of a given language (statistics of the code) must be further confronted with a similar amount in the tokens, in the actual occurrences of the various grammatical forms within a corpus of messages. Any attempt to ignore this duality and to confine linguistic analysis and calculation only to the code or only to the corpus impoverishes the research. The crucial question of the relationship between the patterning of the constituents of the verbal code and their relative frequency both in the code and in its use cannot be passed over.

The semiotic definition of a symbol's meaning as its translation into other symbols finds an effectual application in the linguistic testing of intra- and interlingual translation, and this approach to semantic information concurs with Shannon's proposal to define information as "that which is invariant under all reversible encoding or translating operations", briefly, as "the equivalence class of all such translations".[23]

When dealing with meanings, whether grammatical or lexical, we must be careful not to misuse the polar notions – "regularity" and "deviation". The idea of deviation frequently arises from a disregard for the stratified, hierarchic structure of language. There is, however, a substantial difference between secondariness and deviation. We are not justified in envisaging as deviant either Kuryłowicz's "syntactic derivation" with regard to the "primary function",[24] or Chomsky's "transforms" *versus* "kernels",[25] or Bloomfield's "marginal" ("transferred") meanings in relation to the "central" meaning of the word.[26] Metaphoric creations are not deviations but regular processes of certain stylistic varieties, which are subcodes of an overall code, and within such a subcode there is nothing deviant in Marvell's figurative assignment of a concrete epithet to an abstract noun (properly a hypallage) – "a green Thought in a green shade" – or in Shakespeare's metaphoric transposition of an inanimate noun into the feminine class – "the morning opes her golden gates" – or in the metonymic use of "sorrow" instead of "sorrowful while", which Putnam's paper excerpts from Dylan Thomas ("A grief ago I saw him there").[27] In contradistinction to such agrammatical construc-

[23] *Cybernetics: Transactions of the Seventh Conference* (New York, 1951), p. 157.

[24] *Bulletin de la Société de Linguistique de Paris*, no. 110 (1936), pp. 79–92.

[25] *Syntactic Structures* (The Hague, Mouton & Co., 1957).

[26] *Language* (New York, Henry Holt & Co., 1933), p. 149.

[27] *Proceedings of Symposia in Applied Mathematics*, XII (1961).

tions as "girls sleeps", the quoted phrases are meaningful, and any meaningful sentence can be submitted to a truth test, exactly in the same way as the statement, "Peter is an old fox" could lead to a reply, "It's not true; Peter is not a fox but a swine; but John is a fox." Incidentally, neither ellipsis nor reticence or anacoluthon can be considered as deviant structures; they, and the slurred style of speech, a brachylogical subcode to which they belong, are merely lawful derivations from the kernel forms embedded in the explicit standard. Once again, this "code variability", which clarifies why the standard is not actualized in some overt behavior, has been overlooked more by linguists than by the less "biased" communication engineers.

To sum up, there exists a wide range of questions calling for cooperation of the two different and independent disciplines we are discussing. The first steps in that direction were actually lucky. May I finish by quoting an example of the longest and, until recently, perhaps the most spectacular tie between linguistics, in particular the study of poetic language, on the one hand, and the mathematical analysis of stochastic processes on the other. The Russian school of metrics owes some of its internationally echoed achievements to the fact that some forty years ago such students as B. Tomaševskij, expert both in mathematics and in philology, skillfully used Markov chains for the statistical investigation of verse; these data, supplemented by a linguistic analysis of the verse structure, gave in the early twenties a theory of verse based on the calculus of its conditional probabilities and of the tensions between anticipation and unexpectedness as the measurable rhythmical values, and the computation of these tensions, which we have labeled "frustrated expectations", gave surprising clues for descriptive, historical, comparative, and general metrics on a scientific basis.[28]

I am convinced that methods newly developed in structural linguistics and in communication theory, when applied to verse analysis, and to many other provinces of language, are capable of opening up wide perspectives for further coordinated efforts of both disciplines. Let us anticipate that our expectations will not be frustrated.[29]

[28] Cf. B. Tomaševskij, *O stixe* (Leningrad, 1929); R. Jakobson, *O češskom stixe* (Berlin-Moscow, 1923), and "Linguistics and poetics", *Style in Language* (New York, The Technology Press of Massachusetts Institute of Technology, 1960).
[29] I should like to dedicate this paper to the memory of the engineer O. A. Jakobson.

IMPLICATIONS OF LANGUAGE UNIVERSALS
FOR LINGUISTICS

No doubt the linguists who are present have responded to the scientific gain of this stimulating conference with a feeling of joyful relief. It has often been said that linguistics is a bridge between the sciences and the humanities, but it was a long time before the unity of linguistics with the exact sciences became definitely consolidated.

Hermann Helmholtz (3*, II, p. 25f.) predicted that "students will find themselves compelled to go through a stricter course of training than grammar is in a position to supply". This great German scientist of the last century was aghast to find evidence of a "certain indolence and vagueness of thought" in his compatriot students of grammar, and particularly to note their "laxity in the application of strictly universal laws. The grammatical rules, in which they have been exercised, are for the most part followed by long lists of exceptions; accordingly they are not in the habit of relying implicitly on the certainty of a legitimate deduction from a strictly universal law." According to Helmholtz, the best remedy for these defects "is to be found in mathematics, where there is absolute certainty in the reasoning, and no authority is recognized but that of one's own intelligence".

Our century has witnessed the gradual stages of a spectacular *rapprochement* between linguistic and mathematical thought. The gratifying concept of invariance, which in synchronic linguistics had first been applied to intralingual comparison of variable contexts, was finally expanded to interlingual comparison. Typological confrontation of diverse languages reveals universal invariants; or – to quote the inaugural charter of the present conference, the *Memorandum concerning Language Universals* prepared by J. H. Greenberg, C. Osgood, and J. Jenkins – "amidst diversity, all languages are, as it were, cut from the same pattern". We see emerging ever new, unforeseen, but henceforth perfectly discernible "uniformities of universal scope", and we are happy to recognize that

* References are cited by number of appearance in the bibliography.

the languages of the world can actually be approached as manifold variations of one world-wide theme – human language.

This outlook is particularly agreeable after the stern opposition to any TYPOLOGICAL comparison of languages which was current among American linguists during the 1940's and *mutatis mutandis* corresponded to the simultaneous Soviet Russian ban on comparative HISTORICAL studies by the then dictatorial Marrist dogma.

The tension between two polar trends – parochial particularism and all-embracing solidarity – which Saussure observed in language, (15, 205 ff.) is true for linguistics as well: "individual-language-oriented definitions" and concentration on differentials alone alternate here with a search for common denominators. Thus among scholastic theoreticians of language the renowned Paris savant of the 12th century, Pierre Hélie, declared that there are as many kinds of grammar as there are languages; whereas in the 13th century, *grammatica universalis* was considered indispensable to give grammar a scientific status. Roger Bacon taught: *Grammatica una et eadem est secundum substantiam in omnibus linguis, licet accidentaliter varietur* (17, p. 43). Only today, however, does linguistics have at its disposal the necessary methodological prerequisites for constructing an adequate universal model.

The strictly relational, topological character of the cross-language invariants under study has been repeatedly pointed out in the course of our deliberations. Previous endeavors to define the interlingual invariants in ABSOLUTE metrical terms could only fail. There is an inventory of simple relations common to all tongues of the world. Such relations pertain both to the early acquisitions of children's language and to the most stable verbal properties in those types of aphasic regress which display a mirror picture of infants' development. This repertory (6, 484 ff.) may be exemplified in phonemics by such simple relations as compact/diffuse (universally displayed in vocalism, and for most languages also in consonantism), grave/acute (universally displayed in consonantism and/or in vocalism, in the former almost universally), and nasal/non-nasal (near-universal in consonantism). To instance simple relations among grammatical universals, we may cite the difference between the classes of nouns and verbs (which assign to their referents the roles of 'existents' and 'occurrents' respectively, as Sapir used to call them: p. 1 (23), p. 123 (14). This difference is correlated but never merges with the likewise universal difference of two syntactic functions – subject and predicate. A few more examples: the particular class, pronouns (or in Charles Peirce's terms, 'indexical symbols': (10, p. 275 ff.); the cate-

gory of number, with its basic distinction between singular and plural; and the category of person, with its opposition of impersonal ('third person') and personal forms, which in turn include an opposition of addressee ('second person') and addresser ('first person'): the two numbers and the three persons are universally displayed by pronouns, as J. H. Greenberg observes.

Another and much richer inventory of universals consists of implicational rules which state a compulsory connection between two different relational properties of language. Thus in phonemics the combinability of distinctive features into bundles or sequences is restricted and determined by a considerable number of universal implicational rules. For instance, the concurrence of nasality with the vocalic feature implies its concurrence with the consonantal feature. A compact nasal consonant (/ɲ/ or /ŋ/) implies the presence of two diffuse consonants, one acute (/n/) and the other grave (/m/). The acute/grave opposition of compact nasal consonants (/ɲ/ *vs.* /ŋ/) implies an identical opposition of compact oral stops (/c/ *vs.* /k/). Any further tonality opposition of nasal consonants implies a corresponding opposition of oral consonants; and any opposition of nasal vowels implies a corresponding opposition of oral vowels (cf. Ch. A. Ferguson's "Assumptions about Nasals").

The present-day inquiry into the hierarchical arrangement of phonemic systems enables us to uncover the basis for each of the implicational rules stated. The more complex a phonemic entity, the less susceptible it is of further fissions. The important role assigned by the late Viggo Brøndal to the laws of compensation in the grammatical structure of languages (1, p. 105 ff.) is perhaps even more significant for their phonemic patterning (6, p. 491 ff.). For example, the marked character of nasals in their relation to orals results in the lower combinability of nasality with further features. The marked character of compactness in the compact/diffuse opposition of consonants explains the near-universal character of diffuse nasals and the limited spread of their compact counterparts. Inversely, the marked character of diffuseness in the diffuse/ non-diffuse opposition of vowels explains why there are fewer diffuse than non-diffuse phonemes among the nasal vowels of the world cf. Issatschenko: 5). On the other hand, of the two oppositions – grave/ acute and compact/diffuse, the former takes primary place in the phonemic stratification of the consonantal pattern; therefore the compact/ diffuse opposition of nasals implies their grave/acute opposition, as shown above (cf. Greenberg's forcible conclusions relevant to the distinctions present in an unmarked morphological category but neutralized in its marked counterpart).

The grounds for phonemic universals invariably lie in the relational structure of the sound pattern. Thus, for instance, in languages without the opposition of stops and corresponding continuants, the obstruents are always implemented exclusively or primarily as stops, because it is precisely the stops which stand in maximum contrast to vowels.

When examining the few ultimate oppositions which underlie the whole phonemic structure of language and dealing with the laws of their interrelation, we necessarily resort in the search for interlingual invariants to the same isomorphic principle as in eliciting intralingual invariants, and thus easily proceed in tracing the typology of existing phonemic patterns and their universal foundations. The tenacious belief that maintains the diversity of languages to be wider in phonemics than in grammar proves at variance with the facts observed.

The "logical operations" which H. J. Pos, the outstanding Dutch theoretician of language, apprehended in the binary oppositions of distinctive features (12), do indeed give the purely formal bases for a precise investigation of language typology and universals. Sol Saporta's segregation of references to vowels, as "a class defined in formal terms", from references to nasals, as a "class of phenomena defined in substance terms", is groundless, because any distributional definition of vowels presupposes that we identify phonemes in a given position as those possessing one common oppositive feature, vocality, just as the nasal phonemes are for us those which carry the oppositive feature of nasality. In both cases we must deal with relational concepts superimposed on sensuous data.

The distinction of phonemic entities "universally present by definition, i.e., universally necessary", like the phoneme, from those "universally present by empirical observation", like the syllable, makes no sense whatever. Saporta affirms that "in a language in which all syllables are exactly one phoneme long, the distinction between syllable and phoneme disappears"; but such a language is absolutely impossible, because the only form of syllable universally admitted is the sequence "consonant plus vowel". Saporta's assumption is as aimless and arbitrary as if he referred to some imaginary language where all words were one phoneme long, or where each phoneme contained but one feature. The hierarchy of universal linguistic units, from the utterance to the distinctive feature, must be a formal definition applicable to world-wide verbal experience. We are faced with the question of general laws which govern the relations between linguistic units differing in their rank. Thus, as regards both phoneme and word, the smaller the number of phonemes and their com-

binations and the shorter the word pattern in a given language, the higher is the functional load carried by the phonemes. According to J. Krámský (7), the higher the percentage of consonants in the code, the lower is the rate of their occurrence in the corpus. Should this affirmation prove correct, it would mean that distinctive features tend toward a universally constant frequency in the corpus.

On the grammatical level, J. H. Greenberg's list of 45 implicational universals is an impressive achievement. Even if advancing research somewhat reduces the number of exceptionless universals and increases the sum of near-universals, these data will remain invaluable and indispensable preliminaries to a new typology of languages and to a systematic outline of the universal laws of grammatical stratification. Skeptical reminders about numerous as yet unexplored languages are hardly convincing. First, the number of languages analyzed or available to analysis is enormous, and, secondly, even if there may possibly occur a further increase of near-universals to the corresponding diminution of exceptionless universals, this result cannot shake the momentous interest of the inquiry. Statistical uniformities with a probability slightly less than one are no less significant than uniformities with probability of one. We may expect, however, that with the progress of this search and with the refinement of its methods there will be discovered many new grammatical universals along with new near-universals.

Greenberg's statements on universals in the "order of meaningful elements" rightly put forward the notion of a "dominant" order. We are reminded that the idea of dominance is not based on the more frequent occurrence of a given order: actually what is here introduced into the "order typology" by the notion of dominance is a stylistic criterion. For example, of the six mathematically possible relative orders of nominal subject, verb, and nominal object – SVO, SOV, VSO, VOS, OSV, and OVS – all six occur in Russian: The sentence, "Lenin cites Marx", can be rendered as SVO (*Lenin citiruet Marksa*), SOV (*Lenin Marksa citiruet*), VSO (*Citiruet Lenin Marksa*), VOS (*Citiruet Marksa Lenin*), OVS (*Marksa Lenin citiruet*), and finally OVS (*Marksa citiruet Lenin*); yet only the order SVO is stylistically neutral, while all the "recessive alternatives" are experienced by native speakers and listeners as diverse shifts of emphasis. SVO is the only word order initially used by Russian children; and in a sentence like *Mama ljubit papu* 'Mama loves papa', if the order of S and O is inverted – *Papu ljubit mama,* small children are prone to misinterpret it: 'Papa loves mama', as if one had said, *Papa ljubit mamu.* Correspondingly, Greenberg's first universal could be restated as follows:

In declarative sentences with nominal subject and object, *the only or neutral (unmarked)* order is almost always one in which the subject precedes the object. If in a language like Russian the nominal subject and object are not distinguished by morphological means, the relative order SO is compulsory – *Mat' ljubit doč'*, 'Mother loves daughter'; inversion of the nouns would mean, 'The daughter loves the mother'. In languages without distinctive characteristics of object and subject, the order SO is the only one admissible.

The cardinal task of deducing empirical universals "from as small a number of general principles as possible" – already achievable by and large in phonemics – has been courageously approached by Greenberg on the grammatical level with more than promising conclusions. Particularly fruitful are his remarks on what we would call, in Charles Peirce's terminology (l.c.), the 'iconic' aspect of word order: "The order of elements in language parallels that in physical experience or the order of knowledge." The initial position of a word in unemphatic speech can reflect not only precedence in time but also priority in rank (the sequence "the President and the Secretary of State" is far more usual than the reverse), or it may reflect a primary, irremovable role within the given message. In the sentences, *Lenin citiruet Marksa* 'Lenin cites Marx' and *Marks cituruetsja Leninym* 'Marx is cited by Lenin' (with the recessive alternatives *Marks Leninym citiruetsja, Citiruetsja Marks Leninym, Citiruetsja Leninym Marks, Leninym Marks citiruetsja*, and *Leninym citiruetsja Marks* – each variety with its own stylistic shade), only the first of the two nouns, the subject *Marks*, is inomissible, while the oblique term, the instrumental *Leninym*, may be left out. The nearly universal precedence of the subject with regard to the object, at least in unmarked constructions, points to a hierarchy in focusing. It is not by chance that Greenberg's paper treats the universals of grammar "with particular reference to the order of meaningful elements" (syntactical or morphological constituents).

In general, the 'iconic symbols' of language display a particularly clear-cut universalistic propensity. Thus, within a grammatical correlation a zero affix cannot be steadily assigned to the marked category and a 'non-zero' (real) affix to the unmarked category. For example, according to Greenberg, "there is no language in which the plural does not have some non-zero allomorphs, whereas there are languages in which the singular is expressed only by zero. The dual and trial never have zero allomorphs." In a declensional pattern, the zero case ("which includes among its meanings that of the subject of the intransitive verb") is treated

like the singular in respect to the other numbers. Briefly, language tends to avoid any chiasmus between pairs of unmarked/marked categories on the one hand, and regular pairs of zero/non-zero affixes (or of simple/compound grammatical forms) on the other hand.

Phonemic experience may yield some useful stimuli for the investigation and interpretation of grammatical universals. In particular, one may expect the order of children's acquisitions and of aphasic losses to throw new light on the stratification of morphological and syntactic systems.

As we have already observed, the unaccountable fear of a slip into the phonetic substance may hamper the phonemic typology of languages and the discovery of general phonological laws. Likewise, the exclusion of semantic considerations (which has been a tantalizing experiment in grammatical descriptions) would be, with respect to typology, a flat contradiction in terms. One must agree with Greenberg that it would be impossible to identify grammatical phenomena in languages of differing structure without "employing semantic criteria". Morphological and syntactic typology and universal grammar as its groundwork deal primarily with "grammatical concepts", by Sapir's designation. It is obvious that in grammar there is no conceptual opposition without a corresponding formal distinction, but neither on the intralingual nor on the interlingual level is this distinction supposed to use one and the same "grammatical process". Thus in English the one opposition singular/plural is expressed either by suffixation or by vocalic alternation (*boy*: *boys*; *man*:*men*). If one language expresses this opposition by suffixation only and another only by vowel alternation, nonetheless the basic distinction of two grammatical numbers proves to be common to both languages.

Not only grammatical concepts, but also their interconnection with grammatical processes (exemplified above by the analysis of word order), and, finally, the structural principles of such processes, call for an extraction of implicational universals.

Fortunately, in his quest for the universals of grammar Greenberg does not share the whimsical prejudice against "semantics-oriented definitions", which, strange as it seems, seems to have filtered even into our Conference on Language Universals. One must fully approve Uriel Weinreich's witty remark, that if in phonology we had only a couple of commonplace statements on all-language properties, "we would hardly be meeting for a conference on phonological universals", and, again, that isolated truisms about the universal semantic properties of languages offer "not much to go on". A realistic approach to this

field, however, opens an everwidening prospect for new high-level generalizations. A *conditio sine qua non* of such inquiry is the consistent distinction between grammatical and lexical meanings (or, in Fortunatov's terms, the formal and the real meanings: see (11, Ch. 7), which, despite methodological itineraries traced particularly by the outstanding American and Russian pathfinders in linguistics, still bewilders and confuses certain students of language. Some of them even seem to be nonplussed by rudimentary questions: what, for example, does the plural or the past tense or the inanimate gender actually mean in a verbal code? and does it possess in general any meaning?

A cautious and unremitting search for the intralingual and therewith interlingual semantic invariants in the correlations of such grammatical categories as, e.g., verbal aspects, tenses, voices, and moods, becomes indeed an imperative and perfectly attainable goal in present-day linguistic science. This inquiry will enable us to identify equivalent grammatical oppositions within "languages of differing structure" and to seek the universal rules of implication which connect some of these oppositions with one another. The great mathematician A. Kolmogorov, an expert also in the science of language, has judiciously defined grammatical cases as those classes of nouns which express "wholly equivalent states" in regard to their referent (*absoljutno èkvivalentnye sostojanija otnositel'no dannogo predmeta* (16)). We analyze a grammatical case into its componental semantic properties and treat these componental properties just as we do distinctive features in phonemics: i.e., we define both as terms of INVARIANT oppositions and, correspondingly, as VARIANTS dependent on different contexts or on different subcodes (styles of language). Incidentally, though it happens that in certain contexts the use of a given case is compulsory and that in this instance its meaning turns out to be redundant, this circumstance does not allow us to equate even so predictable a meaning with meaninglessness. It would be a sheer misunderstanding to imagine that these occasional redundancies might invalidate to any extent the search for the general meanings of grammatical cases. It is true that the Russian preposition *k* 'to' implies the dative case subsequent, but the Russian dative does not imply an antecedent proposition *k* and thus preserves its own general meaning of "direction toward', just as the Russian noun *xleb* 'bread' does not lose its meaning when preceded by the adjective *peklevannyj* 'wholemeal', although *xleb* is the only noun one can expect after this attribute. In a sequence of two English obstruents, if the first is voiceless the second too must be voiceless: [kukt] *cooked*. In this instance,

.

however, the apparent analogy between the grammatical and phonemic sequences is misleading. Redundancy does deprive the phonemic feature of its distinctive value, but it cannot rob meaningful units of their proper sense.

Naive attempts to deal with variations without attacking the problem of invariants are condemned to failure. Such ventures change the case system from a hierarchic structure to a summative aggregate and hide the implicational universals which actually form the pivot of the declensional pattern. An interlingual difference in contextual variants does not affect the equivalence of invariant oppositions. Though the genitive of negation exists in Polish and Gothic but not in Czech or Ancient Greek, the genitive does act as a quantifier in all four of these languages.

At present "there is an ineradicable conviction", as H. M. Hoenigswald noticed in his thoughtful paper, "that universals may form some sort of system in their own right". The high number of grammatical universals based on "semantic criteria" eloquently proves the failure of the traditional belief cited by Weinreich, that "the semantic mapping of the universe by a language is, in principle, arbitrary".

The most profitable part of Weinreich's paper "On Semantic Universals" is his effort to answer the question, "What generalizations can be made about any vocabulary as a structured set, imperfect as the structuring may be?" The thoughts on language by Weinreich's six-year-old daughter (transmitted to us by her father between conference meetings) offer a particularly valuable and realistic supplement to his argumentation. "The standard works on semantics," Weinreich states, "are on the whole preoccupied with the one semiotic process of naming." His daughter, surprised to learn that there are thousands and thousands of words in a language, surmises that most of them must be "names" (she means nouns), and, on the other hand, grants that this high number of words is not so overpowering, since they go by pairs (of antonyms), as *up* and *down*, *man* and *woman*. *Water*, the little Shifra reasons, must be countered with *dry*, and *to buy* with *to make oneself* (since she is accustomed to buying but not to selling, there is no word alternation *buy—sell* in her thought). The bright child has observed two important properties of vocabulary: its structured arrangement, and the different status of diverse word classes, especially the more open, expansible character of the noun class.

The study of lexical patterning would be easier and more productive if it began not as usual with nouns but with more closely circumscribed

word classes. Then the bonds between semantic subclasses and their different syntactic treatment would prove particularly revealing. Thus the research started by Professor Gerta Worth (UCLA) within the frame of our Harvard teamwork (Description and Analysis of Contemporary Standard Russian) shows that the division of all Russian primary (un-prefixed) verbs into those which *must* or *may* or *cannot* be combined with a given case or with an infinitive results in a set of verbal classes, sub-stantiated both formally and semantically. A similar twofold delinea-tion of nominal classes is more laborious but still feasible. For instance, in Slavic and many other languages, the class of nouns designating an extent of time is syntactically grounded by the fact that only they can be used in the accusative with intransitive verbs (Russian *bolel nedelju* 'was ill for a week') and as a second accusative with transitive verbs (Russian *gody pisal knigu* 'for years was writing a book'). An intralingual classification of words which would at last tie together the problems of lexicology and grammar is an essential prerequisite to the cross-language investigation of lexical uniformities.

We have observed that the common joy at the universal outlook of this conference threatened to change into a feeling of frustration when the final debates over the prospective organization and further advancement of research proved inconclusive. Since it is clear that typology and univer-sals cannot be removed from the agenda, and since without continuous collective effort this research cannot be adequately promoted. may I propose at least one concrete measure.

We most urgently need a systematic world-wide mapping of linguistic structural properties: distinctive features, inherent and prosodic – their types of concurrence and concatenation; grammatical concepts and the principles of their expression. The primary and more easily accomplish-able task would be a phonemic atlas of the world. Preliminary discussions aiming toward such an atlas had been undertaken at an international meeting of phonologists in Copenhagen, August 29, 1936, and developed in 1939-1940 by the remarkable community of Oslo linguists, but were suspended at the German invasion. Today our linguistic section of the Center for Communication Sciences at M.I.T. would like to inaugurate work on this atlas, but to realize this project would require the wide cooperation of the Social Science Research Council and of its Committee on Linguistics and Psychology. Linguists of different centers in this country and abroad are to be enlisted in the work of our team.

The number of languages and dialects whose phonemic make-up is already accessible to linguists is fairly high, but – let us admit – at the

beginning there will be controversial questions, and some blanks will remain on our maps. Nevertheless, the existence of unexplored areas can never be used as an argument against mapping. The isophones obtained, even if they should be only approximate, will be immensely useful to linguistics and anthropology. Matched with one another these isoglosses will, no doubt, reveal new implicational rules and present the phonemic typology of languages in its geographical aspect. The phonemic affinities of contiguous languages due to the wide diffusion of phonemic features will be exhaustively displayed by the atlas. Work on phonemic and grammatical atlases of the world will be only part of that vast international cooperation which is necessary to reach the grand aims advanced by our conference.

To conclude: We all seem to agree that linguistics is passing from the bare study of variegated languages and language families, through systematic TYPOLOGICAL research and gradual INTEGRATION, to become a thoroughly universal science of language. For centuries this field has been a no-man's land, and only a few philosophical contributions – from the medieval treatises on *grammatica speculativa*, through John Amos Comenius' *Glottologia* (9) and the rationalist essays of the 17th and 18th centuries, to Husserl's (4) and Marty's (8) phenomenological meditations, and finally to the modern works in symbolic logic – have ventured to lay the foundations for a universal grammar.

When questioned by my examiner at Moscow University about the possibility of a universal grammar, I answered by quoting that professor's negative view of Husserl's *reine Grammatik*. There followed a demand for my own attitude; to the questioner's vexation I replied by advancing the necessity for linguistic research in this field.

If at present linguists finally turn to these problems, equipped as they are with a strict methodology of their own and a rich factual knowledge, they should revise and correct the extant theoretical constructions; but by no means are they justified in ignoring or in underrating the abundant philosophical hints of the past and of the present with the dubious excuse that in this literature one meets now and then with *a priori* statements and with inattention to verifiable realities. Thus Weinreich's indiscriminate rejection of the allegedly "new scholasticism" in Carnap's and Quine's recent writings is hardly warrantable. Likewise the philosophers' distinction between autocategorematic and syncategorematic signs remains vital for the construction of a universal grammar even if some of its traditional interpretations have proved to be "totally untenable". A careful empirical check of the various general principles

introduced by philosophical grammar may be an effective auxiliary in the linguistic investigation of universals and a welcome preventive measure against uneconomical, superfluous rediscoveries and against the dangerous fallacies with which the so-called creeping empiricism is too often menaced.

This conference has eloquently testified that isolationism in its various shapes vanishes from linguistics when the device of technical separation has served its useful experimental end. The particular and the universal emerge as two correlated moments, and their synthesis reaffirms the irresolvable unity of the outer and inner side of any verbal sign. Linguistics is becoming aware of its interconnection with the adjacent sciences of language, thought, and communication, and it strives to define both the particular characteristics of language and its intimate affinities with other sign systems. The question of language universals inevitably raises the wider problem of the over-all semiotic constants. The inside view of language is now supplemented by a comparison of the verbal pattern with other vehicles of human communication. The intensive collaboration of linguists with cultural anthropologists and psychologists in the Conference on Language Universals indicates that the present-day linguist is about to reject the apocryphal epilogue which the editors of Saussure's *Cours* added in italics: "*The true and unique object of linguistics is language studied in and for itself.*" (15;2) Do we today not conceive language as a whole "in and for itself" and simultaneously as a constituent part of culture and society? Thus linguistics becomes a two-fronted science persistently concerned with the interrelation of whole-and-part aspects. Finally, the quesiton acutely raised by H. M. Hoenigswald and vividly discussed here – "Are there Universals of Linguistic Change?" – has enabled us to expose the most rigid of the habitual segregations, the fictitious chasm between the study of CONSTANCY and CHANGES. The quest for universals is organically linked with all other manifestations of a unitary attitude toward language and linguistics.

REFERENCES

1. Brøndal, V., (1943). *Essais de linguistique générale.* Copenhagen.
2. Godel, R., (1957). *Les sources manuscrites du Cours de linguistique générale de F. de Saussure.* Genève.
3. Helmholtz, H., (1900). *Popular Lectures on Scientific Subjects.* New York.
4. Husserl, E., (1913²). *Logische Untersuchungen,* II. Halle a.S.
5. Issatschenko, A., (1937). "A propos des voyelles nasales," *Bulletin de la Société de Linguistique de Paris.* 113. 267ff.
6. Jakobson, R., (1962). *Selected Writings,* I. The Hague.
7. Krámský, J., (1946-1948). "Fonologické využití samohláskových fonémat," *Linguistica Slovaca.* 4-5. 39ff.
8. Marty, A., (1908). *Untersuchungen zur Grundlegung der allgemeinen Grammatik und Sprachphilosophie.* Halle a.S.
9. Miškovská, V. F., (1959). "La Panglottie de J. A. Komenský," *Philologica Pragensia,* II. 4. 97ff.
10. Peirce, Ch. S., (1932). *Collected Papers.* II. Cambridge, Mass.
11. Porzeziński, W., (1913³). *Vvedenie v jazykovedenie.* Moscow.
12. Pos, H. J., (1939). "Perspectives du structuralisme," *Travaux du Cercle Linguistique de Prague,* VIII. 71ff.
13. Sapir, E., (1930). *Totality* (LSA, Language Monographs, 6).
14. Sapir, E., (1949). *Selected Writings,* Berkeley and Los Angeles.
15. Saussure, F. de., (1959). *Course in General Linguistics.* New York.
16. Uspenskij, V. A., (1957). "K opredeleniju padeža po A. N. Kolmogorovu," *Bjulleten' Ob"edinenija po problemam mašinnogo perevoda.* 5. 11ff. Moscow.
17. Wallerand, G., (1913). *Les oeuvres de Siger de Courtrai.* Louvain.

RESULTS OF THE NINTH INTERNATIONAL
CONGRESS OF LINGUISTS

Among the numerous students gathered here I am one of the few who
have taken part in most of the previous linguistic Congresses, beginning
with the inaugural assembly of 1928, which only eleven members of the
present Congress attended. Hence a comparison of the latest Congress
with the earlier ones and especially with the Hague prologue inevitably
suggests itself. Of course I have no intention of grading the Congresses;
that would be like the bias lampooned in the recent comedy of the
Polish philosopher Kołakowski: any successor is better than the prede-
cessor, but the predecessor too was all right! I shall merely try to elicit –
using my favorite label – the distinctive features of the Congresses com-
pared.

The circular sent by the famous Dutch initiators of the First Congress
emphasized as the chief reason for its convocation the ever greater role
of general linguistics, which required international cooperation. There
arose in fact vital theoretical discussions in the plenary sessions of that
Congress, although originally the plenary meetings were intended to deal
with practical problems. Yet of the small number of forty papers read
in The Hague, only ten were devoted to questions of general linguistics,
whereas the remaining thirty were concerned with the development of
single languages or language families, especially with historical studies
in the Indo-European field. And even of those ten papers focused on
general linguistics, seven were preoccupied with diachronic topics.
Against the forty papers delivered in the Hague, The Ninth Congress
schedules 158 reports and communications, two-thirds of which discussed
problems of general linguistics. While over 90 % of the Hague papers
treated questions of diachrony, at the present Congress only about one
quarter of the speakers dealt with this field. The few data quoted
demonstrate the enormous shift in the curriculum of linguistics during
the recent decades and need no further comment.

May I bring to your attention another salient difference between the
First and the Ninth Congresses. The assembly in The Hague, with scant

exceptions, was a gathering of West European scholars only. It is characteristic indeed that such outstanding American and Russian linguists as Bloomfield, Sapir, and Ščerba figure in the List of Members but did not appear in The Hague. In contrast, the Congress closing today actually represents the linguistic science of all parts of the world.

This representation would be even more complete, if there had been no annoying mishaps in the input and output of scientists, or, to put it in administrative terms, obstructions in the entry and exit permits. Thus, on the one hand, our Congress has been deprived of such prominent world scholars as Wolfgang Steinitz, member of the CIPL, who was unable to land in this country, and, on the other hand, despite all the requests and efforts of our Congress Committee, outstanding representatives of the world-renowned tradition of the Cercle Linguistique de Prague could not cross the borders of their native country to take part in our discussions, so that our forthcoming Transactions will unfortunately have to repeat this telling sentence from the Oslo Proceedings: "... was prevented from attending the Congress". It seems to me that the international science of language and international science as a whole can give only one dignified, Archimedian retort to blind and oppressive bureaucratism, the cross-world "red tape": *Noli tangere circulos meos.* – I thank you for your approval.

Gaps in my survey of the Congress activities are unavoidable. During these days I have often recalled the satiric lines of the Russian poet Majakovskij: "They are in two meetings at once*** Willy-nilly one has to bifurcate." To take part in eleven simultaneous tempting group meetings, as one had to do in our Congress, is an even more sophisticated performance.

As starting point for this concluding summary, may I use a beautiful thesis from one of the plenary reports: "Le sens d'une unité linguistique se définit comme sa capacité d'intégrer une unité de niveau supérieur." The concept of INTEGRATION is one of the focal concepts in present-day science and life. The conflict of two polar ideologies – Integration and Segregation – has been thoroughly discussed in Chatterji's socio-linguistic paper. Applying these notions to the Congress itself, one may state that here the spirit of integration has definitely predominated. If we compare, for instance, the current situation of linguistics with its status in 1948, at the time of the Paris Congress, the latter period can be characterized as a stage of relative particularism, a segregation especially manifest during the late forties in the linguistic life of the USA and the USSR. Since that time the picture has changed radically. I should like

to bring to your memory the significant statement made in the closing session of the Oslo Congress, in 1957, by B. A. Serebrennikov: "We, linguists of the Soviet Union, are by no means partisans of sectarianism and isolationism in science." Further developments have confirmed the accuracy of this assertion. Particularly, between Russian and American linguistics now we observe not only a careful mutual attention and comprehension, but, moreover, convergent ways of progress. In both hemispheres, diverse regional schools bearing the names of cities or preceptors are losing their exclusiveness and forgetting their recent dissensions. If there are still here and there reservations of regionalism or *esprit de clocher*, they perhaps attract the lovers of antiques but have hardly a vital part in the worldwide scientific search.

The drive toward integration in space is paralleled by a similar process in time. Yesterday linguistics, said to be structural, stood defiantly opposed to the traditional doctrine. If today we hear slogans calling for the rehabilitation of "traditional grammar", this is neither retreat nor eclecticism. In Hegel's terms, one might say that the antithesis of the traditional tenet yielded to a negation of negation, i.e., to a synthesis between the immediate and the remote past. This rehabilitation of the latter, which has been witnessed at this Congress, must not be mistaken for an imitation or actual restoration of the past invoked. The ancestors would hardly recognize their descendants, even though the latter claim that their "roots are firmly in traditional linguistics".

The integration in time means a substantial widening of horizon. Typical examples could be noted in the section of this Congress, "History of Linguistic Studies". It pleaded for the recognition of the centuries-old continuity in our science, looked particularly for precursors of modern linguistics in the Enlightenment and the Renaissance, and pursued still further this retrospective path back to the ancient and perennial Indic science of language.

If the First Congress was said to be "un acte d'émancipation", at present the autonomy of linguistics is definitely ensured, and the question of bridges linking this autonomous area to other sciences can and must be advanced – a question of cooperation without any capitulation. The contact gradually growing closer between linguistics and logic found its clear-cut expression this week in two portentous papers – Šaumjan's and Chomsky's – each entitled "The Logical Basis of Linguistic Theory", and today we have faced the crucial question, "whether or where one can draw a natural bond between grammar and 'logical grammar' in the sense of Wittgenstein and the Oxford philosophers". It is gratifying that the

philosophy of language repeatedly came up for discussion in a Congress of Linguists.

The rapprochement with mathematical logic, the limits and prospects for the use of set-theoretical models in linguistics, but first and foremost the ties of linguistics with mathematics in its statistical aspect, were vividly debated here. Quantification was recommended as an aid to syntactic analysis, as an additional, auxiliary instrument for comparative linguistics, and in general as a useful, supplementary means, always presupposing qualitative analysis, as Spang-Hanssen, expert both in mathematics and in the science of language, has reminded the partisans of quantitative linguistics. The danger of overestimating the statistical criterion as an independent tool in so-called "glottochronology", and misleading discrepancies in this theory were brought up for discussion. The computer was shown to be a new, highly valuable technical support for the analysis of syntactic and morphological structure, for the determination of phonemic isotopy, and for dialectology.

We have been warned against uncritical transposition of mathematical designations and concepts into linguistics, but we must in turn give warning against a hypercritical purism which is prone to reject even such terms as "redundancy" as an alleged loanword from information theory, although this term and notion have actually been borrowed by mathematicians from the science of language, where they have been enrooted at least since Quintilian. In any case, one could at present hardly envisage linguistic analysis without the two polar procedures of eliminating redundancy and utilizing redundancy, as was persuasively exhibited in Kenneth Pike's communication.

The use of computation in machine translation involves perplexing linguistic problems. Bilingualism, for a long time underestimated or even disregarded, is gradually becoming one of the main concerns of our science. It is noteworthy that human translation began to attract due analytic attention only when there arose a possibility of comparing this pattern of translation with another, as Chao said, cognate and at the same time essentially different pattern, namely, machine translation. Whatever the practical outlook of this novel, worldwide experimentation, the emergence of machines as agents in verbal output and input, hitherto exclusively interhuman operations, has yielded rich information about coding and recoding processes and about the make-up of the verbal code.

It is fortunate that "Linguistic Aspects of Translation" has been chosen as one of the five basic topics for our plenary sessions. Andreev's report on this subject is full of profound and suggestive observations, hints, and

meditations, and the only thing we missed was the presence of the rapporteur, indispensable for a really fruitful discussion. One can only share Hammerich's confidence that the technical experiments with language, speech, and writing which have been displayed during the Congress and which are sometimes scorned today as mere circus tricks, will prove to be of theoretical and practical usefulness. When the piano was invented, nobody believed it could play a role in serious music, and in fact for a long time it was used only for buffoonery in circuses and music halls.

In the forties, with their sectarian parochialism in linguistic life, Giuliano Bonfante had great difficulty in his efforts toward finding an Italo-American *lingua franca* for our science. Yet since that time both he and his American opponents have matured and changed, and there is prospect of a common parlance. His creed, which he presented here, is in perfect agreement with the drift toward integration manifested by this Congress. In particular, as regards his statement that "the Crocean or esthetic theory of language can and must be *integrated* with the structural theory" and that "special attention must be devoted to the 'peripheral' zone of language – slang, jargon, affective and expressive terms, child language, onomatopoeia, interjections", we observe at our meetings how strongly linguists today are absorbed precisely with the structure of all these "peripheral" phenomena. Let us quote just a few topics of the papers presented: "affective linguistic signs", expressive and appellative phonology with particular reference to the manifold function of pitch, the non-intellectual "spheres of communication", "emphasis as a grammatical category", "the emotion in a sentence", sound-symbolism, "the development of grammar in child language". All these problems are being gradually incorporated into the structural analysis of language.

Crocean emphasis on verbal creativity finds striking correspondence in the final report to this Congress, where it was stated, "A theory of language that neglects this 'creative' aspect of language is of only marginal interest." Likewise in one of our earlier plenary sessions, the sentence was adequately characterized as "création indéfinie". This suddenly spreading emphasis on creativity finds another, even more radical expression in the report on translation, where the attempted creation of an artificial, "intermediary language for machine translation" prompts the rapporteur to the bold conclusion that "till now we linguists dared only *explain* languages", while now the "time has come when our chief occupation must be *creating* them". Haugen's neat remark about HT (human translation) as "re-creation" points in turn to the creative aspect of language, Humboldt's *energeia*.

A thorough integration of linguistic studies requires an earnest concern with the diverse functions of language. For the first time a special section of a linguistic congress has dealt with stylistics and poetics: the study of poetry has been conceived as inseparable from linguistics and as its pertinent task. A quantitative expression of today's lively interest in poetics is the eloquent fact that even on the stairs of the large Kresge auditorium, there was no place left vacant during the meeting of this section. "The description of a poem" has become an appropriate and honorable topic; verses of Wallace Stevens, Yeats, Tennyson, and Moses ibn Ezra were analyzed and talked over (by de Groot, Halliday, Schramm), and, according to the spirited conclusion of Benveniste, henceforth any periodicals or societies of linguistics should carry the supplementary words, "and of poetics".

