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In memoriam Zdeněk F. Oliverius

SPECIMINA PHILOLOGIAE SLAVICAE

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IN MEMORIAM
ZDENĚK F. OLIVERIUS

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(EDITORS)

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This volume is dedicated to the memory of Zdeněk F. Oliverius, one of the pioneers in the field of Russian studies in Australia, who died in Prague in 1978. It has been published with the assistance of the Monash University Publications Committee.

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The two articles, "Semantic Rules for the Generation and Interpretation of Russian Words" and "Some Problems of the Mode of Verbal Action", are published with the consent of Academia Publishing House, Prague, while the two articles, "The Distribution of Phonemes in Contemporary Russian" and "Semantic Rules in Sentence Generation and Interpretation", are published with the consent of Charles University.

The Editors' special thanks go to Professor Oliverius's widow, Dr Eva Oliveriusová, Chairman of the Department of Czech Language and Literature in the Education Faculty of Charles University, Prague, who has not only offered much valuable information, but has also been instrumental in obtaining consent for the republication and translation into English, where appropriate, of the four articles mentioned above.

Finally, the Editors wish to record their appreciation of the work of Mrs Lois Osborn of the Arts Faculty Office of Monash University, who has been responsible for the difficult task of setting the text of the publication in type, and has always been willing to share her considerable expertise in matters of typography.

Melbourne, October, 1984.   The Editors.

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INTRODUCTION

The contrast between the brevity of the scholar's life and the immensity of learning he attempts to capture in it poses a double-edged question: is it total lack of realism or utter devotion that forces him to this apparent misalliance? Even if he sees himself fighting a loosing battle, the scholar, like the soldier, *does not surrender* — often he is found dead on the battlefield, behind his desk, sometimes even smiling . . .

What is special about this kind of soldier and this kind of battle-field? At the age of thirty a top tennis-player has achieved whatever he could have hoped for. At the age of sixty a true scholar approaches the time when the harvesting of the richest and ripest crops is to begin. Oliverius, having died at the age of fifty-one, was never given the opportunity to reap such a harvest. Yet, *in articulo mortis,* he accomplished something for which he will be remembered not only in his own country but on the most remote continent as well.

The Bibliography in this publication presents Oliverius as one of the most versatile scholars in the field of Russian linguistics. With no difficulty one can trace here the imprint of his four brief years in Australia between December 1968, and September 1972. Here he was one of the first scholars in Russian studies of truly high calibre, with a unique international reputation. And yet as the first President of the Australian and New Zealand Slavists' Association he was realistic enough not to impose on the local scene a standard model usual on other continents and involving a wide range of Slavic languages. Rather, within the existing conditions of five Russian departments he attempted successfully to extend the scope of Russian studies to embrace all the main linguistic disciplines: phonology, morphology, syntax and semantics. This is something of lasting value left by Oliverius's work in Australia and by Australia in Oliverius's work.

The purpose of this volume is to focus attention on Oliverius's scholarly activities in this country, reviewing their climax during the period from 1969 to 1972 as well as the prelude and aftermath during his Prague years. In this sense the volume is intentionally selective to provide sharper contours for that part of his work for which he will be best remembered abroad — his contribution to theoretical linguistics — leaving the other aspects of his versatile scholarly life to his fellow-countrymen to sample and evaluate.

This publication, in which six Slavists from both Melbourne

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departments have taken part, is the first publication attempting to examine the roots and sources of Slavic studies in Australia. It is no co-incidence that it is dedicated to Z.F. Oliverius. Ten years after his departure from this country, almost five years after his death, his memory proves something ordinary men would be very sceptical about: that life's brevity can be extended through the immensity of learning, that a great scholar, sharing time with his contemporaries and place with his fellow-countrymen, can transcend their limitations and their doubts through his alliance with the infinite world of learning.

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Zdeněk F. Oliverius (5.1.1927 — 20.9.1978)

Although Zdeněk F. Oliverius was not entirely unfamiliar with the English-speaking world when he took up his post as Professor of Russian at Monash University in December 1968 (English had formed part of his undergraduate curriculum at Charles University and England had been known to him through a number of brief visits), it cannot have been easy for a Central European intellectual to land on the Fifth Continent and to plunge immediately into all the professional and social activities which the position of head of a university department demanded of him. And yet from the very first moment Oliverius not only gave the impression of being perfectly at ease in his new environment, but also showed a keen perception for the history, culture and landscape of his temporary home — a perception which is not characteristic even of many permanent settlers in this country. He liked particularly to place himself mentally in the position of the early explorers of the continent and to view the surrounding landscape as though no civilization existed there yet. He wondered what it might have been like to have crossed the desert without modern means of transport and also empathized with the early settlers, whose way of life he enjoyed reconstructing in his own mind on visits to the colonial museum at Ballarat and the old gold fields at Bendigo. The Aboriginal people, their culture and languages (particularly Pitjantjatjara) also interested him greatly, as did the people and culture of Papua-New Guinea, which he visited once while living in Australia.

Zdeněk F. Oliverius was born on 5th January, 1927 and spent the first six years of his life in Mlečice in the Rokycany district of Western Bohemia. He then moved with his family to Prague, where he received his primary and secondary education. From 1946 to 1950 he was enrolled at Charles University in Prague, reading philosophy, psychology, and English language and literature, and from 1953 to 1957 at the Institute of Russian Language and Literature, studying both Russian language and literature and Czech language and literature.

In 1966 Oliverius obtained the degree of *Candidatus Scientiarum* (CSc.) and then in 1968 was appointed to the position of Associate Professor (Docent) of Russian. In 1978 he was awarded the degree of *Doctor Scientiarum* (DrSc.) for his *Morfemy russkogo jazyka* (The Morphemes of Russian), a publication completed during his stay in Australia. He was already involved in the process of being nominated

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for the post of Professor at Charles University when he fell ill and died in September 1978.

Oliverius began his teaching career in schools, then continued at the Pedagogical Institute in Northern Bohemia. From 1961 he worked in the Pedagogical Faculty of Charles University, first as Lecturer, later as Associate Professor. For five years he was Head of the Department of Czech Language and Literature and, at the same time, Sub-Dean of the Faculty.

In the period from December 1968 to September 1972, Oliverius occupied the position of Professor and Chairman of the Russian Department at Monash University in Melbourne. During this time he also participated in the organization of the Australian and New Zealand Slavists' Association and was elected its first President.

* * * * * *

As a linguist Oliverius was interested mainly in the grammar and phonetics of Russian within the context of general linguistics and Slavistics. In this field he produced many university textbooks, dictionaries, monographs, and other publications. These he wrote in Czech, Russian and English and published not only in Czechoslovakia, but also in the Soviet Union, U.S.A., Australia and the G.D.R. As well he was active as a member of research teams, commissions and editorial boards and participated in conferences and international symposia on the problems of Russian, Slavic and general linguistics.

Besides linguistics Oliverius was a keen reader of fiction and poetry and was fond of the cinema and theatre. Woodwork and carving were his hobbies. He also liked sport, taking the view that physical labour was the best way for an intellectual to relax. He was married, with one daughter.

As a university teacher Oliverius was popular with the students not only for his pedagogical abilities, but also for his good humour and perseverance. His colleagues appreciated his capacity for organization and leadership as well as his considerable wisdom.

During the fifty-one years of his life Oliverius completed more than most men, though there were many planned projects which he was unable to start and many started which he was unable to finish.

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Oliverius died of leukaemia on 20th September, 1978. He was buried in the small cemetery of a village very close to his birthplace, where some years before he had acquired a peasant's cottage and where he had been able to relax and work amidst the peace and quiet of the countryside. His final resting place is a simple stone grave with a Latin inscription bearing the words:

Aedis aedificat dives sapiens monumentum
hospitium est illud corporis hic domus est
illic paulisper remoramur at hic habitamus
illud discrimen tuta sed hic requies*

*A rich man builds a mansion, a wise
man a monument. The former lodges
our body and there we abide a short
time, but the latter is our home and
our true dwelling. In one there is
brief peril, in the other safe rest.

I. SELECT BIBLIOGRAPHY

(R = in Russian, Cz = in Czech, * = book reviewed, article appearing in this publication)

There is hardly a single linguistic discipline in which Z.F. Oliverius was not interested and to which he did not contribute. The maxim "through selectivity to excellence", consistently applied by members of the Prague School stands out in his publications as well: he concentrates on one subject, namely Russian, but within its limits he achieves unique depth and breadth.

There were, nevertheless, areas in which Z.F. Oliverius felt particularly at home. One of them was the methodology of language teaching ("linguodidactics"), which is closely connected with his native Czechoslovakia and remains to be appreciated by his Czech colleagues. This Bibliography and the selection of book reviews as well as articles (in the original, if it is English, or in translation, if originally published in Russian or Czech) are focussed on the theoretical interests of Z.F. Oliverius and attempt to present his contribution as an interesting synthesis of his native Czech school with his scholarly activities abroad, particularly in Australia. As the author admits in the introduction to his masterpiece, *Morfemy russkogo jazyka* (The Morphemes of Russian see *1), for which he received the degree of *Doctor Scientiarum* in Czechoslovakia, it appeared with the support of his Australian colleagues and his *alma mater Australiensis,* Monash University.

One of Oliverius's main fields of scholarly interest was *phonology.* Besides his important book, *Fonetika russkogo jazyka* (The Phonetics of Russian, see *2 and two reviews in this publication) several articles should also be mentioned (see 4, 18, *19, 29, 31, 33, 34). Perhaps his most important sphere of activity was *morphemics* and *morphology*: it is the best represented topic in the Bibliography including the above-mentioned monograph *1 and items 3, 7, 8, 10, 14, 20, 22, 24, 25, 27, 32, as well as items 21, 26, 28, concerning *morphonology.*

Though the Bibliography establishes his particular contribution in these two areas, Oliverius's breadth of interest extended to other disciplines as well, especially *semantics* and *morphosemantics,* (cf. items *6, *11, 13, 15, 16, *17), *syntax* (cf. 4, 23), *lexicon* (cf. 5, 35), and other topics (cf. 9, 30).

While the Bibliography covers all the titles considered relevant to

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Oliverius's contribution to the theory of language, an attempt has been made to provide a representative selection of his publications covering the most important areas of activity. They are marked by * in the Bibliography and follow it as reviews (books *1, *2) or as complete texts, translated into English wherever necessary.

A. BOOKS

Monographs

*1. *Morfemy russkogo jazyka, Častotnyj slovar'* (= The Morphemes of Russian, A Frequency Dictionary — R), Charles University, Prague, 1976, 198 pp.

*2. *Fonetika russkogo jazyka* (= The Phonetics of Russian — R), SPN (State Textbook Publishers), Prague, 1974, 162 pp.

Cf. also:
  – Previous edition (in mimeographed form):

2a. *Fonetika russkogo jazyka,* 1st edition, SPN, 1967, 140 pp.

2b. *Schema dlja upražnenij po proiznošeniju russkogo jazyka* (= A Scheme for Exercises in Russian Pronunciation — R) (A manual for correspondence courses at Teachers' Colleges), Prague, 1960, 46 pp.

  — Corresponding sections of the following publications:

2c. O. Leška, M. Zatovkaňuk: *Stručná mluvnice ruská* (= A Short Russian Grammar — Cz), Prague: 3rd ed., 1966; 2nd ed., 1961; 1st ed., 1959.

2d. L.V. Kopeckij (ed.): *Russkij jazyk v sisteme nabljudenij i upražnenij* (= Russian Taught through Observations and Exercises — R), SPN, Prague 1964.

Publications edited or written in collaboration

3. Z.F. Oliverius (ed.): *Úvod do morfologie ruštiny I* (= An Introduction to Russian Morphology I — Cz), SPN, to appear. (Oliverius is the author of sixteen chapters.)

4. Z.F. Oliverius (ed.): *Russkij jazyk — posobie dlja pedagogičeskich institutov* (= Russian: A Manual for Teachers' Colleges — R), SPN, Prague, 1962, 302 pp. (Oliverius is the author of seven chapters.)

5. B. Koudelka, F. Malíř, J. Novotný, T. Pacovská: *Příruční česko-ruský slovník* (= A Concise Czech-Russian Dictionary — Cz/R), Prague: 2nd ed., 1958, 548 pp.; 1st ed., 1958, 546 pp. (Oliverius translated half of the entries.)

B. ARTICLES

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7. "K metodologii funkcional'noj morfologii (na materiale russkogo jazyka v sopostavlenii s češskim)" (= The methodology of functional morphology [Contrastive study between Russian and Czech] — R), in: A. Menac (ed.): *Voprosy metodologii i metodiki opisanija russkogo jazyka v sopostavlenii s rodnym,* Zagreb, 1975, 47-52.

8. "K voprosu o tak nazyvaemoj funkcional'noj morfologii" (= The problem of so-called functional morphology — R), in: *Československá rusistika XX (1975),* 102-107.

9. "Rozvoj lingvistiky v Austrálásii" (= The development of linguistics in Australasia — Cz), in: *Filologické studie V,* Charles University, 1974, 227-233.

10. "A model of morphemic description of Russian words", in: *Recueil linguistique de Bratislava* (Proceedings of the Symposium on Algebraic Linguistics held 10-12 February, 1970 at Smolenice), Slovak Academy of Sciences, Bratislava, 1974, 267-277.

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*11. "Semantičeskie pravila poroždenija i interpretacii russkich slov" (= Semantic rules for the generation and interpretation of Russian words — R), in: *Československé přednášky pro VII. mezinárodní sjezd slavistů ve Varšavě. Lingvistika.* Academia, Prague, 1973, 259-270.