It was repeatedly pointed out that diversity among and within languages can and must "be studied along three synchronic dimensions – geographical, social, and stylistic", in Bright's and Ramanujan's formulation. These three aspects of variations and their interplay were intently discussed especially in connection with diasystems, interdialectal and interlingual borders, contacts, borrowings, mutual adjustment, "tolerance or intolerance of variation", the role of bidialectal (and multidialectal) or bilingual (and multilingual) individuals or communities. Several instructive "sociolinguistic" papers (e.g., by Gumperz and Read) disclosed the promising development of this vital field of research, first outlined by Lévy-Bruhl at the plenary session of the Copenhagen Congress of 1936. Yet one can hardly view the socio-linguistic influences on language as merely extrinsic factors. If we approach linguistics as just one among the conjugate sciences of communication, then any difference in the role of communication may evidently have "a potent effect" upon verbal communication. Thus the role assigned to the wider radius of communication by a nomadic society leads both to technological improvements in transportation and to a coalescence of language.

In Martinet's report, "Structural Variation in Language", variations in space and time have been confronted, and their explicative study "beside a purely descriptive one" has been demanded. In addition to his sound emphasis on the indissolubility of TEMPORAL and SPATIAL variations, now one will have to examine and clarify the inseparability of TEMPORAL variations from the STYLISTIC ones, and the transition from reversible fluctuations to the irreversible mutations, which is still far from being apprehended in recent treatises on historical phonology.

The strenuous and continuous advance of synchronic research gave the

impulse to a new discussion of linguistic changes: the degree of their lawfulness, their nature and types. In particular, the pressing need for syntactical reconstruction in comparative linguistics was convincingly exemplified both with Indo-European (Watkins) and with Eskimo-Aleut material (Bergsland). The present state of general and Indo-European linguistics urgently requires, as Georgiev rightfully claimed, a new *Grundriss* and a new etymological dictionary, up to date both in their methods and factual data, particularly as to the inventory of languages referred to.

Kuryłowicz's report to the plenum, "On the Methods of Internal Reconstruction", offered us a fascinating outlook upon the Indo-European grammatical prehistory. These are, as the rapporteur has clearly shown, "diachronic conclusions that may be drawn from a synchronic analysis of linguistic data".

In the foundations of this inquiry there are three salient features which unite the report in question with the reports on the levels of linguistic analysis and on the logical basis of linguistic theory. One of these cardinal features is the primary concern with the PARADIGMATIC axis, in contradistinction to the exclusive care for the SYNTAGMATIC axis in the distributionalists' approach of the recent past.

A second feature, closely connected with the first one and no less important, is the recognition and investigation of the HIERARCHICAL ORDER within the paradigmatic set, an attitude diametrically opposed to the depreciation of ordering in the dogma of the orthodox distributionalists. Is "hierarchy" not the catchword of this Congress? – There proved to be distinctly hierarchical ties not only between different levels of language but also between correlated units of one and the same level, and it is not by chance that the asymmetrical relation between the marked and unmarked opposites in language again and again emerged in the course of the deliberations. The principle of IRREVERSIBLE PREDICTABILITY has been exhibited as an efficient inference from this hierarchical arrangement.

The third feature unifying the cited reports is a steady and consistent search for the UNIVERSAL, PANCHRONIC foundations of this order. That means a definitive rejection of such paradoxical, defeatist – well, simply antiscientific – slogans as "Languages can differ from each other without limit and in unpredictable ways". Such an alleged want of predictability would have meant inevitably the ruin of linguistic science. The bankruptcy of this gloomy paradox permits us safely to anticipate further Congresses of linguists. It is to be noted that the search of our days for language

universals found expression in our Congress, where, for instance, word order (Greenberg) and intonation (Bolinger) were examined from this point of view.

Benveniste's report devoted to the levels of analysis and splendidly synthesizing decades of his personal and international research gave insight into the hierarchy of all the CODED linguistic units (*le système de la langue*), from the lowest, the distinctive feature – or *merism*, as he proposes to term this ultimate entity – to the highest, the sentence, which at the same time functions as a constituent of the free, no longer coded discourse. Special papers were concerned with some problems of this hierarchy, especially the ranks of submultiples (Buyssens) and their immediate frame of reference (Seiler). The complex question of verbal phenomena transcending the sentence level, i.e., relationships between the sentence and its context, were likewise tackled (Reichling and Uhlenbeck; Winburne), as well as the opposite, correlate problem of "context-free language" (Schützenberger).

If we compare the two reports dealing with the fundamentals of language analysis, we remark that Chomsky's courageous lesson on "The Logical Basis of Linguistic Theory" starts with syntax and descends to the lower levels, by dissociating the higher units into their constituents from the viewpoint and in the terms of the higher level. Conversely, the report about the levels of analysis chooses *une démarche inverse, partant des unités élémentaires, à fixer dans la phrase le niveau ultime*. The former procedure, *les opérations descendantes de l'analyse*, is pointed toward the dependence of the inferior levels upon the superior ones, whereas the latter method, *les opérations ascendantes*, first reveals the specific, autonomous character of each level. It would be quite arbitrary, I dare say, to consider one kind of analytic operation more realistic, more adequate, or more efficient than the other. The two procedures, as Niels Bohrs would say, stand in a COMPLEMENTARY RELATIONSHIP to each other. The descendent operation underlies, for instance, the development of morphophonemics, which, as several speakers have disclosed (e.g., Lehiste, Harms, Graur, and Rosén), occupies an ever more important place in the build-up of scientific grammar, both synchronic and diachronic. On the other hand, the thoughtful paper by Malmberg brings new evidence for the autonomous structure and stratification of the phonemic system itself.

One cannot but agree with the statement of the final report, that "as syntactic description becomes deeper, what appears to be semantic questions falls increasingly within its scope". Yet morphological catego-

ries likewise demand a search for their semantic value, as has been eloquently advocated here in several papers (Ferguson, Haas, Palmer, Barbara M. H. Strang). It has been frankly said that since in our analytic procedures all of us make use "of semantic categories, we are less than honest if we dismiss these as mere 'heuristic guides'". In the identification of morphemes, "the attempt to do without semantic criteria" has been pronounced philosophically shaky, and impracticable besides. Briefly put, the tautological proposition that linguistics without meaning is meaningless ceased to be viewed as a mentalist aberration. It is indicative that no one raised his voice to argue in favor of the former mechanistic distributionalism. However, the reaction against its monopoly in no way denies the experimental value which this working hypothesis and technique have had for linguistic analysis, and the possibility of approaching even semantic problems in a manifestly distributionalist way was touched upon.

The merging of semantics with grammar has been necessarily accompanied in the Congress deliberations by an insistent demand for the integration of lexicology (Glinz, Heilmann, Coates), and of onomastics as its particular section (Utley), into structural linguistic studies and for relating lexicology with grammar. As has been demonstrated by Lounsbury, certain sections of vocabulary "can be subjected to a kind of analysis similar to that given other paradigmatic sets in a language".

As soon as questions of the interrelation between the external and internal sides of the verbal sign were expressly raised, the corollary, an earnest concern with problems of synonymy and homonymy, was evinced by the assembly, and these questions promise to become one of the focal topics of a future Congress. The idea of semantic value furthered contemplation of two conjugate notions: sense and nonsense, and the latter in turn proved to present a whole scale of distinct species (*Unsinn, Widersinn*, etc.), which must be carefully discriminated in linguistic analysis, according to the warning repeatedly given during this Congress.

The attention paid here to questions of discourse, to speech recognition, to the diverse functions of language in culture and society, and to the vast field of applied linguistics, illustrates once more how far our science is now from the definition, erroneously (as Godel discloses) attributed to Ferdinand de Saussure: "La linguistique a pour unique et véritable objet la langue envisagée en elle-même et pour elle-même." No doubt our science views language "in itself", yet not only "for itself", but also for the sake of language users and molders, because language is a tool, and the autarchic self-sufficiency of a tool would be a contradiction in terms.

Language and discourse (or, in other terms, code and exchange of messages) appeared to be in a relation of MEANS and ENDS, the same relation as that between the *signans* and *signatum* or as the relation between form and sense (in Benveniste's definition, the relation between dissociation and integration). The mode in which opposition stands to identification is likewise a relation between means and ends. It is symptomatic indeed that the pivotal role of IDENTIFICATION, first advanced by de Groot over thirty years ago, has insistently come to light in the meetings of these days.

To everyone who watched the discussions of this Congress, the general tendency to overcome any leveling and flattening of language and linguistics became quite obvious. The focusing upon the hierarchy of levels revealed a superposition of levels, sublevels, and intermediary ranks in language, a strict order in the rules of derivation, and different degrees of abstraction in linguistic analysis. Each unit of language, and language itself, appeared simultaneously and indissolubly as a whole and as a part of a superior, wider context; and even if an individual linguist could still confine himself to some separate ranks of this scale, none of the ranks may be omitted or expunged by linguistic science. It is precisely the unrestricted scope of this multifarious science which has been patently demonstrated by our Ninth Congress.

Concluding Address to the Congress, Cambridge, Mass., August 31, 1962.

D

PHILOLOGICAL GLEANINGS

DIE REIMWÖRTER ČECH–LECH

Die hoffnungslos skeptische Stellungnahme A. Brückners zur Deutung des Volksnamens *Čech* scheint uns unberechtigt übertrieben zu sein.[1] Das bisherige etymologische Suchen zeigt bei all seiner bunten Meinungsverschiedenheit die Wegweiser zur einleuchtenden Lösung des Rätsels.[2]

Man kann die scharfsinnigen Versuche, im Appellativum *cech* eine Vollwurzel mit oder ohne Suffix zu ersehen, für endgültig gescheitert halten; sowie die von A. Sobolevskij aufgefaßte hypothetische Urform *kep-s-*,[3] so auch die Vermutung über den Zusammenhang mit dem Zeitwort *česati/čechati*, die schon Pervolf aufgeworfen hatte,[4] J. Hošek ablehnte,[5] und Sutnar wieder aufnahm,[6] erwiesen sich als leider unhaltbar; vollkommen unmöglich vom lautgeschichtlichen und semantischen Standpunkt ist auch die von Brückner erwähnte Gleichung zwischen *cech* und dem russischen *чех* (*чох*) "Niesen".[7]

Das Wort *cech* ist somit am ehesten als eine hypokoristische Bildung mit Suffix *-ch* zu werten. Es wird meistens an einen gekürzten Eigennamen gedacht: *Česlav*,[8] *Čestislav*,[9] doch hat schon J. Hošek richtig eingewendet, wir kennen bei den Slaven nur Kosenamen, aber keine Patronymika dieser Art. Nach ihm sei *cech* eine Kürzung von *čeledin* (**čeľadinъ*) in der ursprünglichen Bedeutung "Familien- oder Stammesgenosse".[10] In ähnlicher Weise betrachtet J. Mikkola den

---

[1] S. bes. *Slavia* III, 213 und *Slownik etymol. języka polskiego* (Krakau, 1927), 74.

[2] Die Liste der betreffenden Erwägungen ist bei J. Sutnar in der *Jagić-Festschrift* (1908), 612, bei Novotný, *České dějiny*, II (1908), 235f., bei Niederle, *Slovanské starožitnosti*, III (1919), 202f., und bei M. Noha in *Morava* (1925), 132f. zu finden.

[3] *AfslPh.* (1905), 144f. und *Рус. Фил. Вестн.* 1910, 170f.

[4] *AfslPh.* (1884), 623.

[5] *Čas. Mat. Mor.* (1891), 216.

[6] *Op. cit.*, 615f.

[7] *Slavia*, III, 213.

[8] So schon Jungmann, *Slovník*, I, 268, und später Jagić in *AfslPh.* (1887), 218f., und V. Flajšhans, *Náš jazyk mateřský* (Prag, 1924), 56.

[9] Fr. A. Slavík in *Čas. Čes. Mus.* (1890), 570ff.

[10] *Čas. Mat. Mor.* (1891), 216ff. Auch Noha (*loc. cit.*) neigt zu dieser Auffaßung.

Namen der Tschechen aus *četa* gebildet im Sinne "Schar- oder Truppengenosse".[11] Übrigens ist *četa* dem mittelalterlichen Wortschatz der westslavischen Sprachen ganz fremd.

Der finnische Slavist verweist auf das Gleichverhältnis: "чехъ : чета = ляхъ : лядь-скыи = чух(-на) : чудь". Der Vergleich der beiden übereinstimmenden Benennungen zweier westslavischen Nachbarvölker ist ein genehmes Prinzip. Auch Sobolevskij (*loc. cit.*) betont mit Recht, ohne allerdings diese These in der eigenen Praxis anzuwenden, man müsse die beiden Wörter als gleichartig gebildet beurteilen. Wirklich besitzen die beiden ethnischen Namen einen gleichen phonologischen Bau, ein und dasselbe hypokoristische Suffix, dieselben Doppelformen des Wurzelvokalismus *lech/lach* und *čech/čach*. Die Spielart *čach* ist, wie schon Sobolevskij hervorgehoben hat, im Altrussischen üblich und ist in einigen alten Ortsnamen bekannt, wie čech. *Čachbor*, *Čachovec*, *Čachov* (neben *Čechov*), *Čachovici* (neben *Čechovici*), kroat. *Čachovici*, altpoln. *Czachów*.[12] Mikkolas Gegenüberstellung der beiden Wörter ist an sich richtig, doch ist die Proportion ungenau aufgebaut. Falls wir annehmen, daß *lech/lach* : *leNd-* = *čech/čach* : *x*, so ist dieses *x* (der Ableitungsstamm) – *čeNd-* und nicht *čet-*.[13]

Der doppelartigen Kürzung *le*[*ch*] < *le*|*Nd-* und *la*[*ch*] < *leN*|*d-* entspricht auch das Schwanken *če*[*ch*]/*ča*[*ch*].[14] Aus *čet-* (und gleichfalls aus *čelad-*) wäre die Lautform *ča*[*ch*] unerklärlich. Auch das *cinu* "Tschechen" der Annales Tilliani[15] zeugt vielleicht für die Nasalform *čeNch-*.

Sutnar war der Lösung nahe, als er sich auf die Wörter чждо, чждь berief,[16] aber er verwickelte unnütz das Verhältnis, indem er den hypokoristischen Charakter der Bildung *čech* verkannt ließ und eine phantastische Urwurzel **ke/ken* voraussetzte, aus der zwei verwandte Formen **ken-do* und **ke-s-o-* vermeintlich entstanden seien. Anstatt dieser "Verworrenheit der Erläuterungen"[17] kann parallel zur hypokoristischen Bildung *lech/lach*, die streitlos zu *leNd-* (*leNdo, leNdina, leNdьskъ*) gehört, die

---

[11] *Рус. Фил. Вестн.* (1902), 273. – Diese Erklärung ist für E. Berneker die am wenigsten unwahrscheinliche (*Slav. et. Wörterbuch*, I, 152f.). Vgl. auch S. Il'inskij, *Изв. II. А Н* (1915), 185.

[12] Vgl. W. Bogusławski, *Dzieje Słowiańszczyzny północno-zachodniej*, II (Poznań, 1889), 78f.

[13] Ich verwende hier N. Trubetzkoys Transkriptionsweise – *eN* anstatt des üblichen *ę*.

[14] Vgl. die aus *čert* entlehnten neutschech. hypokoritischen Doppelformen *če/chmant* und *čer/chmant*.

[15] Siehe Niederle, *op. cit.*, 201.

[16] *Loc. cit.*, 613f. Der Versuch an sich wird unter dem inhaltlichen Gesichtspunkt von Novotný mit vollem Recht zustimmend gewertet (*op. cit.*, 235f.).

[17] So J. Páta in *LF* (1909), 296; vgl. auch P. Váša in *Čas. Mat. Mor.* (1909), 310.

Form *čeNd-* (*čeNdo*, *čeNdь*, *čeNdьskъ*) einfach als Vorbild des Hypokoristikum *čech/čach* festgesetzt werden. Falls *čeNdo* zu -*čeNti* gehört, wie es V. Vondrák,[18] Sutnar (*loc. cit.*) und Berneker[19] vermuten, so gibt unsere Etymologie der Auffassung von Dobrovský, soweit sie *čech* mit -*čeNti* in Verbindung brachte,[20] recht.

Das altkirchenslavische чадь fungierte als Kollektivum zu чловѣкъ (Mensch); vgl. z.B. im Mährisch-Pannonischen Leben des heiligen Methods Мы Словѣне проста чадь u.ä.; die Spuren dieses gemeinslavischen Gebrauches sind bes. im Altrussischen und Serbokroatischen deutlich. Auf Grund der Sprachdenkmäler des Altrussischen und Russisch-kirchenslavischen stellt Sreznevskij folgende Bedeutungen des Wort чадь (чѧдь) fest: "Menschen, Volk, Mitgenossen, Gefolge"; auch das entsprechende Adjektiv чадьскыи "menschlich" ist hier angezeigt.[21]

Daß gerade das Appellativum für Menschen, Volk, Mitgenossen häufig zur Benennung des eigenen Stammes wird, ist aus der Völkerkunde genügend bekannt. So finden wir beispielsweise in den zwei jüngst erschienenen Bänden des Grundrisses *Языки и письменность народов Севера* (Leningrad) solche Selbstbenennungen der nördlichen Völkerschaften wie "Menschen" oder "echte Menschen" oder "Männer" bei den verschiedenen samojedischen Stämmen, "echte Menschen" bei den Korjäken, "Menschen" oder "echte Menschen" bei den Eskimo, "Menschen" bei den Giljaken.[22] Das urgerm. *theudo-* mit der Bedeutung "Volk" liegt bekanntlich im Grunde der ethnischen Selbstbenennung *deutsch*. *ČeNdь* konnte also bei den Tschechen in der verengerten Bedeutung "tschechische Menschen, tschechische Mitgenossen, tschechisches Volk" und das entsprechende Hypokoristikum *čech* im Sinne "tschechischer Mensch" gebraucht werden. Das Wort wäre eine der tschechischen hypokoristischen Bildungen mit der Bedeutung einer Zusammengehörigkeit wie *brach* "Bruder", *kmoch* "Gevatter", *tch-án* "Schwiegervater". Vgl. das erwähnte russ. чух- zum Koll. чудь "Westfinnen". [Cf. below, p. 647.

Das Hypokoristikum *čech* sowie die Adjektiva *čeNdьskъ*, *čeNdьnъ* konnten nicht nur zu *čeNdь*, sondern zugleich auch zu *čeNdo* "Kind", *čeNdъ* "Knabe, Jüngling" (vgl. alttschech. *čad*, *čád*) gehören. So wohnt dem tschechischen *čadský* die Bedeutung "jugendmutig, wacker, brav, hübsch" inne und ähnlicherweise dem slovenischen *čęden*. Auch das von

---

[18] Siehe *Vergleichende slav. Grammatik*, I (1924), 144, 350, 600.
[19] *Op. cit.*, 154.
[20] Siehe z.B. *Čas. Čes. Mus.* (1827₂), 7f.
[21] *Материалы для словаря др.-рус. языка*, III, 1469f.
[22] I (1937), 7, 54, 76; III (1934), 5, 49, 105, 181.

Sutnar herangezogene slovenische *čeh*, welches seiner Bildung nach voll-kommen der tschechischen Volksbenennung entspricht, aber "einen Knaben von etwa 10 bis 15 Jahren" bezeichnet und sich somit semantisch zum tschech. Hypokoristikum *hoch* "Junge, Jüngling" reiht, ist nicht dem *čeNdъ*, sondern ausschließlich dem *čeNdo*, *čeNdъ* entnommen und zeugt ausdrücklich für die hypokoristische Abstammung der Form *čech* aus *čeNd-*. Ob das tschechische *čech* auch eine derartige Nebenbedeutung besaß, läßt sich nicht feststellen, doch ist dies keinesfalls ausgeschlossen.

Die Wörter *čech/čach* und *lech/ľach* werden mit Vorliebe in den mittel-alterlichen slavischen Denkmälern einander gegenübergestellt. So er-scheinen *Čech* und *Lech* als Brüder in der verbreiteten tschechisch-polnischen Legende über den Ursprung der slavischen Völker; z.B. berichtet die *Chronica principum Poloniae* aus dem XIV. Jhd.: *In cronicis insuper Bohemorum recolo me legisse quod post divisionem linguarum factam post diluvium, ut in Genesi legitur, disperse sunt omnes gentes per varia loca, de quibus duo fratres Slavi successu temporum pro possessionibus cupientes hinc inde habitacula quesierunt, quorum unus Czech, alter Lech appelati.*[23] Die sog. Dalimil-Chronik aus dem Anfang desselben Jhs. reimt: V téj zemi bieše lech, jemužto jmě bieše Čech.[24] Die älteste russische Chronik schreibt unter dem Jahre 1019 über den "verruchten Svjatopolk": И пробѣже Лядьскую землю, гонимъ Божиимь гнѣвьмь, и прибѣже въ пустыню межю Чяхы и Ляхы. Ähnliche Juxtapositionen sind im altrussischen Schrifttum häufig. So *Слово о погибели Рускыя земли* vermeintlich aus dem XIII. Jhd.: до Ляховъ, до Чаховъ; *Задонщина* (XIV. Jhd.): до Чахов, до Ляховъ; *Хронограф* 1512: межю Чахи и Ляхи; *Степенная книга* (XVI. Jhd.): и Чахи, и Ляхи.[25] In den Bylinen: Во Чахове были мы, во Ляхове u.ä.[26] Dal''s Wörterbuch vermerkt in der Archangelsker Volksmundart die Redensart между чахи и ляхи im Sinne "Gott weiß, wo oder wie". Auch ein ober-sorbischer Ausdruck setzt die zwei Wörter nebeneinander: To su moje Čechi a Lechi "das ist mein ganzer Ein- und Ausgang".[27]

Man darf die Vermutung aussprechen, daß die beiden Hypokoristika von Anfang an als R e i m w ö r t e r auftauchten. *LeNdo* "Brache, Lehde,

---

[23] *Monumenta Poloniae historica*, III, 430.

[24] V. Mourek, *Kronika Dalimilova podle rukopisu Cambridgeského* (Prag, 1910), 5. – J. Gebauer (*Slovník staročeský*, II, 220) deutet hier *lech* als "Häuptling", aber diese Bedeutung ist Hankas Erfindung, und schon Dobrovský (*Čas. Čes. Mus.* (1827₂), 6) hat richtig eingesehen, daß *lech* hier nur "einen Mann desjenigen Volkes, welches Lechové heißt", bezeichnen kann.

[25] Siehe A. Florovskij, *Чехи и восточные славяне*, I (Prag, 1935), 47, 94f.

[26] Siehe V. Miller in *Izv. II A N* (1904₁), 15f. und (1906₂), 255.

[27] *Čas. Maćicy Serb.* (1856-57), 103.

Heide, öder Grund" und *čeNdo* "Kind, Menschenkind", ganz besonders aber *leNdъska zemja* "Brachland" und *čeNdъska zemja* "Menschenland" bildeten einen auffalenden Gegensatz, den der Gleichklang natürlicherweise zuspitzte. H. Güntert zeigt in seiner Untersuchung *Über Reimwortbildungen im Arischen und Altgriechischen*, daß "bedeutungsverwandte Wörter infolge der Klangassoziation sich im Sprachleben näher treten und in Form und Bedeutung ausgleichen".[28] In unserem Falle handelt es sich um zwei semantisch kontrastierende Wörter, die infolge ihrer reimenden Lautgestalt geeignet waren, diesen Kontrast zu einem terminologischen Gegensatz auszuprägen. So entstanden zwei gleichgebildete Hypokoristika, die als entgegengesetzte Völkernamen fungierten: das eine, einigermaßen schmeichelnde (*čech/čach* – Mensch als solcher), behauptete sich urprünglich nur als Selbstbenennung, das andere, vielleicht ein wenig schmähende (*lech/lach* – Heidenmensch), lebte fort und verbreitete sich ausschließlich als Nachbarsbenennung.

Die beiden Namen waren musterhafte Reimwörter nicht nur durch ihren gleichklingenden Schluß, sondern ebenfalls durch ihre unterscheidenden Anfangskonsonanten. Zwischen den kennzeichnenden Typen der in der slavischen Volksdichtung verbreiteten Reimwörter sind derartige Wortpaare zu vermerken, deren eine Glied mit einem Zischlaut (vgl. *čech*) und das andere mit einer Liquida (vgl. *lech*) anfangen: z.B. tschech. *souka–louka, cinky–linky*;[29] pol. *lap–cap, lupu–cupu, rach–ciach*;[30] rus. *шуги–луги, шохан–рохан*,[31] *шата–лата, чухо–лухо, чух–рюх, чичка–ричка*.[32]

War der Gegensatz *čech–lech* nur eine Reimwortbildung, semantisch in der verschiedenen Beurteilung des eigenen und des benachbarten Landes begründet, oder bestand ein entsprechender tatsächlicher Unterschied zwischen den beiden historischen Landschaften? Der tschechische Staat um das Jahr 965 wird im Reisebericht Ibrâhîms-ibn-Jakûbs als das beste und an Lebensmitteln reichste von allen nördlichen Ländern bezeichnet. Die größere Nähe der tschechischen Welt zur Mittelmeerkultur beschleunigte ihre geistige, wirtschaftliche und politische Entwicklung im Vergleich mit Polen. "Erst beinahe 150 Jahre nach dem mährischen Staat und ungefähr 100 Jahre nach dem Staat der tschechischen Přemysliden erscheint in den sechziger Jahren des X. Jhs. der

[28] Heidelberg, 1914, 186.
[29] K. J. Erben, *Prostonárodní české písně a říkadla*, Dětská počitadla, No. 6.
[30] L. Podhorski-Okołów, *Prace ofiarowane K. Wóycickiemu* (Wilno, 1937), 261.
[31] R. Jakobson, *Новейшая русская поэзия* (Prag, 1921), 56.
[32] G. Vinogradov, *Русский детский фольклор* (Irkutsk, 1930), 123.

polnische Staat in seiner Anfangsform."[33] Die Bezeichnung "Neuland"
(*leNdъska zemja*) muß in diesem Zusammenhang beurteilt werden.

Veröffentlicht in der *Slavischen Rundschau*, X (1938).

[33]   V. Chaloupecký in *Dějiny lidstva od pravěku k dnešku*, III, 620.

VESTIGES OF THE EARLIEST RUSSIAN VERNACULAR

I

Besides numerous relics of medieval material culture, recent Russian archeological explorations have unearthed a few instances of early East Slavic writing.

In 1949, during the excavations of burial mounds from the ninth, tenth and early eleventh centuries, near the village of Gnezdovo in the vicinity of Smolensk, there was found an amphora (Old Russian *kъrčaga*) with an inscription cut into the baked clay. Guided by archeological indications, D. Avdusin and M. Tixomirov[1] have placed it in the first quarter of the tenth century and read *goruxšča*, which they believe to be an inept rendering of the Old Russian *goruxa* 'mustard'. P. Černyx[2] has pointed out the paleographic and especially the linguistic unsoundness of this reading and has proffered his own interpretation of the inscription: the adjective *gorušna* (instead of the expected *gorušьna*) with the omitted substantive *zъrna*, i.e. 'mustard (seeds)'. A Czech expert, F. V. Mareš, in his detailed analysis of this inscription,[3] stressed the archaic character of its letters, which prompted him to date it from the tenth – perhaps even the early tenth century. After having submitted Černyx's reading to a severe paleographic and linguistic scrutiny, Mareš himself deciphered the inscription as *gorux psa*, i.e. *goruxъ pьsa* 'Gorux wrote', with the omission of both weak vowels. The name *Goruxъ* is, however, not attested, and the aorist *pьsa* is, in such an application, a most improbable substitution for the expected perfect *pьsalъ*. All three interpretations, moreover, operate with an unlikely ligature of two letters: *x* and *šč* (Tixomirov), *š* and *n* (Černyx), *x* and *ps* (Mareš).

---

[1] "Drevnejšaja russkaja nadpis'", *Vestnik Akademii Nauk SSSR*, 20:4, 1950, 71-79.
[2] "K voprosu o gnezdovskoj nadpisi", *Ivzestija Akademii Nauk SSSR, Otdelenie literatury i jazyka*, 9, 1950, 398-401. A reproduction of the vessel with the inscription is appended.
[3] "Dva objevy starých slovanských nápisů", *Slavia*, 20, 1951, 497-514. The second specimen discussed by the author is the Bulgarian Cyrillic inscription of 943, uncovered in 1950 in Dobruja and still awaiting verification.

The controversial sign between the clear beginning of the inscription *goru* and the final *a* actually represents the letter *n* with the diacritic mark of jotation, a hook that may be attached to the right mast of the letter *N*. In order to render the group /nja/ the oldest Russian manuscripts use either the letter *n* plus an *a* with prejotation or, occasionally, the letter *n* with a diacritic mark of jotation plus an *a* (or, redundantly, both devices together). The second device is applied in the inscription under discussion to render /gorunja/, i.e. the nominative feminine singular of the possessive adjective from a man's name *Gorunъ*, attested in early Slavic onomastics.[4] The substantive unambiguously referred to and therefore omitted is *kъrčaga*. Thus, the inscription designates 'Gorun's (amphora)'. Compare the Bulgarian inscription on a clay spindle whorl of the tenth century discovered in Preslav, *lolin pręslenъ* 'Lola's whorl', and the inscription on a slate whorl of the eleventh or twelfth century which was found in Kiev in 1885, *potvorinъ pręslьnь* 'Potvora's whorl'.[5] The appellative *potvora* 'monster' was used as a proper name carrying the same magical function as the name of the Russian priest *Upirь Lixyi*, literally 'malicious vampire', who in 1047 copied the Glagolitic Books of the Prophets into Cyrillic characters. Perhaps an inscription similar to Gorun's (but without the omission of the substantive) was scratched in the twelfth century around the neck of a Kievan amphora. V. Ržiga reads the remnants of this inscription ... *neša* ... *a kъrčaga si* and is inclined to consider it a designation of the owner.[6] Gorun's one-word inscription seems to be

Cf. F. Miklosich, *Die Bildung der slavischen Personen- und Ortsnamen* (Heidelberg, 1927), 9, 50.

[5] B. Rybakov, *Remeslo drevnej Rusi* (Moscow, 1948), 197ff. (reproductions on p. 198); idem, "Remeslo", *Istorija kul'tury drevnej Rusi*, I (Moscow, 1948), 108ff. (reproductions on p. 110).

[6] *Očerki po istorii byta domongol'skoj Rusi* [= *Trudy Gos. Istoričeskogo Muzeja* 5] (Moscow, 1929), 38. Rybakov's reading of this inscription in the above cited book, p. 370f., is unconvincing. Cf. also his article: "Nadpis' kievskogo gončara XI veka", *Kratkie soobščenija Instituta material'noj kul'tury*, 12, 1946, 134-8. Other examples of Old Russian inscriptions on objects, confined to possessive adjectives: *nevěstočье* [*prjaslo*] in Vyšgorod = whorl belonging to *nevěstьka* 'daughter or sister-in-law'; *juriščina* [*bьčьvь* or *bьčьka*] 'Jurišče's barrel' in Novgorod, XII-XIII century: A. Arcixovskij, Novgorodskaja ėkspedicija, *Kratkie soobščenija...*, XXVII, 113-22 (with reproductions). The inscription on a boot-tree of the XIII-XIV century, excavated in Novgorod (*ibid.*), is *mne.i*, probably *mneni* [*sapozi*] 'Mьnenъ's boots'; cf. Old Czech *Mnen* occurring in the Necrologium of Podlažice, XIII century, and derived, as well as *Mňata*, from *mьn-* 'minor': for the suffix *-en-* in Slavic personal names examples have been collected by Miklosich, p. 8. The inscription on the lid of a bucket excavated in Novgorod and assigned by Arcixovskij roughly to the twelfth century (see below, footnote 7) presents a Glagolitic *M* followed by a Cyrillic *n*: the Glagolitic letter apparently stands for its spelling-name *myslite* or rather *myslěte*, and the whole sequence intimates *mysljatenъ*, originally *mysljatьnъ* [*korьcь* or *kъbьlь* or *okovъ*] 'Mysljata's

the oldest known East Slavic specimen of writing, even if its relegation to the beginning of the tenth century remains controversial. The Arabic dirhem of 907-908 found with the amphora gives only the *terminus a quo:* it is obvious, however, that the vessel with this inscription is a ritual part of a pagan funeral (cremation in a boat, sacrifice, ceremonial interment of the sword). Thus, the penetration of Cyrillic letters to the Eastern Slavs was anterior to their Christianization. It is possible, however, that not the Slavonic letters but the inscribed amphora itself was imported into pagan Russia from the Christianized areas of the Slavic South or West. Striking similarities were noted between pottery found in the Gnezdovo barrows and Czech ceramics. Yet then we are again confronted with a controversial question: were the Czechs familiar not only with the Glagolitic but also with the Cyrillic alphabet?[7]

The distinguished archeologist A. Arcixovskij[8] has reported on the recent discoveries in Novgorod, where excavations yielding abundant results have been conducted since 1929. The most remarkable find of 1951 were private letters and commercial documents scratched on the inner side of birch bark. The existence of this form of writing has been known previously, but no samples were ever found before the Novgorod discovery. Found along with the documents was a tool for writing on birch bark, a bone stick, curved, well polished, sharpened, with an aperture at the top for fastening it to a belt. The excavations of 1951 within the limits of an ancient Novgorod street – Xolop'ja ulica – uncovered twenty-five layers of log road, one on top of the other, the earliest of which harks back to the tenth, and the last to the sixteenth century. The documents, totalling ten so far, were found between the separate layers and, to judge from the place where they were embedded and from paleographic indications, most of them belong to, or are close to, the fourteenth century. Three, one lying over the sixteenth layer from the top, and two under it, are supposed by Arcixovskij to date from the eleventh or twelfth century. Of these oldest documents only the first, now recorded as number nine, contains a coherent, legible text:

---

bucket' (cf. *vladyčьnь, dьčerьnь, gospodьnь*). Finally, in some inscriptions the name of the owner or giver appears as a mere signature: such is the name *molodilo* on a whorl, discovered by Gorodcov in Rjazan' (see Rybakov, *Remeslo* ...; 198).

[7] See E. Kletnova, "Velikij Gnezdovskij mogil'nik", *Niederlův sborník* (Prague, 1925), 316 ff.; K. Horálek, "Rajhradské Martyrologium Adonis a otázka české cyrilice", *Listy filologické*, 66, 1939, 23 ff.

[8] "Novye otkrytija v Novgorode", *Voprosy istorii*, 1951, 12, 77-87 (with the tracings of five documents; text No. 9 is reproduced on p. 83). Another variant of his report: "Arxeologičeskie otkrytija v Novgorode", *Vestnik Akademii Nauk SSSR*, 21:12, 1951, 60-69 (with photographs of two documents, in particular No. 9).

+   ωᵗ gostęty kъ vasilъ(e)vi ježe mi otьcь daęlъ i rodi sъdaęli a
to za nimь a nyně vodę novuju ženu a mъně ne vъdastь ničьtože
izbivъ ruky pustilъ že mę a inuju poęlъ doedi dobře sъtvorę

Arcixovskij is not a philologist and a few inaccuracies have slipped into
his attempt at interpreting this text. The commentaries to this letter,
published in the new Moscow linguistic review by V. Borkovskij[9] and
F. Kuz'min[10] are, unfortunately, even less satisfactory.

In point of fact, the content of this document gives no ground for
misunderstanding:

From Gostjata to Basil. What my father has given me and (what my) kinsfolk
have added, is to his credit. Now, however, since he has taken a new wife, to me
he will afford nothing. Having badly beaten me, he has got me off his
hand(s), while he married another. Journey (here) if you would do well.

The male name *Gostjata* (Common Slavic */gostęta/) is amply docu-
mented in the early onomastics of the Slavic peoples, especially Czechs
and Poles. Despite Kuz'min, it cannot possibly be a female name or
sobriquet, and *za nimь* indubitably refers to the father of a male Gostjata
and not to the mythical husband of the alleged female Gostjata. The
far-fetched conclusions of Kuz'min fall flat concerning the exceptional
cultural significance of the fact that a Russian woman (!) "belonging
to rich merchant circles" (!) of the eleventh century was able to write
or dictate her "complaints of a divorced wife" (!).

The accusative *novuju ženu* and *inuju* refer, obviously, to one and the
same woman, so that the accusation of bigamy raised by Arcixovskij
against Gostjata's father is without any foundation. Equally groundless
are his bold sociological inferences drawn from the struggle of a Gostjata,
relying on the new, urban, individualistic norms, with a father who is
the exponent of the traditions of a large, patriarchal family.

The form *ruky* is not an accusative plural but a usual genitivus separa-
tionis depending on the verb *pustiti*. Hence the elucidations of all three
commentators are to be rejected as making no sense: Arcixovskij,
izbivъ ruky, pustilъ že mę 'having badly beaten my hands (although,
actually, this would mean the hands of more than one person) he let
me go'; Borkovskij, *izbi, vъ ruky pustilъ že mę* 'has badly beaten me and
forced me to submit' (although, actually, this would mean '...left me in
the hands of more than one person...'); Kuz'min, *izbi vъ ruky, pustilъ*

⁹   "Dragocennye pamjatniki drevnerusskoj pis'mennosti", *Voprosy jazykoznanija*,
1952, No. 3, 131-136.
¹⁰   "Novgorodskaja berestjanaja gramota No. 9", *ibid.*, 137-140.

že mę 'tore away the matrimonial hand-clasp agreement and divorced me' (although, actually, this would mean 'he has badly beaten into the hands of more than one person and let me go').

Certainly, the aorist was in Old Russian a living form with a specific, clear-cut grammatical meaning, but this very meaning of the historical past, in contradistinction to the retrospective function of the perfect, makes the aorist almost unsuitable for the language of the letter discussed. Despite Borkovskij, *ne vъdastъ* is here not an aorist but, manifestly, the present of a perfective verb, connoting the future.

The present participle of the perfective aspect *sъtvorę*, contrary to Borkovskij's assertions, does not have here "the meaning of a past tense", nor is it the oldest instance of such a form in the language of documents. As a matter of fact, this form, in our text, refers to the future, as in the treaty of Oleg with the Greeks quoted in the Primary Chronicle under 907:

Poiduči že domovъ Rusь, da emljut u carja vašego na putь brašno, i jakori, užišča, i parusy, i eliko imъ nadobě.[11]

In S. H. Cross's English translation: 'When the Russes return homeward, they shall receive from your Emperor food, anchors, cordage and sails and whatever else is needful for the journey'.[12]

The subject matter of Gostjata's letter appears rather trite. A man has married for the second time, and his son by the first wife, feeling maltreated and neglected, asks his addressee for support. This probably occurred not far from Novgorod, if not within Novgorod proper, sometime in the pre-Mongolian period of Russian history. Notwithstanding Borkovskij's preference for the eleventh century, and even its first half, nothing authorizes us to prefer the eleventh century to the twelfth – neither the language nor the character and use of the letters. The unfailing preservation of *ъ* and *ь*, the regular substitution of *ę*, the "small *jus*", for the pre-joted *a*, and the *ě* observed after consonants and replaced elsewhere by *e* (*doedi*)[13] – all these spelling features of the North Russian

---

[11] *Povest' vremennyx let* (Leningrad, 1950), 1.24 and 2.185. Cf. E. Hermelin, *Über den Gebrauch der Präsens-Partizipien von perfektiven Verben im Altkirchenslavischen* (Uppsala, 1935), where the ancient use of these forms in Slavic languages, and their "Zukunftsbedeutung" in particular, is discussed; M. Korneeva-Petrulan, "K izučeniju sostava i jazyka dogovorov russkix s grekami", *Učenye zapiski Mosk. Gos. Univ.*, 150 (1952) 255-81.

[12] "The Russian Primary Chronicle", *Harvard Studies and Notes in Philology and Literature*, 12 (1930), 150.

[13] Cf. A. Šaxmatov, *Očerk drevnejšego perioda istorii russkogo jazyka* (SPb., 1915), 114f.

document discussed may belong to the eleventh century, but no less to the twelfth.

The same Novgorod excavations disclosed an interesting text, very likely of the fourteenth century, written on a birch bark cylinder decorated with a jagged design: *estъ gradъ mežu nobomъ i zemleju a k nomu ede posolъ bezъ puti samъ nimъ veze gramotu nepsanu* 'there is a city between heaven and earth, and a messenger comes to it by no road; mute himself, he carries an unwritten epistle'.