*12. "Semantic rules in sentence generation and interpretation", in: *Filologické studie III,* Charles University, 1972, 39-53.
See also:
"Semantic Rules in sentence generation and interpretation (Synopsis)", *AULLA* (Australasian Universities Language and Literature Association) *Proceedings and Papers of the XIV Congress,* University of Otago, Dunedin (New Zealand), 1972, 272f.

13. "A contribution to the semantic analysis of Russian affixal morphemes (On the material of Russian cases and prefixes)", in: D.W. Worth (ed.): *The Slavic Word* (Proceedings of the International Slavistic Colloquium at UCLA, September 11-16, 1970), Mouton, The Hague, 1972, 96-116.

14. "A morphemic analysis of some Russian pronouns", in: *Slavia XLI* (1972), 263-273.

15. "Toward a dynamic semantic theory", in: *KIVUNG, Journal of the Linguistic Society of Papua New Guinea,* Vol. 5 (1972), No.1, 4-19.

16. (with Rae D. Slonek) "Some comments on the verbs of motion in Russian", in: *Melbourne Slavonic Studies,* Nos. 5-6 (1971), 79-90.

*17. "The Russian case system", in: *Melbourne Slavonic Studies,* No.4 (1970), 5-12.

18. "Phonemic syncretism and the process of communication", in: *Proceedings of the Sixth International Congress of Phonetic Sciences,* Academia, Prague, 1970, 701-703.

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*19. "K distribuci fonémů současné ruštiny" (= The distribution of phonemes in contemporary Russian — Cz), in: *Filologické studie II,* Charles University, 1970, 11–22.

20. "Componential analysis of the Russian case system", *AULLA* (Australasian Universities Language and Literature Association) *Proceedings and Papers of the XIII Congress,* Melbourne, 1970, 457–460.

21. "Osnovy opisanija morfemnych al'ternacij v sovremennom russkom jazyke" (= Principles of the description of morpheme alternations in contemporary Russian — R), in: *Československá rusistika XV* (1970), 49–55.

22. "Componential analysis of Russian morphemes", in: *Linguistic Society of America — Forty-Fourth Annual Meeting (San Francisco): Meeting Handbook,* 1969, 114.

23. "K problematice syntaktické paradigmatiky" (= The problems of syntactic paradigmatics — Cz), in: *Otázky slovanské syntaxe II* (Sborník symposia "Strukturní typy slovanské věty a jejich vývoj"), Brno, 1968, 97–101.

24. "Rol' strukturnogo parallelizma pri identifikacii morfem i opredelenii ich tipov" (= The role of structural parallelism in the identification of morphemes and the definition of their types — R), in: *Československá rusistika XIII* (1968), 73–77.

25. "K problematike morfemnogo analiza sovremennogo russkogo jazyka" (= The problems of morpheme analysis in contemporary Russian — R), in: *Acta facultatis philosophicae Universitatis Šafarikanae Prešovensis* (Jazykovedný sborník venovaný VII. slavistickému kongresu), Bratislava, 1968, 55–70.

26. "K ponjatiju morfonemy" (= The concept of the morphoneme — R), in: *Československá rusistika XII* (1967), 65–68.

27. "Morfemnyj analiz sovremennogo russkogo jazyka" (= A morpheme analysis of contemporary Russian — R), in: *Problemy sovremennoj lingvistiki, Philologica 1967,* Charles University, 9–79.

28. "K distribuci alomorfů současné ruštiny" (= The distribution of allomorphs in contemporary Russian — Cz), in: *Československá rusistika XI* (1966), 207–214.

29. "K metodike dinamiki, ritma i melodii" (= Methods for dynamics, rhythm and melody — R), in: *Ruština v teorii a v praxi 2,* Prague, 1966, 84–90.

30. "Transliteracija češskich slov russkoj azbukoj" (= The transliteration of Czech words with the Russian alphabet — R), in: *Russkij jazyk, literatura, metodika,* Prague, 1965, 4–20.

31. "Překrývání fonémů" (= The overlap of phonemes —Cz), in: *Československá rusistika VIII* (1963), 181–187.

32. "Některé zvláštní případy rodového zařazení" (= Some special cases of gender classification — Cz), in: *Lidové kursy ruštiny 1961-62, No. 8* (1962), 35–36.

33. "Obučenie zvukovoj sisteme russkogo jazyka v češskoj škole" (= The teaching of the Russian sound system in Czech schools — R), in: *Russkij jazyk v nacional'noj škole,* 1961, No. 6, 60–66.

34. "K problematice fonému [i/y] v souvislosti s [g'], [k'], [x']" (= The problems of the Russian phoneme [i/y] in connection with the soft consonants [g'], [k'], [x'] — Cz), in: *Sborník Vyšší pedagogické školy v Ústí nad Labem, řada filologická,* SPN, Prague, 1958, 13–21.

35. "K práci s odbornou terminologií" (= How to work with professional terminology — Cz), in: *Lidové kursy ruštiny, 1956-57, No. 2* (1957), 33–34.

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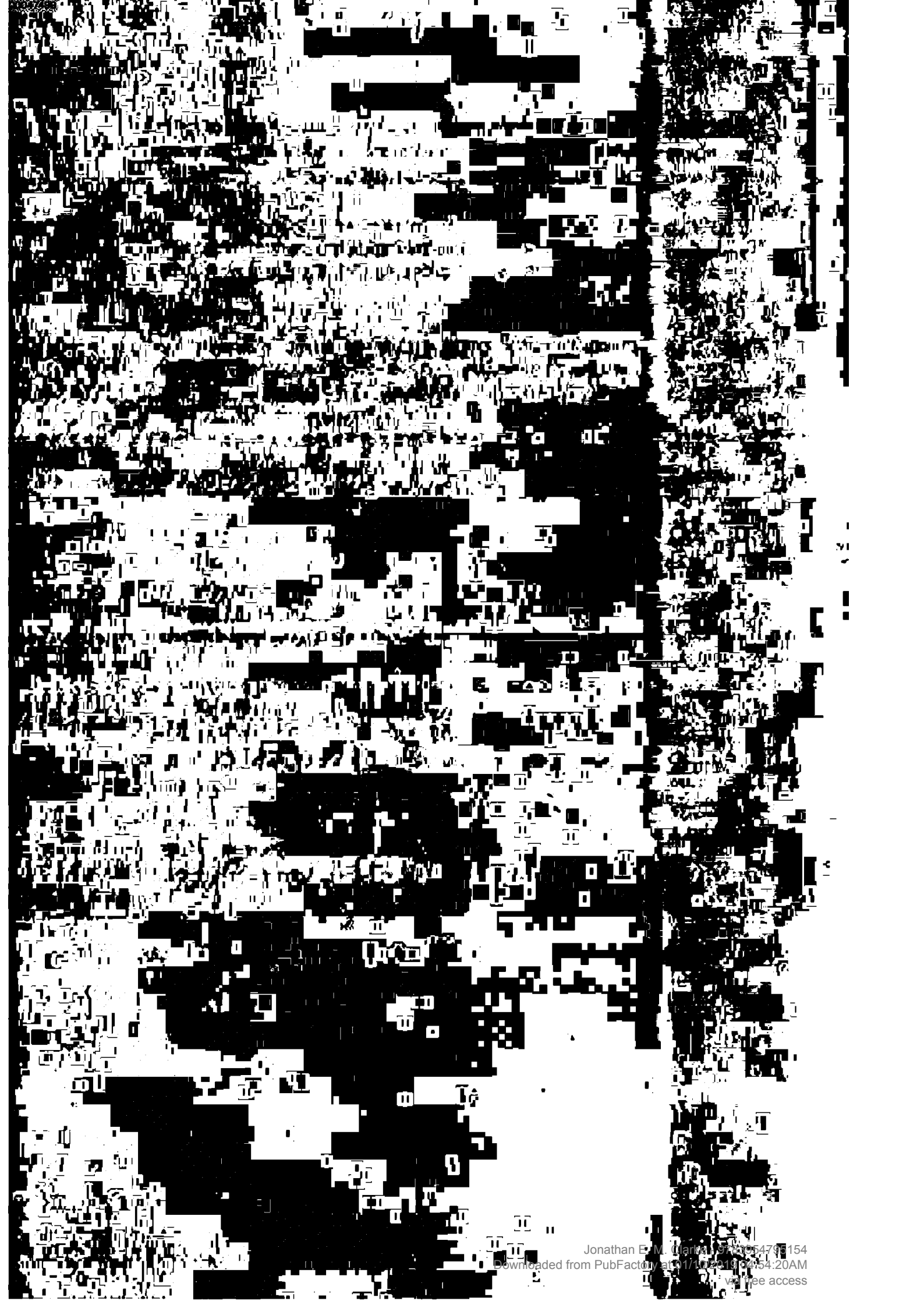
REVIEWS
OF OLIVERIUS'S MONOGRAPHS

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Zdeněk F. Oliverius, *Morfemy russkogo jazyka, Častotnyj slovar',*
Charles University, Prague, 1976 (200 pp.)

Reviewed by R. Sussex

Morfemy russkogo jazyka, Častotnyj slovar' (The Morphemes of Russian, A Frequency Dictionary) was published by the Charles University of Prague in 1976, in a printing of only 600. This fact has certainly restricted the influence of Oliverius' last full-length study of Russian morphology: it is not as widely known or quoted as it deserves, and it is known more to discerning specialists and colleagues than to the general public of Russian scholars and teachers. And yet in many respects *Morfemy russkogo jazyka* shows Oliverius at his most typical, exploring new territory with curiosity and insight, while at the same time building solidly on the foundations and principles of morphological analysis which he had earlier laid down in *Morfemnyj analiz sovremennogo russkogo jazyka* (A morpheme analysis of contemporary Russian).

This book is not so much a full statement as an exploration in method. It consists of an exposition of the basic principles of morphemic analysis, followed by a frequency count of the morphemes in the 2494 most common lexical entries in the Štejnfel't *Častotnyj slovar' russkogo jazyka* (A Frequency Dictionary of Russian) — the words which occur with a frequency greater than fourteen in this early and influential word-count of Russian. The actual sorting and counting were carried out on a CDC 3200 computer at Monash University. The use of computers for this purpose was not new in Russian lexicography. But Oliverius made special and innovative use of the computer to record and sort not only morpheme-lists, but also a variety of grammatical, semantic and statistical information on the properties of the morphemes themselves.

There are two recurring problems with morpheme listings of Russian. What is one to do with allomorphs? And what is one to do with the problem of morpheme identity, homophony, and polysemy? Oliverius tackles both difficulties boldly. With allomorphs he is able to have his cake and eat it, since the computer listing allows the inclusion of allomorphs and their respective frequencies (Oliverius' third and fourth lists). With morpheme identity he states quite bluntly that

> In what follows I begin from the theoretical position that each linguistic form has a constant basic and specific meaning. (p. 48)

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This is a bold claim. It goes against much of the contemporary literature on semantic analysis, and evades a whole mass of well-documented argumentation on the non-specific nature of meaning in many morphemes. And yet Oliverius has a point. A very large number of morphemes do have a constant and verifiable meaning. Should one abandon this useful notion merely because of the difficult cases? More to the point, is it possible to demonstrate sufficient consistency among the difficult cases to warrant overlooking them to gain the wider perspective of a genuinely morpheme-based classification? Oliverius answers by example. He gives a detailed analysis of the suffix -*in* (in words like *carapina, kisljatina, vyšina, rusin, nizina, baranina, gorošina, domina,* and others), showing how its varied meanings can be brought within a defensible and objective semantic classification.

The most striking aspect of this book, however, is the way in which Oliverius realizes the potentials of the computer to present information in different formats, suitable for different linguistic purposes. Tasks which would take human researchers months of work can be handled by the computer — given programs of only very moderate complexity — in a matter of seconds. The five tables present the information in different but linked configurations, thus saving the working linguist many hours of laborious re-working of information not available directly in the required form. Oliverius provides:

1.   a list of the words, segmented into morphemes, tagged with grammatical and semantic markers, and presented in order of descending frequency;
2.   a Cyrillic alphabetic list of words, together with their frequencies;
3.   a list of morphemes and their morphs by frequency;
4.   a list of morphemes and their morphs by type and frequency, including prefixes and suffixes found with them;
5.   a frequency table of the various types of morphemes (affixes and roots, divided by grammatical type).

This wealth of data can be used in many ways. Not only do we find absolute frequency rankings for morphemes and their allomorphs, but also for individual types of affixes and affix-root combinations, together with examples to hand of each type. Furthermore, the data are entered in such a way that one can easily search for occurrences and frequencies of any of the tagged features, or any combinations of them. How many nominal roots are there, for instance, with neuter gender and zero inflexion markers? And so on.

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The classification and listing are strikingly useful. Take the Word *Bog/*"god". List 2 shows that its Štejnfel't frequency is 40. List 1, under frequency = 40, lists (*inter alia*)

bog   O

CS   FSM

— that is to say, *bog*, root (C), noun (S), with a zero (O) suffix (F), forming a noun (S) of the masculine gender (M). List 4, under "CS" (root-noun), lists

bo, bog/bož

with a total morpheme frequency of 211, and occurring in words like *bože, bog, bogatstvo* and *bogatyj*. List 3, at frequency 211, informs us that there are 113 occurrences of the morpheme *bog*, 76 of *bo*, and 22 of *bož*. And list 5 shows that the corpus contained 425 different CS morphemes, of a total of 51,341 in the relevant section of the Štejnfel't corpus.