This writing is markedly vernacular; the spelling *nobo* (*nëbo*), *knomu* (*knëmu*) is particularly striking; while the initial *ě* gave *e* in *ede*, the non-initial *ě* becomes *i* in *nimъ*, reflecting the western variety of the North Russian dialect.[14] The dialectal lack of *t* in the third person is documented by *ede* and *veze*.

According to Arcixovskij, this may possibly be a riddle, resolvable perhaps as cloud, sunbeam and rainbow or as nest, bird and song. A singing bird is, however, not mute, and the image of the rainbow as a letter to the cloud seems quite forced. But in Rybnikov's excerpts from a North Russian popular text of riddles we find a very close parallel to the formula cited: *Čto estъ svjatoj grad meždu nebom i zemleju, iz nego že* (!) *idet posol i neset gramotu nepisanu?* And the answer follows: "the city is Noah's Ark after the deluge, the messenger is the dove and the epistle is the olive leaf it carries in its beak to Noah".[15] The Novgorod inscription contains a more vernacular and finer variant of the same religious riddle; it is, moreover, the oldest recorded Russian riddle, discounting a few riddle motifs utilized in the *letopisi*.[16] This riddle borders upon the "literature of questions and responses" which Novgorod cultivated especially in the fifteenth century. One of the most typical works of this genre, *Beseda trex svjatitelej*, extols the skill in solving riddles: *ispolat' tebě *** , čto ty gorazd sny zagatki otgadyvat'*.

From the oral tradition Sadovnikov collected four variants of our riddle which partly coincide with the text of the fourteenth century, partly deviate by omitting or adding some images: *Stoít gròb* (distorted from *grád*, while another variant russifies *grád* into *górod*) *na putí* (!), *nét k nemú putí*** *idët k nemú posól něm*** According to a variant from the Novgorod region, *Pošël posól ném* (cf. Rybnikov's *iz nego že*), *prišël posól ném*

---

[14] Cf. V. Vinogradov in *Izvestija Otd. rus. jaz. i slov. Ross. Ak. Nauk*, XXIV (1923), p. 174 ff., especially such Novgorod texts as the letter quoted on p. 186, spelling *vsim*, but *poexali*.

[15] *Pesni* collected by P. Rybnikov, III (Moscow, 1910), p. 210.

[16] D. Lixačev, *Russkie letopisi i ix kul'turno-istoričeskoe značenie* (Leningrad, 1947), p. 132 ff.

(fourth variant: *Šël posól, šël ne dorógoj*), *prinës grámatu nepísanu, dál čitát'
neučěnomu.*[17] It is noteworthy that each motif of the Novgorod inscription is
repeated by at least one of the later records. But a few features appearing in
the oral tradition do not occur in the inscription: the ability of the unlearned
Noah to read the epistle (*v rúki vzjál|i vsě pročitál*), and the Ark
as a secluded macrocosm (*v ètom górode|celyj mír tolpítsja,||a za ográdu|
stupít' boítsja||*). The only stable image common to all variants is the
messenger bringing an unwritten epistle. As to the rhythmical structure
of the Novgorod inscription, it corresponds to the present verse pattern
of the Russian folk riddles: *Ést' grád,|mežu něbom í zemléju,||a k němú
éde|posól bez putí;||sám ním|veze grámotu népsanu.*

<p style="text-align:center">II</p>

> A. V. Arcixovskij and M. N. Tixomirov, *Novgorodskie
> gramoty na bereste.* 68 pp. + 23 illustrations. Moscow,
> Academy of Sciences of the U.S.S.R., 1953.

Ten Old Russian documents scratched with a bone instrument on birch
bark and found during the Novgorod excavations of 1951 by the noted
archeologist Arcixovskij have been excellently reproduced in photographs
and, moreover, for the sake of clarity, re-drawn along with nine inscrip-
tions on various objects of material culture likewise found in recent
Novgorod excavations. These reproductions are accompanied by an
accurate description of all these scripts, with their tentative dating on the
basis of paleographic and stratigraphic evidence. Furthermore, all these
documents are reprinted with an attempt at interpretation and text
reconstruction, with word division, spelling normalization and insertion
of missing letters. Unfortunately, modern spelling is used for this
reconstruction.

As pointed out above (p. 614), the preliminary discussion of these
fascinating finds manifested a considerable weakness in textual criticism
and in the analysis of the Old Russian letters and inscriptions. The new
publication shows no considerable progress in this respect. For example,
in the commentary to the oldest letter (≠9), despite the perfectly clear
wording of this document, two equally fantastic alternatives are still
proposed. The first of these surmises wants to see a female name in
gostjata, which, according to the editors, does not occur in other sources

[17]   D. Sadovnikov, *Sbornik zagadok, voprosov, pritč i zadač* (SPB, 1901), ≠2180.

(p. 41). This typically male name is attested, however, in the oldest documents, both Czech (*Hosťata*) and Polish (*Gościęta*), and a mere glance at well-known handbooks would suffice to find it: F. Miklosich, *Die Bildung der slavischen Personen- und Ortsnamen*, p. 51; J. Gebauer, *Slovník staročeský*, I, p. 473; W. Taszycki, *Najdawniejsze polskie imiona osobowe*, p. 67. The Glagolitic sgraffito in the Novgorod Cathedral of St. Sofia cannot be used as an example of a feminine name in -ęta since the reading *djadjata došČrъ* and its translation 'Djadjata, the daughter', quoted by the editors, is erroneous and must be replaced by J. Vajs' accurate reading *děděta dobrъ*, 'Dědjata, the good man' (*Byzantinoslavica* 7.187). The other surmise, exposing Gostjata's father as a bigamist, is due to a quite erroneous interpretation of the old Russian text, as we indicated above.

In the riddle ($\neq$10) written down towards the fifteenth century (see above, p. 616), the Moscow publication points out as "strange" the spelling forms *nobomъ* and *nomu*. Any textbook of Old Russian, however e.g., A. Sobolevskij, *Lekcii po istorii rus. jazyka* (1907), p. 61f., knows that old North Russian scribes, when rendering the combination of palatalized consonant and /o/, either do not note the rounding of the vowel and write traditionally *nemu*, or sometimes record the rounding of the vowel but then unavoidably disregard the palatalization of the consonant: *nomu*.

The one-word inscription *smova* on the bottom of a wooden bowl, originating in the thirteent or fourteenth century and excavated in Novgorod in 1948, embarrasses the editors (p. 49), because this word is absent from Sreznevskij's dictionary of Old Russian common nouns. Since, however, the one-word inscriptions on ancient Russian objects of material culture are usually possessive adjectives indicating the owner, *smova* is undoubtedly an adjective sg. fem. in agreement with the omitted *čaša* 'bowl' and means 'belonging to *Sъmъ*': cf. on the one hand several occurrences of the masculine name *Som* in Tupikov's dictionary of Old Russian personal names and, on the other hand, the Old Polish compound personal name *Smogor*, which appears also in the Old Czech *Nekrolog Podlažický*.

As Arcixovskij's paper, "Raskopki 1952 goda v Novgorode", *Vestnik Akademii Nauk SSSR*, December 1952, reports, the Novgorod excavations of 1952 gave even more thrilling results. Besides various other fascinating finds, they uncovered 73 new documents, whole or fragmentary, all written on birch bark in the twelfth—sixteenth centuries, most of them private letters. Fifteen of these scripts are reproduced in the

article, with a preliminary discussion of their form and content. These letters, extremely interesting for the history of medieval Russian language and life, require not only an edition as careful as is the reviewed academic publication of the ten similar documents found in 1951, but also a much more adequate analysis of their spelling and language and a more careful interpretation.

These texts reveal an entirely new, less literate, more ordinary and vulgar layer of Old Russian verbal culture than the more exclusive and sophisticated literary specimens we have hitherto known. That these birch bark epistles were widespread is proved not only by the tremendous number of finds made until now in one single part of one single Novgorod street, but also by the simultaneous excavation of a similar document in Smolensk by the archeologist D. Avdusin. It is rather puzzling how this birch bark literature remained unknown for so long a time to the Russian experts in archeological field work.

All these scripts are scratched except one letter found in the Novgorod excavations of 1952. This one was written in ink which is so badly preserved that Arcixovskij has not yet succeeded in deciphering it. Such an isolated discovery makes it particularly probable that among many hundreds of empty birch bark scrolls, found together with the scrolls containing the letters scratched in, at least a part may turn out to be original letters with faded ink. They must be carefully examined with ultra-violet rays and all other modern technical devices to ascertain whether faded ink may not be discovered in these scrolls, and new documents revealed and read.

Written in Cambridge, Mass., and published in *Word*, VIII (1952) and IX (1953).

WHILE READING VASMER'S DICTIONARY*

I

A Russian etymological dictionary compiled by a specialist of Vasmer's rank is a great event in Slavic philology. The only complete etymological dictionary of Russian was Gorjaev's dilettantish work, the second and last edition of which appeared in 1896. Berneker's Slavic etymological dictionary was for its time a masterful achievement, but it is far from exhausting the Russian material. Of the two planned volumes only the first was completed, and finally, since the first World War, when Berneker's work ceased forever, Slavic philology developed so strongly as to show us the numerous gaps and insufficiencies in Berneker's attempt. A. Preobraženskij, Šaxmatov's school-teacher, and a great amateur of the Russian language and its history, began in his retirement an etymological dictionary of the Russian language, but died in 1918 when the last published issue of his work stopped at the word *suleja*. The printed issues were sent only to the few preliminary subscribers, while most of the copies were waiting in stock to be bound and sold when the whole dictionary should appear. In the meanwhile the bookstores were nationalized and the whole stock was ordered to be ground into pulp, so that even the published part became a great rarity, particularly outside Russia, where during the first World War there were only a few subscribers. When, soon after Preobraženskij's death in his native village of the Orel region, we heard that his Moscow apartment with his rich philological library was being pillaged, a group of young Slavists from Moscow University went to save what was possible. To my surprise I found in the restroom the galley proof of one or two further issues and the manuscript of the whole dictionary, converted into toilet paper. I transmitted my find to Professor Ušakov to be sent to the Russian Academy. Soon I left Russia, and later, when reading in Russian journals that the end of

Preobraženskij's dictionary did not exist, I wrote to Professor Vinokur and other Moscow Slavists reminding and informing them that the end must be at the Academy. My reminders were never answered. In 1949, in the first volume of the *Trudy Instituta russkogo jazyka* (pp. 5-144) published by the Academy, Preobraženskij's manuscript finally appeared. There were two big gaps: the words from *suleja* to *tug* are missing, and I suspect that the Academy has printed only what remained in manuscript, whereas the galley proofs were disregarded or even lost. On the other hand, most of the words beginning with *u* (after *udručat'*) and those which begin with *f* and *x* are missing too, and as far as I remember, they had already perished when I found the rest. But also what was published from the manuscript shows that the end of the dictionary was far from being completed. Many entries are merely listed.

Until the completion of Vasmer's dictionary, Aleksandr Preobraženskij's pioneering work will remain of great use. We must indeed be grateful that, due to the happy initiative of E. J. Simmons, we have been given a phototyped reproduction of all of the dictionary that has appeared in print and which, until the present time, has scarcely been available to Western libraries. This material fills a solid volume of almost thirteen hundred pages issued in 1951 by the Columbia University Press under the title *Etymological Dictionary of the Russian Language* and is actually handsomer and more integrated than what appeared in Moscow. It is regrettable, however, that the covers of the original issues of Preobraženskij's work were for the greater part omitted, although those of the 5th, 6th, 7th, 8th and 9th issues contain supplementary bibliographic references and, partly, additional etymologies. Had the preparation of the publication been entrusted by the general editor of the Columbia Slavic Studies, Simmons, to a specialist in Slavic philology, a few mistakes could have been avoided. The remains of Preobraženskij's work should have been presented more accurately in the introductory notes. The words between *suleja* and *tug* are not the only missing portion of the dictionary: besides this part, which was in the galley proofs salvaged for the Russian Academy but thereafter misplaced or lost, all the words between *udručat'* and *cap* are lacking: this section of the manuscript perished in the author's apartment after his death (cf. above). Also, the remaining material for the last part of the dictionary cannot be considered completed. Many entries beginning with the letters *č—ja* are confined to the list of Slavic word forms, while the explanatory notes were not even undertaken. Numerous basic words are entirely absent, at times even words to which other entries refer specifically (see, e.g.,

čvakat' and *čut'*). It might also be observed that the posthumous part of
the dictionary was poorly edited: besides numerous mistakes and mis-
prints, note for instance the confusion in the entry *jačat'* on pp. 142 and
143. The addition of a bracketed unified pagination throughout the
whole volume would most certainly have been of use, as well as a list of
Preobraženskij's other publications which could be reproduced from the
cover of one of the original issues of the dictionary. The introductory
note to the American reprint particularly praises the attention paid to
"the highly interesting loan translation", although it is precisely this
aspect that is most neglected in Preobraženskij's work. One must
especially object to the impossible and inconsistent way of transliterating
Russian words in the introductory notes to this strictly philological work,
although the standard pattern used, e.g., by the *American Slavic and East
European Review* could have been applied. The simple and inverted *e* are
not distinguished; the *mjagkij znak* is not rendered at all; the Latin *i*
indiscriminately replaces the Russian *i, j* and *ij*; the same ending *ij* is
rendered partly by *i* (*etimologicheski*), partly by *y* (*Obnorsky*). Trans-
literation is mixed up with phonetic transcription (*russkovo*). In the titles
of prerevolutionary publications a disorderly commingling of old and
new spelling appears. In the list of critical studies on Preobraženskij's
dictionary, the most important ones, those of Sobolevskij and Vasmer,
are omitted. Nothwithstanding these unfortunate lapses, however, the
Columbia publication must be warmly welcomed.

Vasmer's work is on an incomparably higher level. There is the im-
pressive philological experience of the decades that separate us from the
first World War. There is, moreover, Vasmer's magnificent mastery of a
vast Slavic, Uralic, Altaic, Greek and Germanic lexical material, his real
skill in applying the methods of comparative linguistics, and a much
richer, though still incomplete, body of material analyzed, particularly
dialectisms, Old Russian vocables and modern loanwords. The literature
consulted is abundant, even if some instructive sources, such as G.
Kočin's reference book *Materialy dlja terminologičeskogo slovarja drevnej
Rossii* (Leningrad, 1939), are omitted.

The entry word and its dialectal variants appear in present-day Russian
spelling, while the Old Russian, Church Slavonic, Ukrainian, West and
South Slavic variants are cited in Latin transliteration. When there is no
reference to an Old Russian form, e.g. under the entries *ves, artel'*, a
reader not specialized in the matter will not know whether the *e* cor-
responds to *e* or to *ě* in the traditional (prerevolutionary) orthography
and in those Russian dialects where *ě* did not merge with *e*. A reference

both to the spellings *věs, artel'*, and to the dialectal *vĩes, artĩel'* (or *vęs, artęl'*) would be desirable, as well as in forms with a stressed *o* where it would be important to indicate whether the archaic dialects use in this case a tense *ǫ* (denoted by a circumflex in some Middle-Russian manuscripts). If the key-word occurs in literary Russian, Vasmer ordinarily notes its standard stress. The entry *baráxlo* however deviates from the Moscow accent *baraxló* (properly *boroxló* from *borx-* < *bors-*) and *avaríja, álkogol'* are eighteenth-century archaisms, generally replaced by *avárija, alkogól'* (substandard *alkógol'*).

The peculiar grammatical forms of the Old Russian verb *byti* are included in the analyzed matter: *bě* (the rendition *be* is inadequate), *byst'* (a living Old Russian form in spite of Vasmer's inclination to confine it to Church Slavonic only, and in spite of his subsequent spelling *byst*), *bjax, bjaxu* (with an unjustified switch from third person singular to other forms), *bim'* (superfluously added, because this Old Church Slavonic form never entered into Russian usage). As to the grammatical classification of these Old Russian forms, *jest'* is the present, *bě* the aorist, and *bjaše* the imperfect of the imperfective aspect, while *budet', byst'* and *budjaše* are the corresponding perfective categories, as C. van Schooneveld has convincingly shown. Beside the Modern Russian "conditional" particle *by*, the dictionary should consider *bylo*, the pluperfect, generalized form of the third person neuter of the same auxiliary verb.

Interjections and their derivatives are partly disregarded: *á* which was stimulatingly discussed by Karcevskij (*Cahiers F. de Saussure*, I) with reference to the homogeneous conjunction; *báx, báxat', babáxat'*. The double meaning of the verb *búxat'* (intransitive 'moan', transitive 'strike') could be compared with the similar two-fold use of *áxat'* (intransitive 'gasp, sigh'; transitive 'strike, call names', cf. *axál'nyj* 'foulmouthed', *axál'nik*).

As a rule the proper names are disregarded in Russian dictionaries and their study is an unquestionable advantage of Vasmer's work, even if the selection is rather fortuitous. Tupikov's dictionary of Old Russian personal names is not mentioned, and some current names are missing, such as *Anna* (and *anjútiny glázki* 'pansy'), *Antón* (and *antónov ogón'* 'feu d'Antoine'), *Bogdán, Vavíla, Varvára*. The Old Russian *Aníka* and its reflex in folklore, *Aníka vóin*, merit discussion. Among geographic names there are *Azija, Afrika, Azerbejdžan*, but a new edition should add *Avstrálija, Amérika* (XVII. century *Ameríka*), *Bakú, Batúm, Beljóv, Vázuza*, etc. The internationally adopted ethnic name *Aleút* which originally was used by the Russians for the population of the islands

adjacent to Alaska, seems to be a transposition of the name *Aljútor* which designated one of the Koryak tribes.

With the vast and reliable etymological material put into circulation by Vasmer, a number of new questions naturally arises. I should like to dwell on some particulars.

The most precious and miraculous stone (*vsem kamnjam kamen'*) of Russian folklore, *alátyr'* or *látyr'*, is undeniably an alternant of *látygor'* from *Latýgora* 'Latgalia', and means 'Latvian (stone)', i.e. 'amber'.

The colloquial idiom *antimónii razvodít'* 'talk at random; expatiate on superfluous things; fool by fine words' is a pun-like contamination of dialectical antinomy and expanding antimony.

The various meanings of *bába* and its derivatives should be noted and interpreted, especially *bába* 'tall cylindrical ritual cake' (cf. Polish *babka*, Czech *bábovka*); *bábka* 'pastern, knuckle-bone'; *bábka* 'edible boletus' (also Byelorussian and Polish), and *obábok* designating various inferior mushrooms in different North and South Russian dialects (see Dal', II) and cited by Vasmer as *abábok* of "obscure" origin.

Of the dialectal *bagún* there is a derivative in standard Russian, *bagúl'nik* 'ledum' from *bagún'nik*, cf. *ostal'nój* from *ostan'nýj*, *molél'nja* from *molén'nja*, *strigól'nik* from *strigón'nik* (Polish *strzygoń* 'demon'), *uryl'nik* from *urin'nik*.

The lullaby forms *baj*, *bájú*, *bájuški* and the corresponding verb *bajúkat'* 'lull' are, as Brandt perceived, derived from the root *baj-* 'say'; cf. *bájka* 'fable', *priba(j)útka* 'ditty', *krasnobáj*, *bajún* 'talker, fabulist'.

Russian *balagúr* 'chatterer, joker' can hardly be separated from Polish *balaguła* 'lanky, awkward, garrulous fellow', which in its turn is linked, like West Russian *balagól* 'Jewish cab' to Yiddish *balagole* 'coachman'.

The word *baxtarmá*, *buxtarmá* 'thin skin of mushroom, birch, shoe-leather' obviously goes back to Turkic *bastyrma* 'something (e.g. meat) compressed'.

After Menges' monograph on Altaic loan-words in the Igor' Tale there remains no doubt about the oriental origin of the common Slavic name *Bojan*: the Altaic image of *bojan* as powerful wizard and bard is reflected both in 'Bojan the seer' of the Igor' Tale with his magic play and prophetic songs, and in the Bulgarian legend of Prince Benjamin, the Bojan-magician.

The connection of *brodít'* 'wander in mind, rave', *bred*, *brédni* 'ravings' with indeterminate *brodít'* 'wander, ramble' and determinate *brestí* 'drag oneself along, drag for fish', *bréden'* 'dragnet' is striking, but *bréd* instead of the expected *brjód* demands an explanation (late deverbative, or book form?).

The Old Russian *bьrnije* 'clay, mud'; *bьrnьnъ* 'earthy', Old Serbian *brna* 'mud', Slovenian *b̑rn* 'silt', Old Czech *brnka* 'afterbirth', *Brnen* (*hrad*), *Brnno* (*podhradie, město*), later *Brno*, literally 'earthy, loamy', belong to the same family as the Polish *bardlić*, Serbocroatian *b̑rljati* 'soil' and as the common Slavic stem *bьrlog-* 'den, lair, puddle'; the root is *bьr-* supplemented by suffixes *-n-*, *-dl-* or by the second root *log-* 'couch'.

The loan-word *buzá* 'millet-beverage' acquired a metonymical meaning 'row, brawl' whence various expressive vocables were derived: *buzít'* 'kick up a row', *buzovát'*; *búznút'* 'thrash, brawl', *buzatjór* 'rowdy'.

Vasmer ascertained that Turkic *bus* 'haze, smoke, foul weather' is the source of Russian *bús* 'haze, drizzling rain, spray, dust', but as Dal' guessed correctly, also *búsyj* 'smoke-colored', *busét'*, *busovét'* 'turn grey, turn cloudy, get dark' belong here, and likewise Old Russian *búsovyj* 'foul, sombre', and maybe ultimately *búsy* 'glass globules, drops'.

Such terms as *váda*, *povádka* 'habit', *vádit'* 'habituate' are from the same roots as the verbs *vodít'*, *vestí* 'lead, keep, conduct': cf. impersonal expressions for customary events *vóditsja*, *vedjótsja*, *povelós'*.

The Old Russian *vazn'* 'fortune, good luck', seems to be derived from *vajati* 'model, shape, carve, weave', like *kazn'* from *kajati*, etc.

The "far country" of epic lore, *Vedeneckaja zemlja*, is probably a blend of Old Russian *Venedici* 'Venetians' and *Věden'* 'Vienna'.

The separation of *Velesъ* from *Volosъ* is unlikely: the functional identity of both mythological names is evident. In Russian both forms could be traced to a common prototype *Velsъ*: before front-vowel syllables TELT is not supposed to have changed into TOLT; this could explain forms such as *Velš* > *Veleš'*, *Velse* > *Velese* (cf. *volot—veleten'*, *polovy—pelevnja*) and the secondary generalization of the sequence Veles-. However, neither the Balkan-Slavic place-name *Veles* nor the Middle Czech *veles* 'demon' can be explained from *Vels-*; a Czech borrowing from the Russian mythology is quite improbable, and the most plausible is an alternation of Primitive Slavic root-forms *Veles-/Vels-*: *Volosъ* originates from *Velsъ*, while all other Slavic variants come from *Velesъ*. [Cf. my paper in *Studi linguistici in onore di V. Pisani* (Brescia, 1969).]

The form *viš'* 'look' can be explained only from the imperative *viž'*, for in dialects with partial preservation of final voicing, this expression is pronounced *viž*.

The consonantism of *vožžá* may be deduced from *vod-dia* > *voz-dia* > *vožža*: the vicissitudes of the suffix *-dia* in East Slavic have been pointed out by Vondrák.

Most probably, *vól* 'castrated bull' is a vocalic alternant of the root

appearing in *valját'* 'bring down, castrate an animal' or in *konovál* 'gelder, veterinary surgeon'. From *vól* are derived some names of fungi, such as *volúj*, *volvjánka*, and perhaps *volnúxa*, brought together with *volná* 'wool' by folk-etymology; *volžánka* suggests a similar interpretation.

II

The quality and the comprehensiveness of Vasmer's undertaking rises with the experience of the first issues. The author knows how to select the best among the existing etymologies, and adds many new solutions, most of them definitive.

In a few cases, single words discussed by the author could, without undue forcing, have been united into more comprehensive families; for instance *gil'* 'nonsense, bustle' may be compared with the Czech expressions *chytati hejly* 'to gaze' and *povĕsiti hejla na nos* 'to fool', and is but a figurative use of R. *gil'*, Cz. *hejl* (or *hýl*) 'bullfinch'; this goes back, as M. Vey, *BSL* LVI, 55ff. proved, to a compound **gūjil-* with **gŭ-*, from **gʷow* 'bull'.

OChS. *grano* (and *granъ*) 'verse, colon' should not be separated from *gran'* 'border, segment' (and from the Russian verb *granít'* 'cut').

grebtá 'trouble' is an obvious derivation from the verbal root *greb-* 'scratch': cf. R. *zobóta* (or, in unhistorical spelling induced by the "akan'e" – *zabóta* 'trouble'), literally 'something which pecks', and Slovak *hryzota*, Bulg. *gríža* 'trouble', literally 'something eating out one's heart'.

R. *grëz*, *grëza*, *grezá* 'delirium, hallucination' are cognate with *grozá* 'terror, horror'.

The verb *grjánut'* 'strike, crash, burst, clank' is related to *gremét'* 'thunder, clank'.

To the alternants *greb- – grĕb- – grob- – grab- – grъb-*, the last alternant *grib-* is to be added, presented not only by such forms as SCr. *gribati* 'scratch, scrape' and *griblja* 'furrow', but also by Russian dialectal *gríba* 'alluvium' and *grib* 'fungus', literally 'what pushes out of the earth'.

gubá in all its three meanings, 'mushroom', 'lip' and 'bay', has the same etymology.

One and the same Slavic root, **gǫd-*, appears in the words OR. *gusti* 'play on a string instrument', R. *gúsli* 'string instrument', *gudít'* 'play music, bewitch, delude, make fun of', *gulját'* 'carouse, have fun, make fun of', *gúl'nyj* 'leisurely, (OR.) bewitching' (cf. High Sorb. *hudař* 'soothsayer', Pol. – from East Slavic – *gusło* 'witchcraft', *guślić* 'bewitch'),

and *gud, gul* 'howl': the representation of music was, on the one hand, extended to a hum and a roaring and, on the other, was easily associated either with fun or with magic and subsequently with fraud or jeering.

guž 'tug' – together with Byelorussian *huz* 'loop' and Russian dialectal *priγuz* 'tie of a hand-flail' – is, as Fortunatov pointed out, related to *úzy* 'bonds', *úzel* 'knot' despite the prothetic velar, the same as in **gǫsenica* 'caterpillar', derived from **ǫsъ* 'mustache, hair': this g-, as well as k- in **koza* 'goat' and **kostь* 'bone' (all of these examples having a Slavic sibilant in the second syllable), calls for an explanation.

gunjávyj 'shabby, bare, bald' is derived from *gúnja* 'shabby clothes, shedding coat, rags'.

Church Slavonic *degna* 'scar' as well as *dëgot'* 'tar' are related to the Slovenian *dégniti* 'burn' and Lith. *dègti* 'burn'.

OR. *dъna* 'uterus' (< **dъbna*), *dъno* 'bottom' (< **dъbno*) and *dъbr'* 'gorge' are all related to Lith. *dubùs* 'deep', *dùbti* 'sink', *daubà* 'gorge'; such Russian words as *dybún* 'swamp, quagmire', *dýbat'* 'hobble', *dýbit'sja* 'rear', *dýba* 'rack', and OR. *dъna* in the meaning 'gout' (< **dъbna*), also belong to the same family.

OR. *žirъ*, originally both 'what is devoured' and 'what devours' (ulcer), is cognate to *žьrati, žirati* 'devour'.

žukóvina 'jewelled ring' is derived from *žuk* 'beetle, scarabaeus, adornment'.

The etymological connection of *zabobóny* 'superstition' and *Babuni*, a Church Slavonic sobriquet for the Bogomils, has been defended against Berneker with abundant evidence by J. Janko, *ČMF* XXVIII, 134ff.

kalína 'snowball tree, viburnum opulus', as well as *kalúga, kaljúža, kálevo*, all meaning 'marshy places', is derived from *kal* 'mud, wash', because this tree usually grows in damp ground, as the folk-song line in an Old Czech record emphasizes: "*Proč kalina v struze stojí?*"; cf. the Russian folklore image of a way through the swamp paved by the trunks of the snowball tree. Also the verbs, such as Cz. *káleti, kaliti*, or R. dialectal *kalját'* 'stir up' and R. *kalít'* 'to smelt' and *kolét'* 'to become torpid', are from the same root.

The West Slavic *kat* 'executioner', borrowed into Russian, cannot be separated from such verbs as R. *katát', katít'*, Cz. *káceti, kotiti*, etc., which Vasmer translates 'wälzen, niederschlagen, stürzen, umwerfen'; this *nomen actoris*, as well as its Old Czech derivative *katák* 'torturer' and the corresponding *nomen actionis*, OCz. *kot*, appears particularly frequently in connection with the well-known execution instrument *kolo* 'wheel'.

klop 'bug' cannot be separated from *klepát'* 'hit, strike, slap, beat', and *klopotát'* 'bustle about', Pol. *klopotać* 'annoy'.

To the family of *kljuká* 'hook, crutch, crooked trick', belong also *kljúkat'* 'limp, get drunk, strike (with a crutch)', *kljúkva* 'cranberry' (growing on twisted bushes), OR. *kljusja* 'colt' (which toddles), and *ključ* 'key' (originally a crook).

OR. *knĕs* or *knes* 'roof girder' (cf. SCr. *knjes* 'lame, sickly') and its modern dialectal synonym *knëk*, both usually re-shaped by folk etymology into *knjazëk* and *konëk*, are related to *knejá* 'clump', and go back to the root **kъn-* < **kъmn-* 'trunk, stem, log': cf. [*Selected Writings*, IV, 395]. M. Alekseev, in *Slovo o Polku Igoreve*, Symposium of the Russian Academy, L., 1950, 226 ff., and earlier, Sobolevskij, *RFV* LXX, 81. The question remains open whether *knĕs* is a suffixed form or a compound with the same **aidh-s* as the second component which Berneker, 275 f., discerned at the beginning of the Slavic **ěstĕja*. Or should this component be connected with Old Norse *áss* 'beam'?

The verb *korëžit'* 'bend, crook' is derived from *korëga* 'a crooked tree'.

I see no reason for separating R. *kolobóit'*, Cz. *klábositi* 'chatter', from the Latvian *kalbît* 'chatter', Lithuanian *kalbéti* 'talk'.

The ethnic name *Vjátiči* is not to be separated either from *Antes* nor from *Wenden*: cf. D. Bubrix' convincing observations on the alternation *ǫt-* – *vęt-* in *Izvestija* of the Russian Academy, Section of Literature and Language, V, 478 ff.

Any word-family, or *gnezdo* in Russian traditional terminology, is to be enumerated as exhaustively as possible. Vasmer quotes such derivatives from the verb *žmu* 'I press' as *žámka*, *žámkat'*, *žemerá*, *žemánnica*, *žménja*, *žmína*, *žmut'*, *žmyx*, *žom*, but why not *žajdakán*, *žáka*, *žáčki*, *žémni*, *žemók*, *žemúlja*, *žem'*, *žmak*, *žmákat'*, *žmar'*, *žmáčka*, *žmenëk*, *žméten'*, *žmójda*, *žmón'ka*, *žmot*, *žmúlja*, *žmuč'*, *žmjak*, *žóma*, *žómka*?

In connection with *dubás* 'a hollowed out boat', the verb *dubásit'* 'hammer, keep beating' would be of interest.

*dugъ 'growing', R. *nedúg* 'ailment', and *djúžij* 'robust' may be supplemented by the dialectal taboo name of the devil, *Djug*, inexplicable to Zelenin, *Sbornik Muzeja antropologii i ètnografii* IX, p. 105.

The alternants *zarjá* and *zorjá* have a distinct meaning in OR. – 'afterglow' and 'daybreak' respectively; cf. in Šambinago's "second version" of the *Skazanie o Mamaevom poboišče*: *večernjaja zarja*, and *po zorě po rannei*. Vestiges in cognate languages seem to indicate that this distinction originated in Common Slavic.

Perhaps Vasmer's most original and valuable contribution is his

examination of borrowings. The ways loanwords and loan translations have come into Russian are most varied. An eloquent example is the name for ginger, which entered by three roads – from the East as *zenzevél'*, probably through Greek as *zinzivér* or *zinzivéj*, and from the West as *imbír'*; the migration of the names for this spice has recently been discussed in A. S. C. Ross' study *Ginger*, Oxford, 1952. Thus it is natural that these entangled questions will still require additional observations. A few remarks may be permitted.

gak has entered into Standard Russian with an initial [γ] and with the meaning 'a little over', especially in the expression *s gákom*.

In connection with *Devgénij*, the acquaintance of Old Russian with the Greek name *Digenis* in a form closer to the original could be noted. A. Soloviev points out that in Nikon's Chronicle under 1169, a Kievan boyar *Jakov Digen'evič* is mentioned.

The demonic name *Div* is attested not only in Old Russian, but also in South Slavic folklore and in some West Slavic vestiges; as shown particularly by Rozwadowski, *Rocznik oryentalistyczny* I, both *Divъ*, the reflex of **deiwos*, and *Bogъ* jointly shifted their meanings under the Iranian influence. [Cf. Benveniste and E. Georgiev, To Honor R. Jakobson, I.]

The borrowed name *Georgij* contained two velars followed by front vowels and a hiatus: these features, foreign to the Old Russian pattern, were eliminated by the change of the first /g/ into /j/, and by the metathesis of the second in the folk form *Egórij*.

The expressive words *eldýga* 'squabbler, bully', and the corresponding verb *eldýžit'* are derived from the phallic terms *eldá, eldák*, borrowed, according to V. Minorsky, from Persian *yalda* (*Bulletin of the School of Oriental and of African Studies*, London, XI, 571).

Like OR. *zepъ* and Slovene *žèp* 'pocket', R. *žópa* 'nates' also was considered by Trubetzkoy as borrowed from the Turkic word for pocket; cf. the similar Czech euphemistic substitution of *kapsa* 'pocket' in a swear-locution.

Besides *žúlik* 'rogue', its homonym, meaning 'a long bread roll' in Moscow Russian, may be mentioned, which, as Rovinskij indicates, is due to the name of the French confectioner Jules, once renowned in Moscow.

Vasmer presents *karámora* 'a long-legged fly' as "dunkel", although he recognizes the first, Turkic part of this compound in *karamázyj* 'swarthy', and in *karákuli* 'scroll', and the second part in *kikímora* 'goblin'.

The river name *Kajala* appears in the Hypatian Chronicle in its original form *Kajaly*, which is reflected also in the plural form *Kalý* in the book *Bol'šoj čertež*.

The ethnic name *Kovui* and the botanic term *kovýl'* have been exhaustively elucidated by K. Menges, Supplement to *Word* VII, p. 1 ff. and 30 ff.

kondráška 'nervous stroke', as well as the dialectal *kondrá* 'cry', seem to be after *xandrá* 'morbid depression', a further re-shaping of the Greek *hypochondria*.

The striking traditionalism of Russian abstract terminology deserves greater attention: *glásnye* 'vowels' is indeed a loan translation, not from Latin however, but from Greek, and appears already in St. Cyril's *Vita* of the late 9th century; *dátel'nyj* 'dative' and *zvátel'nyj* 'vocative' are also translated directly from Greek, and as Jagić's comprehensive survey shows, appear early in the Church Slavonic grammatical tradition first in the feminine, in accordance with the Greek model, then, not later than in the 15th century, in the neuter or in the masculine, in congruence with the loan translations *padénie* and *padéž* 'case'. Similarly *žénskij rod* 'feminine gender', which Vasmer connects with Latin, is modelled upon the Greek and so are *vid* 'aspect', *zalóg* 'voice', *búduščee vrémja* 'future tense', and nearly the whole bulk of the grammatical terminology, which goes back partly to the late medieval South Slavic tradition and partly even to Old Church Slavonic. Both *gramatikija* and *gramatika* occur early, borrowed from Greek. R. *dialéktika* harks back to the Greek term not through Latin and New High German, as Vasmer asserts, but may be traced in the Church Slavonic tradition as far as to the early translation of John Damascene which opens with the sentence: *azъ esm' dialektika*. The term *gipóteza* too leads directly to the Greek. *Grámota* 'reading and writing' is an early Church Slavonic adaptation from the Greek, being attested not only in Old Russian, but preserved also in the Old Czech Psalter; *kolíčestvo* 'quantity', like *káčestvo* 'quality', is an Old Church Slavonic translation from Greek. The adjective *zlobodnévnyj* 'of present interest' is based on the Church Slavonic translation of Matth. 6:34, "Sufficient unto the day is the evil thereof".

Inter-Slavic borrowings still await a close examination. *glagolica* 'the Glagolitic alphabet' is a term which originated in Croatia, according to J. Vajs, not before the 14th century; it is connected with the Croatian designation of a worshipper in Church Slavonic, *glagolaš*: cf. the Old Czech expression about such worshippers: *slúžie-t slovenským hlaholem*.

The title *gospodár'*, *ospodár'* 'ruler, master' is from Czech (see Šaxmatov, *Očerk drevnejšego perioda istorii rus. jazyka*, 178). Similarly *kómnata* 'room', as Trubetzkoy observed.

grubiján 'churl' comes from the Cz. *hrubián*, due to the popular book

of the 16th century, *Práva doktora Grobiána*, translated from the German-Latin *Grobianus*; another popular Czech publication of the same time, *Frantova práva*, enriched Russian with the word *frant* 'dandy'.

R. *dvor*, in the sense of 'royal court', was translated not directly from French or German, but through the West Slavic medium. The rich Polish deposit in Russian deserves special attention. Such words as *duxovénstvo* 'priesthood', which have come from or through Polish, must be registered, the more so since their foreign origin is often unnoticeable without special investigation. R. *ogúlom, gulóm, ogúl'no* 'as a whole' was rightly explained by Grot as borrowed from Pol. *ogólem*: cf. synonymic adverbs from the same root – Cz. *zhola*, Pol. *zgoła*, SCr. *zgolja*, R. *gol'ëm, gól'ju*.

In separate cases the reference to folk etymology may be called in question. The folk calendar term *spožínki* hardly goes back to *gospožínki*: the corresponding Czech terms *dožínky, obžínky* 'harvest festivities' seem to testify that rather the association with *gospožá* 'our Lady' is a folk etymology. Similarly, taboo must not be involved for the explanation of *zaznóba* 'lady-love', literally 'inducing one to shiver': cf. such current erotic metaphors in Russian as *oná brosáet v žar i znob*. Also the folklore designations of the bridegroom and bride as *knjaz'* 'prince' and *knjagínja* 'princess' are not taboo-substitutes but simply ornate expressions fos those entitled to wear the wedding crown (*venéc*) which in Russian gives the name to the whole nuptial ceremony.

Questions of sound are, as a rule, carefully treated by the author. But *klešnjá* 'claw' cannot be from **klešč'nja*, and Zubatý rightly refers to such forms as Slovak *klesnit'*, Pol. *klesnić* (*Studie a články*, I, 28).

eževíka 'blackberry' vs. *ožína* or *ožíka*, and *elenéc* 'juniper' vs. *olén'*, as well as *esenjás* 'last fall', *esen'jú* 'in fall' vs. *ósen', osénnij*, and *edinák, edinéc* 'lone man' vs. *odín*, would not present difficulties, if the author took into account that the change of initial /je/ to /o/ was confined to the syllables under or immediately before the stress: cf. *TCLP* II, 38 ff. [*Selected Writings*, I, 45 ff.], and N. Durnovo, *Vvedenie v istoriju rus. jazyka*, 1927, 225.

The words *dóma* 'at home', *včerá* 'yesterday' (like *segódnja* 'today') and forms like *kogda* 'when' present an adverbialized *genitivus loci* and *temporis* with specifically adverbial sound changes: the reduction of *goda* to *gъda* and subsequently to *gda* or *večera* to *v'čera*. For the shift of accent cf. the Russian alternation of *véčer* 'evening' – adv. *večór* 'last evening' and correspondingly Cz. *večer – večír* (< *večér*). If a word is known to have two different accentuations, both are to be indicated: e.g., *déspót, kérénka, kóbzá, kóndovój*. The accentuation *débel* is inaccurate.

III

Here are a few marginal remarks to the ninth–fifteenth issues of M. Vasmer's *Russisches Etymologisches Wörterbuch* (1953-1955: корень – равный).

korž 'dry cookie', *koržáva* 'dry growth, slag', and *koržávyj* 'dry, hard hardened' all belong together.

kórzat' 'shave wood', *korzína* 'basket', *korzovátyj* 'rough-barked' and Ukr. *kórzaty, kórzyty* 'weave' can hardly be separated.

korostél' 'landrail' may be compared with Cz. *chrastiti, chramostiti* 'rustle', *chramostýl* 'rustler' and with the Rus. *koromýsel, koromýslo* 'dragon-fly'.

koročun 'winter solstice, death': Rosetti's study in *Bulletin Linguistique* IX, 56ff. on this Slavic word and its penetration into Rumanian and Hungarian may be cited, as well as the West Slavic mythological names *Krok, Krak*.

kosá 'scythe', the tool of *kosit'* 'mow, cut', and *kosá* 'plait', the goal of *česát'* 'comb, scrape', as well as *kosmá* 'mane, lock', are of the same origin.