The classifications and listings are also, of course, tentative. There are many problems of theoretical morphology which remain to be solved before a fuller listing of Russian morphemes can be attempted. One is the issue of morphemes and meanings, which we mentioned above. Another is the question of morphemes and word-classes. Oliverius assigns each root to a word-class. But there is good reason to wonder whether roots are inherently marked for word-class membership. This issue, which Chomsky raised in 1967 in his discussion of nominalization, is still far from a solution. What Oliverius achieves, though, is a statement of how far one can go by using certain assumptions, and an indication of the implications of these assumptions for both linguistic theory and linguistic analysis. Furthermore, writing at a time when the generative machine was still running strongly, he shows a very Czech concern for the empirical and statistical aspects of linguistics, and for the necessity of handling language in terms of real world objects rather than algebraic abstractions. As he says in his Preface,

> it is clear that the theoretical bases of morphemic analysis, as they are presented in the literature, and the concrete listing of morphemes (including rules for their alternation) leave much to be desired, and that a review of the theoretical bases of morphemic analysis and their practical application is necessary. (p.9)

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Fonetika russkogo jazyka, **SPN, Prague, 1974 (162 pp).**

Reviewed by P.V. Cubberley

Zdeněk Oliverius' *Fonetika russkogo jazyka* (The Phonetics of Russian) is probably the most concise and yet complete of any published in English or Russian, and one suspects this would include any other language of publication also. Published originally in Prague in 1967 with the sub-title *Posobie dlja pedagogičeskich fakul'tetov* (A Textbook for Education Faculties) and reprinted in 1974 by the State Pedagogical Publishing House, though without the subtitle, its whole approach and effect have been maximized by its pedagogical motivation.

It is unique in the first place by being written in Russian for non-Russian students. On the one hand this will make for a limitation on those who teach phonetics courses early in the Russian programme, but on the other hand, had it been written in Czech, it would have been quite inaccessible to the mass of foreign learners. If its quality had been rather poor, we would with some justification have suspected that the Russian format was produced for publicity or economical reasons, but in the event the quality is so high that we can only be grateful for the accessibility provided. Moreover one suspects that the book is in fact not nearly so well-known as it might be, being written in Russian, or as it should be, given its quality. Ultimately, an English version would be a real boon to Russian language studies in English-speaking countries. The contrastive comments would of course have to be revised, but this would be a minor matter.

What then are the features of this book which produce such enthusiasm in this reviewer? Primarily I think it is the consistent pedagogical approach which is most successful: the audience is never lost sight of, and even though the audience is specifically Czech, the amount of comment which can apply to Czechs is actually very little. In addition the audience are future teachers of Russian, so that we have as it were a double pedagogy involved — the author's own and that of the users — and the methodology of both learning and teaching are thus constantly present. In the end, however, such an audience is no automatic guarantee of a satisfactory work; Avanesov's standard work, *Russkoe literaturnoe proiznošenie* (Russian Literary Pronunciation), is also aimed at students of Pedagogical Institutes (his more theoretical version, *Fonetika sovremennogo russkogo literaturnogo jazyka* [The Phonetics of Modern Literary Russian] 1956, in-

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discriminately at both University and Pedagogical students) yet it is to my mind quite unusable as a textbook, its only real use being for reference purposes. The main difference of course lies in the fact that Avanesov's book is aimed at native speakers of Russian, and this is no doubt a sufficient explanation — there is really no concept of the foreigner's problems, but only of the bad native speaker's problems; as for those Soviet descriptions aimed at non-Russians, they either try to cover all possible foreign learners' problems or they simply do not refer to any problems at all (e.g. Bryzgunova, Lebedeva, Ljubimova, Pirogova).

From these pedagogical aims and approach spring all the strengths of Oliverius' book: its conciseness, its clarity, and its comprehensive view of the area. It is an overall view of every aspect, while, because of its conciseness of description, not being in the least superficial. The methodological introduction spells out the need for both theory and practice in the preparation of future teachers; the practice is to be acquired from other sources, whether teachers, books or other aids, the theory is the basis of this book, but along with frequent suggestions on procedures for bridging the gap between theory and practice.

Inevitably, the bulk of the work is traditional in coverage: Chapters 1 and 2 describe the general methods and scope of phonetics and phonemics; in Chapter 3 the sounds are described in the normal articulatory terms, with diagrammatic X-ray and palatogram illustrations, and the intonation patterns use the by-now standard Russian ones of Bryzgunova; the various assimilations of sounds in combination are described, and there are sections on norms and transcription. Yet even these sections seem to have a freshness of approach which makes for as easy reading as one could hope for in such a technical area. For example, the vowels occurring in various contexts are described by example and symbol first, and only later are they classified into phonemes; while this reverses the usual pattern of description, it does reflect the procedures involved in establishing the phonemes in the first place, and is thus perfectly justifiable methodologically. Another example is the treatment of suprasegmental features before segmental ones, whereas they usually follow, presumably as being of secondary importance. Again the procedure here reflects rather the order of events in reality: the suprasegmental features, especially tone and stress, are learned first by children, so one might well argue that their description should come first too. The problem for second language learning, of

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course, is that one must have real examples to 'hang' these features on, but given the assumed basic knowledge of this book's audience, this is not a problem.

At the theoretical level too the scope of the book does not prevent a new look being taken at standard problems; for example, the soft velars are argued to be phonemic, though in this book largely following the empirical arguments of Panov (1968), namely from the existence of words like *tkjot, žgja, žerechjonok*. Not much is made in this book of the more theoretical and much more cogent arguments used in Oliverius 1958, based on the principle of consistency of description of hard/soft consonants within the syllable, namely that the consonant is always primary, and the vowel dependent; thus in the sequences [k'i, g'i, x'i] the phonemes should be /k'/ and /i/ rather than /k/ and /i/ plus a special rule of softening for the velars only. In addition, of course, but neither is this argued in this book, it is quite untenable to accept both the soft velars and /y/ as separate phonemes (as do the Leningrad school); rejecting both, that is calling both allophones, as per the Moscow school in general, is almost as unacceptable.

Beyond this fresh approach to traditionally covered areas, there is coverage of areas which are by no means traditional to Russian phonetics textbooks: Chapter 1 discusses, albeit briefly, such questions as onomatopoeia, the association of sounds with senses other than hearing, and the differences of perception of such extra-linguistic factors between culturally close societies; Chapter 2, on general phonetics, manages to cover acoustic phonetics and the derived distinctive feature methods of description, though these are thankfully not applied to the actual description of Russian sounds in Chapter 3; they are at best appropriate only to very abstract levels of theory, but knowing of their existence is essential for the future teacher. Chapter 4, the final one, deals with graphics and orthography, neither of which typically features in "foreign" descriptions, usually being treated rather in the basic grammar textbooks, so that again this typifies the breadth of the coverage of this relatively small book.

Lastly, the Bibliography deserves a mention: it contains over 300 items, covering every area of the literature on Russian phonetics and in all the main languages (English, French, German and Russian) plus a few more (Polish, Danish), as well, of course, as a large number of items in Czech.

All in all we have here a book which deserves to be treated as a

model of applied linguistic description; to repeat the epithets applied earlier, it is concise, clear and comprehensive, and one can hardly ask more of a pedagogical work. If this was Zdeněk Oliverius' only product, it would serve as a sufficient monument to his contribution to Russian studies. As we know, and the present small sample of his works is witness to this, it was by no means his only product, and we can only register with sorrow, no less so now, so many years after his death, that there will be no further contributions.

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Z.F. Oliverius. "K problematice fonému [i/y] v souvislosti s [g' k' x'],Sborník VPS v Ústí nad Labem, (1958) 13-21.

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Fonetika russkogo jazyka. Čast' vtoraja, Upražnenija
(Unpublished, 226 pp.)

Reviewed by J.E.M. Clarke

In 1974 Professor Oliverius's text on the phonetics of Russian was published in Prague.* It bore a deceptively simple title: *Fonetika russkogo jazyka* (The Phonetics of Russian). There was no subtitle to give an indication of the scope of the work, nor of the intended audience. And the impression was created that this was a text designed to stand on its own as a single volume.

Yet despite the general title *Fonetika russkogo jazyka* is directed at a specific audience and is meant to be used in a particular way. As Professor Oliverius makes clear in his preface, it is written for Czech students of Russian who are training to become teachers of the language and who have already acquired some proficiency in both speaking and writing Russian. And in the course of its account it aims to focus attention on those features of Russian pronunciation that provide special difficulties for Czechs, but are frequently overlooked in works on the phonetics of Russian intended for native speakers. For Professor Oliverius is concerned that teachers of Russian should be able to speak the language without an accent and should possess a well-developed ear for Russian speech. His hope is that practical skills, as well as theoretical insights, will flow from their study of the phonetics of Russian (where phonetics is understood to cover both phonemics and phonetics proper).

In keeping with this intention it is stated explicitly in the section of *Fonetika russkogo jazyka* entitled *Metodičeskie ukazanija* (Instructions concerning method) that the entire course for which the text has been written shall comprise both theoretical and practical elements running in tandem. Yet no exercises are provided in the text as it has been published, even though the character of such exercises is discussed there in some detail. Clearly the author's overall conception of his work has not been fully realized. The portion that is missing and that makes sense of his reference to a practical component is contained in an unpublished manuscript bearing the title *Fonetika russkogo jazyka. Čast' vtoraja, Upražnenija* (The Phonetics of Russian. Part Two, Exercises). Here one finds a rich collection of exercises to match the solid theoretical ex-

*The previous edition had appeared only in mimeographed form, see Bibliography, item 2a.

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position of the published text. One can only regret that this second part has still to appear in print.

One of the features of this collection of exercises that makes it particularly interesting (and that can be surmised from the titles of some of the author's publications listed in the accompanying bibliography) is the fact that it has been compiled by an author with a clear understanding of what may be termed the theory of practical phonetics in the context of foreign language learning. So that it has been constructed on a firm theoretical basis and has its own well-considered rationale. In no sense can it be regarded as unplanned or carelessly put together. That the author is one with a conscious understanding of what is required in exercises of this kind is evident from the many remarks about practical work that appear in the published text. And so, in the section entitled *Metodičeskie ukazanija*, Professor Oliverius spells out the general implications of both psycholinguistics and the study of foreign language instruction for the design of practical assignments in phonetics and insists that the lessons of these disciplines be put into effect. This would mean, he argues, that there would be three activities involved in such exercises as an essential component: perception, imitation and self-analysis, all directed towards the acquisition of correct pronunciation.

> Let us emphasize that facts known from the field of foreign language instruction and the theoretical propositions of psycholinguistics compel us to infer certain general principles according to which it is preferable to look at phonetic exercises as a closed system that includes without fail perceptive exercises in the development of an ear for speech and imitative exercises. An integral part of an exercise is the self-analysis of students' pronunciation, which rests on a theoretical knowledge of articulatory phonetics.[1]

What is significant is that this argument is given concrete expression by Professor Oliverius himself — in some of the exercises he includes for use in a language laboratory. Here the three activities of perception, imitation and self-analysis are obviously incorporated, even though they are not described as such in accompanying instructions to the student, but are presented in terms of three consecutive steps:

> First step: the model pronunciation of the speaker; second step: a pause in which the student repeats and imitates what has been heard (the pause must exceed the length of the text in the model pronunciation only by a few parts of a second); third step: test repetition by the speaker of the model pronunciation.[2]

As one might expect, as well as commenting in the published text on the character of practical work in phonetics, Professor Oliverius

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also discusses how such exercises should be arranged. And in doing so he provides theoretical justification for various aspects of the arrangement of his own collection of exercises. Thus he argues that practical work focussing on suprasegmental features (dynamics, rhythm and melody) must necessarily come before work dealing with segmental elements, and not the reverse. For only then can the requirements of linguistics, psychology and methodology be satisfied. At the same time, within the context of exercises treating suprasegmental features, the strong dependence of correct melody on correct dynamics and rhythm dictates that dynamorhythmic exercises must appear first.

> Exercises in dynamics, rhythm and melody must precede exercises in the pronunciation of segments. This order answers the demands of linguistic, psychological and systematic order.[3]

> Exercises for the production of correct dynamics and rhythm in Russian speech must precede exercises in melody, since the correct movement of melody depends on the dynamorhythmic structure of a given syntagma.[4]

Not surprisingly, these firm recommendations are faithfully implemented by Professor Oliverius in the structure he adopts for his own collection of exercises. But it is not only the ordering he follows in placing the exercises devoted to suprasegmental features before those concerned with segmental elements that is significant — it is also the relative weight he attaches to the two groups of exercises. For those dealing with suprasegmental features represent *more than half* of the total number (152 exercises out of 283, or 53.71%) and are almost 80% more numerous than those treating segmental elements (85, or 30.04% of the total). In this way Professor Oliverius again makes the practical component of his course conform to his theoretical position, for the relative importance of what may be termed suprasegmental correctness as opposed to segmental correctness is clearly stated in the published text:

> Mistakes in the pronunciation of suprasegmental elements are more noticeable for Russians than mistakes in the pronunciation of segments ...[5]

Here it should be added that the remaining 46 exercises (or 16.25% of the total), which are those not concentrating particularly on either suprasegmental or segmental elements, are made up of 20 introductory exercises (to accompany the first two chapters in the published text dealing with the place of phonetics and writing in language systems and the subject-matter of phonetics), as well as exercises on orthoepy (2), transcription (3), the writing-system (4), orthography (5) and trans-

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literation (4), and finally, 8 composite exercises (with lengthy passages to be read aloud). There is thus a very close parallelism in both content and ordering between the theoretical material presented in the text and the 283 exercises contained in Professor Oliverius's collection. The two works are complementary — neither is complete without the other.

From what has been said it is obvious that the specific audience Professor Oliverius had in mind when writing his course and the goals he hoped to achieve exerted a powerful influence on the structure and composition of his collection of exercises. Many of its distinctive characteristics can be explained in these terms, as, for example, the importance given to suprasegmental features as opposed to segmental elements. This has already been discussed, but there are other significant aspects showing the same influence (some of which relate to particular groups of exercises) that should be mentioned. And so, within that large number of exercises devoted to suprasegmental features, one finds a strong emphasis on dynamics and rhythm, accurately reflecting Professor Oliverius's conviction that

> Incorrect dynamics and rhythm in Russian speech are the basis of a Czech accent; it is necessary to fight it from the very beginning of the study of Russian.[6]

At the same time there are several exercises that draw on material from both Russian and Czech in juxtaposition. And here too one of Professor Oliverius's strongly held views find expression, a view clearly enunciated in the published text:

> In the study of a foreign language it is possible to observe how the native tongue is a brake and obstacle in mastering the foreign language precisely in cases of interference from phenomena in the native tongue and the foreign language which are non-congruent or not completely congruent. As a result it ought to be noted that to the three linguistic prerequisites enumerated above (practical knowledge of the language, theoretical knowledge from the fields of linguistics and psycholinguistics) there should be added as well knowledge in contrastive linguistics which uncovers systemic correspondences and differences between the native and non-native language.[7]

The interrelationship that exists between the published and unpublished parts of Professor Oliverius's course in the phonetics of Russian, already apparent from the evidence presented above, can be shown to be even more systematic by a close reading of those sections of the published text dealing specifically with the problems confronting Czech speakers in the acquisition of Russian dynamics, rhythm, melody and speech-sounds, and entitled *Obščie trudnosti postanovki russkoj*

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dinamiki i ritma (General difficulties in the production of Russian dynamics and rhythm), *Obščie trudnosti postanovki russkoj melodii* (General difficulties in the production of Russian melody), and so on. For these sections spell out in some detail the most significant features of the process of acquiring correct Russian pronunciation in the case of native speakers of Czech and in doing so provide a detailed rationale for the collection of exercises. What is established beyond doubt is the mutual dependence of both the theoretical and practical components of Professor Oliverius's course. One is indispensable to the other.

Notes

1. Z.F. Oliverius, *Fonetika russkogo jazyka,* Státní pedagogické nakladatelství, Prague, 1974, p.7.

2. Z.F. Oliverius, *Fonetika russkogo jazyka. Čast' vtoraja, Upražnenija,* Unpublished manuscript, p.256 (as numbered in the manuscript).

3. Z.F. Oliverius, *Fonetika russkogo jazyka,* Prague, 1974, pp.53, 54.

4. *Ibid.,* p.65.

5. *Ibid.,* p.53.

6. *Ibid.,* p.64.

7. *Ibid.,* p.6.

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SELECTED ARTICLES
By Z.F. Oliverius

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SOME PROBLEMS OF THE MODE OF VERBAL ACTION

1. The mode of verbal action and its place in the language system.

The mode of verbal action (*actio verbi, Aktionsart, Handlungsart, sposob glagol'nogo dejstvija, soveršaemost', podvid* and so on) and its formal realization in language are understood by different authors in different, sometimes even contradictory ways.

Amongst the many conceptions of the mode of verbal action one can point at present to two concepts which are contrary to a significant degree. Some authors note the relatively high degree of abstraction of various modifying meanings of verbs and their semantic interaction with the central grammatical categories of Russian. These authors, then, naturally exhibit a tendency to conceive the mode of verbal action as a phenomenon straddling the purely grammatical and derivational sphere of language (or one approaching the realm of grammar).[1]

Others, interested more in the polymorphy of derivational mechanisms in expressing the mode of verbal action and recognizing the maintenance of the basic lexical significance of prefixes, assign the mode of verbal action to the sphere of lexicology and exclude it from the description of the Russian grammatical system.[2]

V. Šmilauer[3] *et.al.*[4] assign the semantics of the mode of verbal action to lexical meaning. I.P. Mučnik, who includes in the category of aspect the prefixal correlations also and regards it as "basically form-building", concludes: "A fusion of all aspectual forms into a uniform system of conjugation is possible only when based on the maximal abstraction of aspect correlations; nevertheless, as we have seen, such maximally abstract correlations can only be found among suffixal ones, so that these alone may form the basis of Russian conjugation."[5] It follows from this that the mode of verbal action in Mučnik's conception remains outside the grammatical sphere of language, in the word-forming one.

2. Invariable meanings of preposition-prefixal morphemes.

Morphemic analysis confirms the view justifying the grouping of corresponding prepositional and prefixal morphs in one morpheme:[6] whilst preserving the identity of the invariable meanings, the corresponding prepositions and prefixes are in a relationship of complementary distribution, even though, of course, blank places will appear in the system in some cases. Grammars of contemporary Russian in the

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enumeration of primary prepositions usually give sixteen morphemes, functioning both as prepositions and prefixes: /v/, /do/, /za/, /iz/, /na/, /nad/, /o/, /ot/, /po/, /pod/, /pr,ed/, /p,er,ed/, /pr,i/, /pro/, /s/, /u/. Six morphemes of like type appear only as verbal prefixes: /vz-/, /vi-/, /n,iz-/, /p,er,e-/, /pr,e-/, /raz-/.

In quite a few linguistic publications prepositions (and prefixes) are defined as grammatical (auxiliary, synsemantic, *nesamostojatel'nye, služebnye*, and so on) words, alternately word-classes, lacking lexical meaning. Thence follow, *inter alia*, various theories about so-called purely aspectual prefixes.[7]

In accord with Maslov's views[8] I consider perfectivization as a side-product of prefixion. A prefix retains its invariable meaning in all instances of use. The overlapping of semantic components of prefix and verbal stem (*na*-"surface contact" -*psat* "make signs on surface") can lead in a superficial analysis to a notion that verbal pairs of the type *psát-napsat* have an identical lexical meaning. In a more meticulous analysis one should surely note that the second word in the quoted pair expresses one semantic component twice, which invariably leads to separateness of this verbal meaning as a lexical whole. This separateness is — apart from other implications — also manifested in the existence of the rare aspect *napisovat*. The overlapping of semantic components can be explained, in my opinion, by so-called subsumption only partially.

The words *blížit se- přiblížit se* [9] must needs be distinguished in translation: *Blížilo se jaro. — Spring was approaching. Spring was coming near(er). Spring came nearer.*ν *Přiblížilo se jaro. — Spring was near. Spring came near. Spring has come near.*

Nevertheless many linguists reject the concept of prepositions and prefixes as merely formal (grammatical) elements and point out their undeniable lexical meaning.[10]

Can it be that differences of the type *iz goroda* out of the town — *ot goroda* away from the town — *do goroda* as far as the town; *pod stol* under the table — *za stol* behind the table — *v stol* into the table, are explicable other than lexically? Many linguists do not recognize the lexical side of the meaning of prepositions clearly, in the main on account of their abstract connotations (especially in metaphoric senses) and also their auxiliary (service) character manifested in their syntactical dependence.

"Russian prepositions, of course, have not yet lost their lexical

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peculiarity in the sense of becoming mere case-prefixes totally deprived of the function of expressing adverbial relations".[11]

It is possible to establish the invariable significance of prepositions proceeding from their most varied positional modifications. On the basis of the set of all concrete positional variants of one preposition-prefixal morpheme one may interpret its invariable meaning as a set of semantic components occurring in all cases of using the morpheme (disregarding the exclusion of components according to the principles of semantic incompatibility).[12]

On the basis of juxtaposing invariable elements in individual pairs of preposition-prefixal morphemes, their components are identified as members of a given semantic paradigm, and the structure of a set of distinctive semantic elements is set up.

The invariable meanings of preposition-prefixal morphemes in Russian on the level of spatial relations can be described with the aid of the following variables: 1. coordinates, 2. direction, (1 and 2 determine the location of an object in space in relation to a fixed point), 3. distance, 4. motion, cf. the table below. Some authors work with a greater number of variables, for example, with the notions of circular/straight etc.

The basic semantic contrast can be seen in the opposition "positive v. negative direction on a vertical coordinate". In many cases syncretism of this opposition and the contrast "positive v. negative direction on a horizontal coordinate" obtains cf., for example, the meaning of prepositions *na stole* on the table — *na stene* on the wall , *po pojas* up to the waist— *po sledam* on the trail, *so stola* off the table — *so steny* off the wall.

Neutralizations of the positive and negative direction (on the abscissa and ordinate) refer to space located to the left or right of a fixed point or, alternately, around it, for example, *pri doroge* by the side of the road, *pri dome* at the house; *bok o bok* side by side, *o spinku* against the back, *o dvuch koncach* double-edged; *oblivat'* to pour over, *okrašivat'* to paint, *obchodit'* to go around.

The characterization of placing an object in space with reference to a fixed point is compounded in some cases with the expression of contact or distance. In Slavic languages the opposition "definite v. zero distance (= contact)" is linked in the plane of expression with the element /-d/: *nad stolom* over the table — *na stole* on the table, *pod pojas* below the waist — *po pojas* up to the waist.

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Location in space				
coordinate (+ abscissa, horizontal co-ordinate. — ordinate, vertical co-ordinate)	direction (+ positive — negative.	distance (+ definite. — zero distance, contact)		
+	+	+ —	pered, pred, (raz) (na), (s-), (vz +)	1 2
	−	+ —	za (po)	3 4
	o	+ —	(u)? (do +), (o), (ot -), (pri)	5 6
−	+	+ —	nad, (raz =) (na), (s -), (vz +) pere (o), pre (o)	7 8
	−	+ —	pod (po), niz (+)	9 10
	o	+ —	(u)? (do +), (o), (ot -), (pri)	11 12
o	+	+ —		13 14
	−	+ —		15 16
	o	+ —	vy (−) v, iz (−), pro (o)	17 18

(In parentheses semantic components of motion are shown with the examples:
+ towards the object,
− away from the object,
= away from the object in various directions,
o through the object.)

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Prepositions as a rule do not express motion. Motion (to the object — from the object) is one of the invariable meanings of cases, for example, *na stol* onto the table (αἰτιατικὴ πτῶσις, *Kasus, der das Bewirkte bezeichnet; Bezugskasus*; petitive), *na stole* on the table (*locativus, aspectus staticus*, static).[13] In some cases, however, the preposition-prefixal morphemes include the semantic component of motion to the object: *do samych gor* all the way to the mountains, *do lesa* as far as the woods, *doletet'* to fly so far, *vzletet'* to fly up; from the object: *so stola* off the table, *so steny* off the wall (here overlapping obtains with the corresponding semantic components of an invariable meaning of the genitive), *sletet'* to fly down, *soskočit'* to jump off, *ot doma* from the house, *ot rošči* from the grove, *ot"echat'* to drive off, *otodvinut'* to move away; or even through the object: *probit'* to pierce, *proteč'* to leak. Motion from the object in different directions is expressed with the prefix *raz-: razbežat'sja* to scatter, running, *razojtis'* to disperse, *razrubit'* to chop into pieces.

3. Basic and specific meanings of preposition-prefixal morphemes.

The concrete senses of a prefix in connexion with diverse verbal bases form a complex set of lexical-significative nuances, only some of which may be singled out as semantic tokens of the mode of verbal action. Authors who approach the problem in like manner assume that a dividing line can be drawn in a continuous line of semantic nuances. "Prefixes which initially have a clearly lexical nature can shed the original meaning in the process of grammaticalization and develop general and abstract meanings ... . Let us demonstrate with the case of the prefix *ot-*. The prefix *ot-/oto-* in the verbs *otrezat'* to cut off, *otorvat'* to tear off, *otbežat'* to run off, *et cetera* corresponds to the preposition in its spatial relevance — "distancing from who/what" ... . In the process of grammaticalization the prefix acquired the meaning of resultativeness, completion of action ... *otobedat'* to finish dinner, *otužinat'* to finish supper , *otslušat'* to finish listening, *otpet'* to finish singing."[14] In my view it would be hard to prove that the meaning of resultativeness, completion is lacking in verbs like *otrezat'*, *otorvat'*, *otbežat'* and that the meaning of "distancing" is not evident in verbs of the type *otobedat'*, *otužinat'* etc. The concrete meanings of the prefix *ot-* in both types of verb have something in common. "It is usually asserted that in addition to the two objects compared, a *tertium comparationis* is still required. This *tertium*, however,

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is not something new, ascribed from outside to the comparison, but a part of the content of the complexes compared, concepts proper to both."[15]

The central problem, to which in the last resort the linguists' efforts should be directed, is an account of the semantics of Russian prefixed verbs. The basic meanings of preposition-prefixal morphemes, defined by the most general notions of location in space, distance and motion, are realized through interaction with the meanings of verbal bases as particular specific meanings.

The basic sense of the prefix *pere-:* "direction of action over a sector" (of space, time, intensity etc.) is interpreted in dependence on the verbal base as direction over a spatial sector (*perebežat'* to run across, *perejti to cross*, perebrosit' to throw over), a time sector (*peredelat'* to remake, *perestroit'* to rebuild), an intensity sector (*perechvalit'* to overpraise, *perevertet' vint* to overtighten a screw, *perežeč' lampu* to burn out a lamp), etc., which in traditional dictionaries is expressed as "direction of action from one place to another" (*peredvinut'* to move over, *peresest'* to change seats, *perebrosit'* to throw over), "excess of action" (*perevarit'* to overcook, *perederžat'* to overexpose), "extension of action to plurality of objects" (*perelovit'* to catch, *perestreljat'* to shoot, *perebit'* to massacre) etc.