Besides *krasotá* 'beauty', the accentual variant *krásota* 'wreath as the symbol of virginity' could be mentioned.

krepát' 'dawdle', *kropát'* 'botch', *kropotát'* 'putter', *krópot* 'bustle' and *kropotlívyj* 'fussy' belong to the same word family.

krest'jánin 'peasant': cf. a penetrating contribution to the history of this term by P. B. Struve, "Naimenovanie «krest'janin»", *Sbornik Rus. Instituta v Prage*, III (1929, 464-472).

krot 'mole', *krýsa* 'rat' were correctly brought together by Preobraženskij. Cf. the illuminating study by H. Grégoire *Asklèpios, Apollon Smintheus et Rudra*. Études sur le dieu à la taupe et le dieu au rat ******* (Brussels, 1950).

kúgel', the name of a dish, is borrowed from Yiddish and goes back to OCz. and Pol. *kuklik*, a bread term originating in Latin *cucullus*.

kudél' 'tow' is a technical term which before the loss of the nasal vowels in Eastern Slavic, penetrated both into Finnish and into Chuvash.

kuderma OR 'executioner' and *kuter'má* 'commotion, trouble-maker' are connected, as was noted by Sreznevskij.

kukurúza 'corn' definitely belongs to the numerous Balkan-Slavic botanical names derived with reduplication and expressive suffixation from *kur* 'rooster, cock, penis'.

kulebjáka 'pie' goes back to the Tatar *qŭlaq-bükkän* 'bent ear': cf.

pel'mén' 'meat dumpling' borrowed from Zyrian *pel'-ńań* 'ear-bread'. These borrowings, together with *lapšá* 'noodles' (Turkic loanword), are characteristic examples of the oriental and ultimately Chinese origin of the Russian dough dishes. In Chinese the generic term for any kind of stuffed dough is homonymous with ear, and even the character for this term (Giles No. 3343 *êrh*[3]: see below), as Professor Y. R. Chao has

informed me, includes the symbol for food on the left hand side and the symbol for ear on the right. There is a great variety of pastry names which, like *kulebjáka*, all contain *k*, *l*, *b* and a velar at the stem end: *kalábux, kalábuška, kalabášek, kolobók, kolobúx, kolóbka, kolobjáška, kolobíška, kolebjátka, kulábux, kulábyška*. Cf. also the Cz. *kobliha*, Silesian *kobylížka* 'jelly doughnut'.

kuléš 'millet-gruel' originates in Hungarian *köles* 'millet' attested in place names since the twelfth century. The word is common Ugric: cf. Vogul *koles* 'gruel'. (See Bárczi Géza, *Magyar Szófejtő Szótár*, Budapest, 1941; Toivonen, FUF, XVII, 283f.)

kumír 'idol' was satisfactorily explained by H. Grégoire as an OCS borrowing from Greek κορμί, κουρμί 'trunk, body', along with the synonomous *istukán*, which he connects with the Persian *ustuχān* 'skeleton, carcass' (*Annuaire de l'Institut de philologie et d'histoire orientales et slaves*, VI, p. 421).

kuná 'vulva' was originally a metaphoric transposition of *kuná* 'marten', customary in Slavic wedding folklore.

Kupála was ingeniously interpreted by H. Grégoire: it corresponds both as word and myth to the archaic epithet of Dionysus – Δύαλος 'diver' (Académie Royale de Belgique, *Bulletin de la Classe des Lettres et des Sciences Morales et Politiques*, 5e série, XXXV, p. 238f.).

kut 'corner', *kútat'* 'hide' and OR *kuča* 'cabin', OCS *kǫšta* disclose their common origin.

ladón' 'palm': the phonemic remolding of the original *dolon'* is probably due to its rapprochement with the words *lad* 'agreement, harmony', *láda* 'beloved'. Cf. *ladóši* 'clapping palms' and *lády, láduški*, personified palms in child folklore.

lešč 'bream', one of the few examples of the loss of the initial *dl*, preserved in OCz. *dlešč*. The same onomatopoetic root is in *dlesk* (see

Berneker, 203) and the alternating *tlesk*; cf. Cz. *tleskati* 'clap' and R. *lëskat'*.

lógika: one of the cases where the author underestimates the elaborateness of OR scholarly terminology. Far from being a borrowing from New High German, this term has a long history in Russian; both the loanword and the loan translation from Greek were familiar to the Old Russian bookmen: *Kniga glagolemaja logika – sirěč' slovesnica*.

lóno 'lap, bosom, womb' has the same root as *log* 'ravine', *lóže* 'bed', *ležát'* 'lie' and *ložesná* 'uterus': it goes back to the form **log-sno*.

lýbit', *ulybát'sja*, *lýskat'* 'smile, grin' as well as *lýbon'* 'crown of an animal's head' are akin to *lob* 'forehead, skull': *ulybát'sja* would literally mean 'smooth the brow'.

lýža 'ski' is evidently cognate with *lóžka*, OR *lъžьka* 'spoon': cf. Norwegian *ski—skje*.

malínovyj zvon 'soft timber of bells', connected through popular etymology with *malína* 'raspberries', referred originally, as noted by Trubetzkoy, to the famous bells from the Belgian town of Malines.

mat in *kričát' blagím mátom* 'cry violently' is connected with *matásit'sja* 'throw oneself about', *matóšit'* 'harass', *sumatóxa* 'bustle' and *motát'* 'shake'.

mga can hardly be separated from the synonymous *mgla* 'haze'. It is one of the Slavic simplifications of the complex cluster which arose after the loss of the reduced vowel: cf. Low Sorbian *mla*, Slovak *hmla*, Cz. *mlha*. In *mga* a metathesis similar to the Czech one was followed by the loss of the interconsonantal liquid.

mel'kát 'quiver', *mlet'* 'faint, become numb' have the same root: **mьdlьkati* and **mьdlěti*.

mexrënok, *mixrjútka*, *mixljúj* 'clumsy fellow' are linked with *míška* and *méčka* as substitutes for the tabooed names of the male and female bear. The original *méška*, attested in OPol., was replaced by *míška* through an association with the hypocoristic *míška* from *Mixaíl*.

Mokošá, OR *Mokošь*, the name of a pagan goddess, is derived from the root *mok-* 'moist' and is synonomous with *Máti syrá zemljá* 'Mother moist earth'. The Slavic goddess corresponds to the Iranian *Ardvī* (moist) *Sūrā Anāhitā* in name and function; cf. *Funk and Wagnall's Standard Dictionary of Folklore, Mythology and Legend*, II, 1027.

molokó: the deviating unvoiced consonant of **melko* 'milk' as compared with **melzivo* 'beastings' is explainable by taboo, which frequently causes distortions of words designating milk.

mórda 'muzzle', *mordásy* 'mug' must be connected with OCz. *mrdati*

'wag', *mrdas* 'tail' and Pol. *mardać, merdać* 'wag the tail'.

mórščit' 'wrinkle, twist' is historically identical with Cz. *mrskati* 'trash, twist'.

Moskvá: Vasmer is right in following Il'inskij's rapprochement of this river name etc. with the Slovak *moskva* 'rotting grain'. The stem *mosk-/mozg-* may be further confronted with *mъzg-* in *mzga* 'rot, mould, dampness', *mózglyj* 'rotten, wet', *mózgnut'* 'to rot'. There is the noteworthy testimony of Trediakovskij: "I happened to hear from the local common people that [the Moscow River] is also called *Smorodina*," i.e. 'smelly currant)'. [Cf. A. Sobolevskij, *Velikorus. nar. pesni*, I, No. 283: "Vo Moskve-reke Smorodine".]

motrosít', a dialectal variant of *morosít'* 'drizzle', is a blend of the latter verb most probably with *motát'* 'shake'.

múdryj 'wise' seems to be cognate with *mudě* 'testicles': primitive belief regarded the latter as the seat of virility, which underlies boldness and wisdom.

muxomór 'fly-agaric': this compound, common to Eastern and Western Slavic languages, merits a discussion.

músor 'rubbish' has been related by Preobraženskij to its synonym *búsor*; in Vasmer's view this is "lautlich schwierig". The pair, however, could easily have arisen as rhyme-words of the Turkic pattern: *búsor-músor*.

naniče 'inside out, inversely' is cited from the Igor' Tale, in which its Pskov scribe confuses *c* with *č*. The OR form is *na nice* (for examples see Sreznevskij's dictionary, II, 304 and 453) – the neuter singular of the adjective *nicь*.

naxter'má 'inside of a fur skin' (figuring in a document of Godunov) goes back, together with *baxtarmá*, to the Turkic *bastyrma* (see p. 624),

nigilíst: the terms *nihiliste, communiste*, and *socialiste* were coined in the French political jargon of the 1790's as derisive sobriquets (see M. Frey, *Les transformations du vocabulaire français à l'époque de la Révolution*, Paris, 1925, p. 165; F. Brunot, *Histoire de la langue française*, IX, 2nd part, pp. 834, 1123).

nočlég 'lodging': the dialectal variant *naslěk*, widespread in North Russian (cf. Trediakovskij's rhyme *naslěkom—čelověkom*), awaits an explanation.

oblás, oblasók 'raft' is derived from *obl-* 'round', like Cz. *oblásek* 'pebble'.

ovar'skyi in the Igor' Tale does not refer to the Avar conquerors, but to the Caucasian Avar people which *Tolkovaja Paleja* calls *aver*.

ovrág, OR *vragъ*: cf. Cz. toponymics *Vráž*, *Vrážek*, *Boží Vrážky*, and R. *Bóž'i Vrážki* (cf. *Slovo a slovesnost*, IV, 225).

ókun' 'perch' could perhaps be confronted with *kunját'* 'be drowsy', Cz. *okouněti* 'stare', and also with *okunát'* 'dip'.

oxvóta from *oxóta* is due to a dialectal change: *oxó* > *oxvó* parallel to *oγó* > *ovó* (see *Ètnografičeskoe Obozrenie*, CIX-CX, 104).

padéž 'case': this Church Slavonic form is to be confronted with the Russian form *padëž* 'murrain'.

pážit' 'fallow': to *pa-* and *žito* 'grain'.

pákost', dialectal variant and Ukr. *kápost'* 'harm, ailment, filth' may go back to the Iranian *Kapasti*, a pestilent female demonic being.

paláč 'executioner' could be connected with OR *palati* 'flame' and thus originally refer to execution by burning.

paskúda, *paskúd'* 'infamy', Pol. *paskuda*, according to G. Vernadskij's surmise, reflects the Iranian *Paskudj*, name of a demonic being (see *Annuaire* *** VII, 342).

pátrat'sja 'soil oneself, putter about' must be somehow related to its Czech synonym *patlati se*, *upatlati se*.

paxát' in its meanings 'to sweep, furrow, hoe, spread', *páxnut'* 'to smell', *zápax* 'smell' and *pax* 'groin', *paxá* 'armpit' are semantically associated and thus may be treated as cognate.

Perun is aptly regarded by Vasmer as a common Slavic god. Filipović's discoveries of further traces of *Perun* worship among the Southern Slavs support this view (see *Glasnik Zemaljskog Muzeja u Sarajevu*, 1948, 63 ff., 1954, 181 f.). The connection of the OR place name *Peryn'* (cf. also Bulg. *Perin planina*) with *Perun* is corroborated by the recent discovery of the great pagan sanctuary in Peryn' near Novgorod (see *Kratkie soobščenija Instituta istorii material'noj kul'tury*, L, 192 ff.). Furthermore, generations of linguists, from Grimm to Meillet and his followers, brought together the necessary material for elucidating the Indo-European ties of the Slavic god. The verbal root **per-* meaning 'strike, splinter' and occurring either with or without the extension -k-/-g- and followed by an *n*-suffix unites the Common Slavic *Perun* with the Baltic *Perkunas*, the Vedic *Parjanya*, the Norse *Fjorgynn*, the Albanian *Peren-dī* and the Hittite *Perun-* (see *Language*, XXX, 356 f.). The same root appears in the Latin *quercus* 'oak', the tree traditionally consecrated to this deity. The Greek κεραυνός is a rhymeword substituted for a tabooed **peraunós*. The communality of name and functions attached to this deity, along with striking correspondences in its worship, support the hypothesis that it is of Indo-European origin.

In the Slavic world, the name *Perun* presents a series of changes partly due to taboo: vowel alternation, suffixal variation, root reduplication, dissimilation of the liquids, etc. Cf. *Perušice* in the Novgorod Chronicle, *Porun* in the OR Alexandreis, the verb *poroprit'sja* in Russian writings attacking paganism; forms like *Perone*, *Prone*, *Porenutius* and even *Pripegala* in the Latin sources on the religion of the North Western Slavs; *Peron*, *Parom* in Slovak curses, *Perušan* in Bulgarian folklore, and finally, in Balkan folk magic, *Perperuna* with various modifications, e.g. *Preperuša*, *Prporuša*, *Preperuda*, *Papaluga*. An Old Russian sermon assigns to *Pereplut* the same ritual which is linked to *Peperuda* in Bulgaria: *Perun* becomes *Pereplut* by root reduplication and dissimilation (vowel—zero and *r—l*). It seems, moreover, that in his turn the bookman distorted the name for a derogatory pun connecting the deity with *plut* 'swindler'.

The Common Slavic **pergyni* 'wooded hill', reflected in OCS *prĕgynja* and in Polish and Ukrainian toponymy, appears in OR as *peregynja* (or *beregynja*, distortion by scribes who linked it with *bereg* 'shore'). That these wooded hills were sacred is evident from the fact that the Christian preachers condemned their worship: *moljaščix čelověk rodu i roženicam *** i mokoši i peregini i vsjakim bogom merz'kim trebam ne približajsja* (*FF Communications* XLIII, 305). Thus it can hardly be denied that there is some genetic relation of **peregynja* with such names for the sacred wooded hill as the Gothic *faírguni* and the Celtic *Hercynia*.

piróg 'pie': the connection with *pir* is questionable. Were the name originally confined to a tall pie, one could envisage a borrowing from Greek πύργος; cf. *Pirogošča* from πυργῶτισσα. On the other hand, the relation with Cz. *pěra* and Slovak *piera* and *perka* 'stuffed dumpling' should be examined.

podražat', OCS *podražati* 'imitate': Cz. *podrážeti* 'to sole' is close to the original meaning of Common Slavic **podoržati* 'to hem' derived from **podorgъ* 'hem'.

požáluj 'perhaps, presumably' meant literally 'permit [me to say]'.

polovój 'waiter' is derived from *pol* 'half' and originally designated a worker who shares one half of the income with the owner, like *pólovnik*, *polovínščik*, *polóvščik*: cf. the corresponding verb *polóvničat'* and the abstract noun *íspolov'e*.

Pólovcy, Cz. *Plavci* 'Kumans': for an exhaustive investigation of this ethnic name see K. H. Menges, *The Oriental Elements of the Oldest Russian Epos, The Igor' Tale* (New York 1951, 11 ff.).

polyn'já 'open, unfrozen spot in the water': cf. OCz. *planě* 'open land'.

If a Common Slavic diphthong ending in a liquid and carrying no rising
intonation is followed by a nasal consonant, then in part of the East
Slavic dialect *y* was inserted between the liquid and the nasal: *polyn'já
skoryn'já, alyn'já, pólymja, gólymja, šólymja* (cf. Šaxmatov, *Očerk
drevnejšego perioda istorii russkogo jazyka*, 158f.).

pónčik 'doughnut' from Pol. *pączek*, one of the several culinary
Polonisms in Russian, can be mentioned.

právo 'right': the early Rus. *pravьda* in the meaning 'right, law' was
replaced by this West Slavic loan translation from German.

IV

Vasmer's magnificent etymological inquiry into Russian vocabulary is
complete. The dictionary itself ends with page 503 of the third volume.
There follow a few corrections, additions (pp. 511-522), and indexes of
non-Slavic words cited in his lexicon. Thus we are finally in possession of
a detailed and highly scholarly attempt at an etymological dictionary of
Russian. Despite Berneker's skill and unusual erudition, his uncompleted
Slavisches etymologisches Wörterbuch was a premature undertaking. The
situation has thoroughly changed with recent achievements: Vasmer's
fundamental work, the remarkable book by V. Machek, *Etymologický
slovník jazyka českého a slovenského* (Prague, 1957), 620 pp.; the gradual
publication of F. Sławski's *Słownik etymologiczny języka polskiego*, vol. I
(Cracow, 1952-1956), 599 pp., far surpassing qualitatively and quantita-
tively Brückner's book with the same title, reprinted in Warsaw, 1957; and
the brief but reliable etymological index included in the *Handwörterbuch
zu den altkirchenslavischen Texten* by L. Sadnik and R. Aitzetmüller (The
Hague, 1955), pp. 211-341. All this groundwork makes the urgent task of
a comparative Slavic dictionary quite feasible, even more so since a few
further etymological thesauri of single Slavic languages are to appear: the
Serbocroatian dictionary completed by the late P. Skok, the Polabian
dictionary by T. Lehr-Spławiński, and etymological inquiries by J.
Rudnyc'kyj into Ukrainian and by V. Georgiev into Bulgarian; cf. his
captivating introductory study *Vъprosi na bъlgarska etimologija* (Sofia,
1958).

As Vasmer points out in his "*Nachwort*", readers' remarks to his
dictionary will be used for the elaboration of a new, revised etymological
dictionary of Russian. This attitude of the author has stimulated me to
continue my marginal notes to his publication: Here are a few observa-
tions on the issues covering равушка-ящур.

rákovina 'shell' and *rákuška* 'cockle shell' are both derived from *rak* 'crawfish, shellfish'.

Rededja, the name of the Kasog warrior, cited in the Russian Primary Chronicle and in the Igor' Tale, seems to consist of Turkic *är* 'man' (cf. *Revugi*, tribal name in the Igor' Tale) and *dädä* 'grandfather, dad'.

rézka 'latticed tail of a coin', often used in the gambling game *orljánka* (*orёl ili rézka*? 'heads or tails' or *kóp'e al' réšeto*?) belong together with *réža, rež* 'loose net', related to *rédkij* 'loose'.

ríza 'chasuble', according to H. Grégoire, originates from Byzantine Greek ῥίςαι 'forearms' (*Memoirs of the American Folklore Society*, XLII, p. 146f.).

rod in OR means also a worshipped spirit – *Rodъ*, the god of nativity and tribe, corresponding in form and meaning to the Celtic *Teutates*, god of the tribe – **teutā* (Vendryes), Umbrian *Vofionus*, god of growth and community – **leudhyon* (Benveniste), Latin *Quirīnus*, god of procreation and tribe – **co-wiriyā* (Dumézil). Cf. Russian dialectal *rodá* 'ghost', *ródy* 'ancestral spirits'. The name of the corresponding Karelian spirit *šüntü*, literally 'birth', is a loan translation of Russian *Rod* (see J. Kalima in *Mémoires de la Société Finno-ougrienne*, LVIII, 275 ff.) Cf. the feminine counterpart of this Slavic spirit: Rus. *Rožánica*, SCr. *Rodenica*, Sloven. *Rojenica*.

rodítel'nyj padéž 'genitive' is a CS loan translation from Greek, along with the older variant – *rodъno padenie*. Its use became standardized through Meletij Smotrickij's Grammar.

roskíšet'sja 'to become free of ice during the spring' (Olonec) is derived from *kišét'* 'to swarm, to team with'.

róskoš' 'luxury', originally 'voluptuosness, pleasure, orgasm', together with *koxát'* 'to enjoy oneself, to luxuriate, to revel, to love' is undoubtedly derived from the Slavic root *kok-*: cf. *kókot, kóčet* 'cock', *kókoš'* 'hen', *kókó, kóka* 'egg', *kóknut'* 'crack', *kokotát'* 'cackle', *kokóšít'* (*kókšít'*) 'to thrash, squabble' *kokóšit'sja* 'to swagger', *kóčen', kočán*, 'head of cabbage, trunk, stalk, penis', *koksún* 'shoveller duck'. The Slavic words **koxati* < **koksati* and *roskošъ* were typical metaphors of erotic rooster imagery; cf. the semantic changes of *kurъ* 'cock' and **kury* 'hen'.

Rossíja, the Byzantine name of Russia, and its penetration into Russian usage were closely scrutinized by A. V. Soloviev in *Vizantijskij vremennik*, XII, pp. 134-155.

róxlja 'clumsy, awkard, slovenly man' and *róxlyj* 'ponderous, un-wieldy, rough' are related to *róxa* 'pig', *róxat', róxkat'* 'to snort' and probably also *roxóba* 'hubbub' (Kursk).

rubéž 'border, limit' is a CS form as against *rubëž* 'the felling of a forest'.

run' 'autumn fields' and Byelorus. *run'* 'sheaves of grain' could hardly be separated from *runó* 'fleece, sheaf', *run'* 'tatters, rags'.

rúpit' 'to trouble', *rupá* 'grief' belong to the same family as Slavic **rupa* 'ditch', **rypati* 'to dig'; cf. *grebú, gresti* 'to dig' and *grebtá* 'worry', *grebtít'* 'to worry', *grëbat'* 'to abhor'.

Rus': the elucidation of this controversial term demands particular attention to the studies on Arabic *Rûs* applied to the Normans in Spain and France: V. Minorsky, "Rūs", *L'Encyclopédie de l' Islam*, LV (1937); A. Melvinger, *Les premières incursions des Vikings en Occident d'après les sources arabes* (Uppsala, 1958), pp. 44-79.

rýba 'fish', as Vasmer rightly notes, is not connected with *ryt'* 'to dig' or with *rýxlyj* 'quick' or with Old Norse *rjúpa* 'white grouse' etc.; but also the traditional confrontation with OHG *rûppa* 'caterpillar' is doubtful. The derivation from the root **ūr-* 'water, swamp, pond', which is attested in all Baltic languages, seems to me the most natural (cf. *Selected Writings*, I, pp. 443, 546f.). The metathesis **ūr > *rū* must have preceded the appearance of the prothetic *v-* in primitive Slavic.

sál'nyj 'obscene' is obviously a blend of French *sale* with Russian *sal'nyj* 'greasy'.

s < su < osu < súdár' < osudár' < gosudár' < gospodár' is in Modern Russian a very peculiar particle as to its social usage. Stimulating data on the so-called *slovoers* may be found in L. Uspenskij, *Slovo o slovax* (Moscow, 1957), pp. 158-163.

samoderžávie, samodéržestvo, samodéržie, samoderžátel'stvo, and *samoderžávnyj* were translated into Church Slavonic from Greek.

santrapál 'scoundrel' (Šenkursk) is a modification of *šantrapá* 'riffraff'.

sélezen' 'drake' and *selezënka* 'spleen' present a regular change **telt > telet* before a front vowel.

Svarogъ has been acknowledged by Vasmer as a Common Slavic deity which left several vestiges in Slavic toponymy, as did most of the Slavic gods, Brückner's unfounded skepticism to the contrary. This mythological name survives furthermore in the Rumanian loanword *sfarog* 'ember'. Vasmer is also right in rejecting any relation of *Svarogъ* with Old Indic *svárgas, svar,* or *svarāj-* and in preferring the traditional association of *Svarogъ* with Slav. *svara, svarъ* 'struggle, quarrel, conflict, resistance'. This confrontation becomes particularly relevant in the light of the succinct studies by J. M. Kořínek in *Listy filologické*, LX, p. 28ff., and by V. Machek in *Linguistica slovaca*, III, p. 54ff., where the Czech

and High Sorbian *raroh*, Slovak *rároh*, Polish *raróg*, Ukrainian *rárih* 'falcon, hawk, demon' also Slovenian *rárog*, *járog* 'palinurus vulg.', further taboo modifications in Czech *raroch*, *rarach*, *rarášek*, *radášek*, *jarášek* 'demonic being capable of various metamorphoses', and a different taboo distortion in Lithuanian *vãnagas* 'hawk' are traced back to the Iranian *vāragna-* 'falcon' as an incarnation of the god *Vrthragna-*. The *rarach* motifs in Czech folklore are closely connected with the myths of the Iranian *Vrthragna-/vāragna-* and his Armenian duplicate *Vahagn*. *Vrthragna-* and likewise *vāragna-* etymologically mean 'breaker of resistance'. The Slavic *svar-*, usually juxtaposed with Old Norse *svara* 'to answer', Gothic *swaran* 'to swear', Latin *sermō* 'discourse', could rather be confronted with Iranian *vāra-* 'defense, resistance, obstruction'. *Svarogъ* is apparently a mythological and lexical borrowing of *vāragna-*; *rarog*, *jarog*, *rarach*, *jarach* and also the toponymic *Tvarog* are modifications of *svarog* with taboo substitutions of the initial consonants.

OCS *svobodъ* 'free' really cannot be separated from the Thraco-Phrygian mythological name *Sabadios* after H. Grégoire's brilliant discovery, convincingly corroborated by G. Bonfante: *Annuaire de l'Institut de philologie et d'histoire orientales et slaves*, VII (New York, 1944), p. 41 ff.

svoják 'in-law', especially 'brother-in-law', could be complemented by its OR synonym *svoitinъ*, designating one of the *svoiči* 'relatives by marriage' and known also as a proper name.

Svjatopólk and *Svjatosláv* are pre-Christian names in which *svęto- has the meaning of 'superhuman being endowed with magic power'.

svjatóša is a pejorative noun, meaning 'goody-goody' and hence applied also to the devil.

sebé and *tebé*, dative and locative of the reflexive pronoun, replaced the OR *sobě*, *tobě*: cf. a similar change *robënok* > *rebënok*, *topére* > *tepér'* and also the analogy of the genitive-accusative *sebé*, *tebé*. In part of the Russian area, the latter forms gave place to *sebjá*, *tebjá* under the influence of *sja*, *tja* and of the nominal genitive desinence -*a*: Russian tends to eliminate the rare genitive desinence -*e*.

Sestra, name of several North Russian rivers, is not related etymologically to *sestrá* 'sister'; in the Dmitrov dialect the two words have a different place of stress: /s,ostrá/ 'sister' and /s,éstra/, affluent of the Moskva. Kiparsky, *Voprosy jazykoznanija*, 1956, ⧣ 5, p. 137, rightly cites such Finnish river names as *Siestarjoki* = *siestar* 'black currant' + *joki* 'river': cf. the Russian folklore name *reká Smoródina*, literally 'river Currant' (see above, p. 635), and the Olonec *sestreníca* 'black currant' borrowed from a neighboring Finnic language.

Simarьglь, OR deity, goes back to the Iranian demon *Simorǵ*, according to the plausible interpretation of A. Kalmykow, *Journal of the American Oriental Society*, XLV (1925), p. 69, and K. Trever, *Izvestija Akademii material'noj kul'tury*, C (1933), p. 293 ff. Cf. A. Christensen, *Essai sur la démonologie iranienne* (Copenhagen, 1941), p. 66 f.

sípat' 'to drag, to pull back', *sipét'* 'to speak hoarsely', *sip* 'anus' (Tambov, Voronež), *sipúga* or *sipúxa* 'whirling snowdrifts', *sipóvka* 'retroverted vagina' are words of the same family.

OR *skandalь* 'inducement, stumbling, somersault' survives in modern Russian with a semantic shift due to Western influence.

skandóbit' 'to vex', *skondóbit'* 'to complain about poverty', *skonodó-bit'*, *sgonodóbit'*, *sgonošít'*, or *sgóšit'* 'to save for old age, to hoard, to store, to equip' are perfectives within the same family of expressive dialectal verbs as *gandábít'*, *gandóbit'*, *gonošít'* 'to trouble oneself, to profit gradually, to hoard', *gandobít'sja* 'to prepare for a journey', *gonobít'sja*, *gonošít'sja* 'to be ready for a trip, to hurry', *kandjáčit'* 'to be parsimonous'. Cf. the Moscow slang expression *katís' kandýberem* 'scram'.

skloka, dialectal *sklýka* 'squabble', *sklóčnik* 'squabbler', *sklóčit'* 'to tangle' are derivatives from *klok* 'tuft'.

OR *skěpati* 'to split' like *dьskě*, dative-locative of *dьska* 'board', presents the regular phonetic treatment of *sk* before *ě* < *oi*, while in North Russian this group changed into *ščě*, as shown by Durnovo, *RES*, VI, p. 216 ff. (cf. TCLP, II, p. 46). The pair *ščepat'* 'to twist' and *ščipat'* 'to pinch, to pluck' presents the alternation **skoip-/*skeip-*. The grade *skip* is in *ščěpot'*, *ščepótka* 'pinch', *ščepet* 'trifle, detail' (< *ščьpьtъ*); cf. OR *ščьpъ* 'wane'.

skot 'cattle, livestock' is obviously an alternant of *ščet'*, *ščetína* 'animal hair'. Vasmer denies Schrader's, Brückner's and Jagić's hypothesis of the Slavic origin of such forms as the Gothic *skatts*, "*weil auf diese Weise das germ. tt völlig unerklart bleibt.*" The geminate of this word, however, remains inexplicable within the Germanic sound development: cf. A. Martinet, *La gémination consonantique d'origine expressive dans les langues germaniques* (Copenhagen-Paris, 1937), pp. 150, 200. Perhaps the Germanic geminate was but a means of rendering the Slavic voiceless stop without aspiration [cf. *Selected Writings*, IV, p. 606].

slavjáne 'Slavs' can be derived from *slovo*, like OR *kličane* 'participants in a hunt whose function is to scare up the prey by their screams' is formed from *kličь* 'cry, shout'. The opposition *slověne – němci* raises the plausibility of this traditional etymology which appears already in Pul-

kava's Czech Chronicle of the fourteenth century: *Od slova nebo od slov nazváni jsú ti lidé Slověné* (*FRB*, V, p. 211).

Slovútič 'son of Slovuta' appears as the patronymic of the Dnepr not only in the Igor' Tale, but also in the *Povest' o Suxane*: *posmotrju bystra Dnepra Slautiča*, etc. (V. I. Malyšev, *Povest' o Suxane*, Leningrad, 1956, p. 35) and in the Ukrainian epic tradition as first testified by S. Okolski in 1638: see M. Scherer, *Les dumy ukrainiennes* (Paris, 1947), p. 83, and *Annuaire de l'Institut de philologie et d'histoire orientales et slaves*, VIII, pp. 144, 349. Cf. *Slavúta*, river of the Dnepr basin.

slon 'elephant', one of the puzzling nouns in the Common Slavic vocabulary, requires scrutiny with respect to its relation to the Tocharian *kloŋ*, discussed by E. Sapir and J. Rahder.

smertél'nyj 'mortal' is borrowed through the Polish medium from the Old Czech loan translation of Latin *mortalis*.

sobáka 'dog', an East Slavic borrowing from Iranian, may be connected with the Iranian and Slavic dog worship, since most of the Iranian loanwords in Slavic point to the religious sphere.

sóbstvennoe ímja 'proper noun' pertains to the medieval CS grammatical terminology translated directly from Greek. Cf. the so-called Grammar of John Damascene in the CS translation, traditionally ascribed to John the Exarch.

sorobalína 'blackberry' (Pskov), *serbarína* (Kaluga) closely corresponds by its sound form to Czech *srabařina* 'trash', Slovak *sraborit* 'moth', the root of which is **s(v)orb-, s(v)ьrb* 'itch, scratch'. Cf. V. Vážný, *O jménech motýlů v slovenských nářečích* (Bratislava, 1955), p. 102ff.; V. Machek, *Česká a slovenská jména rostlin* (Prague, 1954), p. 109f.

sojúz, OR *sъuzъ* 'conjunction' is a direct loan translation from Greek into CS as are also *soglásnyj* 'consonant' and *srédnij* (originally also *posrednij*) *rod* 'neuter gender': cf. Jagić, *Rassuždenija južnoslavjanskoj i russkoj stariny o cerkovno- slavjanskom jazyke*, Index.

spósob 'mode' ia a borrowing of the Czech fourteenth century term *zpósob* through the Polish medium.

Stribog, apparently *Stьribogъ*, an OR deity, stands by name and function in obvious correspondence to *Dažьbogъ*: *stьri* imperative of the verb **sterti* 'to disseminate'; cf. *jsú nepokoj veždy střěli* (Old Czech Alexandreis), *sami sterli sja* 'they scattered' (*First Pskov Chronicle*). *Dažьbogъ* and *Stьribogъ* are the traditional IE couple of giver and distributor of wealth, like the Ancient Greek Αἶσα and Πόρος: cf. L. R. Palmer, *Transactions of the Philological Society*, 1950, p. 165ff.

strigól'nik 'Old Novgorod sectarian' could be a derogatory nickname

derived from *strigon'* 'devil': *strigonnik* > *strigol'nik*; *strigol'nik* as 'barber' is, however, attested in the Russian-Low German textbook written in Pskov by Tönnies Fenne in the early seventeenth century and being published by the Royal Danish Academy.

(*utrъže vazni*) *s tri kusy* (Igor' Tale, 156) means simply 'he snatched about three streaks of luck'. OR *vaznь* has the connotation of apportionment (cf. the OR expression *kaplja vazni* 'a drop of luck') like τύχη which this word usually translates: see V. Pisani, "Mytho-etymologica", *Revue des études indo-européennes*, I, section V.

sjabër 'member of the community': its connection with Gothic *haims* 'home' is corroborated by the Creto-Mycenaean *ke-ke-me-na* 'communal property' (cf. V. V. Ivanov, *Vestnik mirovoj kul'tury*, I, p. 43f.).

talánt in the transferred meaning 'gift, talent' was already familiar to Old Kievan literature.

tarakán 'cockroach', OR and North Russian *torokan* owes its origin to a pejorative use of the Turkic *tarkan* 'dignitary'; the same form appears in the proper names well interpreted by Vasmer. *Zeitschr. f. sl. Phil.*, I, 165 ff.: the OR town *Tъmutorokanъ* and a personage in the byliny – *Torokánčik*.

taráščit' 'to stare', *taráščit'sja* 'to be obstinate' are actually connected with *toróščit'sja* 'to be disturbed'. As for the alternation *-oro-/-ara-* see Šaxmatov, *Očerk drevnejšego perioda* ***, p. 159f.

tausén', usén' – 1) New Year's eve, 2) a refrain of ritual Christmastide songs – can hardly be separated from *tausínyj* 'dark blue', *túsin'* 'peasant shirt made of material from blue hemp' and OR *usinъ* 'bluish'; cf. OR *prosinъcъ* 'January' and identical names of January and December in other Slavic languages. There seems to be an alternation of *ě* and *i* as in *sěnъ* and *sijati*. Cf. the ethnographic data compiled by V. I. Čičerov, *Zimnij period russkogo zemledel'českogo kalendarja XVI-XIX vekov* (Moscow, 1957), pp. 69 ff.

tvóróg: the connection of this loan translation with *tvorít'* 'to form' is supported by Czech *tvořidlo* 'cheese mold', as Janko noted.

te, an enclitic dative of *ty* in petrified formulas, clearly originates from the OR enclicitic dative form *ti*, and its position in the phrase still follows Wackernagel's law.

OR *tiverъcъ*, ethnic name, probably goes back to Turkic *tiv-är 'man of saying, interpreter' and corresponds to the native Russian form *tъlkovinъ*: cf. K. H. Menges, *The Oriental Elements in the Vocabulary of the Oldest Russian Epos* (New York, 1951), p. 52 ff.

tort 'cake' is attested in Russian as early as the twelfth century: see *tъrtove* in the "*Slovo o bogače i o Lazare*".

tulít' 'to cover, to hide', *tul* 'quiver', *túlovišče* 'torso with entrails' and *tul'já* 'crown of a hat' obviously belong together.

túxnut' 'to rot, to become putrefied' is related to *túša* 'carcas'.

tjurljurljú, a fashionable shawl in *Gore ot uma*, seems to be a jocular formation on the model of such French interjectional formations as *turlututu, turlurette*.

ud 'body limb' must not be separated from *údit'* 'to mature, to swell' and *vými̯a* 'udder'.

ulán: the Modern Russian military term merged semantically with the Western, in particular Polish *ulan*, but goes back to the OR *ulanъ* borrowed from Turkic.

urá is in Russian primarily a war cry borrowed directly from Turkic.

figljár 'trickster', borrowed from West Slavic (Pol. *figlarz*, Czech *figlář*), has been derived by L. Spitzer from German *Vögler* 'rake' (*For Roman Jakobson*, The Hague, 1956, p. 503).

frja in folk Russian (I used to hear it in the Belëv district before World War I) lampoons a woman who puts on airs and imitates urban society. It comes from German *frau* or perhaps from Swedish *fru*.

xalét' 'to die', *xálpit'* 'to kill', *xaljáva* 'death', *xaljávyj* 'lifeless', *uxalpít, uxaljástat'* 'to kill' may be confronted with *xálit', uxálit'* 'to die' in the peddlers' argot (*ofenskij jazyk*).

xaltúra, which goes back to Latin *chartularium*, passed from clerical parlance into theatre jargon, where it came to mean 'an actor's extracurricular performance', in particular 'the performance of an actor off his usual stage', later 'slovenly performance done for mere profit'; in this meaning of 'negligent, unfair work for easy money' the use of this word was generalized in contemporary Russian.

xamanéja 'nonsense' comes from *xomoníja*, the traditional name for the artificial preservation of the weak yers in liturgy and for the conventional pronounciation of any *ъ* as *o*: the name *xomoníja* alludes to the liturgical pronounciation of the frequent aorist and imperfect ending *-xomъ* as *-xomo*.

xámlet, known to me from the expression *xámlet trjasúčij* 'coward', used in the Belëv dialect, must have originated in the performance of Hamlet on the serfs' stages of the landowners' manors.

xápat' 'to grab' originates in the imitative articulatory gesture [hap], changed into /xap/ by its adaptation to the phonemic pattern of the language.

xvost 'tail' belongs to a wide family of expressive words which denote 'waving, snatching, grappling' and present an alternation of *xvo-, *xva-,

*xvĕ-, *xou-, and *xy- followed by -t-, -st-, -j-: cf. *xvatát'*, OR *xytati* 'to snatch', *xitát'* 'to shake', *xvost* 'tail', *xustát'*, *xistát'* 'to move, to wave', *xvójá* 'coniferous twigs and needles', *xvéjat'sja* 'to wave', *xuj* 'penis'; as in West European languages the latter is closely connected with 'tail'. Cf. a similar alternation in adjectives signifying ailment: R. *xvóryj*, Pol. *chory*, Cz. *charý*, *churý*, Ukr. *chýryj*.

xin < *chynъ, OR ethnic term going back to the name of the Huns, appears in Czech place names such as *Chýnov* and in *Hina glava* – a hill in Herzegovina. It does not mean 'pagans' but 'Hungarians' in accordance with the international medieval designation of Hungary as "the kingdom of the Huns". It is possible that the pejorative verb *xínit'* and the corresponding South Slavic verbs are derived from the same ethnic name.

xlabónja in the Tula dialect means 'lout' and belongs to the same word family as *xlobýnišče* (Pskov, Tver'), *xlobýsta* (Vologda) 'loafer'.

Xorivъ, the name of one of the three brothers in the legend of the Russian Primary Chronicle about the founding of Kiev, is, like the whole legend, one of the puzzles in the Chronicle. This story of three princely brothers, the oldest of whom built Kiev, closely corresponds to the legend of the Armenian historian Zenob Glak whose work, attributed to the seventh century, is in any case prior to the tenth century. In his tale of three princely brothers, the oldest is called *Kuar* and the youngest *Xorean*, the town is *Kuari* and the region is named *Paluni*, while in the Russian legend the oldest brother is *Kyi*, the youngest *Xorivъ*, the town *Kyevъ* and the land *Poljane*. This correspondence discovered by N. Marr, was discussed by A. Pogodin in *Byzantinoslavica*, VII, p. 146 f. One may add that the Russian version cannot go back to Glak's legend since *Kiev* and *Poljane* are historical realities, whereas neither *Kuari* nor *Paluni* exist in Armenia. On the other hand, the Armenian legend cannot be traced to the Primary Chronicle, because the former considerably antedates the latter. Both versions must be derived from some older, perhaps oriental legend about the foundation of Kiev. In this direction Sobolevskij's hint to the Iranian origin of the name *Xorivъ* shows the need for further inquiry.

OR *Xъrsъ* distinctly points to the Ossetic correspondent of the Persian *Xuršēd* 'the worshipped radiant sun'. The solar character of *Xъrsъ* is documented both by the identification of *Xъrsъ* with *Dažьbogъ* in the Primary Chronicle and by the sun imagery linked with *Xъrsъ* in the Igor' Tale, where the path (*put'*) of *Xъrsъ* recalls the path (*paθa*) of the Avestian *Hvarə-xšœda*.