The possibility of interpreting general (spatial) senses of preposition-prefixal morphemes as temporal relations (conceivably with shades of intensity) etc. is psychically conditioned. The positive and negative direction on a horizontal coordinate in space is easily transferred to concepts of a temporal axis; the connexion of the positive direction flowing from human experience to a vertical coordinate (and motion in that direction) with intensive output of energy becomes a prerequisite for transferring the sense from spatial relations to ones of intensification: *vzbežat'* to run up, *vzletet'* to fly up, *vzojti'* to ascend *vskriknut'* to scream out, *vzrevet'* to utter a roar etc.

On the grounds of its close affinity with Russian it is mostly possible in Czech to establish agreement in the lexical and morphemic structure of words (*prijti - přijít*) but in numerous cases a different morpheme corresponds to the Russian – granted agreement of meaning: (*nadkusit'* to nibble at – *nakousnout, pokurit'* to have a smoke – *zakouřit si*); in some cases the meaning of the Russian morpheme is expressed in Czech with a whole word (*otdežurit'* to finish being on duty – *skončit službu; ona perebila vsju posudu* she broke all the dishes –

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postupně rozbila všechno nádobí).

In languages only remotely related to Russian, as, for example, English, the situation differs more. There are very few cases of morphemic and lexical agreement; they must rather be seen as exceptions (*pereutomit' – overfatigue; perepolnit' – overcrowd; otrazit' svet – reflect, vozvratit'; vozmestit' –refund, peregruppirovat' –regroup*). However, fairly frequent are English constructions with postpositions, lexically corresponding to Russian prepositions (*vybrosit' –to throw out; vyvesti –to lead out, to take out, to give out; výdat' –to give away, to give up; perebrosit' –to throw over, to throw to another place; pribežat' –to run to, to run up, come running; prikinut' –to throw to, throw in, to fling in; prikovat' –to forge to, to chain to*). Numerous also are English periphrastic forms corresponding to Russian prefixed verbs (*zagovorit' –to begin conversation, to start speaking;zakurit' –to begin to smoke, to light a cigarette; zaigrat' –to begin to play; zaplakat' –to begin to weep; poletet' –to take flight, to fly off, to fly away; nadkusit' –to bite a little, to give a bite; nadlomit' –to break partly, to begin to break; otdežurit' –to finish being on duty; otzvučat' — to cease sounding, sound no more; otrabotat' — finish one's work, to finish, to work out*). Also common are English parallels of Russian prefixed verbs comprising English simple verbs (*perevjazat' –to bind, to tie, to bandage; pribit' –to fix, to fasten, to nail, to pin; privesti –to bring; privjazat' –to tie, to fasten, to bind, priechat' –to come, to arrive*).

4. Some conclusions

It is generally recognized that grammatical categories are formed by the unity of the signifier and the signified (joining elements from the planes of expression and meaning). There is, further, no doubt also that the basic meaning of any grammatical category is subject to modification under the influence of context — compare, for example, the various shades of meaning of the imperfective aspect (*sprašival* was asking, *govoril* was talking, *sidel* was sitting) and of the instrumental (*ubit pulej* killed with a bullet, *ubit vragom* killed by the enemy) etc.

Diverse semantic elements constituting the meanings of individual modes of verbal action can be derived from more general, invariable meanings (of preposition-prefixal morphemes and others), which in connexion with certain verbal bases receive contextual, specific shades of meaning. The unorthogonal, only partially organized paradigm of the mode of verbal action in the Slavic languages has so far not got its own set of invariable meanings.

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The meaning of individual modes of verbal action is not un-equivocally connected with elements of the expression plane (prefixes, suffixes etc.); on the contrary, it is either an immanent component of the semantic structure of the plain word, for example, *dat'* to give, or a result of a semantic interaction of its components, for example, *peredelat'* to remake, *overcrowd, streljat'* to shoot.

Needless to say, the analysis of the expression plane of various modes of verbal action is also extraordinarily instructive. The theories which hold that even formally unexpressed modes of verbal action are a component of this subsystem[16] have momentous implications. If we regard certain languages from this angle (English, Swahili etc.), we find in them a similar system of meanings of modes of verbal action, as in-dispensably axiomatic. Meanings generally known in linguistics under the heading of mode of verbal action, as, for example, phase of action, its intensity etc., are very frequently (approximately in inverse propor-tion to the complexity of the morphemic structure of a given language) merely a component of the semantics of simple words, compare, for ex-ample, English *bring, lie, come, shoot.*

Notes

1. N.Ju. Švedova (editor), *Grammatika sovremennogo russkogo literaturnogo jazyka/* The Grammar of Contemporary Literary Russian, Moscow, 1970.

2. V.V. Vinogradov, *Russkij jazyk — grammatičeskoe učenie o slove/* Russian — The Grammatical Doctrine of the Word, Moscow, 1947.

3. V.Šmilauer, "Slovesný vid a způsob slovesného děje" / Verbal aspect and the mode of verbal action, *První hovory o českém jazyce,* Prague, 1946.

4. B. Havránek, A. Jedlička, *Česká mluvnice /* A Czech Grammar, Prague, 1970.

5. I.P. Mučnik, *Grammatičeskie kategorii v sovremennom russkom literaturnom jazyke /* Grammatical Categories in Contemporary Literary Russian, Moscow, 1971, pp.128-9.

6. Z.F. Oliverius, "Morfemnyj analiz sovremennogo russkogo jazyka" / A morpheme analysis of contemporary Russian, *Problemy sovremennoj lingvistiki,* Prague, 1967, pp.9-79.
Z.F. Oliverius, "A Contribution to the Semantic Analysis of Russian Affixal Mor-phemes", *The Slavic Word,* Mouton, The Hague, 1972, pp.96-116.

7. F. Kopečný, *Slovesný vid v češtině /* Verbal Aspect in Czech, Prague, 1972, p.90.
I. Poldauf, *Podíl mluvnice a slovníku na problematice slovesného vidu /* A Gram-mar and Dictionary's Share in the Problems of Verbal Aspect, Prague, 1954.

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8. J.S. Maslov, "Zur Entstehungsgeschichte des slavischen Verbalaspektes", *Zeitschrift für Slavistik,* 1959.

9. Examples from F. Kopečný, see work mentioned in Note 7, p.90.

10. A.S. Šiškov, "Nečto o predlogach" / Something on prepositions, *Sobranie sočinenij i perevodov,* 5, St. Petersburg, 1825.
    D.N. Ovsjaniko-Kulikovskij, *Sintaksis russkogo jazyka* / The Syntax of Russian, St. Petersburg, 1912.
    V.V. Vinogradov, see work mentioned in Note 2.
    N.I. Astaf'eva, *Predlogi v russkom jazyke i osobennosti ich upotreblenija* / Prepositions in Russian and Features of their Use, Minsk, 1974.

11. V.V. Vinogradov, see work mentioned in Note 2, p.677.

12. Z.F. Oliverius, "Semantic Rules in Sentence Generation and Interpretation", *Filologické studie,* 3, Prague, 1972, pp.39-53.

13. For a more detailed interpretation and argumentation cf. Z.F. Oliverius, "A Contribution to the Semantic Analysis of Russian Affixal Morphemes", *The Slavic Word,* The Hague, Mouton. 1972, pp.96-116.

14. V.I. Nikitevič, *Grammatičeskie kategorii v sovremennom russkom jazyke* / The Grammatical Categories in Contemporary Russian, Moscow, 1963, pp.135-6.

15. G. Paul, *Principy istorii jazyka* / The Principles of the History of Language, Moscow, 1960, p.162.

16. N.Ju. Švedova (editor), see work mentioned in Note 1, p.347.

SEMANTIC RULES FOR THE GENERATION AND INTERPRETATION OF RUSSIAN WORDS

Introduction

Linguistic semantics is passing through a period of rapid development. Year by year the number of publications concerned with this set of problems increases, and, if at the beginning of the century serious works devoted to linguistic semantics numbered only a few, then in recent years dozens of works have appeared, developing various trends in semantics.

One needs to note, however, that the main problems in linguistic semantics receive the most diverse and, sometimes, totally incompatible discussions in the works of various scholars. Great interest was created among linguists by the attempt to produce a so-called textocentric semantics outlined in the works of Katz and Fodor, Katz and Postal and others.[1] In a short time a whole series of critical articles appeared, discussing this semantic theory.[2]

The search for an adequate theory able to elucidate the meaning of all possible utterances is taken by Katz and Fodor in a direction that proceeds from a denial of the possibility of constructing a semantic theory on "the complete socio-physical environment of an utterance" (work mentioned in Note 1, 488), that is, in other words, on the sum of knowledge of the world, shared by the speakers of the given language. Katz and Fodor probably suppose that to create a semantic theory of acceptable adequacy it is possible to confine oneself to a so-called weak theory which can "interpret speech inasmuch as this interpretation is determined by the grammatical and semantic relationships existing within the sentences of speech and among them: that is, that such a theory must explain speech in a similar way to a speaker suffering from amnesia in the area of non-linguistic facts, but not from aphasia" (*ibid.*, 490). The basic task of the semantic theory put forward by Katz and Fodor is "the disambiguation" of sentences, that is, the elimination of ambiguity, vagueness and indeterminacy from sentences and the words comprising them. Let us now see where the pivotal concept of ambiguity or indeterminacy in the theory of Katz and Fodor originates: the meaning of a sentence is determined on the basis of a dictionary of lexemes and so-called projection rules. The dictionary of lexemes, in the understanding of Katz and Fodor, has the form of a set of dictionary entries in which the affiliation of a word to this or that part of

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speech is designated by a corresponding marker, while the principal and figurative meanings of the word are uncovered by means of interpretation (most frequently, two-phase). In this way different meanings of one word are determined by a system of grammatical and semantic indicators and so-called discriminators. A dictionary entry is presented in the form of a tree in which first of all grammatical indicators (noun, verb and so on) are given, then semantic indicators ("person", "animal", "masculine gender", "young", and the like) and finally so-called discriminators ("one who has never been married", "one who has been awarded the first or lowest academic degree", *et cetera*). In fact, taking the point of view that a semantic theory must rest not only on a listing of the elements but also on a description of the semantic rules, we do not find ourselves at all compelled to give up every hope of simplifying and systematizing the descriptive characteristics of the semantics of linguistic units and of predicting new meanings not attested by a dictionary entry that have been called forth by the conditions of new combinations of words in a sentence.

Two mutually determined tendencies

In a language system the contrast between the finite number of linguistic resources and the infinite (or, more accurately, essentially infinite) number of possible utterances is deeply rooted and, in all probability, reflects fundamental properties of human memory. Adequate communication could be based on the creation of an essentially infinite stock of units (for example, words) linked directly with the facts of objective reality. The speakers of such a communication system would need an enormous memory! The sole alternative is a sharp reduction in the number of linguistic units and the introduction of relatively reliable rules for the modification of meanings. The semantic theory of Katz and Postal follows the first, unnatural direction. There are grounds for thinking that at the present stage of development in linguistics it is possible and expedient to make an attempt to create a dynamic semantic theory that rests on a minimal number of semantic units and a system of compatibility rules.[3]

A reduction in the number of linguistic units is accompanied by a tendency towards abstractness in their meaning. Consequently, in the functioning of a natural communication system two opposing tendencies are observed: a tendency towards abstractness or generality of meaning, which becomes apparent in the process of formation of mean-

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ings of linguistic units (words, morphemes), and a tendency towards concreteness or particularity of meaning, which is active in the production and interpretation of speech. The development of human society and the complicating of man's economic, social and cultural activity are accompanied by an expansion of the sphere of the compatibility rules which modify and concretize the meanings of words in new contexts. This problem of the relationship between polysemy and cultural progress is an old problem[4] which does not cease to attract the attention of twentieth-century linguists.[5] According to the so-called principle of plurality of meanings, formulated by J.K. Zipf (*op.cit.*), the number of different meanings of one word approximates to the square root of its relative frequency.

What proves to be essential here is not the question of the soundness of the ultra-precise formulae for the relationship between the number of different meanings of a word and the relative frequency of its occurrence, but the presence of a general correlation between the number of semantic elements in a language (sentences, words, morphemes) and the abstractness or generality of their meaning.[6] While making the transition between levels of linguistic units, one can observe the inverse proportionality between the number of elements at a given level and the abstractness or generality of their meaning.

In the findings given below I start from the hypothesis that the generation of an infinite number of marked sentences is possible on the basis of a finite number of linguistic resources (that is, a finite number of symbolic units and a finite number of compatibility rules). The meaning of the symbolic units in the concept being brought to the attention of readers does not correspond to "the frozen pantomime" of the dictionary entry of Katz and Fodor, but to the abstract basic meaning (general meaning, context-free meaning, *Gesamtbedeutung, signification générale*, and so on). Secondary, figurative meanings (figurative meaning, contextual meaning, *spezifische Bedeutung, signification spécifique* and so on) are explicable in principle by an interaction, which can be described by the compatibility rules, of the basic meanings of the units of a given combination.

Semantic invariants

Behind every text there always stands a system which determines the possibility of overcoming the discontinuity between the finiteness of the linguistic resources and the infiniteness of the real situations to which

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speakers of the language need to react. By means of analysis the text can be broken down into a limited number of elements which are constantly repeated in different combinations.

Logical semantics, which is the basis of a whole series of linguistic works, not excluding the semantic theory of Katz and Fodor, "studies the relation of linguistic expressions to the objects being signified and to the content being expressed".[7] However, with the followers and even with the creators themselves of various theories of logical semantics there is a tendency to examine the relation of expressions to logically ordered objects and to ignore the "analogous" or "pre-logical" ordering inherent in the purely linguistic form of the content. A regular result of such shorting is the excessive concretization of meanings, which leads to the treatment of a word's contextual meanings as some semantic invariant. Thus diagrams appear in the form of a tree (cf. Katz and Fodor, work mentioned in Note 1) or in the form of a traditional dictionary entry, which reflect not only a semantic invariant, but also positional variations in meaning. As is well known, traditional dictionary entries also give, along with the meanings of a word, "peculiarities in the use of a word, characteristic of this or that meaning" (*Slovar' russkogo jazyka* Dictionary of Russian, I, Moscow, 1957-1961, VIII). Forming the basis of this approach, which takes into account and organizes into a definite hierarchy separate meanings of a word in one dictionary entry, is the idea of the basic identity of the given linguistic unit as an invariant, and of the possibility of the positional modification of the given invariant. It is not difficult to observe that positional meanings of a word occur in a relationship of complementary distribution which is considered sufficient grounds for bringing various allo-elements together in a corresponding emic unit (phoneme, morpheme, *et cetera*).

In what follows I shall start from the theoretical premise that each linguistic form has a constant and specific meaning. Taking into account, as far as possible, all manifestations of all existing variants, the concept of the general meaning of a word or morpheme is constructed with the help of abstraction. In the four-volume *Slovar' russkogo jazyka* twenty-five meanings of the word *idti* are given, not counting so-called shades of meaning. The meanings "to move, stepping with one's feet, taking steps (of man and animal)", "to move in a definite direction, along a definite route, to travel, to swim, to fly (of means of transportation)", "to move in a mass, in a flow, in succession (of the

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movement of clouds, water, air)", and so on occur in a relationship of complementary distribution; they are substitutable. With sufficient clarity this follows from the content of the dictionary entry: the positions characterized by the words "of the movement of clouds, water, air" are complementary. All the disparity in the meaning of the word *idti* can be ascribed, consequently, to position. For a comparison one can look at the dictionary entry for the word *est'* in the same dictionary: the meaning "to take food, to feed" covers the most diverse types of action, as, for example, "to eat soup with a spoon", "to eat meat with a knife and fork", "to eat bread and butter", "to eat cherries", "to eat nuts", and so on. By analogy with the atomization of the meaning of the word *idti* splitting the meaning of the word *est'* into several shades of meaning is conceivable. But, on the other hand, by analogy with the elaboration of the dictionary entry for the word *est'* it is possible to imagine easily the construction of an abstract concept of the sort "motion, movement" without further attributes and to consider remaining meanings positional variants. The meaning "to move, stepping with one's feet, taking steps" can be considered the natural result of the interaction of the abstract meaning "motion, movement" and the relevant or irrelevant semantic components of a word (or words) from the immediate context or situation (for example, *čelovek*/man, *životnoe*/animal, *poezd*/train, *mašina*/car, *oblako*/cloud, *voda*/water, et cetera). As one can see from the brief exposition of the basic propositions, behind the tens and hundreds of different uses of linguistic units (words, morphemes) lies an abstract, common invariant meaning. The search for invariant meanings has occupied linguists for more than two thousand years in the realm of endings and certain suffixes, but, on the other hand, in the realm of roots and some other suffixes a certain horror abstracti reigns.

A definition of a common invariant meaning can be revealed in the example of case endings,[1] certain pronouns,[2] et cetera. These examples, whose number may easily be multiplied, are sufficient for illustrating the principle and for drawing the necessary conclusions. To serve as an initial example, here let us take the suffix *-in-*. In *Grammatika sovremennogo russkogo literaturnogo jazyka* The Grammar of Modern Literary Russian (Moscow 1970) the suffix *-in-* appears in not less than thirty-one paragraphs (sometimes as part of compound suffixes of the type *-an-in-*). Table 1 shows all the paragraphs in which there is reference to the suffix *-in-*, with the exception of obvious repetitions

(for example, in compound words and so on, cf. §§ 229, 351, 384, 394, 345, et cetera). For the time being the following are also left on one side: 1. the suffix *-in-* with the meaning of "belonging to one who is named by the motivating word" — *Tanin*/Tanja's, *l'vinyj*/lion's (§§ 412, 415), and 2. the suffix *-in-*, which denotes "a substance according to a feature named by the motivating word" — *èlastin*/elastin, "substances, materials" — *stimulin*/stimulin, and "remedies against what is named by the motivating word" — *antispazmin*/antispasmine (§§ 151, 206 and 332).

If we abstract from the definitions of the various shades of meaning of the suffix *-in-* in Table 1 (the definitions are given according to *Grammatika sovremennogo russkogo literaturnogo jazyka* The Grammar of Modern Literary Russian, Moscow, 1970 without changes), then one more or less indisputable semantic component common to all the definitions will remain: "object" (in the most abstract sense of the word — "phenomenon of reality"). One can, and even must, add to it one more component: "singleness". The shades of meaning given in Table 1 in the last column can be interpreted in the following way: 1. (*-in-* after verbal roots): an object characterized by a relationship with an action (§§ 85, 119); 2. (*-in-* after adjectival roots or the suffixes *-n-*, *-ov-*, *-at-*, *-l'-*, *-šč-*, *-an-*, et cetera): an object characterized by a relationship with a quality (§§ 132, 133, 145, 157, 163, 176, 177 (?), 193); 3. (*-in-* after nominal, substantive roots): an object characterized by a relationship with an object (§§ 194, 226, 268). Together with these three most general semantic components, two types of semantic components characterizing words with the morpheme *-in-* must be taken into account: 1. semantic componets which have arisen as a result of the reciprocal influence of the meaning of the suffix *-in-* and the meaning of the root or other suffixes immediately preceding the suffix *-in-* (see below for more detail on this); 2. semantic components which have appeared only in the process of using an already finished word, that is, which exist at the level of the word, but not at the level of the grouping of the morphemes; the meaning of a word, undoubtedly, is not the sum of the meanings of the morphemes that compose it (compare the opposite point of view of Katz and Fodor, *op.cit.*, 510), but something greater — compare, for example, the meanings "abstract feature" and "place" with words of the type *glubina*/depth, heart, *veršina*/peak, summit.

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Compatibility rules

Despite the fact that componential analysis is still passing through a period of infancy and is coming face to face with significant difficulties, one may suppose that at the present level of development in the methodology of componential analysis[10] it is possible to study seriously the question of the description of meaning with respect to components and the problems of the hierarchy of semantic components. In another place (compare the work mentioned in Note 3) I have attempted to substantiate the premise that semantic components form a structure in which distinctive components stand out with particular clarity and in which there is a place for non-distinctive components that are a reflection of the understanding of reality by the speakers of the language. An attempt to banish from semantics speakers' ideas about the external world regularly leads to the creation of a wooden system deprived of the possibility of development.[11]

Along with the importance of the factor of a set of elements with the internal semantic structure of components arranged on a hierarchical ladder, great significance is acquired by the factor of compatibility rules which reflect the reciprocal influence of the semantics of neighbouring elements with regard to the speakers' knowledge of reality.

The concept of theme and rheme, conceived in the Prague School and being developed at the present time by various scholars from Czechoslovakia and other countries,[12] needs to be recognized as the most important one for the mechanism of applying semantic rules in a language. An element (word or morpheme) occurring in the strong position of the theme accepts compatible semantic components and rejects incompatible ones making up the meaning of an element in the weak position of the rheme. For example, in sentences of the type *On (Suslov) — takaja chitraja lisa/* He (Suslov) is such a cunning fox (M. Gor'kij, *Žizn' Klima Samgina/*The Life of Klim Samgin) the word *on/*he occurs in the position of the theme; the speaker and listener accept it as a given fact and one already established with definite clarity. Consequetly, all components of the meaning of the word *lisa/*fox, which occurs in the weak position of the rheme, are passed through the sieve of the components of the word in the strong position and incompatible components of the word *lisa/*fox are rejected (for example, "membership of the dog family", "sharp snout", "fluffy tail") and only compatible components are accepted of the sort: "cunning", "smoothness of speech", "slyness".[13]

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Analogous relationships can be found between morphemes and groups of morphemes. First of all, it is necessary to say that the relative strength of the morpheme-positions in a word increases towards the end of the word.[14] It is well-known that derivational suffixes can alter a word's affiliation with the parts of speech. This is completely explainable by the increase in the strength of the morpheme-positions towards the end of the word — the last derivational morpheme has decisive significance in determining the general meaning of the word.

To determine the meaning of a combination of morphemes a mechanism is necessary to compare the semantic components of both morphemes influencing each other (or groups of morphemes) and to select compatible elements and reject incompatible ones. Of the semantic components of a verb's root-morphemes only the component "result of the action" is completely compatible with the components "object" and "singleness" (*carapina*/scratch, *treščina*/crack, *proboina*/breach, and so on). The semantics of final morphemes in pluralia tantum can be recognized as the immediate cause of the interpretation "names of ceremonies" (i.e. "all acts connected with a given action"). In connection with stems (simple or complex) characterized as the designation of a feature (*vyš-, ryž-, četver-t-, byv-a-l'-šč-*) the components of the suffix *-in-* preserve the most general (initial) meaning which can be interpreted as "the name of the feature" or "the name of an object characterized by the given feature". Additional meanings of "places" (*ravnina*/plain, *Poltavščina*/district of Poltava), "parts of a whole" (*četvertina*/vessel holding a quarter of a pail), "philosophical or political movement" (*sub"ektivščina*/subjectivist movement, *chovanščina*/political movement of Russian soldiers in 1682), and "fabric, substance" (*meškovina*/sackcloth, *parusina*/sailcloth) are selected from the semantic components of the given morphemes in the weak position. The stems of nouns, which already contained the semantic components "singleness" and "object", take the general meaning of "secondary, less essential single object" (*baranina*/mutton, *verbljužina*/camel-hide, *boginja*/goddess, *grafinja*/countess, *gusynja*/goose (female), *domina*/ large house, *duračina*/fool), and are distinguished further as a result of the intensification of definite semantic components, as, for example, "flesh", "female". In the stems of collective nouns deprived of the semantic component of "singleness" the most diverse components are activated, compatible with the concept of singleness contained in the suffix *-in-*: "granule" (*biserina*/bead,

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žemčužina/pearl), "berry" (*černičina*/bilberry, *malinina*/raspberry), "stalk" (*solomina*/straw), "tuber" (*kartofelina*/potato), "seed" (*gorošina*/pea), and so on. In the stems of nouns of the type *gruz-*, *litv-* or *rossi-jan-*, *sever-jan-* a process takes place before the suffix *-in-*, analogous to the formation of the meaning of words motivated by collective nouns or the stems of adjectives.

In definitions of different morphemes put forward by *Grammatika sovremennogo russkogo literaturnogo jazyka* (1970) semantic components of neighbouring morphemes also sometimes appear: so, for example, in § 133 "an expression of disapproval, of negative assessment" is not connected with the suffix *-in-*, but rather with the preceding suffix *-jat-* (*kisljatina*/sour food or drink, *pošljatina*/banality).

The stylistic modification of words of the type *ovražina*/ravine, *pomidorina*/tomato, et cetera (compare § 268 in the work mentioned) can be considered a secondary phenomenon: the stems of nouns, which already contain the semantic components of "singleness" and "object" and do not admit reinterpretations of the type which can be observed with the words *baranina*/mutton, *grafinja*/countess, *domina*/large house, contain the components of "singleness" and "object" twice (once in the stem of the motivating word, once in the suffix *-in-*). Consequently, the singleness of ovrag, sugrob, kirpič and ryba is emphasized by the addition of the suffix *-in-*: hence also the stylistic modification of the words: *ovražina*/ravine, *sugrobina*/snow-drift, *kirpičina*/brick, *rybina*/fish.

Conclusion

The data given above testify to the fact that the definition of a word's meaning can be approached from the level of morphemes in three steps, of which only the first two were taken into consideration in the present article.

1. The first step consists in defining the most general meaning of morphemes as invariants, which has great significance for resolving the question of an inventory of morphemes. At this level a word can be understood as a sequence of morphemes with the most general meanings: *tele-viz-or* TV set ("distance" — "vision" — "agent"), *želt-in-a*/yellow hue ("a colour understood as a feature" — "a single object") and so on.

2. The semantic components of morphemes in the strong position select and emphasize the compatible components or reject and annul

the incompatible components of morphemes in the weak position, which also leads to modification of the abstract meaning of the sequence of morphemes making up the given word and to definite concretization of its meaning: *gorošina*/pea ("one pea seed"), *baranina*/mutton ("sheep's flesh as food"), and so on.

3. The third step in defining a word's meaning, which now goes beyond the framework of the present article, covers semantic shifts in the already finished word.