čět, *čětka* 'even number', *čětnyj* 'even', *četá* 'pair, union', *čet'* 'quarter'

seem to be archaic relics of the same word family as *četýre*.

čex, OR *čax* 'Czech' cannot be separated from the Slovenian *čèh* 'lad, herdsman' and is a hypocoristic form from *čędъ* 'people'. Cf. "Die Reimwörter Čech-Lech", *Slavische Rundschau*, X, p. 10ff. [see above, p. 605-610], and the corroboration of this view by F. Ramovš, *Letopis Ak. znanosti in umetnosti v Ljubljani*, I, p. 355, and by R. Nahtigal, *Južnoslovenski filolog*, XVIII, p. 49ff.

čópornyj 'stiff, aloof', *čeporít'sja*, *čépúrít'sja* 'to show off' *čepýrit'sja* 'to flaunt' correspond in form and meaning to Czech *čepýřiti*, *čepýřnatý* and are perhaps derived from *čepec* 'ornate cap worn by married women'; cf. the Czech *čepiti* 'to dress the bride'.

čort 'devil' is, according to Spitzer's suggestion, connected with *čertá* 'line, limit', *čertít'* 'to draw', OR *čeresti* 'to cut'. The Czech *čára*, a synonym of *čьrta* which presents another alternant of the IE root **ker-*, is also connected with witchkraft: Czech *čára* 'charm', Rus. *čára* 'charm. According to Machek's dictionary, p. 66, *čára* means a borderline up to which something is permitted or magically prohibited, e.g. the line which marks the so-called magic circle (where the evil demons retain or lose their power). The IE roots **ker-* and **keur-* frequently blend. Russian *čur* is a magical variety of *čertá*; cf. Dal': "*Čertí krug da čurájsja, kričí: čur menjá!*" The expressions *ne stupáj za čur* 'don't cross over the line', *čerezčúr* 'beyond bounds' correspond to the Czech *přes čáru*.

čúxá, *čúška* 'pig' belongs to *čúxat'* 'to sniff, to smell', *čujat'* 'to scent'.

šaláš 'hut' goes back to another Turkic dialectal variant than does the Polish *salasz*, Slovak *salaš*.

šëlk 'silk': the origin and history of Slavic and other European names of silk is luminously presented in L. Tesnière's study "Les noms de la soie", *Recherches séricicoles*, V (1942) – a model contribution to a problem of *Wörter und Sachen*.

šut 'fool, buffoon', *šútka* 'joke' cannot be separated from *šutëm* 'fallow land', OCS *ašutь* 'in vain', Rus. *šútyj* 'hornless' and Bulg. *šútka* 'vulva', maybe also *šútory* 'junk' – the connotation of vacuum being common to them all. Cf. *pustobáj* 'windbag', *pustoslóvit'* 'to twaddle', *pustýr* 'vacant land', *pópustu* 'in vain, to no purpose', *pustjakí* 'trash'.

ščegól 'goldfinch' can be brought together with *skogólit'* 'to shrill', as Vasmer does with *ščadít'* 'to spare' and *skúdnyj* 'scanty', *ščében'* 'crushed stone' and *skoblít'* 'to scrape, to splinter, *ščel* 'chink' and *oskólok* 'splinter', *ščemít'* 'to pinch' and *skomít'* 'to cramp', *ščepát'* 'to splinter' and *skopít'* 'to castrate', *ščerbá* 'scar' and *skorb'* 'affliction', *ščer* 'hide' and *skorá* 'skin'. The same alternation may be shown in *ščekotát'* 'to

tickle, to sing (referring to a nightingale), and *skok* 'jump'; cf. Turgenev's report of a peasant describing a nightingale: "*pustit, naprimer, koleno, drob', čto li sperva budto knizu, a potom opjat' v goru.*" Cf. also *ščerlópa* 'cliff' and *skorlupá* 'shell', *ščevrónok* and *skovorónok* 'lark'. OR *tъskъ* 'hurry', *tъska* 'longing, anxiety' do pertain to the same family as *tъščii* 'empty, vain', *tъščeta* 'vanity, want', *tъščьnyi* 'hasty', *tъščati* 'to hurry, to press', Mod. Russ. *točnit'* < *tъščьniti* 'to cramp', dialectal *ščavít'* < *tъščaviti* 'to press', *ščávyj* 'vain', *šča(v)úl* 'idler', *ščaúlit'* 'to idle, to prate', *oščaúlit'* 'to jeer'.

šči 'sour cabbage soup' evidently has the same root as *ščavél'* 'sorrel, rumex acetosa', OR *ščavьnъ* 'sour' and seems to imply *sъčь* as an alternant of *sokъ* 'juice'.

ščur in various Slavic languages designates chthonian beings such as sandmartin "which makes nests in landslides, on the shores of rivers and ravines" (Dal'), rat, mole, grass-snake, salamander, earthworm, grasshopper, cricket, scorpion; the prefixed form *práščur* means 'dead ancestor' and the prefixed *jáščur*, *jáščurka*, *jaščurica* signifies 'lizard, salamander, otter, doormouse'. The variant form *guščer*, *guščerica* found amoung Southern and Western Slavs, is perhaps linked with *gu-* 'horned cattle' (cf. *gumnó* 'threshing floor') and the traditional belief that the lizards are cowmilkers. The verb *ščurit'* 'to squint' is probably connected with the supposed weak eye sight of chthonian beings; the secondary meaning is 'to pretend not to see, to feign', *ščurý* 'concealments, ruses'. IE *skeur- 'to cover, to hide', Lat. *obscūrus* (Pokorny, Idg. Et. Wörterbuch, X, 1958).

ja 'I' probably arose as an unstressed monosyllabic counterpart of the disyllabic *jazъ* by analogy with the pairs *mi – mъně* and *mja – mene*.

jagún, nickname for speakers of dialects, where *egó* is pronounced [jaɦó] or [jaɣó], ridicules the pronounciation of the consonant rather than the *jakan'e*.

OR *jadrъ*, Serbocroatian *jédar* 'full, strong, fresh, powerful', which Machek shrewdly brings together with the name of the Old Indic deity *Indras* and *indriyám* 'strength', are related to Polish *jędrny* 'vigorous, substantial' and to Russian *jadro* 'kernel', *jadra* 'testicles', OR *jadro* 'womb', and corresponding words in other Slavic languages where they likewise denote the vital source of growth.

jazýk means both γλῶσσα and ἔθνος not only in OCS but in all medieval Slavic languages, e.g. in Old Czech and in the OR vernacular.

jákat' means primarily 'to speak a dialect where before stress the vowels /o/ and /e/ or only /o/ changed into /a/ after soft consonants'.

Only in a secondary, punlike use did this verb obtain the meaning of 'speaking too much about oneself'.

jarýga 'policeman, rascal', properly *erýga*, belongs to the same family as *ër(a)*, *ërnik*, *eromýga*, *eromýžnik* 'dissolute person, vagrant', *erbezá* 'vagabond', *ergá* 'fidget', *ërgat'*, *ërzat'* 'to fidget', *ergatún* 'man with a foreign accent, mumbler'.

jar', *jar* 'seeds sown in spring' and Pol. *jarz*, *jar* 'spring' are etymologically the same words as *jar'* 'fervor, fury, passion, brightness, radiance, vegetative power transferred, according to the people's belief, from the trees and grasses to the mushrooms' (Dal') and *jar* 'heat, flame, ardour'; *járyj* is both 'vernal' and 'ardent, violent, fierce'; *jarovát'*, *jarít'sja* means 'to be in heat, or infuriated'; Bulg. *jará* means both 'spring' and 'glow'. Old Lekhitic *Jarovit* 'deity making radiant both people and earth' (*frašokara* in Avestan terminology) is cognate with the East Slavic midsummer cult of *Jarilo* and with the same name of the corresponding festivity still discernible in Serbian folklore: see M. Filipović, "Jarilo kod Srba u Banatu", *Zbornik Matice Srpske*, VII (1955), p. 5ff. The formal and semantic kinship of the **jar-* vocables referring to spring and ardor, together with the hints of comparative mythology, enables us to presume one common word family related rather with Greek ζωρός 'fiery, strong', ἐπιζαρέω 'to attack violently' than with the Greek ὧρος 'time, year' and corresponding words designating 'year' in other IE languages. The *jar-* vocables denote rather the spirit and bloom of spring than the season itself: *jar*, *jara*, *jaro* are regional metonymic substitutes for the common Slavic *vesna*.

TEMPUS ← ROTATIO → ADULTERIUM

The outstanding investigator of Moravia's and Bohemia's Church
Slavonic writings, J. Vašica, dedicated several studies to the earliest
Slavic juristic texts – the judicial codex *Zakonъ sǫdьnyi ljudьmъ*; the
Anonymous Homily ("adhortation to judges") preserved in the *Glagolita
Clozianus*; and the *Nomocanon* – which, according to the scholar's
arguments, are all three within the range of literary and legislative ac-
tivities developed by the Moravian mission of the Thessalonian brothers,
Constantine-Cyril and Methodius, in the late ninth century. A termino-
logical peculiarity occurring in all three of these sources, and only in
them, was discovered by Vašica (see *Slavia*, XXXI, 1962, p. 144, and
Voprosy slavjanskogo jazykoznanija, VII, 1963, p. 25 f.). A quotation
from Matt. 19:3 in the oldest version of the *Zakonъ* says: *Ašte dostoitъ
na vьsěko vrěmę otъpuštati ženǫ svojǫ*, and the same sentence is taken,
over from the *Zakonъ* by the *Homily*: *Ašte e lьzě puštati ženǫ svojǫ na
vьsěko vrěmę*, whereas in the Old Church Slavonic manuscripts of the
Gospel the passage of Matt. 19:3 κατα πᾶσαν αἰτίαν is rendered by the
words *po* (or *na*) *vьsěkoi vině*, and a secondary version of the *Zakonъ*
substitutes *na vьsěkъ grěxъ* for the original reading *na vьsěko vrěmę*.
In the section of the *Nomocanon* which deals with those cases in which
lust does not lead to an illicit act, the latter, termed ἔργον in Greek,
was rendered by *vrěmę* in the earliest Church Slavonic version (*ne
pridetь vъ vremja pomyšlenije jego*, according to some Russian manu-
scripts rich in archaic residues), while a later version replaces this term
by *dělo*, a literal equivalent of ἔργον). Thus, in the original Cyrillo-
Methodian juristic terminology the word *vrěmę* repeatedly signifies
"fornicatio, adulterium". In their judicial writings the Thessalonian
brothers preferred a perspicuous, free transposition of Greek terms to
their slavish translation, and no literal Slavic substitutes of αἰτία and
ἔργον are to be expected. Vašica wonders how the word *vrěmę* "time"
could acquire the unusual meaning of broken conjugal fidelity and as

long as "semantics and etymology do not clear up this puzzle", he assumes that this term reflects an ancient, pagan survival of a certain taboo interdiction.

The etymology of the Old Church Slavonic *vrěmę* and Old Russian *veremja* "time" seems, however, to give a key to the semantic change of this noun in the archaic vocabulary of the Slavic customary law, apparently utilized by the Cyrillo-Methodian juristic terminology. According to the current and persuasive interpretation offered, e.g., in etymological notes of K. Brugmann, C. C. Uhlenbeck, A. G. Preobraženskij, R. Trautmann, V. Vondrák, A. Brückner, S. Mladenov, J. Pokorny, M. Vasmer, J. Kuryłowicz, K. Moszyński, L. Sadnik & R. Aitzetmüller, J. Knobloch, V. Georgiev et al., and J. B. Rudnyc'kyj, *vrěmę < *vermę < vert-men* is derived from the IE verbal root *vert-/vort-* "turn, rotate", well attested in such Slavic verbs as OCS *vratiti, vraštati, vrьtěti*, OR *vorotiti, voročati, vьrtěti*, etc., and it closely corresponds to the Old Indic *vártman* "turn of a wheel, track worn by a wheel" and *vártate* "turns, drives, runs by, elapses". In his conclusive defense of this etymology, M. Pokrovskij (M. Pokrowsky, *Symbolae grammaticae in honorem Ioannis Rozwadowski*, Cracow, 1927, 255 f.) connected the rotatory etymon of the Primitive Slavic **vermę* with the traditional view of time: "c'est un mouvement circulaire et régulier des périodes qui alternent et retournent dans un ordre précis." He referred to such temporal terms as another Slavic noun of the same root, OR *vьrsta* "age" *< *vr̥t-tā*, with its derivative *sъvьrstь* "coeval"; the Latin expressions *annus, mensis vertens* "current year, month" and *anniversarius;* the French *tour* and Italian *torno* in reference to time, and Greek derivatives from **qelo* "turn" (cf. Slav. *kolo* "wheel") in application to the time sequence.

If the turn of the wheel underlies the metaphorical "wheel of time" and the Slavic **vermę* in its temporal meaning, the same designation of turns might easily bifurcate into a name for uniform rotation and, on the other hand, for motion sideways, swerve, deviation, veer, shift, deflection, aberration, detour. Thus the Greek στροφή primarily "turning, revolving, circling", gave rise to a secondary meaning, "trick, dodge"; in Russian, *povorót kolesá* "turn of a wheel" may also signify "a turn aside"; Church Slavonic *sъvratъ* meant either "rotation" or "aberration" and subsequently "seduction"; the French *tour* is not only a "regular turn" but also a *mauvais tour*, "a nasty trick"; all these rotatory vocables easily become ambiguous like *revolution*, which means either "a continuous, unalterable motion; or, on the contrary, "a violent and radical change".

In the vocabulary of customary law, the Primitive Slavic *vermę, or still *vertmen intimately linked with the verbal root *vert-, could easily have obtained the specialized meaning of a moral aberration, a breach of conjugal vows. Cf. the same root in Rus. vertúxa, vertúška "wanton woman" and in the Serbocroatian expression prevrnuti vjerom "to be unfaithful".

The early disappearance of the judicial *vermę in Slavic languages may be explained (1) by the homonymy of names for "time" and "adultery" which must have been particularly annoying when their etymology became opaque; (2) by the substitution of Christian coinages such as ChSl prěljubodějanie and Old Czech cuzoložstvie for the heathenish term; and (3) by its isolation after the loss of connection between *vermę and *vert-. Perhaps it was the same loss that caused the territorial restriction of this noun also in its temporal meaning. It appears to be limited chiefly to the South and East Slavic areas.

Written in 1965 for the volume in honor of Marcel Cohen.

E

INTERDISCIPLINARY OUTLOOKS

LINGUISTICS IN RELATION TO OTHER SCIENCES

A Claude Lévi-Strauss

> ... Je pense que, devant l'accroissement, toujours plus
> large et plus rapide du champ de la Science la confronta-
> tion des disciplines devient plus que jamais nécessaire.
>
> Jacques Monod

I. THE PLACE OF LINGUISTICS AMONG THE SCIENCES OF MAN

The autonomy of linguistics was the catchword launched and propagated by Antoine Meillet at the First Congress of Linguists (Hague, 1928), and the concluding report of its secretary, the noted Dutch linguist J. Schrijnen, with reference to Meillet's standpoint, viewed the entire historic assembly as a solemn "act of emancipation": *C'était un coup d'essai, une tentative****. *La linguistique a, au grand jour et devant le forum du monde entier, plaidé ses propres causes**** (1, p. 97). This was a pertinent and timely program which, throughout the subsequent decades, deepened and enhanced the methods and tasks of our science. At present, however, we are faced with an urgent need for interdisciplinary teamwork to be pursued diligently by savants of different branches. In particular, the relationship between linguistics and the adjacent sciences awaits an attentive examination.

The necessity to combine the internal consolidation of linguistics with a substantial widening of its horizon was enunciated lucidly by Edward Sapir shortly after the Hague Congress and most probably as an immediate response to the latter's platform. He argued that linguists, whether they like it or not, "must become increasingly concerned with the many anthropological, sociological, and psychological problems which invade the field of language.*** It is difficult for a modern linguist to confine himself to his traditional subject matter. Unless he is somewhat unimaginative, he cannot but share in some or all of the mutual interests which tie up linguistics with anthropology and culture history, with sociology, with psychology, with philosophy, and, more remotely, with physics and physiology" (155 or 154, pp. 166, 161).

Let us add that unless these two complementary notions – autonomy and integration – are linked intimately with each other, our endeavor becomes diverted to a wrong end: either the salutary idea of autonomy degenerates into an isolationist bias, noxious as any parochialism, separatism, and apartheid, or one takes the opposite path and compromises the sound principle of integration by substituting a meddlesome heteronomy (alias "colonialism") for the indispensable autonomy. In other words, equal attention must be paid to the specifics in the structure and development of any given province of knowledge and, furthermore, to their common foundations and developmental lines as well as to their mutual dependence.

Recently the interdisciplinary rally of the law-seeking (nomothetic) sciences of man – whether labeled "social sciences" or "humanities" – has been brought forward by the Panel of Special Consultants attached to the Department of Social Sciences at Unesco, and the modalities of such a cooperation underwent a stimulating discussion. The spontaneous and many-sided interest manifested by the Tenth International Congress of Linguists (Bucharest, 1967) for the ties between the science of language and the various adjacent disciplines is indeed significant. It is symptomatic that the problem of interrelations between the sciences of man appears to be centered upon linguistics. That fact is due primarily to the unusually regular and self-contained patterning of language and to the basic role which it plays in the framework of culture; and, on the other hand, linguistics is recognized both by anthropologists and psychologists as the most progressive and precise among the sciences of man and, hence, as a methodological model for the remainder of those disciplines (cf. 101, pp. 37, 66; 73, p. 9). As Piaget states, "La linguistique est sans doute la plus avancée des sciences sociales, par sa structuration théorique aussi bien que par la précision de son devoir, et elle entretient avec d'autres disciplines des relations d'un grand intérêt" (137, p. 25). Already at the threshold of our century Peirce assigned to "the vast and splendidly developed science of linguistics" a privileged position among the "studies of mental performances and products" (136, I, § 271).

In contradistinction to all other sciences of man and to some natural sciences of relatively recent, modern origin, the study of language belongs to the few earliest branches of knowledge. A keen outline of Sumerian, the most archaic among the extant grammatical writings, is separated from us by almost four thousand years; both linguistic theory and praxis have displayed a varied and continuous tradition from ancient India and Greece through the momentous achievements of the Middle Ages, the Renais-

sance, the era of rationalism and Enlightenment, and, finally, the manifold scholarly trends of the last two centuries.

It is precisely the rich scientific experience of linguistics which impels us to raise the questions: what place does it occupy among the sciences of man and what is the outlook for interdisciplinary cooperation on a strictly reciprocal basis and without violation of the intrinsic needs and properties of any domain involved? Some doubts arose as to whether the "admirable interdisciplinary collaboration" which ties together the natural sciences could actually be matched by the sciences of man, in view of the fact that a firm logical filiation and a hierarchical order of underlying concepts in respect to relative generality and complexity are manifestly present in the interconnection of natural sciences but seem to be missing among the sciences of man (137, p. 2). Apparently, this uncertainty goes back to those early classificatory attempts which did not take into account the science of language. If, however, precisely linguistics is chosen and used as the point of departure for a tentative ordering of the sciences of man, such a system based "on the principal affinities of the objects classified" proves to find its solid theoretical grounds.

The internal logic inherent in the sciences of man, in turn, demands their serial arrangement paralleling the linkage and concatenation of the natural sciences. Language is one of the sign systems, and linguistics as the science of verbal signs is but a part of SEMIOTIC, the general science of signs which was foreseen, named, and delineated in John Locke's *Essay*: "σημειωτική or the 'doctrine of signs', the most usual whereof being words" (108, Book IV, Ch. XXI, § 4). Charles Sanders Peirce, convinced that many passages of the *Essay Concerning Humane Understanding* "make the first steps in profound analyses", took over Locke's term "semiotic (σημειωτική)" which he redefined again as the "doctrine of signs" (136, II, §§ 649, 227). This pioneer and "backwoodsman" in the work of clearing and opening up "the new discipline" issued the first of his numerous attempts toward a classification of signs in 1867 (I, §§ 545 ff.) and devoted a "life-long study" to "the doctrine of the essential nature and fundamental varieties of possible semiosis" (V, § 488). Since his drafts of the nineties, where the name "semiotic" was first introduced for the new branch of knowledge, were published only in the posthumous edition of Peirce's legacy, they could hardly have been known to Ferdinand de Saussure when, like his American precursor, the Swiss linguist in turn conceived the need for a general science of signs which he tentatively named "sémiologie", considered indispensable for the interpretation of language and all other systems of signs in their interrelation with

language: "Puisqu'elle n'existe pas encore, on ne peut dire ce qu'elle sera: mais elle a droit à l'existence, sa place est déterminée d'avance***. Par là, non seulement on éclairera le problème linguistique, mais nous pensons qu'en considérant les rites, les coutumes, etc., comme des signes, ces faits apparaîtront sous un autre jour, et on sentira le besoin de les grouper dans la sémiologie et de les expliquer par les lois de cette science" (156, p. 33).

The first, highly interesting version of Saussure's views on the prospective science of signs was recorded by his Geneva colleague A. Naville: "M. Ferdinand de Saussure insiste sur l'importance d'une science très générale, qu'il appelle *sémiologie* et dont l'objet serait les lois de la création et de la transformation des signes et de leur sens. La sémiologie est une partie essentielle de la sociologie [since social life, as Naville comments, is not conceivable without the existence of communicative signs]. Comme le plus important des systèmes de signes c'est le langage conventionnel des hommes, la science sémiologique la plus avancée c'est la linguistique ou science des lois de la vie du langage***. La linguistique est, ou du moins tend à devenir de plus en plus, une science des lois" (127).

We witness a spontaneous and rapid international development of the new discipline which encompasses a general theory of signs, a description of the different sign systems, their comparative analysis and classification. Unquestionably, Locke and Saussure were right: language is the central and most important among all human semiotic systems. On these grounds "linguistics is the chief contributor to semiotic", as Leonard Bloomfield stated (11, p. 55). Yet, on the other hand, any confrontation of language with the structure of different sign patterns is of vital significance for linguistics, since it shows what properties are shared by verbal signs with some or all other semiotic systems and what the specific features of language are.

The relationship between the verbal pattern and the other types of signs may be taken as a starting principle for their grouping. One variety of semiotic systems consists of diverse substitutes for spoken language. Such is writing, which is – both ontogenetically and phylogenetically – a secondary and optional acquistition as compared with the all-human oral speech, though sometimes the graphic and phonic aspects of language are taken by scholars for two tantamount "substances" (e.g. 66). However, in the relation between graphic and phonological entities, the former always functions as a *signans* and the latter as a *signatum*. On the other hand, written language, sometimes underrated by linguists, deserves an autonomous scientific analysis with due respect to the particular charac-

ters of writing and reading. The transfer of speech into whistles or drumbeats offers another example of a substitutive system, while the Morse code exhibits a second-order substitution: its dots and dashes are a *signans* which stands for the ordinary alphabet as their *signatum* (cf. 153, p. 20; 154, p. 7).

More or less formalized languages used as artificial constructs for various scientific or technical purposes may be termed transforms of natural language. The comparative study of formalized and natural languages is of great interest for the elicitation of their convergent and divergent characters and requires a close cooperation of linguists with logicians as experts in formalized languages. According to Bloomfield's reminder, which is still opportune, LOGIC "is a branch of science closely related to linguistics" (11, p. 55). Such mutual assistance helps linguists to determine the specificity of natural languages with ever greater precision and explicitness. On the other hand, the logician's analysis of formalized superstructures requires a systematic collation with their natural fundament, subject to a strictly linguistic interpretation. A serious impediment in such a joint comparative study is the still persistent view of natural language as a second-rate symbolic system accused of a constitutional bias toward imprecision, vagueness, ambiguity, and opacity. As Chomsky succinctly stated, the high approximation of the formalized, "artificial" languages to a context freedom and, conversely, the context sensitivity of the natural languages substantially differentiate these two semiotic classes (32, p. 9; 30, p. 441). The variability of meanings, their manifold and far-reaching figurative shifts, and an incalculable aptitude for multiple paraphrases are just those properties of natural language which induce its creativity and endow not only poetic but even scientific activities with a continuously inventive sweep. Here, indefiniteness and creative power appear to be wholly interrelated. One of the chief pioneers in the mathematical discussion of the finiteness problem, Emil Post, pointed to the decisive role which "language of the ordinary kind" plays in the "birth of new ideas", their rise "above the sea of the unconscious", and the subsequent mutation of vaguer, intuitive processes "into connections between precise ideas" (141, p. 430). The Freudian concept "id" was certainly prompted by the *es-Sätze*; the German conspicuous derivative *Gestalt* favored the kneading of a new trend in psychology. As Hutten remarks, the incentive "technical discourse cannot do without metaphorical language" and such figurative terms as "field" and "flow" left their sensible imprint on physical thought (70, p. 84). It is just natural language that offers a mighty and indispensable support to "the ability

to invent problems, capacity for imaginative or creative thinking", a gift viewed by the explorer of human evolution as "the most significant characteristic of intelligence" (65, p. 359).

The functional difference between formalized and natural languages must be respected by the experts in the one or the other variety (cf. 135, 138). Andersen's tale about the ugly duckling is not to be reenacted, and the logician's contempt for the synonymy and the homonymy of the natural language is as equally misplaced as the linguist's bewilderment over the tautologous propositions of logic. Throughout the long history of linguistics, criteria peculiar to technical constructs are imposed arbitrarily upon natural language not only by logicians but sometimes by linguists themselves. For example, we run up against heteronomous and forced attempts to reduce natural language to declarative statements and to view requisitive (interrogative and imperative) forms as alterations or paraphrases of declarative propositions.

Whatever verbal problems are treated, the fundamental concepts used by logicians are based on the formalized languages, whereas pure linguistics can only proceed from a consistently intrinsic analysis of natural languages. As a consequence, the entire approach to such problems as meaning and reference, intension and extension or the existential propositions and the universe of discourse is quite different; but these distinct views may be interpreted as two true, while partial modes of description which face each other in a relation safely defined as "complementarity" by Niels Bohr.

The formalized language of highest refinement is attained in MATHE-MATICS (cf. 14, p. 68), and at the same time its deep embeddedness in ordinary language is emphasized repeatedly by mathematicians. Thus, for E. Borel, calculus necessarily rests upon the postulate of the existence *de la langue vulgaire* (15, p. 160) or, in Waismann's formulation, it "has to be supplemented by the disclosure of the dependence that exists between the mathematical symbols and the meanings of words in the colloquial language" (183, p. 118). For the science of language the adequate conclusion from this relation was made by Bloomfield when he stated that "since mathematics is a verbal activity", this discipline naturally presupposes linguistics (11, p. 55).

In the relation between context-free and context-sensitive structures, mathematics and customary language are the two polar systems, and each of them proves to be the most appropriate metalanguage for the structural analysis of the other one (cf. 117). So-called mathematical linguistics has to meet both linguistic and mathematical scientific criteria and, therefore,

requires a systematic mutual control on the side of experts in each of the two disciplines. The diverse aspects of mathematics – set theory, Boolean algebra, topology, statistics, calculus of probability, theory of games, and information theory (cf. 176) find a fruitful application to a reinterpretative inquiry into the structure of human languages in their variables as well as their universal invariants. All these mathematical facts offer an appropriate multiform metalanguage into which linguistic data may be efficiently translated. Zellig Harris' new book, which gives a transcription of grammar into terms of set theory with a subsequent comparison of natural language and formalized constructs, may be cited as an eloquent example (62).

A further area of semiotic embraces a wide range of *idiomorphic* systems which are but indirectly related to language. Gesture accompanying speech is defined by Sapir as an "excessively supplementary" class of signs (154, p. 7). Despite the usual concomitance of gesticulation with verbal utterances, there is no one-to-one equivalence between the two systems of communication. There are, moreover, semiotic patterns of bodily motions disjoined from speech. These patterns, as in general all sign systems independent in their structure from language and performable also out of touch with verbal means, must be subjected to a comparative analysis with special regard for the convergences and divergences between any given semiotic structure and language.

The classification of human sign systems must resort to several criteria as, for instance: the relation between the *signans* and *signatum* (in accordance with Peirce's triadic division of signs into indices, icons, and symbols with the transitional varieties); discrimination between sign production and mere semiotic display of ready-made objects (cf. 132; 150); difference between merely bodily and instrumental production of signs; distinction between pure and applied semiotic structures; visual or auditory, spatial or temporal semiosis; homogeneous and syncretic formations; various relations between the addresser and addressee, in particular intrapersonal, interpersonal or pluripersonal communication. Each of these divisions must obviously take into account diverse intermediate and hybrid forms.[1]

The question of presence and hierarchy of those basic functions which we observe in language – fixation upon the referent, code, addresser, addressee, their contact or, finally, upon the message itself (see 81) – must be applied also to the other semiotic systems. In particular, a comparative

---

[1] A special study by the present author is to be devoted to the classification of sign systems, with particular reference to the versatile inquiry into semiotic problems which has finally started in several scientific centers (80). [See below, p. 697 ff.]

analysis of structures determined by a predominant fixation upon the message (artistic function) or, in other words, a parallel investigation of verbal, musical, pictorial, choreographic, theatrical, and filmic arts belongs to the most imperative and fruitful duties of the semiotic science. Of course the analysis of verbal art lies within the immediate range of the linguist's vital interests and tasks and imposes upon him a strained attention to the intricacies of poetry and POETICS. The latter may be depicted as the inquiry into the poetic function of language and into verbal art with respect to the poetic function of language as well as to the artistic function of semiotic systems in general. The comparative study of poetry and other ARTS as a teamwork of linguists and experts in all the latter fields stands on the agenda, especially in view of the speech which interferes in such hybrid formations as vocal music, dramatic performances, and sound film. (On the relevance of written language in painting see 25a.)

Despite an indubitable structural autonomy of those human sign systems which we have defined as idiomorphic, they, too, like the other varieties of semiotic patterns, fall under the significant conclusions drawn by two eminent linguists: Sapir realized that "phonetic language takes precedence over all other kinds of communicative symbolism" (154, p. 7), and in Benveniste's view, "*le langage est l'expression symbolique par excellence*", and all other systems of communication "*en sont derivés et la supposent*" (8, p. 28). The antecedence of verbal signs in regard to all other deliberately semiotic activities is confirmed by studies of children's development. The "communicative symbolism" of child's gestures after the rudiments of language have been mastered is noticeably distinct from the reflex movements of the speechless infant.

In brief, the subject matter of semiotic is the communication of any messages whatever, whereas the field of linguistics is confined to the communication of verbal messages. Hence, of these two sciences of man, the latter has a narrower scope, yet, on the other hand, any human communication of nonverbal messages presupposes a circuit of verbal messages, without a reverse implication.

If the cycle of semiotic disciplines is the nearest one to encompass linguistics, the next, wider concentric circle is the totality of communication disciplines. When we say that language or any other sign system serves as a medium of communication, we must caution at the same time against any restrictive conception of communicative means and ends. In particular, it was often overlooked that besides the more palpable, interpersonal face of communication, its intrapersonal aspect is equally important. Thus, for instance, inner speech, keenly conceived by Peirce

as an "internal dialogue", is a cardinal factor in the network of language and serves as a connection with the self's past and future (136, IV, § 6; cf. 180; 194; 196; 165; 154, p. 15).

The natural task of linguistics was to bring forward the primordial significance of the concept "communication" for social sciences. In Sapir's formulation, "every cultural pattern and every single act of social behavior involves communication in either an explicit or an implicit sense". Far from being "a static structure", society appears as "a highly intricate network of partial or complete understandings between the members of organizational units of every degree of size and complexity", and it is being "creatively reaffirmed by particular acts of a communicative nature" (154, p. 104; cf. 16). While realizing that "language is the most explicit type of communicative behavior", Sapir saw both the significance of the other ways and systems of communication and their multifarious connections with verbal intercourse.

It was Lévi-Strauss who gave the clearest delineation of this subject matter and who launched the most promising attempt "à interpréter la société dans son ensemble en fonction d'une théorie de la communication" (101, p. 95, and especially 103). He strives toward an integrated SCIENCE OF COMMUNICATION which would embrace SOCIAL ANTHROPOLOGY, ECONOMICS, and linguistics, or let us replace the latter term by a wider designation – semiotic. One can but follow Lévi-Strauss' triadic conception that in any society communication operates on three different levels: exchange of messages, exchange of utilities (namely goods and services), and exchange of women (or, perhaps, in a more generalizing formulation, exchange of mates). Therefore, linguistics (jointly with the other semiotic disciplines), economics, and finally, kinship and marriage studies "approach the same kinds of problems on different strategic levels and really pertain to the same field".

All these levels of communication assign a fundamental role to language. First, both ontogenetically and phylogenetically, they imply the preexistence of language. Second, all forms of communication mentioned are accompanied by some verbal and/or other semiotic performances. Third, if non-verbalized, all of them are verbalizable, i.e. translatable into verbal messages. Here we do not dwell at length on the still controversial question of delimiting social anthropology and SOCIOLOGY (cf. 101, p. 396) and we treat both of them as two aspects of one and the same discipline. According to an epigrammatic formula, social anthropology is the science of man as a *talking* animal, and sociology is the science of man as a *writing* animal (55). This division demonstrates the relevance of the two

definitely distinct verbal levels for the whole network of social communication.

If one envisages the two spheres of linguistic investigation, the analysis of coded verbal units on the one hand, and of discourse on the other (cf. 8, p. 130; 61), the necessity for a primarily linguistic inquiry into the structure of myths and other kinds of oral tradition becomes obvious. They are not only higher units of discourse but a specific variety of discourse, namely, these texts are coded, their composition is ready-made. It was Saussure who, in his notes on the *Nibelungen*, perspicaciously advocated the semiotic interpretation of myths: "Il est vrai qu'en allant au fond des choses, on s'aperçoit dans ce domaine, comme dans le domaine parent de la linguistique, que toutes les incongruités de la penseé proviennent d'une insuffisante réflexion sur ce qu'est l'identité ou les caractères de l'identité lorsqu'il s'agit d'un être inexistant comme le *mot*, ou la *personne mythique*, ou une *lettre de l'alphabet*, qui ne sont que différentes formes du SIGNE au sens philosophique" (54, p. 136). The verbal aspect of religious patterns becomes a timely and gratifying field of research (cf. 25), and a consistently linguistic inquiry into the myths and particularly into their syntactic and semantic structure not only lays down the foundations of a thoroughly scientific approach to mythology but may also give efficient cues to the linguistic attempts at the analysis of discourse, (Cf. Lévi-Strauss' experiments – 101, Ch. XI; 102; 104 – and their confrontation with the new tasks which face the science of language: 23).

Ritual usually combines speech and pantomimic components, and, as noted by Leach (96), there occur in these ceremonial customs certain kinds of information which are never verbalized patently by the performers but are expressed only in action. This semiotic tradition is, however, always dependent, at least on a framing verbal pattern which passes between generations.

Evidently, language is a constituent of culture but in the ensemble of cultural phenomena it functions as their substructure, groundwork, and universal medium. Therefore, "it is obviously easier to abstract linguistics from the remainder of culture and define it separately than the reverse" (91, p. 124; and especially 178). Certain peculiar features of language are connected with this particular position of language in relation to culture, especially the early acquisition of language by children and the fact that neither the ancient nor the contemporary languages of the world which are known to the linguist show any difference whatever in their phonological and grammatical structure between more primitive and more progressive stages.

Whorf's acute search (189) hints at a tangled and creative interplay between the array of our grammatical concepts and our habitual, subliminal, mythological and poetic imagery, but without authorizing as to imply some foremost compulsory relation between this verbal pattern and our purely ideational operations or to derive our system of grammatical categories from an ancestral world-view.

The linguistic framework of courtship, marriage, and kinship rules and taboos is their indispensable implement. The careful and exhaustive observations of Geneviève Calame-Griaule on the pragmatics of language in the erotic, societal, and religious life of a community is a telling illustration of the decisive role of verbal behavior in the entire domain of social anthropology (26).

In the century-old history of economics and linguistics, questions uniting both disciplines have repeatedly arisen. One may recall that economists of the Enlightenment Period used to attack linguistic problems, as, for example, Anne-Robert-Jacques Turgot, who did a study on etymology for the *Encyclopédie*, or Adam Smith, who wrote on the origin of language. G. Tarde's influence upon Saussure's doctrine in such matters as circuit, exchange, value, output/input, producer/consumer is well-known. Many common topics, as, for instance, "dynamic synchrony", contradictions within the system, and its continual motion, undergo similar developments in both fields. Fundamental economic concepts were repeatedly subjected to tentative semiotic interpretations. I. Pososkov, the Russian economist of the early eighteenth century, coined the catch-phrase "a ruble is not silver, a ruble is the ruler's word", and John Law taught that money has only the wealth of a sign based on the prince's signature. At present, Talcott Parsons (in 134 and 134a) systematically treats money as "a very highly specialized language", economic transactions as "certain types of conversations", the circulation of money as "the sending of messages", and the monetary system as "a code in the grammatical-syntactical sense". He avowedly applies to the economic interchange the theory of code and message developed in linguistics. Or, according to the formulation of Ferruccio Rossi-Landi, "l'economia in senso proprio è studio di quel settore del segnico non-verbale, che consiste nella circolazione di un particolar tipo di messaggi solitamente chiamati 'merci'. Più in breve, e con una formula: *l'economia è studio dei messaggi-merci*" (148, p. 62). In order to avoid a metaphorical extension of the term "language", it is, perhaps, preferable to interpret money as a semiotic system with a particular destination. A semiotic interpretation of the processes and concepts involved is necessary for the exact scrutiny of this

medium of communication. Since, however, "the most general matrix" of symbolic systems, as Parsons rightly points out, "is language", linguistics actually appears to offer the most helpful model for such an analysis. Yet there are further reasons for connecting economics with linguistic studies: the exchange of utilities "converted" into words (134, p. 358), the direct concomitant role of language in all monetary transactions and the translatability of money into purely verbal messages, such as checks or other obligations (cf. 67, p. 568).

Thus, communication of mates and goods or services proves to be to a high degree an interchange of auxiliary messages, and the integrated science of communication incorporates semiotic proper, i.e. the study of sheer messages and their underlying codes, plus those disciplines wherein messages play a relevant yet solely accessory role. In any event, semiotic occupies a central position within the total science of communication and underlies all other provinces of this science, while semiotic, in turn, comprises linguistics as its central section which influences all other semiotic provinces. Three integrated sciences encompass each other and present three gradually increasing degrees of generality: 1) Study in communication of verbal messages = linguistics; 2) study in communication of any messages = semiotic (communication of verbal messages implied); 3) study in communication = social anthropology jointly with economics (communication of messages implied).

Studies developing at present under such overlapping labels as sociolinguistics, ethnolinguistics or folk linguistics, and anthropological linguistics represent a sound reaction against some still frequent survivals of the Saussurian tendency to curtail the tasks and aims of linguistic research. Yet such constraints of aims and purposes superimposed by individual linguists or linguistic teams on their own investigatory program should not be labeled "pernicious"; any particular emphasis upon some limited sections of linguistic science or any degree of self-restriction and rigorous specialization is perfectly legitimate. What would be, however, erroneous and pernicious is any degradation of all the other facets of language as supposedly residual, second-rate linguistic questions, and, especially, any attempt to expel these topics from linguistics proper. Linguistic experimentation may deliberately cut off certain inherent properties of language. Such were, for example, experiments in American linguistics with the exclusion of meaning, first from linguistic analysis in general, and later at least from grammatical analysis. Such have been, also, the recently revived Saussurian propensities to confine analysis merely to the code (*langue*, competence) in spite of the

indissoluble dialectic unity *langue/parole* (code/message, competence/ performance).

None of such eliminative experiments, however useful and instructive they are, can be viewed as a compulsory narrowing of the total scope of linguistic science. The various tasks and questions lately advanced and discussed under such labels as sociolinguistics all deserve a thorough study, and, one must add, many of these topics have behind them a long history of international research, and their local oblivion is of short duration. All these items, however, form an integral part of linguistics and require the same structural analysis as any other intrinsic constituent of language. By the way, I deliberately refer to "structural analysis", because whatever the factional dissensions among contemporary linguists and their divergences in terminology, technique and chief interests are, the analysis of linguistic structures is the common denominator of all the contemporary scientific currents, one which sharply distinguishes the quest of the last four or five decades from the main ways and targets of linguistics in the early twentieth and late nineteenth centuries.

The domain of ethnolinguistics and sociolinguistics – we can but agree with a farsighted promoter of their program, Dell Hymes – must and, finally, will be simply incorporated into linguistics (74, p. 152), because the latter cannot be separated and isolated from "questions of the actual functioning and role of language in human life" (72, p. 13).

Any verbal code is convertible and necessarily comprises a set of distinct subcodes or, in other words, functional varieties of language. Any speech community has at its disposal 1) more explicit and more elliptic patterns, with an orderly scale of transitions from a maximal explicitness to an extreme ellipsis, 2) a purposive alternation of more archaic and newfangled dictions, 3) a patent difference between rules of ceremonial, formal and informal, slovenly speech. The areally distinct and manifold sets of rules permitting, prescribing, or prohibiting talk and silence are destined to serve as a natural preface to any veritably generative grammar. Our linguistic performance is, furthermore, governed by a competence in dialogic and monologic rules. In particular, the varied verbal relations between the addresser and the addressee build a substantial part of our linguistic code and border directly upon the grammatical categories of person and gender. The grammatical and lexical rules relating to the present or absent differences in the hierarchical standing, sex, and age of the interlocutors cannot be bypassed in a thorough and accurate scientific description of a given language, and the place of these rules in the total verbal pattern raises a challenging linguistic question.

The diversity of interlocutors and their mutual adaptability are a factor of decisive importance for the multiplication and differentiation of subcodes within a speech community and within the verbal competence of its individual members. The variable "radius of communication", according to Sapir's felicitous term (154, p. 107) involves an interdialectal and interlingual exchange of messages and usually creates multidialectal and sometimes multilingual aggregates and interactions within the verbal pattern of individuals and even of entire communities. An exact comparison of the usually wider competence of the individual as hearer and his narrower competence as speaker is a pertinent but frequently overlooked linguistic task (cf. 68; 177).

Centrifugal and centripetal forces displayed by territorial and social dialects have been already for many decades a favorite subject in world linguistics. The recent application of structural analysis to the field work in social dialectology (92; 93) once more disproves the myth of homogeneous speech communities, discloses the speakers' awareness of variations, distinctions, and changes in the verbal pattern, and, thus, brings new illustrations to our view of metalanguage as a crucial intralinguistic factor.

The necessity to cope with the problems of standardization and planning (cf. 63; 170), and herewith to put an end to the last survivals of the neogrammarian noninterference in the life of language belongs to the urgent linguistic tasks vitally connected with the progressively increasing radius of communication.

Our cursory survey of topics itemized in the recent programs of socio- and ethnolinguistics (see particularly 75; 59; 17; 106; 29; 58; 46; 48) shows that all of these questions require a strictly and intrinsically linguistic analysis for they are a pertinent and inalienable part of linguistics proper. William Bright shrewdly points out the common denominator of these programs: "linguistic *diversity* is precisely the subject matter of sociolinguistics" (17, p. 11; cf. 73). Yet this same diversity may be characterized as the chief target of international linguistic thought in its endeavors to overcome the Saussurian model of *langue* as a static, uniform system of mandatory rules and to supplant this oversimplified and artificial construct by the dynamic view of a diversified, convertible code with regard to the different functions of language and to the time and space factors, both of which were excluded from the Saussurian conception of the linguistic system. As far as this narrow conception finds its adepts again and again, we must repeat that any experimental reduction of linguistic reality can lead to valuable scientific conclusions so long as we do not take the deliberately narrowed frame of the experiment for the unrestricted linguistic reality.

Since verbal messages analyzed by linguists are linked with communication of nonverbal messages or with exchange of utilities and mates, the linguistic research is to be supplemented by wider semiotic and anthropological investigation. As foreseen in Trubetzkoy's letter of 1926 (174), the integrated science of communication is intended to show, according to Bright's formulation, "the systematic covariance of linguistic structure and social structure" (17). Or, in Benveniste's terms: "le problème sera bien plutôt de découvrir la base commune à la langue et à la société, les principes qui commandent ces deux structures, en définissant d'abord les unités qui dans l'une et dans l'autre, se prêteraient à être comparées, et d'en faire ressortir l'interdépendance" (8, p. 15).

Lévi-Strauss contemplates the path of such future interdisciplinary research: "Nous sommes conduits, en effet, à nous demander si divers aspects de la vie sociale (y compris l'art et la religion) – dont nous savons déjà que l'étude peut s'aider de méthodes et de notions empruntées à la linguistique – ne consistent pas en phénomènes dont la nature rejoint celle même du langage*** il faudra pousser l'analyse des différents aspects de la vie sociale assez profondément pour atteindre un niveau où le passage deviendra possible de l'un à l'autre; c'est-à-dire élaborer une sorte de code universel, capable d'exprimer les propriétés communes aux structures spécifiques relevant de chaque aspect. L'emploi de ce code devra être légitime pour chaque système pris isolément, et pour tous quand il s'agira de les comparer. On se mettra ainsi en position de savoir si l'on a atteint leur nature la plus profonde et s'ils consistent ou non en réalités du même type" (101, p. 71). He envisages a "dialogue" with linguistis on relations between language and society (p. 90). One may recall Durkheim's comprehension of the ever increasing superiority of linguistics among social sciences and his paternal admonition to build up a "linguistic sociology" (cf. 3). Until now, however, the initial steps in this direction were taken precisely by linguists, as, for instance, in the stimulating attempts toward a correlation of language and sociocultural problems made in Russian linguistic literature on the threshold of the 1920's and '30's (cf. 179; 140; 76). Sociologists acknowledge "the cruel truth" that awareness of language can do more for sociology than sociology can do for linguistic studies, and that the lack of training "in formal linguistics" hinders workers in the social sciences from achieving a productive concern with language (106, pp. 3-6).

The variable radius of communication, the problem of contact between the communicants – "communication and transportation" – aptly advanced by Parsons as the ECOLOGICAL aspect of the systems, prompts

certain correspondences between language and society. Thus, the striking dialectal homogeneity of nomads' languages bears an obvious relation to the wide radius of nomadic roaming. In hunting tribes, for long periods hunters remain out of communication with their women but in close contact with their prey. Hence, their language undergoes a noticeable sexual dimorphism reinforced by the multiform taboo changes which hunters introduce in order not to be understood by animals.

The relation between PSYCHOLOGY and linguistics or, generically, between psychology and communication sciences, differs substantially from the interrelation of the three concentric circles discussed above: communication of verbal messages, of any messages, and communication in general. Psychology of language, or, under the label current nowadays – "psycholinguistics" (which translates the inveterate German compound *Sprachpsychologie*) enjoys a venerable tradition going back at least to Lazarus' and Steinthal's *Zeitschrift für Völkerpsychologie und Sprachwissenschaft* (1860-1880) and to the latter's monograph of 1855 on the interrelation between grammar and psychology, although we still hear authoritative assertions that until recently psychologists remained indifferent to language, and linguists to psychology. Blumenthal is right when he states that this current belief "belies historical facts" (12), but he, too, has been unaware of the true scope and longevity of such interdisciplinary research. In the world history of science since the mid-nineteenth century one could hardly name a psychological school which did not endeavor to apply its principles and technical devices to linguistic phenomena and which did not produce representative works devoted to language. Furthermore, all of these successive doctrines left a significant imprint on contemporaneous linguistic trends. It is true, however, that strong attractions to psychology alternate in the development of modern linguistics with no less serious repulsions, and several reasons are responsible for such temporary alienations.

In the first third of our century, at the onset of the structural bent in the science of language, there arose a strong need for applying strictly and solely linguistic, intrinsic criteria to the treatment of verbal problems. Saussure, in spite of his ardent interest in a connection between these two disciplines, warned his disciples against an excessive dependence of linguistics on psychology and insisted expressly on a radical delimitation of approaches (see, e.g., 54, p. 52). The Husserlian phenomenology with its struggle against the hegemony of conventional psychologistic explanations was another sensible factor, particularly influential in the continental thought of the interwar period. And, finally, as linguists complained and

as Sapir, in particular, pointed out, most of the psychologists at that time were as yet too little aware "of the fundamental importance of symbolism in behavior"; he predicted that just such an insight into the specific symbolism of language "will contribute to the enrichment of psychology" (154, p. 163).

Sapir's expectation was soon fulfilled by Karl Bühler's book (24) which still is for linguists probably the most inspiring among all the contributions to the psychology of language. Step by step, though with frequent relapses, psychologists dealing with language began to realize that mental operations connected with language and semiosis are essentially different from any other psychological phenomena. The necessity to master the foundations of linguistics became more and more evident. However, George Miller's "preliminary admonitions" to psychologists for ever deeper penetration into this intricate science remain opportune (122;121).

The continuously growing number of instructive publications (see particularly 130; 131; 109; 99; 163; 113) must stimulate a lively discussion between psychologists and linguists. Such significant questions as the inward aspects of speech, the so-called strategies of mind deployed by the interlocutors, require psychological experimentation and elucidation. Among relevant questions, partly discussed by psychologists and partly awaiting an answer, one may cite speech programming and speech perception, the perceiver's attention and fatigue, redundancy as an antidote against psychological noise, immediate memory and simultaneous synthesis, retention and oblivion of verbal information, generative and perceptive memory for the verbal code, interiorization of speech, the role of different mental types in language learning, the interconnection of speechless status and language acquisition with different grades of intellectual development, and, on the other hand, relations between verbal impairments and intellectual deficits, or, finally, the significance of language for cognitive operations as compared with the prelingual status.

Mutatis mutandis, analogous psychological problems arise with respect to other forms of semiotic communication and to communication in general. In all these cases there is a clearly delimited area for psychologists' fruitful intervention, and so long as experts in psychology do not intrude in the intrinsically linguistic sphere of verbal form and meaning with specifically psychological criteria and methods, both linguistics and psychology can and must derive genuine benefit from mutual lessons. One must, however, constantly remember that verbal processes and concepts – in short, all the *signantia* and *signata* in their interrelations, require, first and foremost, a purely linguistic analysis and interpretation.

The still occurring attempts to substitute a psychological treatment for indispensable linguistic operations are doomed to failure; for instance, in the voluminous and erudite *Grundriss* by Kainz, his plan of a psychological grammar as an "explanatory and interpretative discipline" opposed to the linguistic grammar which he believes to be merely descriptive and historical reveals a glaring misconception in regard to the scope and aims of linguistic analysis (86, I, p. 63). For instance, when claiming that from the use of conjunctions in a given language the psychologist can infer "die Gesetze des Gedankenaufbaus" (p. 62), the author demonstrates a lack of insight into the essentials of linguistic structure and analysis. Similarly, no psychological contrivances may replace a circumstantial and rigorous structural analysis of the infant's gradual, daily growing mastery of language; this inquiry demands a careful application of a purely linguistic technique and methodology, but the psychologist is called to correlate the results of this linguistic expertise with the entire development of children's mentality and behavior (cf. 120).

The communication science on all its three levels is concerned with the multiple rules and roles of communication, the roles of its partners, and the rules of their partnership, whereas psychology is focused upon the individual partners themselves, their nature, personality, and internal status. Psychology of language is primarily a scientific characterization of language users, and, hence, there is no overlapping but rather utter complementarity between both of the disciplines concerned with verbal activities.

One of the typical examples of the psychological preoccupation with performances and performers is the psychoanalytic endeavor to disclose the *privata privatissima* of language by provoking the verbalization of unverbalized, subliminal experiences, the exteriorization of inner speech, and both theory and therapeutics may find a stimulation in Lacan's attempts to revise and reinterpret the correlation between *signans* and *signatum* in the mental and verbal experience of the patient (94). If linguistics guides the analyst, the latter's thoughts on the "supremacy of the *signans*" may, in turn, deepen the linguist's insight into the twofold nature of verbal structures.

II. LINGUISTICS AND NATURAL SCIENCES

When from specifically anthropological sciences we go on to BIOLOGY, the science of life which embraces the total organic world, the different kinds

of human communication become a mere section of a much vaster field of studies. This wider range may be entitled: ways and forms of communication used by the manifold living things. We are faced with a decisive dichotomy: not only language but all the communication systems of language users (which all imply the underlying role of language) differ substantially from any communication system employed by speechless creatures, because for mankind each system of communication is correlated with language, and within the over-all network of human communication, it is language that takes the dominant place.

Several essential properties notably separate verbal signs from all kinds of animal messages: the imaginative and creative power of language; its ability to handle abstractions and fictions and to deal with things and events remote in space and/or time, in contradistinction to the *hic et nunc* of animal signals; that structural hierarchy of linguistic constituents which was labeled "double articulation" in D. Bubrix's penetrating essay of 1930 about the uniqueness and origin of human language (22), namely, the dichotomy of merely distinctive (phonemic) and significative (grammatical) units and a further scission of the grammatical pattern into the word and sentence levels (coded units *vs.* coded matrices); the use of diremes, especially propositions; and, finally, the assemblage and reversible hierarchy of diverse concurrent verbal functions and operations (referential, conative, emotive, phatic, poetic, metalinguistic). The number of distinct signals produced by an animal is quite restricted, so that the entire corpus of the different messages is tantamount to their code. The cited specificities in the structure of any human language are totally unfamiliar to animals, whereas several other properties formerly believed to be confined to human speech have been detected now also in various species of primates (4).

The transition from "zoosemiotic" to human speech is a huge qualitative leap, in contradiction to the outdated behaviorist creed that the "language" of animals differs from men's language in degree but not in kind. On the other hand, we cannot share objections raised recently on the linguistic side against "studying animal communication systems within the same framework as human language" and motivated by a presumable lack "of continuity, in an evolutionary sense, between the grammars of human languages and animal communications systems" (31, p. 73).

Yet no revolution, however radical, discards the evolutionary continuity; and a systematic comparison of men's speech and their other semiotic structures and activities with the ETHOLOGICAL data on the communicative means of all other species promises a stricter delineation

of these two distinct fields (cf. 20; 193) and a deeper insight into their substantial homologies and no less important differences. This comparative analysis will promote a further broadening of the general theory of signs.

For the most part, observations and descriptions of animal communication belonged until recently to the neglected tasks, and records made were usually fragmentary, unsystematic, and superficial. At present we possess much richer data, collected with greater care and sill; however, in many cases they suffer from a somewhat anthropomorphic interpretation of the valuable material stored by assiduous field work, e.g., the allegedly complex communication of cicadas factually consists of ticks used for distance signals and of close-range buzzes: both are combined into a squawk when the call is addressed simultaneously to nearby and remote recipients (cf. 2).

The nature-nurture dichotomy (cf. 40, p. 55) offers an utterly entangled problem. The buildup of animal communication implies, in Thorpe's terms, "an elaborate integration of inborn and learned components", as proved by vocalizations of song birds separated while in eggshells from their associates, and not only reared in total isolation but in certain experiments even deafened (173; 171; 172). They still perform the inborn blueprint of the song proper to the habit of their species or even to the dialect of the subspecies, and the pattern of this song "is not fundamentally affected" and after gradual trials may undergo some corrections and ameliorations. If hearing has been left intact and the bird returns to its native environment, the quality of its performances improves and the song repertory can grow, but all this only occurs within the period of the bird's maturation, e.g. no ameliorations and additions are achievable in the warbling skill of a chaffinch when it is more than thirteen months old. The lower the organism, the more nature prevails over nurture, but even lower animals can benefit from learning (118, p. 316). As Galambos states, learning is common, for example "to octopus, cat, and bee despite the large differences in their neural apparatus" (50, p. 233).

Also in the child's acquisition of language, nature and culture are interlaced: innateness constitutes the necessary basis for acculturation. However, the hierarchy of both factors is opposite: learning for children, and heredity for fledgelings, cubs, or other young animals acts as the determining factor. The infant cannot begin to talk without any contact with speakers, but as soon as such contact is established, then whatever the environmental language is, the child will acquire it, provided he has not passed his seventh year (cf. 116), whereas any further language can be

learned also during the adolescence or the mature age. All this means that learning of the initial communication system both for birds or other animals and for human beings can take place only between two chronological maturation limits.

This puzzling phenomenon and the substantial fact that speech is a universally human and exclusively human property imperatively call for an attentive inquiry into the biological prerequisites of human language. Bloomfield's reminder that among the special branches of science, linguistics "intervenes between biology, on the one hand, and ethnology, sociology, and psychology, on the other" (11, p. 55) is most opportune. The complete failure of mechanistic efforts to transplant biological (e.g. Darwinian or Mendelian) theories into the science of language (157; 51) or to fuse linguistic and racial criteria led linguists temporarily to distrust joint designs with biology, but at present, when both the study of language and the study of life have experienced continuous progress and stand before new, crucial problems and solutions, this skepticism must be overcome. The research in question requires a cooperation of biologists and linguists which would avert premature "biological theories of language development" (as 98), enterprises familiarized neither with the properly linguistic evidence nor with the cultural aspect of language.

Language and other means of human communication in their various operations – *mutatis mutandis* – offer many instructive analogies with the transfer of information among other species of living creatures. "The adaptive nature of communication" in its multiform varieties, which has been outlined pithily by Wallace and Srb (184, Ch. X), involves two correlate genera – self-adjustment to the environment and the adjusting of the environment to one's own needs. Indeed, it becomes one of the "most exciting" biological problems and – again *mutatis mutandis* – it is also a vital concern of present-day linguistics. The similar processes in the life of language and in animal communication merit a diligent and comprehensive exploration and juxtaposition beneficial both for ethology and for linguistics. The interwar period witnessed the first mutual suggestions between the investigators of these two disciplines who had been attracted by the same two aspects of evolution: adaptive radiation and convergent evolution (cf. 83, pp. 107, 235); it was in this connection that the biological concept of mimicry attracted the attention of linguists and, on the other hand, diverse types of mimicry have been analyzed by biologists as displays of communication (184, pp. 88-91). The divergent development which is opposite to the convergent tendency in the spread of communication and which acts as a powerful counterpart of diffusion preoccupies the science

of language as well as biology more and more. The usual manifestations of such a linguistic nonconformism, particularism or "parochialism" (*esprit de clocher*, in Saussure's parlance) find remarkable ethological analogues, and biologists investigate and describe what they call "local dialects" that differentiate animals of a single species, for instance, crows or bees; thus, two neighboring and closely related subspecies of fireflies differ in their courtship flashes (184, p. 88). From the testimony of many observers of dissimilar vocalizations performed by one and the same bird species in different "dialect areas" Thorpe extracts the presumption that "these are true dialects and are not based on genetic discontinuities".

During the last five decades many significant universals have been gradually discovered in the phonological and grammatical pattern of languages. Obviously, among the countless tongues of the world no one displays any structural features which would conflict with children's inborn abilities to master them in the step-by-step process of language acquisition. Human language is, as biologists term it, species-specified. There are in any infant innate dispositions, propensities to learn the language of his environment; in Goethe's terms, *Ein jeder lernt nur, was er lernen kann*, and no extant phonological or grammatical laws overstep tyro's capacities. How far the inherited potentiality to grasp, adjust and appropriate the elders' language implies an innateness of linguistic universals remains an utterly speculative and sterile question. It is evident that the inherited and acquired patterns are closely linked together: they interact and complement each other.

Like any other social modeling system tending to maintain its dynamic equilibrium, language ostensively displays its self-regulating and self-steering properties (cf. 95, p. 73; 107). Those implicational laws which build the bulk of phonological and grammatical universals and underlie the typology of languages are embedded to a great part in the internal logic of linguistic structures and do not necessarily presuppose special "genetic instructions". Thus, for instance, as Korš showed long ago in his lucid contribution to comparative syntax (89), hypotactic constructions and relative clauses in particular are far from being universal, and in many languages such clauses form a recent innovation. Nonetheless, whenever they appear, they constantly follow some identical structural rules which, as he guesses, reflect certain "general laws of thinking" or, let us add, inhere in the self-regulation and self-movement of language.

It is particularly noteworthy that the alleged "strict limits for variations" lose their compulsion in secret jargons and in verbal plays – private or semiprivate – as well as in personal poetic experiments or invented

languages. Propp's trailblazing discovery (142), recently enforced and deepened (100; 56; 159), has revealed the rigid structural laws which govern all the fairy tales of Russian (and any other) oral tradition and admit but a severly limited number of compositional models. These restrictive laws, however, find no application to such individual creations as Andersen's or Hoffmann's fairy stories. To a considerable degree, the rigor of general laws is due to the circumstance that both language and folklore demand a collective consensus and obey a subliminal communal censorship (13). Precisely the fact of belonging to a "strictly socialized type of human behavior" is, in Sapir's terms, highly responsible for "such regularities as only the natural scientist is in the habit of formulating" (155 or 154, p. 166).

"The adaptive nature of communication", rightly emphasized by modern biologists, is manifest in the behavior both of higher and lower organisms adapting themselves to their living environment or, inversely, adjusting this environment. One of the most striking examples of the ability to make persistent and intensive adjustments is the child's imitative and thereby creative learning of language from parents or other adults, notwithstanding the recent untenable surmise that nothing else is needed than "some superficial adaptation to the structure of their behavior" (98, p. 378).

Children's gift of acquiring any tongue whatever as their first language and, even more generally, the human, especially juvenile aptitude to command unfamiliar linguistic patterns, must arise primarily from the instructions coded in the germ cell, but this genetic assumption does not authorize us to conclude that for the little apprentice the language of adults is nothing more than "raw material" (98, p. 375). For example, in the Russian verb system none of its morphological categories – persons, genders, numbers, tenses, aspects, moods, voices – belong to linguistic universals, and children, as it has been shown by abundant and precise observations and records, deploy all their gradual efforts in order to comprehend these grammatical processes and concepts and to penetrate, step-by-step, into the numerous intricacies of the adults' code. All the devices needed for its attainable mastery are used by the beginner: its initial simplification with selection of accessible components, progressive grades of approximation to the entire code, glossing metalinguistic experiments, various forms of tutor-tutee relations, and insistent demands for learning and instruction (cf. e.g., 60; 87), everything positively contradicts the credulous references to the "absence of any need for teaching of language" (98, p. 379). But the question of genetic endowment arises as soon as one deals with the very foundations of human language.

The spectacular discoveries of the last few years in MOLECULAR biology are presented by the explorers themselves in terms borrowed from linguistics and communication theory. The title of the book by G. and M. Beadle, *The Language of Life*, is not a mere figurative expression, and the extraordinary degree of analogy between the systems of genetic and verbal information fully justifies the guiding statement of the volume: "The deciphering of the DNA code has revealed our possession of a language much older than hieroglyphics, a language as old as life itself, a language that is the most living language of all" (6, p. 207).

From the newest reports on the gradual breakthrough of the DNA code and, in particular, from F. H. C. Crick's (34) and C. Yanofsky's (191) condensed accounts of "the four-letter language embodied in molecules of nucleic acid", we actually learn that all the detailed and specified genetic information is contained in molecular coded messages, namely in their linear sequences of "code words" or "codons". Each word comprises three coding subunits termed "nucleotide bases" or "letters" of the code "alphabet". This alphabet consists of four differing letters "used to spell out the genetic message". The "dictionary" of the genetic code encompasses 64 distinct words which, in regard to their components, are defined as "triplets", for each of them forms a sequence of three letters. Sixty-one of these triplets carry an individual meaning, while three are apparently used only to signal the end of a genetic message.

In his inaugural address to the Collège de France, François Jacob vividly depicted the scientists' astonishment at the discovery of this nucleic script: "À l'ancienne notion du gène, structure intégrale que l'on comparait à la boule d'un chapelet a donc succédé celle d'une séquence de quatre éléments répétés par permutations. L'hérédité est déterminée par un message chimique inscrit le long des chromosomes. La surprise, c'est que la spécificité génétique soit écrite, non avec des idéogrammes comme en chinois, mais avec un alphabet comme en français, ou plutôt en morse. Le sens du message provient de la combinaison des signes en mots et de l'arrangement des mots en phrases.*** A posteriori, cette solution apparaît bien comme la seule logique. Comment assurer autrement pareille diversité d'architectures avec une telle simplicité de moyens?" (78, p. 22). The use of such metaphorical expressions as "nucleic language" by farsighted scientists may arouse doubts among some geneticists inconversant with the essentials of linguistics and therefore prone to object that alphabets used for French, Chinese, or any other language are quite arbitrary interchangeable conventions. However, the analogy holds, but as far as our letters are mere substitutes for the phonemic pattern of lan-

guage, and the Morse alphabet is but a secondary substitute for letters, the subunits of the genetic code should be compared directly with phonemes. Hence, we may state that among all the information-carrying systems, the genetic code and the verbal code are the only ones based upon the use of discrete components which, by themselves, are devoid of inherent meaning but serve to constitute the minimal senseful units, i.e. entities endowed with their own, intrinsic meaning in the given code. Confronting the experience of linguists and geneticists, Jacob aptly stated: "Dans les deux cas, il s'agit d'unités qui en elle-mêmes sont absolument vides de sens, mais qui, groupées de certaines façons, prennent un sens, qui est soit le sens des mots dans le langage, soit un sens au point de vue biologique, c'est-à-dire pour l'expression des fonctions qui sont contenues, qui sont 'écrites' le long du message chimique génétique" (79).

The similarity in the structure of these two informational systems goes, however, much farther. All the interrelations of phonemes are decomposable into several binary oppositions of the further indissociable distinctive features. In an analogous way, two binary oppositions underlie four "letters" of the nucleic code (cf. 125, p. 13; 49; 35, p. 167): thymine (T), cytosine (C), guanine (G), and adenine (A). A size relation (termed "transversion" by Freese and Crick) opposes the two pyrimidines T and C to the larger purines, G and A. On the other hand, the two pyrimidines (T *vs.* C) and, equally, the two purines (G *vs.* A), stand to each other in a relation of "reflexive congruence" (186, p. 43) or "transition", according to Freese's and Crick's nomenclature: namely, they present two contrary orders of the donor and acceptor. Thus $T:G = C:A$, and $T:C = G:A$. Only the twice opposed bases prove to be compatible in the two complementary strands of the DNA molecule: T with A and C with G.

Linguists and biologists display a still clearer insight into the consistently hierarchical design of verbal and genetic messages as their fundamental integrative principle. As pointed out by Benveniste, "une unité linguistique ne sera reçue telle que si on peut l'identifier *dans* une unité plus haute" (8, p. 123), and the same device underlies the analysis of the "genetic language". The transition from lexical to syntactical units of different grades is paralleled by the ascent from codons to "cistrons" and "operons", and the latter two ranks of genetic sequences have been equated by biologists with ascending syntactic constructions (see, e.g., 144), and the constraints on the distribution of codons within such constructions have been called "the syntax of the DNA chain" (42*a*). In the genetic message the "words" are not separated from each other, whereas specific signals indicate the start and end of the operon and the limits

between the cistrons within the operon. They are metaphorically described as "punctuation marks" or "commas" (77, p. 1475) and actually correspond to the delimitative devices used in the phonological division of the utterance into sentences and of the latter into clauses and phrases (Trubetzkoy's *Grenzsignale*: 175). If, from syntax, we proceed to the hardly explored field of discourse analysis, the latter seems to offer certain correspondences with the "macro-organization" of genetic messages and with its highest constituents, "replicons" and "segregons" (144).

In contradistinction to the context freedom of diverse formalized languages, the natural language is context-sensitive and, in particular, its words display a variety of dissimilar contextual meanings. The recent observations of changes in the meanings of codons, depending on their position in the genetic message (33), may be cited as a further likeness between the two patterns.

The strict "colinearity" of the time sequence in the encoding and decoding operations characterizes both the verbal language and the basic phenomenon of molecular genetics, the translation of the nucleic message into the "peptidic language". Here again we come across a quite natural penetration of a linguistic concept and term into the research of biologists who, by collating the original messages with their peptidic translation, detect the "synonymous codons". One of the communicative functions of verbal synonyms is the avoidance of partial homonymy (e.g. utterances substituting *adjust* for *adapt* to prevent the easy confusion of the latter word with its partial homonym *adopt*), and biologists question whether a similar subtle reason could not underlie the choice between synonymous codons; "et cette redondance donne quelque souplesse à l'écriture de l'hérédité" (78, p. 25; cf. 33*a*).

Linguistics and cognate sciences deal chiefly with speech circuit and similar forms of intercommunication, i.e. with the alternate roles of the addresser and the addressee who gives either an overt or at least a silent reply to the interlocutor. As for the processing of genetic information, it is said to be irreversible; "the machinery of the cell can translate in one direction only" (34, p. 56). However, the regulative circuits disclosed by the geneticists – repression and retroinhibition (cf. 112; 124; 77; 119, Ch. X) seem to offer a slight molecular parallel to the dialogic nature of speech. While such regulative interactions within the "physiological team" of the genotype effect a control and selection of genetic instructions either accepted or rejected, the transmission of hereditary information to offspring cells and oncoming forward organisms maintains a straight, chain-like order. Linguistics of today is actually faced with closely related

topics. The varied questions connected with the exchange of verbal information in space overshadowed the problem of language as legacy; the temporal, forward-oriented, programming role of language bridging the span between the past and the future is now on the agenda. It is noteworthy that the eminent Russian expert in biomechanics, N. Bernštejn, in his testamentary "Conclusion" of 1966 (9, p. 334) has suggestively compared the molecular codes which "reflect the processes of the forthcoming development and growth" with "language as a psycho-biological and psycho-social structure" endowed with an anticipatory "model of the future".

How should one interpret all these salient isomorphic features between the genetic code which "appears to be essentially the same in all organisms" (185, p. 386) and the architectonic model underlying the verbal codes of all human languages and, *nota bene*, shared by no semiotic systems other than natural language or its substitutes? The question of these isomorphic features becomes particularly instructive when we realize that they find no analogue in any system of animal communication.

The genetic code, the primary manifestation of life, and, on the other hand, language, the universal endowment of humanity and its momentous leap from genetics to civilization, are the two fundamental stores of information transmissible from the ancestry to the progeny, the molecular succession, which ensures the transfer of hereditary messages from the cells of one generation to the next generation, and the verbal legacy as a necessary prerequisite of cultural tradition.

The outlined properties common to the systems of verbal and genetic information ensure both speciation and boundless individualization. When biologists maintain that the species "is the keystone of evolution", and that without speciation there would be no diversification of the organic world and no adaptive radiation (119, p. 621; cf. 43, 45), similarly, languages, with their structural regularities, dynamic equilibrium, and cohesive power, appear as necessary corollaries of the universal laws which underlie any verbal structuration. If, furthermore, biologists realize that the indispensable diversity of all individual organisms, far from being incidental, presents "a universal and necessary phenomenon of living things" (161, p. 386), linguists, in turn, recognize the creativeness of language in the unlimited variability of personal speech and in the infinite diversification of verbal messages. Linguistics shares with biology the view that "stability and variability reside in the same structure" (112, p. 99) and imply each other.

Now, since "heredity, itself, is fundamentally a form of communica-

tion" (184, p. 71), and since the universal architectonic design of the verbal code is undoubtedly a molecular endowment of every Homo sapiens, one could venture the legitimate question whether the isomorphism exhibited by these two different codes, genetic and verbal, results from a mere convergence induced by similar needs, or perhaps the foundations of the overt linguistic patterns superimposed upon molecular communication have been modeled directly upon its structural principles.

The molecular hereditary order has no bearing on the diverse variables in the formal and semantic makeup of different languages. There is, however, a certain facet of individual speech which permits us to presume the possibility of a genetic endowment. In addition to the multiform intentional information, our talk carries inalienable and unalterable characteristics which are generated chiefly in the inferior part of the speech apparatus, from the abdomen-diaphragmal area to the pharynx. The study of these physiognomic characteristics was inaugurated by Eduard Sievers under the label *Schallanalyse* and developed by him and his disciple, the ingenious musicologist Gustav Becking, throughout the first third of our century (160; 7). All the speakers, writers, and musicians proved to belong to one of the three basic types (with further subdivisions) expressed in the entire exteriorized behavior of any individual as specific rhythmic curves which, therefore, received the name of *Generalkurven* or *Personalkurven*; they were also termed *Beckingkurven*, since they were discovered by Becking during his joint research with Sievers. These three curves have been mapped as follows (7, p. 52f.):

Hauptschlag:		*Nebenschlag:*	
spitz	——	spitz	(Heine-type)
spitz		rund	(Goethe-type)
rund	——	rund	(Schiller-type)

If a representative of one type has to recite, sing, or play a work of a poet or composer of the same kinesthetic type, the performance appears to be reinforced by this affinity, but if the author and performer belong to two totally opposite types, the reproduction undergoes inhibitions (*Hemmungen*). It turned out that these three idiosyncratic types and their interrelations apply to all kinds of our motor activities, such as the manner of bodily, manual, and facial movements, gait, handwriting and drawing, dancing, sport, and courtship. The attractions and repulsions between different types act not only within a single motor sphere but also across the diverse spheres. Moreover, the effect of certain auditory and visual stimuli is akin to one of the three motor types, and, corresponding-

ly, these incentives may either stimulate or inhibit the response, as was experienced by readers when they faced, in alternate order, the same verses coupled with a wire figure now of a coincident and now of an opposite type.

In his notable summarizing report on these personal curves, Sievers asserts "dass sie das konstanteste sind, was es überhaupt beim denkenden und handelnden Menschen gibt: wenigstens ist mir trotz mehrjährigem Suchen kein Fall bekannt geworden, dass ein Individuum beim eigenen Produzieren über mehr als eine Beckingkurve frei verfügte, mag es auch sonst noch so reich sein an klanglicher Variabilität***. Es lässt sich auch nicht bezweifeln, dass die Beckingkurve zum *angeborenen* Besitz des Individuums gehört (wie ich bei Neugeborenen habe festellen können), und dass bei ihrer Übertragung vom Individuum zu Individuum die üblichen Allgemeingesetze der Vererbung eine grosse, wenn auch nicht die allein ausschlaggegende Rolle spielen. So ist es auch allein zu verstehen, wenn ganze Stämme oder gar Völker sich manchmal fast bis zur Ausschliesslichkeit nur einer und derselben Beckingkurve bedienen" (160, p. 74). The innateness of the three "individual curves" seems probable but still requires careful verification.

This research, which exhibited the superb skill and penetrating intuition of the two inquirers, yet which originally lacked any theoretical foundation, unfortunately has been discontinued, but now it could and should be resumed on new methodological principles. Sievers' and Becking's tentative psychophysical typology should be confronted with such problems as attraction and repulsion between associates and mates, the varying types in the progeny of dissimilar parents and the presumable influence of these variations upon relations between parents and offspring. The question whether the heredity of such physiognomic, virtually aesthetic, components of language may find a widened, phylogenetic application remains open.

It was the great physicist Niels Bohr who repeatedly warned biologists against fear of "notions like purposiveness foreign to physics but lending themselves so readily to the description of organic phenomena". He diagnosed and prognosticated that the two attitudes – one mechanistic and the other end-directed – "do not present contradictory views on biological problems but, rather, stress the mutually exclusive character of observational conditions equally indispensable in our search for an ever richer description of life" (14, p. 100). The programmatic paper by Rosenblueth, Wiener, and Bigelow on purpose and teleology (147), with its scrupulous classification of purposeful behavior, would, as Campbell

acknowledges (27, p. 5), "make a useful introduction" to the latter's book – and, one could add, to many other cardinal works – on organic, especially human, evolution.

The discussion of goal-directedness in today's biology is of vital interest for all branches of knowledge relating to organismic activities, and the judgments advanced may serve to corroborate a consistent application of a means-ends model to the language design, to its self-regulating maintenance of integrity and dynamic equilibrium (homeostasis), as well as to its mutations (cf. 28; 44). Although the same labels which were used in the prestructural stage of historical linguistics – "blind, haphazard, fortuitous, random changes, accidental slips, multiplied errors, happenstances" – are still tenacious in biological creeds and phraseology, nevertheless such pivotal concepts as "purposiveness", "anticipation", "initiative and foresight", take ever deeper root (36, p. 239; 172, Ch. I). Wallace and Srb criticize the traditional avoidance of teleological phraseology and of references to purpose as entirely outdated, since the problems involved are no longer related to any belief in an *élan vital* (184, p. 109). According to Emerson, biologists are forced "to recognize the existence of direction toward future functions in pre-mental organisms such as plants and lower animals". He sees no necessity "to put the word *purpose* in quotation marks" (45, p. 207) and maintains that "homeostasis and goal-seeking are the same thing" (44, p. 162).

For the founders of cybernetics "teleology" was synonymous with "purpose controlled by feedback" (147), and this approach has been widely developed in Waddington's (182; 181) and Šmal'gauzen's (169; 168) biological studies. As the leading Russian biologist of our time, N. A. Bernštejn recently stated, "numerous observations and data in all the areas of biology have shown already for a long time an indisputable purposiveness in the structures and processes peculiar to the living organisms. This purposiveness strikes as a manifest, perhaps even decisive, difference of living systems from any objects of inorganic nature. In application to biological objects, the questions *how* and *for what reason*, exhaustively sufficient in physics or chemistry, have to be necessarily supplemented by a third, equally relevant question *for what purpose*" (9, p. 326). "Only the two concepts introduced by biocybernetics, the code and the coded anticipatory model of the future, indicate an impeccable, materialistic way out of this seeming deadlock" (p. 327). "All the observations on the formation of the organism in its embryology and ontogeny as well as on the phylogenetic scale show that the organism in its development and activities strives for the maximum of negentropy

compatible with its vital stability. Such a formulation of the biological 'purpose' requires no psychologization" (p. 328). "The biological relevance pushes the indispensable and unavoidable question *for what purpose* into first place" (p. 331). The discovered ability of organisms to build and integrate material codes which reflect the manifold forms of activity and extrapolative performances from tropisms to the most complex forms of influence upon the environment enables Bernštejn "to speak about the goal-directedness, goal-orientation, etc. of any organism whatever, perhaps starting with the protists", without any risk of sliding into a supernatural finalism (p. 309).

An even more resolute claim for the autonomous status of the science of life was expressed by the eminent Harvard biologist George Gaylord Simpson: "The physical sciences have rightly excluded teleology, the principle that the end determines the means, that the result is retroactively connected to the cause by a factor of purpose, or that usefulness is in any sense explanatory (162, p. 370). But in biology it is not only legitimate but also necessary to ask and answer questions teleological in aspect concerning the function or usefulness to living organisms of everything that exists and that occurs in them" (p. 371). Simpson repeatedly insists that "the purposeful aspect of organisms is incontrovertible" and that the antiteleological reductionism "omits the *bios* from biology" (161, p. 86).

In an earlier re-examination of teleology, Jonas Salk underscored that "living systems require different considerations as compared with nonliving systems; the idea of purpose in living systems is not only relevant but is essential". He explains "that it is in the nature of the organism to be oriented for the change that occurs. The intrinsic nature of the organism influences the range and direction of change that can occur; the change that occurs becomes added to others, all of which together seem to be 'causes' toward which the developing organism is drawn, and the word 'cause' in this context obtains the philosophical meaning of 'end or purpose'" (152).

Leaning upon the example of scientific astronomy which superseded speculative astrology, Pittendrigh proposed the substitution of "teleonomy" for "teleology" in order to make it clear that "the recognition and description of end-directedness" is freed from undesirable associations with the Aristotelian metaphysical dogma. The new term carried the idea that all organization recognized as being characteristic of life "is relative and end-directed", and that any randomness is "the converse of organization" (139, p. 394). The new term proved to be opportune (cf. 190), and, in Monod's view, "la Téléonomie, c'est le mot qu'on peut employer si, par

pudeur objective, on préfère éviter 'finalité'. Cependant, 'tout se passe' comme si les êtres vivants étaient structurés, organisés et conditionnés en vue d'une fin; la survie de l'individu, mais surtout celle de l'espèce" (125, p. 9). Monod describes the central nervous system as "the most evolved of teleonomic structures" and ventures to interpret the emergence of the superior, specifically human system as a sequel to the appearance of language which changed the biopshere into "a new realm, the noosphere, the domain of ideas and consciousness". In other words, "c'est le langage qui aurait créé l'homme, plutôt que l'homme le langage" (p. 23).

If the questions of goal-orientation are still under discussion in biology, any doubts are misplaced as soon as we approach human being, lifeways, and institutions, in particular, human language. The latter, like man himself in MacKay's sagacious formulation, "is a teleological or goal-directed system" (114; cf. 71). The obsolete belief that "purposiveness cannot logically be the mainspring for language development" (98, p. 378) falsifies the very nature of language and of intentional human behavior.

Recidives of superstitious fear of a means-ends model which still torment a few linguists are the last survivals of a sterile reductionism. As a characteristic example we may cite a linguist's affirmation that "in the discussion of man's place in nature there is no place for mentalism", since "man is an animal and subject to all the laws of biology", and, finally, that "the only valid assumption is that of physicalism", since "life is part of the inorganic world and subject to all the laws of physics" (69, p. 136; cf. 67).

This quasi-biological bias of linguists is categorically rebuffed by biologists themselves. As for antimentalism, they teach us that in the evolution of human nature "intelligence integrates knowledge and gives it direction"; it is a "purposively directed mental process with awareness of means and ends" (65, p. 367). As for animalism, Dobzhansky condemns the fancy cliché that man is nothing but an animal as "a specimen of 'genetic' fallacy". In regard to an all-embracing biologism, he reminds us that "human evolution cannot be understood as a purely biological process, because, beside the biological component, the other, cultural factor in turn must be taken into account" (41, p. 18). Simplistic physicalism has been flatly rebuked by Simpson: "Organisms do in fact have characteristics and processes that do not occur in conjunction in nonorganic materials and reactions" (162, p. 367). While biology has realized fully that the units of heredity are discrete and, hence, nonblending, the same linguist, faithful to the spirit of reductionism, endeavors to explain the emergence of the discrete constituents of the verbal code through the

"phenomenon of blending" as "the only (!) logically (!) possible (!) way" (69, p. 142).