TABLE 1

§ 85	verb	*in*		*carapina*/scratch *treščina*/crack *proboina*/breach	an object that is the result or target of an action
§ 91	verb + -*l'*- + --*šč*-	*in*		*byval'ščina*/true story	a phenomenon which is characterized by a completed action
§119	verb	*in*	pluralia tantum	*krestiny*/christening *provodiny*/send-off *smotriny*/ceremony of introduction to the bride	names of ceremonies
§132	adjectives	*in*		*pušnina*/furs *dikovina*/wonder *rogatina*/bear-spear *vypuklina*/convexity *dičina*/game *domotkanina*/homespun *ravnina*/plain *makovina*/poppy seed *četvertina*/vessel holding a quarter of a pail *staršina*/foreman; sergeant-major	an object (animate or inanimate) which is characterized by a feature (certain semantic sub-types stand out: a material or collective concept; a place; a space; a concrete inanimate object; a part of a whole; a person)
§133	adjectives (-*l*-) + -*at*-	*in*		*kisljatina*/sour food or drink *pošljatina*/banality	a material or collective concept characterized by a feature with an expression of disapproval, of negative assessment

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§145	adjectives and nouns (geographical and ethnic names)	*in*		*Poltavščina*/district of Poltava *Donščina*/region of the Don *Orlovščina*/district of Orlov	colloquial names of regions, territories in the R.S.F.S.R., Belorussia and the Ukraine
§157	adjectives (-šč-)	*in*		*sub"ektivščina*/subjectivist movement *nelegal'ščina*/ underground movement *chovanščina*/political movement of Russian soldiers in 1682	everyday occurrence or social phenomenon, philosophical or political movement representing an indication of something ... with a shade of negation
§163	adjectives adjectives	*in* *in*		*vyšina*/height *glubina*/depth *širina*/breadth *želtina*/yellow hue *ryžina*/red hue *konopatina*/freckle	abstract sign some small degree of a feature
§176	nouns + -an-/-č-an-	*in*		*rossijanin*/Russian *severjanin*/northerner *marsianin*/Martian *rostovčanin*/inhabitant of Rostov *presviterianin*/ Presbyterian	a person characterized by a relationship with a locality or with a collective, group
§177	nouns	*in*		*gruzin*/Georgian *litvin*/Lithuanian *rusin*/Ukrainian-speaking inhabitant of Galicia, Bukovina and the Carpathian region	a person who is the inhabitant of a country or representative of a people
§193	nouns + -ov-, adjectives	*in*		*nizina*/low-lying place *veršina*/summit *meškovina*/sackcloth *parusina*/sailcloth *pautina*/gossamer *perina*/feather-bed *maslina*/olive	an object (inanimate) characterized by a relationship with an object place, space fabric, substance concrete objects

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§194	nouns (+ -at-)	in		baranina/mutton losjatina/elk-flesh gusjatina/goose-flesh verbljužina/camel-hide losina/elk-skin	flesh of an animal ... used as food (also the hide or fur of an animal)
§226	nouns	in		boginja/goddess vraginja/enemy (female) knjaginja/princess grafinja/countess gusynja/goose (female)	modificational meaning of a person of female gender a person's wife female of an animal
§242	nouns with a collective meaning, with the meaning of a substance, names of paired objects	in		gorošina/pea kartofelina/potato solomina/straw l'dina/ice-floe železina/piece of iron iyžina/ski štanina/trouser-leg štibletina/boot	a single object belonging to the mass of a substance or to the aggregate of homogeneous objects
§266	nouns	in		domina/large house duračina/fool mužičina/large peasant	augmentative meaning
§268	nouns + -ov-	in		ovražina/ravine sugrobina/snow-drift tkanina/piece of cloth syromjatina/raw hide pomidorina/tomato kirpičina/brick zverina[sic]/large wild animal skotina/beast, cattle rybina/fish	names of geographical objects names of substances and materials, mainly fabrics names of single objects names of animals (singulative and collective)

Notes

1. J.J. Katz, J.A. Fodor, *The Structure of a Semantic Theory*, Language 39 (1963), 170-210 (— The Structure of Language. Readings in the Philosophy of Language, Englewood Cliffs, Prentice-Hall, 1964). References are given according to the 1964 edition; J.J. Katz, P.M. Postal, *An Integrated Theory of Linguistic Descriptions*, The M.I.T. Press Research Monographs, No.26, Cambridge, Massachusetts, 1964.

2. D. Bolinger, *The Atomization of Meaning*, Language 41 (1965) 555-573; U. Weinreich, *Explorations in Semantic Theory, Current Trends in Linguistics, III. Theoretical Foundations* (edited by T.A. Sebeok), The Hague, 1966, 395-477; É.M.

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Mednikova, *K kritike nekotorych sovremennych metodov lingvistićeskoj semantiki/* Towards a critique of some contemporary methods in linguistic semantics, Voprosy jazykoznanija, 1969, 3, 36-46 *et al.*

3. Compare also Z.F. Oliverius, *Semantic Rules in Sentence Generation and Interpretation*, Philologica (1972) AUC, 39-53. Z.F. Oliverius, *A Morphemic Analysis of Some Russian Pronouns*, Slavia (1972), 263-273.

4. Cf. M. Bréal, *Essai de sémantique*, Paris, 1897.

5. S. Ullmann, *Semantic Universals*, Universals of Language (edited by J.H. Greenberg), Cambridge, Massachusetts, M.I.T. Press, 1963; G.K. Zipf, *The Meaning-Frequency Relationship of Words*, Journal of General Psychology 33 (1945), 231-246, *et al.*

6. Cf. "Gesamtbedeutung" (R. Jakobson, *Beitrag zur allgemeinen Kasuslehre. Gesamtbedeutungen der russischen Kasus*, TCLP 6 (1936), 240-288; *Quest for the Essence of Language*, Diogenes: An International Review of Philosophy and Humanistic Studies 51 (1965), 21-37) and "signification générale" (L. Hjelmslev, *La catégorie des cas I-II*, Acta Jutlandica 1935-1937, 7, 9).

7. E.D. Smirnova, P.V. Tavanets, *Semantika v logike. Logićeskaja semantika i modal'naja logika/* Semantics in Logic. Logical Semantics and Modal Logic, Moscow, 1967, 3-53.

8. Cf. R. Jakobson, *op.cit.*, 1936; Z.F. Oliverius, *The Russian Case System*, Melbourne Slavonic Studies, 1970, 5-12 and *A Contribution to the Semantic Analysis of Russian Affixal Morphemes*, The Slavic Word, The Hague, 1972, 96-119.

9. Z.F. Oliverius, *A Morphemic Analysis of Some Russian Pronouns*, Slavia (1972), 263-273.

10. Cf. R. Jakobson, *op.cit.*, 1936; Z.S. Harris, *Componential Analysis of a Hebrew Paradigm*, Language 24 (1948), 87-91; W.H. Goodenough, *Componential Analysis and the Study of Meaning*, Language 32 (1956), 195-216; E.H. Bendix, *Componential Analysis of General Vocabulary. The Semantic Structure of a Set of Verbs in English, Hindi and Japanese*, The Hague, 1966; O.G. Revzina, I.I. Revzin, *K postroeniju sistemy differencial'nych priznakov dlja slovoobrazovanija sušćestivitel'nych slavjanskich jazykov/* Towards the construction of a system of differential indicators for the formation of nouns in the Slavic languages, in: To Honor R. Jakobson II, Janua linguarum, The Hague-Paris, 1967-1966, *et al.*

11. Compare the discussion in connection with the theory of Katz and Fodor in J.J. Katz, J.A. Fodor, *op.cit.*, 1963; D. Bolinger, *op.cit.;* Z.F. Oliverius, works mentioned in Note 3, *et al.*

12. Cf. J. Firbas, *A Note on Transition Proper in Functional Sentence Analysis*, Phil. Prag. 8 (1965), 170-176; M.A.K. Halliday, *Notes on Transitivity and Theme in English*, I-III, Journal of Linguistics 3 (1967-1968), 37-81, 199-244; 4, 179-215, *et al.*

13. For more detail see Z.F. Oliverius on this subject, work mentioned in Note 3.

14. Compare also H. Marchand, *The Categories and Types of Present-Day English Word-Formation*, Handbücher für das Studium der Anglistik, Munich, 1969, 61.

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SEMANTIC RULES IN SENTENCE GENERATION AND INTERPRETATION

Introductory Remarks and Problem Statement

The pretension to scientific accuracy has recently extended to the field of semantics and new requirements regarding the nature and goals of semantic research are being carefully formulated and reformulated. One of the more recent attempts to stake out the domain of a semantic theory (Katz and Fodor 1964) which started a very interesting discussion (Bolinger 1965; Weinreich 1966; etc.) deals mainly with the detection of anomalies and the determination of the number of readings of a sentence. Such a version of a semantic theory interprets discourses as would a fluent speaker afflicted with amensia for non-linguistic facts but not with aphasia (Katz and Fodor 1964:490). This amounts to nothing less than building a fence dividing the speaker's and listener's knowledge of their language from their knowledge of the world. This assumption of a wall which excludes the interlocutor's beliefs about matters of fact from the field of a semantic theory has far-reaching theoretical and practical implications. Shall we seriously assume that linguistic ability is divorced from our notion about the external world? While doing this programmatically, Katz and Fodor in practice depart from this assumption in their treatment of dictionary entries, understood as characterizations of every sense a lexical item can bear in any sentence (Katz and Fodor 1964:493). And thus we witness a certain part of the interlocutor's knowledge of the world crossing the carefully built fence under the guise of grammatical and semantic markers and distinguishers characterizing dictionary entries. If we accept the possibility of distinguishing between the different meanings of *bachelor* on the basis of semantic markers and distinguishers (e.g. Human Male — who has never married vs. Animal Male — young fur seal when without a mate during the breeding time) why not accept the possibility of distinguishing between the different meanings of *horse* in horse shoes as opposed to alligator shoes (Katz and Fodor 1964:489) on the basis of semantic markers and distinguishers as for example User vs. Material — dressed hide used in making shoes. The only possible reason for doing so can be found in the simple fact that the first distinction is incorporated in the corresponding dictionary entry while the second one is not. This imbalance in treatment of different words and their meanings in dictionaries may have well-grounded and perfectly

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legitimate reasons: the inbuilt semantic rules can cover the gamut of meanings of words in some cases while being insufficient in others.

Assuming correctly that at the present stage of science there is no serious possibility of systematizing and formalizing all human knowledge of the world, Katz and Fodor turn their attention to the ready-made approximation of a system of notions reflecting the outer world as found in dictionaries. In this article I wish to plead that the simplified version of a systematic account of all human knowledge assuming the form of a traditional dictionary reflects semantic items as well as results of interaction of semantic items and semantic rules in a form preventing any further application of semantic rules. Any semantic theory based on traditional dictionary entries consequently is static rather than dynamic, and is by necessity strictly limited to a very narrow field (Weinreich 1966:397 sq.). Any new usage of a word, not petrified in a dictionary entry presents an insurmountable problem for such a semantic theory, or evokes new ad hoc additions of semantic markers and distinguishers. The only other avenue that can reasonably be suggested as alternative is a dynamic theory, based on well- defined semantic items and semantic rules reflecting those used by native speakers in encoding and decoding sentences. A complete semantic theory of this kind is admittedly impossible, but a simplified version of it can become an approximative model capable of accounting for a number of new combinations in newly formed sentences or sentences heard for the first time. This kind of semantic theory thus makes possible a widening of perspective encompassing step by step the global totality of human knowledge reflected in human speech.

The General Desiderata for a Semantic Theory

A semantic theory which searches for a certain insight into the semantic structure of unprecedented combinations of words (and/or morphemes) in sentences must seek some means to bridge the gap between a finite inventory of words and a (practically) infinite number of possible sentences. At this stage I do not wish to touch on the problem of the interrelation of purport (the thought itself, the intent of the speaker) and the actual linguistic content of the selected word, or the complexity of mechanisms governing the selection of words like *Mrs. Jones, postgraduate student, the young lady* etc. when referring to the same person in a given situation. No long reflection is needed to see that this mechanism is responsible for a substantial part of the infinity of

messages, but does not add to the infinity of sentences. Demonstrative pronouns thus can point to any thinkable purport without any palpable difficulties beyond the necessity of a definite situation capable of specifying the intended purport.

We can distinguish between purely linguistic content (that can be defined internally on the basis of linguistic oppositions) and extra-linguistic connotations (imposed on the meaning of words by the speaker's knowledge and concepts of the outside world). Thus we can find that the purely linguistic content of the word *mother* can be represented by such conceptual components as seniority of generation (senior), collaterality (lineal), and sex of relative (female), which coincides with the first definition given in *The Concise Oxford Dictionary*'female parent'. All connotations beyond the three relevant semantic features mentioned above are positional, irrelevant features resulting from context or situation rather than purely linguistic oppositions. Any semantic markers that could be invented to distinguish between the primary meaning of *mother* given in COD as 'female parent' and some secondary meanings defined as 'head of female religious community', 'apparatus for rearing chickens', etc., are bound to be artificial and far from reflecting any mechanism that can be reasonably expected to function in encoding and decoding natural languages. Instead of aiming at complicated taxonomies of word-meanings based on incoherent and unsystematic grammatical and semantic markers and distinguishers together with a limited set of selection rules it is conceivable to consider a dynamic system of general meanings of words and compatibility rules. This amounts to postulating a drastically reduced number of semantic items and a more powerful set of rules.

It should be mentioned in this connection that semantic items are understood as sets of semantic components or distinctive features (without any irrelevant features explicable as contextual or consituational). Each semantic item is defined strictly in terms of structural delimitation *vis-à-vis* other semantic items of the same system, a semantic change within the system affects to a certain extent all other related items. This primary, general and context-free meaning is the basis for all secondary, transferred or contextual meanings. An early example of this approach can be found in R. Jakobson's (1936) *Gesamtbedeutung* and *spezifische Bedeutung* of Russian cases. At the present state of development of semantic studies a comprehensive all-embracing description of the vocabulary of a natural language is admittedly impossible.

The emphasis upon the common denominator of meaning of each word follows from the assumption that communication is possible only if a one-to-one correspondence between invariants of the planes of content and expression exists and is perceived by language users. Attempts at componential analysis outside the domain of kinship terminology or grammatical paradigms have not been too successful so far, but the number of attempts at research in this direction is constantly growing (Bendix 1966; etc.) and a workable approximation to a componential description of various domains of general vocabulary is not beyond the methodological equipment of modern linguistics. However some inherent qualities of natural communicative systems such as individual variability and constant simultaneous divergent and convergent changes result in overlapping areas and indistinct and shifting boundaries especially in the plane of content and thus rule out any possibility of a final and static semantic description of general vocabulary.

A strictly limited number of semantic items represented as bundles of relevant and irrelevant features would be a deplorably imcomplete nomenclature far from being adequate to render the immense variability of the surrounding world of infinite entities, actions, qualities etc., unless modification were made possible by a simple set of unambiguous rules.