The ultimate phylogenetic question of linguistics, the origin of language, has been proscribed by the neogrammarian tenet, but at present the emergence of language must be brought together with the other changes which mark the transition from prehuman to human society. Such a juxtaposition can also give certain clues for a relative chronology. Thus, attempts have been made to elucidate the genetic interrelation between language and visual art (22; 143). Figurative art seems to imply the presence of language and thus the earliest vestiges of representative art provide glottogony with a plausible *terminus ante quem*.

Moreover, we may connect three universals among the solely human achievements: 1. manufacture of tools to build tools; 2. rise of phonemic, purely distinctive elements, having no proper meaning but used to build meaningful units, namely morphemes and words; 3. incest taboo, conclusively interpreted by anthropologists (115; 188; 105; 151) as the indispensable precondition for a wider exchange of mates and hereby for an expansion of kinship and for a consequent buildup of economic, cooperative, and defensive alliances. In brief, this device serves to create men's "solidarity transcending the family" (133). As a matter of fact, all of these three innovations introduce pure auxiliaries, secondary tools which serve to construct the primary tools necessary for the foundation of human society with its material, verbal, and spiritual culture. An abstract mediate principle lies in the idea of secondary tools, and the emergence of all their three aspects must have been the most cardinal step from "animality" toward the thoroughly human mind. The rudiments of these three fundamentally similar possessions must have emerged within the same paleontological period, and the earliest excavated specimens of tools – such as gravers or burins (129, p. 95) – destined to make tools enable us to posit a conjectural glottogonic epoch. In particular, the need of articulate speech for the formulation of rules which define and prohibit incest and inaugurate exogamy (187) prompts a further specification of the evolutionary sequence. As the psychologist puts it, "distinctions between those who are permitted or favored as mates and those who are ruled out as 'incestuous' are governed by a system of naming that can only be mastered by one who can handle a human language" (21, p. 75). The importance of speech for the development and diffusion of tool manufacture may be likewise assumed.

The PHYSIOLOGY of speech production overcomes its former piecemeal, atomizing stage and acquires an ever broader interdisciplinary range.

Among instructive examples one could cite Žinkin's comprehensive tabulation of speech mechanisms (195) and the fruitful experiments going on in the laboratories of Leningrad, Los Angeles, Lund, New York, Prague, Santa Barbara, Stockholm, Tokyo, etc. The novel biomechanical interpretation of programmed and controlled movements which has been developed by Bernštejn and his collaborators (9) ought to be taken into account by phoneticians as well. The study of speech sounds as goal-directed motor commands and acts, with particular reference to their auditory effect and to the purpose they serve in language, requires co-ordinate efforts of experts in all the facets of phonic phenomena, from the biomechanical aspect of articulatory movements to the subtleties of a purely phonological analysis. As soon as such team work is achieved, the speech analysis will obtain its thoroughly sientific foundations and will respond to the "exigencies of relativistic invariance" as the binding methodological requirement for any field of modern research (14, p. 71).

The deepest discernment of the relation between the human organism and its verbal abilities and activities is achieved by the mutual help of NEUROBIOLOGISTS and linguists in a comparative inquiry into the various lesions of the cortex and the resulting aphasic impairments. An intrinsi-cally linguistic analysis discloses three dichotomies underlying those six types of aphasia which have been delineated by Luria (110) and corro-borated by observations of other contemporary neurobiologists (cf. 64). The classification of aphasic impairments based on this analysis yields a patently coherent and symmetrical relational pattern, and when we con-front this strictly linguistic framework with the anatomical data, it proves to coincide with the topography of the cerebral lesions responsible for the diverse impairments (84). The prospective development of such inter-disciplinary, "neurolinguistic" research in aphasic and psychotic speech (cf. 111; 42) will undoubtedly open new vistas for a comprehensive study of the brain and its functions as well as for the science of language and other semiotic systems. A deeper insight into the biologic foundations of language may be expected from the ongoing experience with split-brain operations (see 166). A further progress of comparative inquiry into aphasia, on the one hand, and into agraphia and alexia, on the other, must throw new light on the interrelation between spoken and written language, their ties and divergences, while general semiotic will benefit from a parallel research in language disorders and other forms of "ase-masia" (cf. 84, p. 289) such as amusia or disturbances of gestual systems.

So far almost nothing is known about the internal network of verbal communication and, in particular, about the neural stage in the output

and input of distinctive features; let us hope that in the near future neuro-biology will provide an answer to this question of primary interest for the comprehension and further study of the ultimate linguistic units. Their transmission obtains a more and more precise elucidation with the rapid progress of physical ACOUSTICS, but the discrimination of invariants and variables requires the assistance of those linguists who realize the ab-strusity of phonological patterns seen from outside and their intrinsic coherence and lucidity. A more systematic exchange of information between these two sets of scientists must further a fuller and clearer grasp of the universal laws of phonemic patterning (cf. 82). This research becomes particularly productive when results of linguistic analysis are matched with the PSYCHOPHYSICAL data, as, for instance, with the recent findings of H. Yilmaz who has disclosed a basic structural homology not only between the vowels and consonants but also between the speech sounds perceived by the human ear and the colors seen by the human eye (192).

Acoustics is the only branch of PHYSICS that shares a common subject matter with the science of language. Yet the gradual reorientations both in physics and linguistics throughout our century brought forward some crucial epistemological lessons and questions which turned out to be common to both sciences and deserve a concerted discussion. F. de Saussure still believed that "dans la plupart des domaines qui sont objets de science, la question des unités ne se pose même pas, elles sont données d'emblée" (156, p. 23); at that time linguistics seemed to its protagonists to be the only discipline having difficulties in positing its elementary units. Today similar problems have spread over various fields of knowledge. Thus, particle physics, for instance, is faced with the controversial ques-tion whether the "elementary" particles that form the nucleus are not built from even smaller discrete units labeled "quarks", and the under-lying principles of these physical and linguistic debates are of mutual interest and use also for other fields of knowledge.

Although the interaction between the object under observation and the observing subject and the dependence of the information obtained by the observer on his relative position, briefly, the inseparability of objective content and observing subject (14, pp. 30, 307), are realized nowadays both by physicists and linguists, nevertheless in linguistics all necessary inferences from this compelling premise have not yet been drawn, and, for instance, when mixing the speaker-hearer's standpoints, investigators get into difficulties. The possibility and desirability of applying Bohr's principle of complementarity in linguistics was brought out already by his

outstanding compatriot Viggo Bröndal (19), but it still awaits systematic examination. Many more examples of new, common, theoretical and methodological problems could be named, as, for example, the concepts of symmetry and antisymmetry which acquire a still more important position in linguistics and in natural sciences, as well as questions of "temporal" or "morphic" determinism and of reversible fluctuations or irreversible changes (cf. 83, pp. 527, 652). Several essential points common to sciences of communication and THERMODYNAMICS, in particular the "equivalence of negentropy and information" (18), open new prospects.

The joint seminar on physics and linguistics which we conducted with Niels Bohr over ten years ago at M.I.T. resulted in the conclusion that the contraposition of linguistics as a discipline of inferior precision to the so-called "exact" sciences and, particularly, to physics is one-sided. Actually, the *information* obtained from the outer world by the physicist consists merely of one-way "indexes", and in their interpretation he imposes upon the experience his own code of "symbols", an additional "work of imagination" (in Brillouin's parlance: 18, p. 21), whereas the code of verbal symbols actually exists and functions within any speech community as an indispensable and efficient tool in the reversible process of *intercommunication*. Consequently, the realistic investigator, a factual or virtual participant in such an exchange of communication symbols, merely translates them into a code of metalinguistic symbols and, hence, is enabled to achieve a higher verisimilitude in the interpretation of the phenomena observed.

Since, in the end, science is a linguistic representation of experience (70, p. 15), the interaction between the objects represented and the linguistic tools of representation demands control of these tools as an indispensable prerequistie for any science. This task implies an appeal for assistance to the science of language, and linguistics, in turn, is summoned to widen the scope of its analytic operations.[2]

III. SOURCES CITED

1. *Actes du Premier Congrès de Linguistes du 10-15 avril 1928* (Leiden, 1928).
2. R.D. Alexander and T.E. Moore, "Studies on the Acoustical Behavior of Seventeen-Year Cicadas", *The Ohio Journal of Science*, LVIII (1958).
3. H. Alpert, *Emile Durkheim and Sociology* (New York, 1939).
4. S.A. Altmann, "The Structure of Primate Social Communication", *Social Communication among Primates*, ed. by S.A. Altmann (Chicago, 1967).
5. D.L. Arm (ed.), *Journeys in Science* (Albuquerque, 1967).
6. G. & M. Beadle, *The Language of Life: An Introduction to the Science of Genetics* (New York, 1966).
7. G. Becking, *Der musikalische Rhythmus als Erkenntnisquelle* (Augsburg, 1928).
8. E. Benveniste, *Problèmes de linguistique générale* (Paris, 1966), Chap. II: "Coup d'œuil sur le développement de la linguistique"; Chap. X: "Les niveaux de l'analyse linguistique".
9. N. Bernštejn, *Očerki po fiziologii dviženij i fiziologii aktivnosti* (Moscow, 1966).
10. T. Bever, W. Weksel (eds.), *The Structure and Psychology of Language* (New York, 1968).
11. L. Bloomfield, *Linguistic Aspects of Science* (Chicago, 1939).
12. A.L. Blumenthal, "Early Psycholinguistic Research", see *10*.
13. P. Bogatyrev, R. Jakobson, "Die Folklore als eine besondere Form des Schaffens", *Donum Natalicium Schrijnen* (Nijmegen-Utrecht, 1929).
14. N. Bohr, *Atomic Physics and Human Knowledge* (New York, 1962).
15. E. Borel, *Leçons de la théorie des fonctions* (Paris, 1914²).
16. G. Braga, *Comunicazione e società* (Milan, 1961).
17. W. Bright (ed.), *Sociolinguistics* (The Hague, 1966).
18. L. Brillouin, *Scientific Uncertainty and Information* (New York-London, 1964).
19. V. Bröndal, *Essais de linguistique générale* (Copenhagen, 1943).
20. J. Bronowski, "Human and Animal Languages", *To Honor Roman Jakobson* (The Hague-Paris, 1967).
21. J.S. Bruner, *Toward a Theory of Instruction* (New York, 1968).
22. D. Bubrix, "Neskol'ko slov o potoke reči", *Bjuleten' LOIKFUN*, V (1930).
23. I.R. Buchler, H.A. Selby, *A Formal Study of Myth* (Austin, 1968).
24. K. Bühler, *Sprachtheorie* (Jena, 1934).
25. K. Burke, *The Rhetoric of Religion* (Boston, 1961).
25a. M. Butor, *Les mots dans la peinture* (Geneva, 1969).
26. Geneviève Calame-Griaule, *Ethnologie et langage* (Paris, 1965).
27. B.G. Campbell, *Human Evolution — An Introduction to Man's Adaptations* (Chicago, 1967²).
28. W.B. Cannon, *The Wisdom of the Body* (New York, 1932).
29. A. Capell, *Studies in Socio-Linguistics* (The Hague, 1966).
30. N. Chomsky, "The Formal Nature of Language", Appendix to *98*.
31. N. Chomsky, "The General Properties of Language", see *123*.
32. N. Chomsky, "On the Notion 'Rule of Grammar'", see *85*.
33. B.F.C. Clark and K.A. Marcker, "How Proteins Start", *Scientific American*, CCXVIII (Jan. 1968).
33a. W.A. Coates, "Near-Homonymy as a Factor in Language Change", *Language*, XLIV (1968).
34. F.H.C. Crick, "The Genetic Code", *Scientific American*, CCXI (Oct. 1962), CCXV (Oct. 1966).

35. F.H.C.Crick, "The Recent Excitement in the Coding Problem", *Progress in Nucleic Acid Research*, I (1963).
36. C.D.Darlington, *The Evolution of Genetic Systems* (New York, 1958[2]).
37. M.Davis (ed.), *The Undecidable — Basic Papers on Undecidable Propositions, Unsolvable Problems, and Computable Functions* (New York, 1965).
38. J.F.Delafresnaye (ed.), *Brain Mechanisms and Learning* — A Symposium organized by The Council for International Organizations of Medical Sciences (Oxford, 1961).
39. I.DeVore (ed.), *Primate Behavior* (New York, 1965).
40. T.Dobzhansky, *Heredity and the Nature of Man* (New York, 1964).
41. T.Dobzhansky, *Mankind Evolving* (New Haven, Conn., 1962).
42. J.Dubois, L.Irigaray, P.Marcie, H.Hécaen, *Pathologie du langage = Langages*, V (1967).
42a. M.Eden, "Inadequacies of Neo-Darwinian Evolution as a Scientific Theory", *The Wistar Symposium Monograph*, No. 5 (June, 1967).
43. A.E.Emerson, "The Evolution of Behavior among Social Insects", see *142*.
44. A.E.Emerson, "Homeostasis and Comparison of Systems", see *57*.
45. A.E.Emerson, "The Impact of Darwin on Biology", *Acta Biotheoretica*, *XV*, Pars IV (1962).
46. Susan Ervin-Tripp, *Sociolinguistics* = Working Paper No. 3, Language-Behavior Research Laboratory (Berkeley, 1967).
47. *Ethnoscience = Anthropological Linguistics*, VII, No. 8 (1966).
48. J.A.Fishman (ed.), *Readings in the Sociology of Language* (The Hague-Paris, 1968).
49. E.Freese, "The Difference between Spontaneous and Base-Analogue Induced Mutations of Phage T4", *Proceedings of the National Academy of Sciences*, XXXV (1958).
50. R.Galambos, "Changing Concepts of the Learning Mechanism", see *38*.
51. J.van Ginneken, "La biologie de la base d'articulation", *Journal de Psychologie*, XXX (1933).
52. S.Ginsburg, *The Mathematical Theory of Context-free Languages* (New York, 1966).
53. T.Gladwin, W.C.Sturtevant (eds.), *Anthropology and Human Behavior* (Washington, D.C., 1962).
54. R.Godel, *Les sources manuscrites du "Cours de linguistique générale" de F.de Saussure* (Geneva-Paris, 1957).
55. J.Goody, I.Watt, "The Consequences of Literacy", *Comparative Studies in Social History*, V (1963).
56. A.J.Greimas, "Le conte populaire russe — Analyse fonctionnelle", *International Journal of Slavic Linguistics and Poetics*, IX (1965).
57. R.R.Grinker (ed.), *Toward a Theory of Human Behavior* (New York, 1967[2]).
58. J.J.Gumperz, D.Hymes (eds.), *Directions in Sociolinguistics* (New York, 1967).
59. J.J.Gumperz, D.Hymes (eds.), *The Ethnography of Communication = American Anthropologist*, LXVI, No. 6, Part 2 (1964).
60. A.Gvozdev, *Voprosy izučenija detskoj reči* (Moscow, 1961).
61. Z.S.Harris, *Discourse Analysis* (The Hague, 1963).
62. Z.S.Harris, *Mathematical Structures of Language* (New York, 1968).
63. E.Haugen, *Language Conflict and Language Planning* (Cambridge, Mass., 1966).
64. H.Hécaen, "Brain Mechanisms Suggested by Studies of Parietal Lobes", see *123*.
65. C.J.Herrick, *The Evolution of Human Nature* (New York, 1956).
66. L.Hjelmslev, *Prolegomena to a Theory of Language* (Madison, 1961[2]).
67. C.F.Hockett, "Biophysics, Linguistics, and the Unity of Science", *American Scientist*, XXXVI (1948).

68. C. F. Hockett, "Grammar for the Hearer", see 85.
69. C. F. Hockett, R. Ascher, "The Human Revolution", *Current Anthropology* (1964).
70. E. H. Hutten, *The Language of Modern Physics* (London-New York, 1956).
71. J. S. Huxley, "Cultural Process and Evolution", see 145.
72. D. H. Hymes, "Directions in (ethno-) linguistic theory", *American Anthropologist*, LXVI (1964), No. 3, Part. 2
73. D. H. Hymes, "The Ethnography of Speaking", see 53.
74. D. H. Hymes, "Toward Ethnographies of Communication", see 59.
75. D. H. Hymes (ed.), *Language in Culture and Society* (New York-Evanston, Ill.-London, 1964).
76. A. Ivanov, L. Jakubinskij, *Očerki po jazyku* (Leningrad, 1932).
77. F. Jacob, "Genetics of the Bacterial Cell", *Science*, CLII (June 10, 1966).
78. F. Jacob, *Leçon inaugurale* faite le vendredi 7 mai 1965 (Collège de France).
79. F. Jacob, R. Jakobson, C. Lévi-Strauss, Ph. L'Héritier, "Vivre et parler", *Les Lettres Françaises*, Nos. 1221-2 (Feb. 1968).
80. R. Jakobson, "Language in Relation to Other Systems of Communication", to appear in the Reports of the Olivetti Symposium, *Languages in Society and the Technical World*.
81. R. Jakobson, "Linguistics and Poetics", see 158.
82. R. Jakobson, "The Role of Phonic Elements in Speech Perception", *Zeitschrift für Phonetik*, XXI (1968).
83. R. Jakobson, *Selected Writings*, I (The Hague, 1962).
84. R. Jakobson, *Selected Writings*, II (The Hague-Paris, 1970): "Toward a Linguistic Classification of Aphasic Impairments"; "Linguistic Types of Aphasia".
85. R. Jakobson (ed.), *Structure of Language and Its Mathematical Aspects* = American Mathematical Society, *Proceedings of Symposia in Applied Mathematics*, XII (1961).
86. F. Kainz, *Psychologie der Sprache*, I-V (Stuttgart, 1954-1962).
87. W. Kaper, *Einige Erscheinungen der kindlichen Spracherwerbung erläutert im Lichte des vom Kinde gezeigten Interesses für Sprachliches* (Groningen, 1959).
88. S. Koch (ed.), *Psychology: A Study of a Science*, VI (New York, 1963).
89. F. Korš, *Sposoby otnositel'nogo podčinenija — Glava iz sravnitel'nogo sintaksisa* (Moscow, 1877).
90. A. L. Kroeber (ed.), *Anthropology Today* (Chicago, 1953).
91. A. L. Kroeber, C. Kluckhohn, *Culture = Papers of the Peabody Museum*, XLVII, No. 1 (1952).
92. W. Labov, "The reflections of social processes in linguistic structures", see 48.
93. W. Labov, *The Social Stratification of English in New York City* (Washington, D.C., 1966).
94. J. Lacan, *Ecrits* (Paris, 1966): "Fonction et champ de la parole et du langage en psychanalyse"; Index raisonné: "L'ordre symbolique". English: *The Language of the Self* (Baltimore, 1968).
95. O. Lange, *Wholes and Parts — A General Theory of System Behavior* (Warsaw, 1962).
96. E. Leach, "Ritualization in man in relation to conceptual and social development" *Philosophical Transactions of the Royal Society of London*, B, CCLI (1967).
97. E. Leach (ed.), *The Structural Study of Myth and Totemism* (London, 1967).
98. E. H. Lenneberg, *Biological Foundations of Language* (New York, 1967).
99. A. A. Leont'ev, *Psixolingvistika* (Leningrad, 1967).
100. C. Lévi-Strauss, "L'analyse morphologique des contes russes", *International Journal of Slavic Linguistics and Poetics*, III (1960).
101. C. Lévi-Strauss, *Anthropologie structurale* (Paris, 1958).
102. C. Lévi-Strauss, *Mythologiques*, I, II, III (Paris, 1964, 1967, 1968).

103. C. Lévi-Strauss, "Social Structure", see *90* and *101*, Ch. XV.
104. C. Lévi-Strauss, "The Story of Asdiwal", see *97*.
105. C. Lévi-Strauss, *Les Structures élémentaires de la parenté* (Paris, 1949).
106. S. Lieberson (ed.), *Explorations in Sociolinguistics* (The Hague, 1966).
107. A. Ljapunov, "O nekotoryx obščix voprosax kibernetiki", *Problemy kibernetiki*, I (1958).
108. J. Locke, *Essay Concerning Humane Understanding* (1690).
109. F. G. Lounsbury, "Linguistics and Psychology", see *88*.
110. A. Luria, *Human Brain and Psychological Processes* (New York, 1966).
111. A. Luria, "Problems and Facts in Neurolinguistics", *International Social Science Journal*, XIX, No. 1 (1967).
112. A. Lwoff, *Biological Order* (Cambridge, Mass., 1965).
113. J. Lyons, R. J. Wales (eds.), *Psycholinguistics papers* (Edinburgh, 1966).
114. D. M. MacKay, "Communication and Meaning — A Functional Approach", see *128*.
115. B. Malinowski, "Culture", *Encyclopedia of the Social Sciences*; IV (1931).
116. L. Malson, *Les enfants sauvages — Mythe et réalité* (Paris, 1964).
117. S. Marcus, *Introduction mathématique à la linguistique structurale* (Paris, 1967).
118. P. Marler, "Communication in Monkeys and Apes", see *39*.
119. E. Mayr, *Animal Species and Evolution* (Cambridge, Mass. 1966).
120. D. McNeill, "Developmental Sociolinguistics", see *164*.
121. G. A. Miller, "Psycholinguistic Approaches to the Study of Communication", see *5*.
122. G. A. Miller, "Some Preliminaries to Psycholinguistics", *American Psychologist*, XX (1965).
123. C. H. Millikan, F. L. Darley (eds.), *Brain Mechanisms Underlying Speech and Language* (New York, 1967).
124. J. Monod, "From Enzymatic Adaptation to Allosteric Transitions", *Science*, CLIV (1966).
125. J. Monod, *Leçon inaugurale* faite le vendredi 3 novembre 1967 (Collège de France).
126. O. H. Mowrer, "The Psychologist Looks at Language", *The American Psychologist*, IX (1954).
127. A. Naville, *Nouvelle Classification des sciences. Etude philosophique* (Paris, 1901), Ch. V.
128. F. S. C. Northrop, Helen Livingstone (eds.), *Cross-Cultural Understanding: Epistemology in Anthropology* (New York, 1964).
129. K. P. Oakley, *Man the Tool-maker* (Chicago, 1960²).
130. C. E. Osgood, "Psycholinguistics", see *88*.
131. C. E. Osgood, T. A. Sebeok (eds.), *Psycholinguistics, A Survey of Theory and Research Problems* (Bloomington, Ind., 1965²).
132. I. Osolsobě, "Ostension as the Limit Form of Communication", *Estetika*, IV (Prague, 1967).
133. T. Parsons, "The Incest Taboo in relation to social structure and the Socialization of the Child", *British Journal of Sociology*, VII (1954).
134. T. Parsons, *Sociological Theory and Modern Society* (New York, 1967).
134a. T. Parsons, "Systems Analysis: Social Systems", *International Encyclopedia of Social Sciences* (New York, 1968).
135. J. Pelc, "Funkcjonalne podejście do semiotyki logicznej języka naturalnego" (A Function Approach to the Logical Semiotic of Natural Language), *Studia filosoficzne* (1967).
136. C. S. Peirce, *Collected Papers*, I-V (Cambridge, Mass., 1965³).
137. J. Piaget, *La psychologie, les relations interdisciplinaires et le système des sciences*, XVIIIème Congrès International de Psychologie (Moscow, 1966).

138. H. Pilch, F. Schulte-Tigges, H. Seiler, G. Ungeheuer, *Die Struktur formalisierter Sprachen* (Darmstadt, 1965).

139. C. S. Pittendrigh, "Adaptation, Natural Selection, and Behavior", see *145*.

140. E. Polivanov, *Za marksistskoe jazykoznanie* (Moscow, 1931).

141. E. Post, "Absolutely Unsolvable Problems and Relatively Undecidable Propositions", see *37*.

142. V. Propp, *Morfologija skazki* (Leningrad, 1928). English: *Morphology of the Folktale* (Austin-London, 1968²).

143. R. J. Pumphrey, "The Origin of Language", *Acta Psychologica*, IX (1953).

144. V. Ratner, "Linejnaja uporjadočennost' genetičeskix soobščenij", *Problemy kibernetiki*, XVI (1966).

145. A. Roe and G. G. Simpson (eds.), *Behavior and Evolution* (Yale Univ. Press, 1958), Ch. XVIII.

146. S. Rosenberg (ed.), *Directions in Psycholinguistics* (London, 1965).

147. A. Rosenblueth, N. Wiener, J. Bigelow, "Behavior, Purpose and Teleology", *Philosophy of Science*, X (1943).

148. F. Rossi-Landi, *Il linguaggio come lavoro e come mercato* (Milan, 1968), Ch. II.

149. F. Rossi-Landi, "Note di semiotica", *Nuova Corrente*, XXXXI (1967).

150. J. Ruesch and W. Kees, *Nonverbal Communication* (Berkeley, 1961⁴).

151. M. D. Sahlins, "The Social Life of Monkeys, Apes and Primitive Man", see *167*.

152. J. Salk, "Human Purpose — A Biological Necessity", *Bulletin of The Phillips Exeter Academy* (Exeter, N.H., June, 1961).

153. E. Sapir, *Language* (New York, 1921).

154. E. Sapir, *Selected Writings* (Berkeley, Los Angeles, 1963): "Language"; "Communication".

155. E. Sapir, "The Status of Linguistics as a Science", *Language*, V (1929).

156. F. de Saussure, *Cours de linguistique générale* (Paris, 1922²).

157. E. Schleicher, *Die Darwinsche Theorie und die Sprachwissenschaft* (Weimar, 1863).

158. T. Sebeok (ed.), *Style in Language* (New York, 1960).

159. S. Serebrjanyj, "Interpretacija 'formuly' V. J. Proppa", *Tezisy dokladov vo vtoroj letnej škole po vtoričnym modelirujuščim sistemam* (Tartuskij gos. universitet, 1966).

160. E. Sievers, "Ziele und Wege der Schallanalyse", *Stand und Aufgaben der Sprachwissenschaft — Festschrift für W. Streitberg* (Heidelberg, 1924).

161. G. G. Simpson, "Biology and the Nature of Life", *Science*, CXXXIX (1962).

162. G. G. Simpson, "The Crisis in Biology", *American Scholar*, XXXVI (1967).

163. T. Slama-Cazacu, *Introducere în psiholingvistică* (Bucharest, 1968).

163a. T. Slama-Cazacu, *Langage et contexte* (The Hague, 1961).

164. F. Smith and G. A. Miller (eds.), *The Genesis of Language — A Psycholinguistic Approach* (Cambridge, Mass.-London, 1966).

165. A. Sokolov, *Vnutrennjaja reč' i myšlenie* (Moscow, 1968).

166. R. W. Sperry, M. S. Gazzaniga, "Language Following Surgical Disconnection of the Hemispheres", see *123*.

167. J. N. Spuhler (ed.), *The Evolution of Man's Capacity for Culture* (Detroit, 1959).

168. I. Šmal'gauzen (Schmalhausen), "Čto takoe nasledstvennaja informacija?", *Problemy kibernetiki*, XVI (1966).

169. I. Šmal'gauzen (Schmalhausen), "Èvoljucija v svete kibernetiki", *Problemy kibernetiki*, XIII (1965).

170. V. Tauli, *Introduction to a Theory of Language Planning* (Uppsala, 1968).

171. W. H. Thorpe, *Bird Song* (Cambridge, 1961).

172. W. H. Thorpe, *Learning and Instinct in Animals* (London, 1963²).

173. W. H. Thorpe, "Some Characteristics of the Early Learning Period in Birds", see *38*.

174. N.Trubetzkoy, *Grundzüge der Phonologie* (Göttingen, 1962³): "Autobiographische Notizen".
175. N.Trubetzkoy, "Die phonologischen Grenzsignale", *Proceedings of the 2nd International Congress of Phonetic Sciences* (Cambridge, 1936).
176. S.Ungeheuer, "Language in the Light of Information Theory". *International Social Science Journal*, XIX (1967).
177. B.Uspenskij, "Problemy lingvističeskoj tipologii v aspekte različenija 'govorjaščego' (adresanta) i 'slušajuščego' (adresata)", *To Honor Roman Jakobson*, III (The Hague-Paris, 1967).
178. C.F.Voegelin, "A 'Testing Frame' for Language and Culture", *American Anthropologist* (1950).
179. V.Vološinov, *Marksizm i filosofija jazyka* (Leningrad, 1929).
180. L.S.Vygotsky, *Thought and Language* (New York, 1962). Original text: *Myšlenie i reč*, (Moscow, 1956).
181. C.H.Waddington, *The Nature of Life* (London, 1961).
182. C.H.Waddington, *The Strategy of the Genes* (London-New York, 1957).
183. F.Waismann, *Introduction to Mathematical Thinking; the formation of concepts in modern mathematics* (New York, 1951).
184. B.Wallace, A.M.Srb, *Adaptation* (Englewood Cliffs, N.J., 1964²).
185. J.D.Watson, *Molecular Biology of the Genes* (New York-Amsterdam, 1965).
186. H.Weyl, *Symmetry* (Princeton, N.J., 1952).
187. L.A.White, *The Evolution of Culture* (New York-Toronto-London, 1959); Ch. IV: "The Transition from Anthropoid Society to Human Society".
188. L.A.White, *The Science of Culture* (New York, 1949): "The Definition and Prohibition of Incest".
189. B.L.Whorf, *Language, Thought and Reality* (New York, 1965).
190. G.C.Williams, *Adaptation and Natural Selection* (Princeton, N.J., 1966).
191. C.Yanofsky, "Gene Structure and Protein Structure", *Scientific American*, CCXVI (May 1967).
192. H.Yilmaz, "A Theory of Speech Perception", I-II, *Bulletin of Mathematical Biophysics*, XXIX-XXX (1967-1968).
193. N.Žinkin, "An Application of the Theory of Algorithms to the Study of Animal Speech", *Acoustic Behaviour of Animals* (Amsterdam, 1963).
194. N.Žinkin, "Issledovanija vnutrennej reči po metodike central'nyx rečevyx pomex", *Izvestija Akademii pedagogičeskix nauk RSFSR*, CXIII (1960).
195. N.Žinkin, *Mexanizmy reči* (Moscow, 1958). English: *The Mechanisms of Speech* (The Hague, 1968).
196. N.Žinkin, "O kodovyx perexodax vo vnutrennej reči", *Voprosy jazykoznanija*, 1964, No. 6.
197. N.Žinkin, "Vnutrennie kody jazyka i vnešnie kody reči", *To Honor Roman Jakobson*, III (The Hague-Paris, 1967).

LANGUAGE IN RELATION TO OTHER
COMMUNICATION SYSTEMS

Edward Sapir states and it is evident that "language is the communicative process par excellence in every known society." The science of language investigates the makeup of verbal messages and of their underlying code. The structural characteristics of language are interpreted in the light of the tasks which they fulfill in the various processes of communication, and thus linguistics may be briefly defined as an inquiry into the communication of verbal messages. We analyze these messages with reference to all the factors involved, namely, to the inherent properties of the message itself, its addresser and addressee, whether actually receiving the message or merely meant by the addresser as its virtual recipient. We study the character of the contact between these two participants in the speech event, we seek to elicit the code common to the sender and to the receiver, and we try to determine the convergent traits and the differences between the encoding operations of the addresser and the decoding competence of the addressee. Finally, we look for the place occupied by the given messages within the context of surrounding messages, which pertain either to the same exchange of utterances or to the recollected past and to the anticipated future, and we raise the crucial questions concerning the relation of the given message to the universe of discourse.

When envisaging the roles of the participants in the speech event, we have to discern the several essential varieties of their interconnection, namely, the fundamental form of this relationship, the alternation of the encoding and decoding activities in the interlocutors, and the cardinal difference between such a dialogue and a monologue. A question to be studied is the increase in the "radius of communication", e.g. the multipersonal exchange of replies and rejoinders or the extended audience of a monologue which may even be addressed "to whom it may concern".

On the other hand, it becomes ever clearer for psychological, neurological, and above all, linguistic research that language is a vehicle not only for interpersonal, but also for intrapersonal communication. This field, for a long time scarcely explored or even totally ignored, faces us

now, especially after such magnificent reconnaissances as those of L. S. Vygotskij and A. N. Sokolov, with an imminent request for investigating the internalization of speech and the varied facets of inner language which anticipates, programs and closes our delivered utterances and in general guides our internal and external behavior, and which shapes the silent retorts of the tacit auditor. Among many problems seen by Charles Sanders Peirce with a much greater sagacity than by his contemporaries were the substance and pertinence of the inner dialogues between the silent sayer and "that very same man as he will be a second after". The verbal intercourse which bridges the spatial discontinuity of its participants is supplemented by the temporal aspect of verbal communication which insures the continuity of one's past, present, and future.

If among messages used in human communication the verbal ones play a dominant role, still we have to take into account also all further kinds of messages employed in human society and to investigate their structural and functional particularities without forgetting, however, that language is for all humanity the primary means of communication and that this hierarchy of communicative devices is necessarily reflected as well in all other, secondary types of human messages and makes them in various ways dependent upon language, namely, on its antecedent acquisition and on the human usage of patent or latent verbal performances to accompany or interpret any other messages. Every message is made of signs; correspondingly, the science of signs termed *semiotic* deals with those general principles which underlie the structure of all signs whatever and with the character of their utilization within messages, as well as with the specifics of the various sign systems and of the diverse messages using those different kinds of signs. This science, foreseen by philosophers of the seventeenth and eighteenth centuries and programed since the late 1860's by Charles Sanders Peirce and at the turn of the last century also by Ferdinand de Saussure under a somewhat modified label *sémiologie*, has entered at present into a period of rapid and lively international development.

Semiotic, as an inquiry into the communication of all kinds of messages, is the nearest concentric circle that encompasses linguistics, whose research field is confined to the communication of verbal messages, and the next, wider concentric circle is an integrated science of communication which embraces social anthropology, sociology, and economics. Again and again one may quote Sapir's still opportune reminder that "every cultural pattern and every single act of social behavior involves communication in either an explicit or implicit sense". It must be re-

membered that whatever level of communication we are treating, each of them implies some exchange of messages and thus cannot be isolated from the semiotic level, which in its turn assigns the prime role to language. The question of semiotic, and in particular, linguistic ingredients inherent in any pattern of human communication is to serve as a vital guideline for the forthcoming inquiry into all varieties of social communication. In fact, the experience of linguistic science has begun to be noticed and creatively utilized in modern anthropological and economic studies; creatively indeed, because the elaborate and fruitful linguistic model cannot be mechanically applied and is effectual only insofar as it does not violate the autonomous properties of any given domain.

The present author's survey of "Linguistics in Relation to Other Sciences", to appear in the Unesco volume *Main Trends in Social Research* (see above, pp. 655–696) has touched upon some questions of the relationship between the study in communication of verbal as well as other messages and the total study in communication. Here attention will be focused upon the need for classification of sign systems and corresponding types of messages, particularly with regard to language and verbal messages. Without efforts toward such a typology neither the communication of messages, nor even human communication in general can undergo a thorough scientific treatment.

Stoic doctrine viewed the essence of signs, and especially of verbal signs, in their necessarily twofold structure, namely, an indissoluble unity of an immediately perceptible *signans* and an inferable, apprehensible *signatum*, according to the ancient Latin translation of the corresponding Greek terms. In spite of the early and recent attempts to revise the traditional conception or at least to alter one of the three notions involved — *signum, signans, signatum* — this more than bimillenary model remains the soundest and safest base for the newly developing and expanding semiotic research. The multifarious relations between the signans and the signatum still offer an indispensable criterion for any classification of semiotic structures, provided that their explorer succeeds in evading two equally hazardous alternatives: on the one hand, attempts to force any semiotic pattern into the linguistic scheme without attention to the specifics of the given structure would be and are detrimental, as on the other hand, all designs to discard any common denominator for the sake of divergent properties can only damage the interests of comparative and general semiotic.

The division of signs into indexes, icons, and symbols, which was first advanced by Peirce in his famous paper of 1867 and elaborated through-

out his life, is actually based on two substantial dichotomies. One of them is the difference between contiguity and similarity. The indexical relation between signans and signatum consists in their factual, existential contiguity. The forefinger pointing at a certain object is a typical index. The iconic relation between the signans and signatum is, in Peirce's terms, "a mere community in some quality", a relative likeness sensed as such by the interpreter, e.g. a picture recognized as a landscape by the spectator. We preserve the name *symbol* used by Peirce for the third class of signs, despite the disturbing variety and even contradictoriness of meanings traditionally attached to this term; other labels used for the same concept seem no less equivocal. In contradistinction to the factual contiguity between the car pointed at and the direction of the forefinger's pointing gesture, and to the factual resemblance between this car and an etching or diagram of it, no factual proximity is required between the noun *car* and the vehicle so named. In this sign the signans is tied to its signatum "regardless of any factual connection". The contiguity between the two constituent sides of the symbol "may be termed an imputed quality", according to Peirce's felicitous expression of 1867.

Learned, conventional connections are copresent also in indexes and icons. The full apprehension of pictures and diagrams requires a learning process. No painting is devoid of ideographic, symbolic elements. The projection of the three dimensions onto a single plane through any kind of pictorial perspective is an imputed quality, and if one of two men in a picture is taller than the other, we must be familiarized with the specific tradition which enlarges either a nearer or a more important, outstanding figure or simply points out a physical difference in height. There is no question of three categorically separate types of signs but only of a different hierarchy assigned to the interacting types of relation between the signans and signatum of the given signs, and in fact, we observe such transitional varieties as symbolic icons, iconic symbols, etc.

Any attempt to treat verbal signs as solely conventional, "arbitrary symbols" proves to be a misleading oversimplification. Iconicity plays a vast and necessary, though evidently subordinate part in the different levels of linguistic structure. The indexical aspect of language, penetratingly glimpsed by Peirce, becomes a more and more relevant problem for linguistic studies. On the other hand, it is difficult to adduce a deliberate index which does not contain a symbolic and/or iconic ingredient. The typical indexical *hic et nunc* of traffic signals is combined with the conventional, symbolic signification of such opposites as green and red. Even the gesture of pointing at an object has diverse symbolic

connotations depending on the cultural frame which endows this deictic sign with such meanings as degradation, malediction, or cupidity.

Besides the diverse types of *semiosis* (= variable relationship between signans and signatum), the nature of the signans itself is of great importance for the structure of messages and their typology. All five external senses carry semiotic functions in human society. Among innumerable examples one may cite handshakes, pats on the back, and kisses for touch, perfumes and incense for smell, the selection, succession, and grading of courses and drinks for taste. Although a systematic inquiry into the semiotic aspect of these senses in diverse cultures would be full of interest and of curious discoveries, it is evident that the most socialized, abundant, and pertinent sign systems in human society are based on sight and hearing. An essential trait distinguishes auditory signs from visual ones. Within the systems of auditory signs never space but only time acts as a structural factor, namely, time in its two axes, sequence and simultaneity; the structuration of visual signantia necessarily involves space and can be either abstracted from time, as in immobile painting and sculpture, or superinduce the time factor, as in the motion picture. The prevalence of icons among purely spatial, visual signs and the predominance of symbols among purely temporal, auditory signs permit us to interconnect several criteria relevant in the classification of sign patterns and further their semiotic analysis and psychological interpretation. The two particularly elaborate systems of purely auditory and temporal signs, spoken language and music, present a strictly discontinuous, as physicists would say, granular structure. They are composed of ultimate discrete elements, a principle alien to spatial semiotic systems. These ultimate elements and their combinations and rules of patterning are special, ad hoc shaped devices.

According to the way of their production signs are to be divided into directly organic and instrumental. Among visual signs, gestures are directly produced by bodily organs, while painting and sculpture imply a use of instruments. Among auditory signs, speech and vocal music belong to the former type and instrumental music to the latter one. It is important to distinguish between instrumental production of signs and mere instrumental reproduction of organic signs. The spread of speech through phonograph, telephone or radio does not change the structure of speech rendered: the sign pattern remains the same. However, the wider diffusion in space and time does not remain without influence upon the relation between the speaker and his audience and herewith upon the makeup of messages. Thus changes in the media of oral communication and the

rise in the role of these new media can have their effect on the evolution of discourse and become a significant topic for linguistic and sociological investigation. Moreover, such technical media as telephone and radio, which deprive our auditory perceptions of visual support, could hardly remain without consequences both for the perception and for the production of transmitted verbal messages. Obviously, one cannot see a mere technical means of reproduction in such modern contrivances as the cinema, which from a mere mechanical reproduction of various visual images has swiftly changed into an intricate and autonomous semiotic system.

To the signs ad hoc produced by some part of the human body either directly or through the medium of special intruments one must add and oppose a semiotic display of ready-made objects. This use of things as signs, which the Czech inquirer into this peculiar form of communication, I. Osolsobě, has labeled *ostension*, may be illustrated by the exhibition and compositional arrangement of synecdochic samples of shop goods in show windows or by the metaphoric choice of floral tributes, e.g. a bunch of red roses as a sign of love. A particular kind of ostension is the theatric show with men as signantia (actors) of men as signata (personae).

Any sign requires an interpreter. The perspicuous type of semiotic communication involves two separate interpreters, the addresser of a message and its addressee. However, as mentioned above, inner speech condenses the addresser and addressee into one person, and the elliptic forms of intrapersonal communication are far from being confined to verbal signs alone. The mnemonic knot on a handkerchief made by Russians to remind themselves to accomplish an urgent matter is a typical example of an inner communication between the earlier and later self.

A system of conventional symbols decoded by their receiver with no intentional addresser of the message is present in various forms of divination. A traditional code of omens permits the augur to elicit believed influences upon human affairs as the signata of observed variations in the flight of birds who are only the source of such messages without being their addressers. Unintentional iconic signs are also frequent; for instance, Freud notices that certain mushrooms easily evoke a phallic image. It is probable that in certain cases such a simile may be defined, in Peirce's terminology, as a *symbolic* icon engendered or at least supported in the individual's imagination by a metaphoric association alive in the oral tradition (cf. the mycological label *phallus impudicus*).

Indexes present the widest field of signs interpreted by their receivers

without the existence of any intentional sender. Tracks were not purposely left by animals for the hunter's use but nevertheless serve as signantia enabling him to infer their signata and thus to identify the kind of prey as well as the direction and recentness of its passage. In a similar way symptoms of diseases are used as indexes by the physician; hence *semiology* (alias symptomatology), a branch of medicine concerned with signs which indicate and specify a physical disturbance, could be included into the scope of semiotic, the science of signs, if one follows Peirce in treating also mere unintended indexes as a subspecies of a vaster semiotic class. The need for their interpretation as something that serves to infer the existence of something else (*aliquid stat pro aliquo*) makes the unwitting indexes into a variety of signs, but we must consistently take into account the decisive difference between *communication* which implies a real or alleged addresser and *information* whose source cannot be viewed as an addresser by the interpreter of the indications obtained.

Language is an example of a purely semiotic system. All linguistic phenomena — from the smallest components to entire utterances and their interchange — act always and solely as signs. The study of signs, however, cannot be confined to such exclusively semiotic systems but must take into consideration also applied semiotic structures, as for instance, architecture, dress, or cuisine. On the one hand, it is true that we do not dwell in signs but in houses, and on the other hand, it is likewise evident that builders' tasks are not limited merely to providing us with dens and shelters. In the constructive principles of any architectural style, particularly in their organization of three-dimensional space, patent or latent displays of semiosis find expression. Any edifice is simultaneously some sort of refuge and a certain kind of message. Similarly, any garment responds to definitely utilitarian requirements and at the same time exhibits various semiotic properties, as was thoroughly shown in the pioneering monograph of P. G. Bogatyrev on the sign pattern of Slovak folk dress. A historical and geographical study of fashions and culinary art from a semiotic standpoint could lead to many revealing and surprising typological conclusions.

The cardinal functions of language — referential, emotive, conative, phatic, poetic, and metalingual — and their different hierarchy in the diverse types of messages have been outlined and repeatedly discussed. This pragmatic approach to language must lead *mutatis mutandis* to an analogous study of the other semiotic systems: with which of these or other functions are they endowed, in what combinations and in what hierarchical order? Semiotic structures with a dominant poetic function

or (to avoid the term relating chiefly to verbal art) with a dominant esthetic, artistic function present a particularly gratifying domain for comparative typological investigation.

In previous studies of the present author an attempt was made to delineate the two fundamental factors which operate on any level of language. The first of these factors, *selection*, "is produced on the base of equivalence, similarity and dissimilarity, synonymity and antonymity", while the second, *combination*, the buildup of any chain, "is based on contiguity". When pursuing the role of these two factors in poetic language, it became clear that "the poetic function projects the principle of equivalence from the axis of selection onto the axis of combination. Equivalence is promoted to the constitutive device of the sequence".

Nicolas Ruwet, who combines a keen sense for language, especially verbal art, with a rare scientific insight into music, states that musical syntax is a syntax of equivalences: the diverse units stand in mutual relations of multiform equivalence. This statement prompts a spontaneous answer to the intricate question of musical semiosis: instead of aiming at some extrinsic object, music appears to be *un langage qui se signifie soi-même*. Diversely built and ranked parallelisms of structure enable the interpreter of any immediately perceived musical signans to infer and anticipate a further corresponding constituent (e.g., series) and the coherent ensemble of these constituents. Precisely this interconnection of parts as well as their integration into a compositional whole acts as the proper musical signatum. Should one cite the plentiful corroborative testimony given by composers of the past and present? Or Stravinsky's conclusive aphorism may suffice: "All music is nothing more than a succession of impulses that converge toward a repose". The code of recognized equivalences between parts and their correlation with the whole is to a great degree a learned, imputed set of parallelisms which are accepted as such in the framework of a given epoch, culture, or musical school.

Several inferences can be drawn. The classification of relations between signans and signatum outlined at the beginning of the present paper posited three basic types: factual contiguity, imputed contiguity, and factual similarity. However, the interplay of the two dichotomies — contiguity/similarity and factual/imputed — admits a fourth variety, namely, imputed similarity. Precisely this combination becomes apparent in musical semiosis. The introversive semiosis, a message which signifies itself, is indissolubly linked with the esthetic function of sign systems and dominates not only music but also glossolalic poetry and nonrepresenta-

tional painting and sculpture where, as Dora Vallier states in her monograph *L'Art Abstrait* (1967), *chaque élément n'existe qu'en fonction du reste*. But elsewhere in poetry and in the bulk of representational visual art the introversive semiosis, always playing a cardinal role, coexists and coacts nonetheless with an extroversive semiosis, whereas the referential component is either absent or minimal in musical messages, even in so-called program music. What has been said here about the absence or scantiness of the referential, conceptual component does not discard the emotive connotation carried by music or by glossolalia and nonrepresentational visual art. Sapir's question remains opportune: "Does not the very potency of music reside in its precision and delicacy of expression of a range of mental life that is otherwise most difficult, most elusive of expression?"

The study of communication must distinguish between homogeneous messages which use a single semiotic system and syncretic messages based on a combination or merger of different sign patterns. We observe specific habitual types of such combinations. Anthropology is faced with the task of comparative inquiry into traditional syncretisms and their spread in the ethnic cultures of the entire world. Apparently, we hardly find primitive cultures without poetry, but it seems that some of these cultures have no spoken but only sung verse; and, on the other hand, vocal music seems to be more widespread than instrumental music. Thus syncretism of poetry and music is perhaps primordial as compared to poetry independent of music and to music independent of poetry. Bodily visual signs display a propensity toward a combination with auditory sign systems: manual gestures and facial movements function as signs supplementary to verbal utterances or as their substitutes, whereas movements involving the legs and the bulk of the body seem to be prevalently and in some ethnic cultures exclusively tied to instrumental music. Modern culture develops the most complex syncretic spectacles, such as musicals and in particular cinematic musicals, making joint use of several auditory and visual semiotic media.

Signals are a special type of signs to be distinguished from other sign patterns. A signal, like all other kinds of signs, carries its signatum, but in contradistinction to other signs, signals, even if they pertain to a wider code of freely selectable units, cannot be combined by their addresser into a novel semiotic construction. All the combinations of simple signals, if the system comprises not only simple but also compounds signals, are prescribed by the code, so that the corpus of possible messages is tantamount to the code. The semiosis of signals assigns them either to indexical symbols or to indexical icons. Signals may be both spatial and temporal,

both visual and auditory. They display diversified uses in social communication; let us mention a few examples, such as badges and other insignia, trade marks, stamps, emblems, coats of arms, banners, ensigns, traffic signals, flares, warning sounds, and horn beeps.

Finally, systems capable of building propositions are to be distinguished from all other semiotic types practiced in human society. In contradistinction to such propositional systems, which include language and variform superstructures upon language, all other systems may be labeled idiomorphic, since their makeup is relatively independent of linguistic structure, though the rise and use of these systems imply the presence of language. Within the class of propositional systems spoken language is the basic pattern which — both ontogenetically and phylogenetically — takes precedence over all other systems of this class. Two typical substitutes, due partly to an occasional need for farther audibility, partly to ritual purposes, are transpositions of speech into whistling or into drum beats, the former directly organic, the other instrumental; in each of these patterns their common substructure, ordinary speech, undergoes an elliptic selection of features to be retained.

The most important transposition into another medium is writing, which insures a greater stability and an accessibility to addressees distant in space and/or time. Whether written characters in a given system render single phonemes, syllables, or entire words, as a rule they function as signantia for the corresponding — lower or higher — units of spoken language. Nonetheless, as it was realized throughout the age-old history of linguistics and as it has been particularly stressed and demonstrated by the phonologists of the Prague Linguistic Circle, the graphemic aspect of language displays remarkable degrees of relative autonomy. Written language is prone to develop its peculiar structural properties so that the history of two chief linguistic varieties, speech and letters, is rich in dialectical tensions and alternations of mutual repulsions and attractions. During the last decades the former diffusive dominance of the written and printed word has met the ever stronger competition of oral speech broadcasted by radio and television. The decisive difference between listeners and readers and correspondingly between speaking and writing activities lies in the transposition of the verbal sequence from time into spatial signs which strongly attenuates the one-way character of the speech flow. While the hearer's synthesis of a sequence is made after its elements have vanished, for the reader *verba manent* and he may return from what follows to what preceeds. Nevertheless, even after the substitution of internalized, silent reading for the mandatory out loud performances of a

novice, the skilled reader forever retains a latent motor accompaniment, as recent experiments have proved.

Formalized languages which serve for various scientific and technical purposes are artificial transforms of natural language, in particular, of its written variety. Elena V. Padučeva, one of the most acute linguistic inquirers into the opaque and irrational forms of natural language, brings to light many salient cases, as for instance, the semantic indefiniteness of the sentence, "Peter's and John's friends have arrived", which can signify either Peter's separate friend(s) plus John's separate friend(s) or their common friends alone, or finally, their common friend(s) plus separate friend(s). But the creativity of natural language depends precisely on its specific reticent capacity for avoiding superfluous minutiae and on the compliance of its meanings with the textual constraint. Just these semantic variables, farsightedly outlined in the Schoolmen's quest for the scale of *suppositiones*, insure the so-called "context sensitivity" which specifies the constituents of natural language.

The uniqueness of natural language among all other semiotic systems is manifest in its fundamentals. The properly generic meanings of verbal signs become particularized and individualized under the pressure of changeable contexts or of nonverbalized but verbalizable situations.

The exceptionally rich repertoire of definitely coded meaningful units (morphemes and words) is made possible through the diaphanous system of their merely differential components devoid of proper meaning (distinctive features, phonemes, and the rules of their combinability). These components are semiotic entities *sui generis*. The signatum of such an entity is bare otherness, namely a presumable semantic difference between the meaningful units to which it pertains and those which *ceteris paribus* do not contain the same entity.

A rigorous dualism separates the lexical and idiomatic, totally coded units of natural language from its syntactic pattern which consists of coded matrices with a relatively free selection of lexical units to fill them up. A still greater freedom and still more elastic rules of organization characterize the combination of sentences into higher units of discourse.

Both lexical and grammatical tropes and figures and the compositional devices which govern the art of dialogues and monologues find their closest analogue in the rhetorical machinery of the cinema where the ostension displaying theatrical and casual personnel and scenery appears to be transformed into an effective narrative by the diversity of shots (filmic tropes), by the selective cuts of the cameraman and of the editor, and by the compositional rules of montage.

If the motion picture competes with the craft of verbal narration, there is one substantial type of syntactic structure which only natural or formalized languages are able to generate, namely, judgments, general and especially equational propositions. It is in this asset that language deploys its supreme power and significance for human thought and cognitive communication.

RETROSPECT

RETROSPECT

Were we to comprise the leading idea of present-day science in its most various manifestations, we could hardly find a more appropriate designation than *structuralism*. Any set of phenomena examined by contemporary science is treated not as a mechanical agglomeration but as a structural whole, and the basic task is to reveal the inner, whether static or developmental, laws of this system. What appears to be the focus of scientific preoccupations is no longer the outer stimulus, but the internal premises of the development; now the mechanical conception of processes yields to the question of their functions. Therefore immanent structural considerations of language and literature were predestined to take a prominent place in the debates of the [Prague International Slavistic] Congress, and a paragraph devoted to structural linguistics naturally entered into the resolution of the Congress plenum. The Prague Linguistic Circle, which has faced the Congress with a whole set of problems of structural linguistics, unites a number of young Czech and German researchers from Czechoslovakia as well as several young Russian linguists. The activities of the Prague Linguistic Circle are not a work of an isolated group, but are closely linked with the contemporary streams of Western and Russian linguistics. One must, moreover, take into account the relationship between these activities and the international linguistic life of our time, in particular, such events as the methodological achievements of French linguistics, the fertile crisis of German science, and the endeavors towards a synthesis of two schools, one of which had been founded by the Pole Baudouin de Courtenay and the other by the Russian F. F. Fortunatov... There were no substantial objections to the theses defended by the Circle at the Congress, and especially the resolution about the tasks of Slavic structural linguistics was accepted unanimously. If, however, it had been submitted to a secret ballot, it would have certainly provoked a few votes against it. Such was, at least, the impression gained from talks in the corridors. But, as a matter of fact, do the votes against mean much when they are devoid of any attempt towards argumentation? Such silent voices belong to those who realize that the recognition of the principles of structural linguistics generates the necessity for fundamental changes in the field of synchrony, in linguistic history and geography, and in the description of literary languages, whereas such a thorough reorganization does not suit the adversaries' temperament. Hence it is a resistance of a psychological rather than logical nature. Due to a weaker methodological elaboration of literary studies as compared to linguistics, these studies are in danger of a lengthier crisis and the transitional stage in

literary scholarship threatens with an inundation of hopeless attempts at some eclectic solution; but essentially Slavic literary studies are undergoing an evolution parallel to the development of Slavic linguistics.

<div style="text-align: right">(Czech weekly ČIN, October 31, 1929).</div>

Although the Biblical span of forty years separates us from the First International Congress of Slavists which gathered in Prague, October, 1929, the vistas of this historic assembly hastily sketched in its above account still remain opportune.

At first glance, linguistic theory of our time seems to offer a stunning variety and disparity of clashing doctrines. As any age of innovative experimentation, the present stage of reflections on language has been marked by intensive contentions and tumultuous controversies. Yet a careful, unprejudiced examination of all these sectarian creeds and vehement polemics reveals an essentially monolithic whole behind the striking divergences in terms, slogans, and technical contrivances. To use the distinction between deep and superficial structures that is current today in linguistic phraseology, one may state that most of these allegedly irreconcilable contradictions appear to be confined to the surface of our science, whereas in its deep foundations the linguistics of the last decades exhibits an amazing uniformity. This communality of basic tendencies is particularly impressive in comparison with the substantially heterogeneous tenets that characterized some earlier epochs of this discipline, in particular, the nineteenth and the early years of the twentieth century. Factually, most of the recent discord is based in part on dissimilarities in terminology and style of presentation and partly upon a different distribution of linguistic problems chosen and pointed out by single scholars or teams of inquirers as the most urgent and important. Indeed, sometimes such selection amounts to a rigid confinement of research and to an abstention from the topics that have been ruled out.

At present, different sciences display similar phenomena. In the same way that general topology underlies and encompasses a wide range of mathematical approaches, also the manifold treatments of language reflect merely the plurality of its aspects that are in complementary relation with each other. This view is beginning to gain ground among experts. Thus, Noam Chomsky emphasizes the necessity for a synthesis between those major linguistic currents, one of which "has raised the precision of discourse about language to entirely new levels", while the other is "devoted to abstract generalization" (*Language and Mind*, New York, 1968).

The inquiry into the verbal structure is the undeniable aim of contem-

porary linguistics in all its varieties, and the cardinal principles of such a structural (or in other terms, nomothetic) approach to language that are common to all the shades and sectors of this research may be defined as the conjugate ideas of invariance and relativity. The habitual bias branded by Edward Sapir as a "dogged acceptance of absolutes" which "fetters the mind and benumbs the spirit", was gradually overcome. The scrutiny of the verbal system demanded an ever deepening insight into its intrinsic coherence and into the strictly relational and hierarchical nature of all its constituents, instead of their mechanical itemization condemned by the pioneers of a structural approach to language. The next indispensable request was a similar insight into the general laws governing all verbal systems and, finally, into the interconnection between these implicational laws. Thus, the elicitation and interpretation of the entire linguistic network – or, in remodeled wording, "the concern for explanatory adequacy" – has been the dominant theme of the movement that took shape during the interwar period under the label "structural linguistics", coined in Prague in 1928–29.

Sometimes a parochial overestimation of strive and factiousness threatens to distort the developmental history of linguistics from the first world war until its present state. In particular, the inflationary myth of gradual revolutions allegedly experienced by the science of language throughout this period arbitrarily assigns certain strivings and ideas to single phases of this period. Hence, for example, the structural trend in general linguistics which took root with the International Congresses of the late twenties and early thirties is now being reproved for its supposed estrangement from philosophy, whereas in reality the international protagonists of this movement had close and effective connections with phenomenology in its Husserlian and Hegelian versions. In the Moscow Linguistic Circle of the early twenties, continuous and ardent debates led by Gustav Špet – in Husserl's opinion, one of his most remarkable students – were concerned with the linguistic use of the *Logische Untersuchungen* and especially with Edmund Husserl's and Anton Marty's avowed and suggestive return to "the thought of a universal grammar conceived by the rationalism of the seventeenth and eighteenth centuries" and anticipated by the medieval philosophers of language. T. G. Masaryk and Marty, both of whom, like their friend Husserl, had been molded in F. Brentano's school, exerted a wholesome influence on their auditor, Vilém Mathesius, the later founder of the Prague Linguistic Circle, where Husserl's ideas and his memorable personal address of November 11, 1935 – "Phänomenologie der Sprache" – met with a responsive

welcome. *Acta Linguistica*, published by the Linguistic Circle of Copenhagen, were inaugurated in 1939 by Viggo Bröndal's editorial article, which treats the structure of language "comme objet autonome et par conséquent comme non-dérivable des éléments dont elle n'est ni l'agrégat ni la somme; c'est pourquoi il faut considérer l'étude des systèmes possibles et de leur forme comme étant de la plus grande importance." It is significant that Bröndal's essay developing this thesis ends with a reference to "Husserl's penetrating meditations on phenomenology" as an inspiring source. Hendrik Pos, the Dutch disciple of Husserl (1898–1955), has taken a prominent part in advancing the phenomenology of language and the theory of structural linguistics (see the list of this author's publications in his *Verspreide Geschriften*, II (1958)).

Hegelian phenomenology and dialectics, too, left a manifest imprint on the formation of structural linguistics. One could again refer to the mentioned groups and individual searchers. Emile Benveniste's preface to *Origines de la formation des noms en indo-européen* (1935) begins with a reminder: "De fait, on ne va guère au delà de la constatation. L'effort considérable et méritoire, qui a été employé à la description des formes, n'a été suivi d'aucune tentative sérieuse pour les interpréter." This foreword ended with an appeal to Hegel's beneficial proposition: "Das Wahre ist das Ganze." Subsequently, in his contribution to the inaugural issue of *Acta Linguistica* the sagacious French inquirer conceived "la *nécessité* dialectique des valeurs en constante opposition" as the chief structural principle of language.

It was, one may say, the most prescient forerunner of modern linguistics among scholars of the late nineteenth century, Mikołaj Kruszewski, who in 1882 wrote to Jan Baudouin de Courtenay that in addition to the extant science of language it is necessary to establish and develop "a new one, more general" and definable as "a certain kind of phenomenology of language". According to the proponent, "the permanent foundations of such a science are to be found in language itself" (see above pp. 405, 434). The young linguist must have detected the concept of phenomenology in Eduard von Hartmann's *Phänomenologie des Unbewussten* (1875), which H. Spiegelberg's History of The Phenomenological Movement (1965) views as "an isolated landmark on the way from Hegel to Husserl". Kruszewski's earlier statements disclose that it was the "unconscious character" of linguistic processes which evoked his "magnetic attraction" to the logic of language and to the problem of general linguistic laws (see above, p. 431). Although Hartmann's book was disapproved by Kruszewski as "tedious, boring" and unfit in its

conception of subliminal processes, certain items in Hartmann's chapter on language are akin both to Kruszewski's search and to the lines of modern linguistic theory, in particular, the philosopher's insistence on the universality of the nuclear grammatical categories (*Grundformen*) as an "unbewusste Schöpfung des Genius der Menschheit", and his commendation of Wilhelm von Humboldt's teaching on language and mind. Kruszewski, in turn, pointed to the "eternal creativity of language" with an enforcing reference to Humboldt (*Očerk nauki o jazyke*, 1883). In his address to the Second International Congress of Linguists (1931), Mathesius presented the Humboldtian doctrine of language as a substantial constituent of "functional and structural linguistics"; and – in a posthumous volume of inspiring precepts – one of the first French representatives of this movement, Lucien Tesnière, extolling Humboldt as "un esprit universel hautement cultivé et armé en particulier d'une culture scientifique approfondie", blamed the neogrammarian tradition which underrated this great spirit and which gave preference to "un simple technicien de la grammaire comparée comme Bopp" (*Éléments de syntaxe structurale*, 1959). Thus, the recent restitution of Humboldtian thoughts (G. Ramišvili, N. Chomsky) has merely strengthened a tendency which had been inherent in structural linguistics.

The legend of a "militant anti-psychologism", allegedly proper to this movement, is based on several misunderstandings. When phenomenologically oriented linguists resorted to the slogans of anti-psychologism, they used this term in the same way as Husserl did when he opposed a model of a new, phenomenological psychology with its fundamental concept of intentionality to the orthodox behaviorism and to other varieties of stimuli-responses psychology. (See particularly his lectures of 1925 – *Phänomenologische Psychologie – Husserliana*, IX). This Husserlian model and kindred psychological orientations met with vivid interest among linguists and with their readiness to cooperate as well.

One may recollect the contact and convergences between the research of F. de Saussure and E. Claparède, the explorer of parts and wholes, as well as N. S. Trubetzkoy's fruitful discussions with Karl Bühler and the assiduous attention which linguists of the two hemispheres paid to the progress of Gestalt psychology. What seems to remain particularly instructive, are warnings of both American experts in the relationship between language and mind, E. Sapir and B. L. Whorf, to the gestaltists who, as far as language is concerned, rather "let the matter drop" since they "have neither the time nor the linguistic training required to penetrate this field" and since "their ideas and terminology inherited from the

old laboratory psychology are a liability rather than an asset" (Whorf, *Language, Thought, and Reality*, 1956). In a similar way, Sapir, although aware that linguistics was destined to have a special value for configurative psychology, suspected that "a really fruitful integration of linguistic and psychological study lies still in the future", because linguistics is one of the most intricate fields of inquiry for psychologists ("The Status of Linguistics as a Science", *Language*, V, 1929). Finally, our links with the so-called Prague school of psychology and with its initiator, C. von Ehrenfels, the first propounder of the focal concept and label *Gestalt*, certainly left their imprint on the upgrowth of the Prague Linguistic Circle.

The only offshoot of modern linguistics which the allegations of antiphilosophical, antimentalist, and antisemantic bent really suit has been the linguistic activity of the so-called mechanists, (as labeled in L. Bloomfield's *Language*, 1933, Ch. 9), a group of American linguists influential mainly in the forties but now nearly vanishing. The rigorously restrictive problem of mechanistic investigation may be interpreted, however, as a set of useful reductionist experiments, irrespective of the philosophical credo of the experimentalist. At any rate, despite all the particularities of this regional team which separate it from all the other groups of linguists in the present-day world, the analysis of linguistic structures is the common denominator of all the contemporary scientific currents; and this persisting trait sharply distinguishes the linguistic research of the last four or five decades from the main routes and targets of the anterior period. Ernst Cassirer's view of "Structuralism in Modern Linguistics" deployed before the Linguistic Circle of New York on February 10, 1945, raised the adequate slogan "structuralism versus mechanism" and interpreted structuralism as "the expression of a general tendency of thought that, in these last decades, has become more and more prominent in almost all fields of scientific research" (*Word*, I).

The late nineteenth and very early twentieth centuries were marked by a continuous upsurge of comparative historical studies. At the same time, however, tentative writings of lone seekers in different countries reveal the first, precursory inklings of a prospective, structural approach to language. These anticipations and efforts culminate in Ferdinand de Saussure's *Cours de linguistique générale*, a posthumous edition of 1916 arranged by Ch. Bally and A. Sechehaye on the basis of students' records. The five subsequent decades have witnessed an unprecedented, strenuous rise and capital revision of the linguistic science, and the clearest way to point out the essential innovations will be to confront them with the

Saussurian doctrine, which has been viewed as the start of a new era in the science of language.

Most of the cardinal theoretical concepts and principles introduced by Saussure go back to his older contemporaries, Baudouin de Courtenay and Kruszewski; but in the *Cours* some of these notions were presented in a more perspicuous and expanded manner, and an effective emphasis was placed on the mutual solidarity of the system and its constituents, on their purely relative and oppositive character, and on the basic antinomies which we face when we deal with language. It must be added, however, that the factual analysis of linguistic systems was a task passed on to the future researchers, and the elaboration of the most appropriate methods for such an analysis has become a vital question of linguistic theory and praxis for several decades.

The consistent attention focused upon the antinomies "qu'on rencontre dès qu'on cherche à faire la théorie du langage" is one of the greatest assets of the *Cours*. It was important to realize these dichotomies, but as long as they remained unresolved, the wholeness and unity of linguistics was imperiled. In Husserl's terms, "Halbheiten oder unzulässige Verabsolutierungen von nur relative und abstraktiv berechtigten Einseitigkeiten" had to be overcome, and gradual efforts to bridge and synthesize these "inner dualities" actually mark the post-Saussurian stage of linguistics.

At the very end of his scientific activities, Saussure adopted the Stoic conception of the twofold verbal sign composed of the perceptible *signans* and the intelligible *signatum*. He realized that these two elements are intimately united "et s'appellent l'un l'autre", but taught that the bond between the *signans* and *signatum* is arbitrary and that "the whole system of language is based on the irrational principle of the arbitrariness of the sign". This assumption has been submitted to a gradual revision whereby the role of relative, grammatical motivation as invoked by Saussure to restrict the arbitrariness of the connection between the two aspects of the verbal sign proved to be quite insufficient. Inner, iconic ties of the *signans* to its *signatum* and, in particular, intimate connections between grammatical concepts and their phonological expression cast doubt on the traditional belief in "the arbitrary nature of the linguistic sign" maintained in the *Cours*. In post-Saussurian linguistics the question of relationship between the *signans* and *signatum* has been extended also to the phonological aspect of language, and the entangled questions of interplay between the phonological and grammatical levels as well as of their mutual demarcation have come to the foreground of linguistic

attention. The essential difference between the phonological oppositions which are rooted in the *signans* and the grammatical oppositions founded in the *signatum* has been apprehended.

"The linearity of the *signans*", which was decreed by Saussure to be a self-evident fundamental principle fraught with incalculable consequences for the science of language, has been shaken by the dissociation of phonemes into their concurrent components ("distinctive features"); and, on the other hand, the question of the successive order in the structure of the *signatum* regains the importance it had in the classical age, and the increasing attention to the hierarchy of immediate constituents has removed the shortcomings of the former, straightforward approaches to the sequence. Saussure's remarks on the irrelevance of the "substance" in which the linguistic form is expressed and on the arbitrariness of the relation between form and substance were put to the test, and have finally yielded to a hierarchical view of primordial speech and its graphic substitutes and to a tenacious request for an exhaustive, comparative inquiry into the distinct autonomous properties of the oral and written varieties of language; sound patterns utilized for the building up of meaningful distinctions proved to be based on a semiotic selection and adaptation of natural phonic means; a typology of the extant phonological systems based on a strictly relational standpoint was attempted, and implicational laws of universal validity were inferred from it. A grammatical (morphological and syntactic) typology proves to be the next urgent task of such an inquiry, with a watchful attention to the multiple structural interrelations between these two dissimilar levels.

The Saussurian inner duality of *langue* and *parole* (which mirrors the synonymous distinction of *jazyk* and *reč'* launched by Baudouin de Courtenay in 1870: see above, p. 411) or, to use a modern, less ambiguous terminology, 'code' (Saussure's *code de la langue*) and 'message' – alias 'competence' and 'performance' – gives rise to two divergent approaches within the same section of the *Cours*: "Sans doute, ces deux objets sont étroitement liés et se supposent l'un l'autre", and, on the other hand, the author claims the impossibility of grasping "le tout global du langage", insists on a strict bifurcation of the inquiry into *langue* and *parole*, and even declares the former as the sole object of linguistics proper. Although this restrictive program still finds its theoretical adherents, in fact the absolute separation of the two aspects turns into a recognition of two different hierarchic relations: an analysis of the code with due regard for the messages, and vice versa. Without a confrontation of the code with the messages, no insight into creative power of language can be achieved.

Saussure's definition of *langue* as "la partie sociale du langage, extérieure à l'individu" in opposition to *parole* as a mere individual act does not consider the existence of a personal code which removes the temporal discontinuity of the single speech events and which confirms the preservation of the individual, the permanence and identity of his ego; nor does he take into account the interpersonal, social, mutually adaptive nature of the "circuit de la parole" which implies the participation of at least two individuals.

The uniformity of the code, "sensibly the same" for all the members of a speech community, posited by the *Cours* and still recalled from time to time, is but a delusive fiction; as a rule, everyone belongs simultaneously to several speech communities of different radius and capacity; any overall code is multiform and comprises a hierarchy of diverse subcodes freely chosen by the speaker with regard to the variable functions of the message, to its addressee, and to the relation between the interlocutors. In particular, the subcodes offer a scale of transforms ranging from explicitness to the gradual degrees of phonological, grammatical, and narrational ellipsis. When one-sided concentration on the cognitive, referential function of language gave way to an examination of its other, likewise primordial, underivable functions, the problems of the code-message relationship showed much greater subtlety and multivalence.

La langue, according to the *Cours*, "must be studied in itself", and it "never requires premeditation" on the part of speakers. The new rapid progress of applied linguistics with such items as language planning and policy, language teaching, communication engineering, etc., is a natural and predictable offshoot of the modern goal-oriented linguistic thought, but it remains alien to Saussure's view of linguistic science and to the predominant scholarly ideology of his time.

Saussure obviously followed Kruszewski in teaching that the 'generative' operations of language involve two kinds of relations – one, relying upon selection, was characterized by him as 'associative', 'intuitive', or 'paradigmatic', while the other, based on combination, was named 'syntagmatic' or 'discursive' (see above, pp. 421, 435ff., 447f.). The terms 'paradigmatic' and 'syntagmatic' have entered into general use, but the interpretation of these two notions and of their interdependence has undergone substantial changes. The *Cours* affirmed that the members of a paradigmatic series have no fixed order "et c'est par un acte purement arbitraire que le grammairien les groupe d'une façon plutôt que d'une autre"; at present, however, this agnostic habit is being supplanted by an insight into the objective stratification within any series which displays a

set of correlations between the lack and presence of 'markedness' or, in a different formulation, between *relatively* nuclear ('deep') and accessory, secondary structures.

For Saussure, syntax "rentre dans la syntagmatique", and no clear-cut boundary between facts of *langue* and *parole* may be found in syntactic structures. The linguistics of today has exhibited a lucid distinction between the totally coded words and the coded matrices of the sentences; so-called transformational grammar may be viewed as an auspicious extension of a paradigmatic analysis to the sphere of syntax. The dual system of syntagmatic and paradigmatic solidarities proves to be applicable also to the developing studies in the makeup of multi-sentential utterances and dialogues. The philological hermeneutic of entire texts enters gradually into the orbit of linguistics; the chasm 'between the two sciences' – linguistics and philology – signaled in the *Cours* becomes obliterated; and on the level of discourse the question of relationship between the *signans* (expressed) and the *signatum* (meant) obtains a new face and relevance. Even in comparative historical studies V. V. Ivanov and V. N. Toporov have raised the timely question of extending the reconstructive methods from grammatical and lexical forms to entire texts.

With the widening and deepening of paradigmatic analysis, the interconnection between grammatical 'processes' and 'concepts', in terms of Sapir's *Language* (1921), assumes even greater importance, and properties of different grammatical levels prove again and again to play a pertinent role in semantic interpretation. The heightened interest in the manifold questions of context enables us to take up the pivotal, yet long neglected, question of linguistic – both grammatical and lexical – semantics, namely the relation of contextual meanings to the general meaning. Semantic analysis of language finds a powerful support in the study of metalinguistic messages, which were until recently dismissed. The pervasive grammatical as well as lexical difference between intrinsic and contextual meanings, which used to be either disregarded or misinterpreted, finally comes to the foreground.

The distinction between two linguistic attitudes – synchronic and diachronic – was clearly outlined and exemplified by Baudouin de Courtenay throughout the last third of the nineteenth century (see above, pp. 398f., 406f., 437f). Influenced by Brentano's lectures on descriptive psychology as a new and guiding discipline to supplement the traditional field of genetic psychology, Marty and Masaryk in the middle eighties advocated the need for a synchronic description as the first and chief

linguistic task and as an indispensable prerequisite to the history of language (see above, p. 471 f.). According to Saussure's *Cours*, the inner duality of synchrony and diachrony threatens linguistics with particular difficulties and calls for a complete separation of the two facets: what can be investigated is either the coexistent relations within the linguistic system "d'où toute intervention du temps est exclue" or single successive changes without any reference to the system. In other words, Saussure anticipated and announced a new, structural approach to linguistic synchrony but followed the old, atomizing, neogrammarian dogma in historical linguistics. His fallacious identification of two oppositions – synchrony *versus* diachrony, and statics *versus* dynamics – was refuted by post-Saussurian linguistics. The start and finish of any mutational process coexist in the synchrony and belong to two different subcodes of one and the same language. Hence, no changes can be understood or interpreted without reference to the system which undergoes them and to their function within this system; and, vice versa, no language can be fully and adequately described without an account of its changes in progress. Saussure's "absolute prohibition to study simultaneously relations in time and relations within the system" is losing its validity. Changes appear to pertain to a dynamic synchrony.

The diachronic linguistics of today examines the succession of dynamic synchronies, confronts them, and, in this way, delineates the evolution of a language in a wider historical perspective, with due attention not only to the mutability of the linguistic system but also to its immutable, static elements. The concentration upon the system and the application to diachrony of the same analytic principles as those employed in synchrony has enabled the diachronic research of our time to achieve impressive results in the field of internal reconstruction; and, on the other hand, when focusing upon the historical stratification of linguistic systems, explorers observe new, significant affinities between this stratification and the synchronic patterning of languages. Present-day linguistics could hardly adhere to the reminder which was quite opportune half a century ago, when it was necessary to emphasize and to set the tasks of descriptive linguistics: "L'opposition entre le diachronique et le synchronique éclate sur tous les points."

In Saussure's opinion, as soon as we approach the question of spatial relations of linguistic phenomena, we leave 'internal' and enter 'external' linguistics. However, the entire development of linguistic geography, areal linguistics, and study of affinities between adjacent languages: this all compels us to consider the spatio-temporal pattern of verbal operations

as the integral part of each 'idiosynchronic' system, corresponding to Saussure's coinage. The assiduous fieldwork of contemporary linguists has prompted the conclusion that the code used by any representative of a given language or dialect is convertible: it involves different subcodes compliant with the extant variations in the radius of communication. It becomes ever clearer that the code as well as the circuit of messages exhibits a perpetual interplay of conformism and nonconformism (or, in Saussure's terms, *force unifiante* and *force particulariste*) both in the spatial and in the temporal aspects of language. The tendency of the *Cours* to isolate each of these two aspects has been abandoned in the further development of linguistics; thus, the alleged unlikeness between the sources (*foyers*) of innovation and the areas of contagion and expansion proved to be deceptive, since any innovation arises necessarily and solely through its multiplication in time and space.

In comparative linguistics, the search for common patrimony became more and more closely linked with the pressing questions of neighborhood affinities in phonological, morphological, and syntactic structure. But now the leading role passes on to the typological comparison of languages and to the quest for ordered laws which underlie this typology and govern all languages of the world as well as their acquisition by infants and which throw light also on the various forms of aphasic disintegrations. These universal laws restrict the diversity of linguistic codes similarly to the way in which the ordered structural rules of any given code impose restrictions upon the variety of virtual messages. The elicitation, correlation, and interpretation of such double constraints are on the agenda, and linguistics is about to fulfil the crucial task wisely anticipated by Ferdinand de Saussure, namely, "to search for those forces which are permanently and universally at work in all languages." The essential precondition of the envisaged inquiry had been posited by an earlier French thinker, Joseph de Maistre: "Ne parlons donc jamais de *hasard* ni de signes arbitraires."

INDEXES*

INDEX OF NAMES

INDEX OF PEOPLES AND LANGUAGES

INDEX OF SUBJECTS

Egocentrism 481ff., 505
Elementary quanta 224, 689
Elision 100f.
Ellipsis 21, 46, 118, 138, 216, 245, 275, 282, 285, 314, 489f., 494, 562, 571, 574, 579, 667, 719
Emotive function s. Expressiveness
Emphasis 597
Empiricism 27, 393, 430, 432, 453, 470, 532, 591
Enclitic 12f., 16ff., 115, 118, 206f.
Encoding/decoding 130, 196ff., 233f., 244, 270, 277f., 292, 296f., 299ff., 300f., 304, 309ff., 313f., 317, 321ff., 564f., 574ff., 599f , 668, 689, 697
Energeia, s. creativity
Enlightenment 595, 657, 665, 698
Entropy 571
Environment 675ff.
Epic 255, 297
Epistemology 689f.
Epithet 216
Eponym 643, 646
Equational proposition 246ff., 311, 324, 329, 494, 708
Equivalence 182, 233, 261f., 274, 704
Ergative 37
Esthetic function 597, 704f.
Ethnolinguistics 666ff.
Ethnology, s. anthropology
Ethnonymics 605ff., 623f., 628, 630, 635, 637ff., 642f., 646f.
Ethology 673ff.
Etymological distribution 553
Etymology 599, 605ff., 620ff., 650ff.
Eurasian affinities 505
Evidential 135f., 140
Evolution/revolution 226f., 486f., 505, 673
Exactness 690
Exceptions 226
Exchange 665, 699
Exclusive 139
Existential propositions 660
Existential relation 132
'Explanatory adequacy' 713
Explicitness 145, 244, 261, 275, 282, 314, 494, 562, 571, 574, 667, 719
Exponent (*primeta*) 158, 161, 177ff., 180f., 353
Expressiveness 216, 218, 222, 229ff., 301, 331, 520, 548, 597, 703, 705
External/internal relation 234, 244, 249
Extraposition 100

Extrinsic factors 475

Face and head movements 334, 340, 360ff., 705
Factual/imputed 700, 704
Fairy tale 234, 677
Families, linguistic 484f.
Fatigue 329, 671
Feedback 321, 328f., 576, 684
Feminine 10, 161ff., 184f., 187ff., 212f., 215, 264ff.
Fictionalism/realism in linguistics 276, 281f.
Figures 236, 258, 707
Filtering 555
Finiteness 422, 573
Finites 7ff., 14, 117f., 196f., 198, 294
Folk etymology 437, 448, 631
Folklore 256f., 430, 503f., 530f., 616f., 624f., 627, 631, 633, 677
Formalism 454, 512, 549
Formalized languages *AD*, 659ff., 707
'Formans' 409
Fragmentation 285
Frame of reference 600
Full-stem 120ff., 143
Function 27f., 314, 525f., 536, 545, 556f., 661, 673, 703, 719
Functional approach 382ff., 452, 454, 459, 464f., 711
Functional load 583f.
Future 117f., 138, 358

Game 661
Garment 703
Gender 4, 9f., 43f., 116, 134, 136f., 142ff., 146, 151f., 161ff., 179, 184ff., 187ff., 205, 221f., 264ff., 587, 667
General linguistics 375, 446, 471, 498, 504, 518, 540, 593
General meaning, s. Meaning, general/ contextual
Generalization 433, 446, 712
Generation/Incarnation 370ff.
Generations 389, 563
Generic meanings 707
Genetic endowment 681f.
Genetic fallacy 5, 416, 419, 432, 454, 459, 464, 487, 523, 549
Genetic psychology 507
Genitive 37ff., 58ff., 65ff., 115f., 148ff., 156f., 160f., 162ff., 169ff., 179, 187, 217, 588, 631