Such rules would necessarily have the character of compatibility rules, suppressing or emphasizing certain semantic components of words and consequently allowing novel combinations of words within a sentence.

Intention and Interpretation

Part of the difficulty with the projection problem as presented by Katz and Fodor (1964) is the assumption of n-tuple semantic ambiguity of words presented to the reader as dictionary entries. It is quite natural then to conceive a theory that *seeks to disambiguate sentences* (Katz and Fodor 1964:490). This treatment of the problem is misleading so far as it tacitly pretends to account for all contextual meanings. However, since the dictionary entries are written to help the user to disambiguate contextual meanings that are beyond certain limits of usual interpretation, many so called ambiguities are left unattended. Thus *soup* (Bolinger 1965) may be disambiguated as 'food for human beings', 'bacterial culture', 'nitroglycerin', 'photographic developer', 'pyroxilin solution', 'wet cement', 'thick clouds', 'power', and

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'predicament' but *king, soldier* etc. are usually not 'disambiguated' as Human beings and Metal statuettes. Unusual but quite legitimate and acceptable metaphoric usage is usually not disambiguated in dictionary entries: the meaning of *mother* characterized by semantic markers Human and Male as e.g. in the sentence *He was mother to me* has not found its way into *The Concise Oxford Dictionary*, but is easily interpreted by native speakers.

The aptitude and ability to produce and interpret novel sentences more or less adequately reflecting concrete situations is the indispensable property of language users allowing them to bridge the gap between finite means of communication systems and infinite needs of communication situations. The set of rules reflecting this valuable human ability is the key to understanding the structure of dictionary entries and to novel usage of words, new metaphors etc.

The unformed purport, the underlying intention of the speakers is formed differently not only in various languages but also in each communicative act. The speaker who has a limited inventory of words at his disposal tries to find one that would cover the purport he has in mind. More often than not he fails to succeed in finding an exact equivalent and he has to look for the nearest miss and straighten it out by contextual modification. In other words he changes the item from the original inventory of lexical invariants by application of semantic rules. Looking for a word expressing something like 'motherly care' and failing to find it the speaker may use the word *mother* after modifying its meaning by suppressing the relevant semantic components Senior, Lineal, Female and emphasizing the irrelevant components that can be described as Tenderness, Care etc. When a person familiar not only with the abstract semantic invariants of the given language perceives the chain of words a similar process operates: the semantic components of words he and mother are confronted and incompatible ones are suppressed, which may lead to emphasizing irrelevant components which are present as a reflection of the listener's knowledge of the surrounding world.

The general mechanism of suppressing and emphasizing certain semantic components must operate along the same lines at both ends of the process of communication, otherwise communication would not be possible. Rules leading the speaker's intention from abstract meanings towards concrete contextual ones necessarily correspond with rules governing the listener's interpretation.

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Semantic Items and Semantic Rules

For the present investigation, which is concerned with semantic interpretation of various combinations of words in sentences, it is both the character of semantic items and semantic rules that is of interest. The contrariety between the finite means of a language and the practical infinity of messages cannot be adequately explained by some unnecessarily large number of ambiguities of lexical items. This approach satisfying the naively realistic concept of signs as signs for something in the outer world inevitably leads to an excessive multiplication of items conceived as rather concrete ones. Such an approach does not leave much room for semantic rules to contribute to the specification of meaning in encoding or decoding. In the light of the foregoing, the whole problem can be viewed as that of looking for a minimal set of abstract semantic items and dynamic rules allowing for modification of meanings in certain contexts or situations.

Polysemantic words like *bachelor* (Katz and Fodor 1964), *soup* (Bolinger 1965) etc. can be shown to share one or more semantic components, to have some general and usually rather abstract content, which nevertheless does not elude description. Linguists are used to abstractions of that type in grammar and in some very limited domains of lexicon, but usually refuse to accept them elsewhere. Aspect, mood, voice etc. in grammar, seniority of generation, collaterality etc. in the domain of kinship terminology are accepted generalizations, while abstract description of items of general vocabulary does not meet general approval. It is at this point that I wish to make the programmatic character of this article quite clear: componential description of general vocabulary is a necessary prolegomenon to a dynamic semantic theory capable of accounting for the processes of metaphorical invention and other types of novel combinations of words.

A semantic theory will attain its dynamic form by building on componential description of semantic loads of lexical items, the general meaning of which is usually unambiguous and more or less abstract. Experience of traditional descriptions of grammatical categories, componential analyses of pronoun systems and kinship terminologies, and last but not least, recent attempts at componential description of some domains of general vocabularies is sufficient to demonstrate the advantages of the componential approach to the treatment of lexical items. Each word can be described by two sets of semantic components: 1. a set of relevant semantic components accounting for the purely linguistic

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content of the word as invariant, 2. a set of irrelevant semantic components, reflecting the speaker's knowledge and concept of the outside world and responsible for the connotations of the word. The various senses of a word as described in a dictionary entry can in most cases be related to the first, relevant set of semantic components indicating the invariant general meaning of the lexical unit. The word *mother* can be described as a semantic unit by two sets of components: the first one being relevant components (senior, lineal, female), the second one reflecting our concept of mothers as we know them from our experience (care, tenderness etc.). Both sets bear a systemic character, including coordination and subordination of components. The relevant semantic components in hierarchy superior to the irrelevant components can be assumed to form a closed set, while the irrelevant ones are usually more variable with a less pronounced hierarchy and form open sets.

It seems incontestable that meanings of words are modified by the influence of context or situation (the second is very near to elipsis: situation cannot have direct influence on semantic interpretation of words, it only can influence messages indirectly by way of linguistic interpretation of the given situation). A priori it would seem to be a generally valid thesis that for any interpretation of a word there are grounds to be found 1. in the semantic components of neighbouring words and 2. in the syntactic relation of the neighbouring word and the word under discussion. The causative effect of semantic components of neighbouring words and their syntactic positions upon the contextual meanings of each semantic item can be described by what I am going to refer to as compatibility rules. This type of semantic rules is based primarily on the relative power of syntactic positions within the sentence structure reflecting the theme — rheme relationship. The position of subject normally corresponds to theme i.e. to information already received and accepted as undisputable, while the position of predicate conveys new information and corresponds to rheme: *The girl is beautiful.* In transformations simply condensing the message the relative power is usually retained: *The beautiful girl.* In most cases, however, one type of subordination is substituted by another one: predication — attributive determination, etc. I choose as an example the sentence *He was mother (to me).* The semantic items relevant to the problem under examination are *he* and *mother,* their syntactic relations in predicative subordination (*he* is in the more powerful position of subject while *mother* is subordinated to it as nominal part of predicate).

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Starting from these facts as given data the user of language applies compatibility rules, the operation of which can be described as follows: 1. The relevant semantic components of the item in the stronger position are compared with relevant semantic components of its weaker counterpart. 2. If they are compatible, as e.g. *he* (living being) — *mother* (living being), both are retained as components and used in the interpretation of the whole sentence. If, however, they are incompatible, e.g. *he* (masculine) — *mother* (feminine), the weaker counterpart is suppressed and is not used in semantic interpretation. Such a loss of relevant semantic components in the weaker semantic item (*mother* in this case) leads to consequent accentuation of some of the irrelevant semantic components, e.g. tenderness, care etc. This effect might be desscribed as a sort of horror vacui: a semantically emptied word would render the sentence useless and pointless, it is therefore quite reasonable for language users to look for some substantiation of such a combination of words by making some of the usually ignored irrelevant components more important and perhaps even prominent. It should be noted that though such a mechanism operating on the basis of semantic items (words, morphemes), defined in terms of hierarchically ordered semantic components, and simple compatibility rules for suppression and reinforcement of semantic components can account for the process of metaphorical invention, it cannot cope with the anomalies and irregularities of actual usage. To come back to Bolinger's example (1965:566) *soup:* the metaphorical basis of all but one of the senses is obvious (even the only exception provided for by Bolinger can be understood on the basis of compatibility rules), but reasons for conversion of an occasional metaphor into a usual one are beyond the limits of explanatory power of pure linguistics. On the other hand the generally well-known non-uniformity in figurative usage of corresponding words in different languages, cf. Russian *koza,* vs German *Ziege* is yet another argument in favour of the assumption that German *Ziege* is not identical with Russian *koza* or English *goat:* they differ in irrelevant semantic components, they have different semantic matrices.

The main concern in the present study up to this stage has been with exploration of what are the main components of a model for a semantic theory powerful enough to account for the process of metaphorical invention. It is proposed that the main components are an inventory of semantic items (words and morphemes) described in terms of a hierarchy of relevant and irrelevant semantic features on the one

hand and a set of compatibility rules based on relative power of syntactic positions and allowing for suppression and reinforcement of semantic components.

The Semantic Characterization of Words

In the previous formulation, such a dynamic semantic theory presupposes an inventory of invariant semantic items (words and morphemes) satisfying Hjelmslev's empirical principle (1943). In other words it shall be free of contradiction, exhaustive, and as simple as possible. In order to satisfy the principle of economy and arrange our discovery procedures so that the result is the simplest possible, we must have methods allowing to reduce two or more entities to one, to identify two or more entities with each other. If we look at dictionary entries, we usually are able to find identical pieces of information, or, as it is often put, identical semantic components in all contextual or consituational meanings of a given word. The main reasons why traditional dictionaries are usually not limited to the invariant semantic component of an item, are practical. Dictionaries are supposed to help people who are not sufficiently acquainted with adequate usage and therefore each dictionary entry includes not only some indication of the invariant meaning but also of positional variation, usually by introduction of important contexts, either in the form *of line, of bell, of time* or by sentence exemplification *the difference goes deep, 6 into 12 goes twice (The Concise Oxford Dictionary* entry for *go*). Katz and Fodor are quite right in saying that these pieces of information *are intended to indicate that the senses that follow them apply only under the conditions that they specify.* But it should be born in mind that *the senses that follow* refer to information supplied by the dictionary about the word in a certain context and not the information conveyed by the word alone. The specified contextual meaning includes both the invariant semantic components and the modification imposed upon the word or morpheme by the application of compatibility rules operating on the given combination of words. The projection rules actually select a rigidly defined subheading from a dictionary entry covering only a certain part of the whole gamut of usage of the given word, but compatibility rules reflect the process of metaphorical invention.

This paper is programmatical in calling for a dictionary of invariant meanings of words split into relevant and irrelevant components that could serve as a basis for compatibility rules.

Much confusion has been created in linguistics by the search for fences between grammatical and lexical meanings or between syntax and semantics. Grammatical markers like *noun* are in the last instance correlated with semantic features as e.g. entity, while semantic markers like *Human, Male* etc. correspond with grammatical categories (differing, however, from language to language). It can be argued that grammatical markers, semantic markers and distinguishers (Katz and Fodor 1964:496) can be defined both grammatically in terms of morphological and syntactical functions they perform, and semantically in terms of

Figure 1


```
                    bachelor
                       |
                     noun
                       |
        _____
        |                          |
    (Human)                    (Animal)
        |                          |
   _____              _____
   |           |              |         |
   |       [who has the first |         |
   |        or lowest academic|         |
   |        degree]           |         |
 (Male)                             (Male)
   |                                  |
 _____               [young fur seal when
 |           |               without a mate during
[who has  [young knight serving  the breeding time]
 never     under the standard
 married]  of another knight]
```

Figure 2


```
                      soup
                       |
                     noun
                       |
        _____
        |                                  |
    (Concrete)                         (Abstract)
        |                                  |
   _____                    _____
   |           |                    |              |
 (Dense)   (Diffuse)           (Energetic)   [predicament]
   |           |                    |
   |       [thick clouds]         [power]
   |
 _____
 |                   |
(Edible)          (Inedible)
   |                   |
 _____       _____
 |           |       |          |
(Liquid)  [bacterial (Chemical) [wet cement]
   |       culture]     |
   |                    |
   |            _____
[food for human |                |        |
beings]    (Energetic)    [photografic [pyroxilin
             |             developer]   solution]
        [nitroglycerin]
```
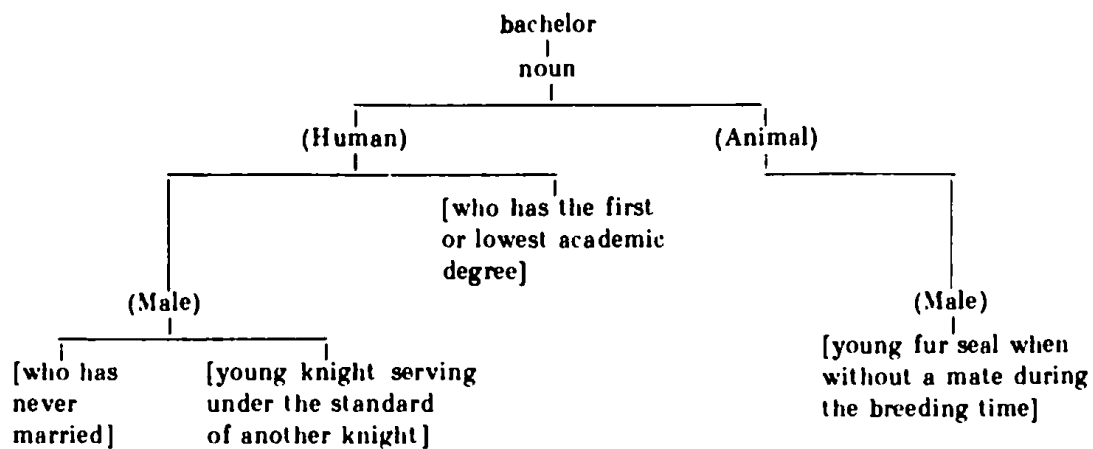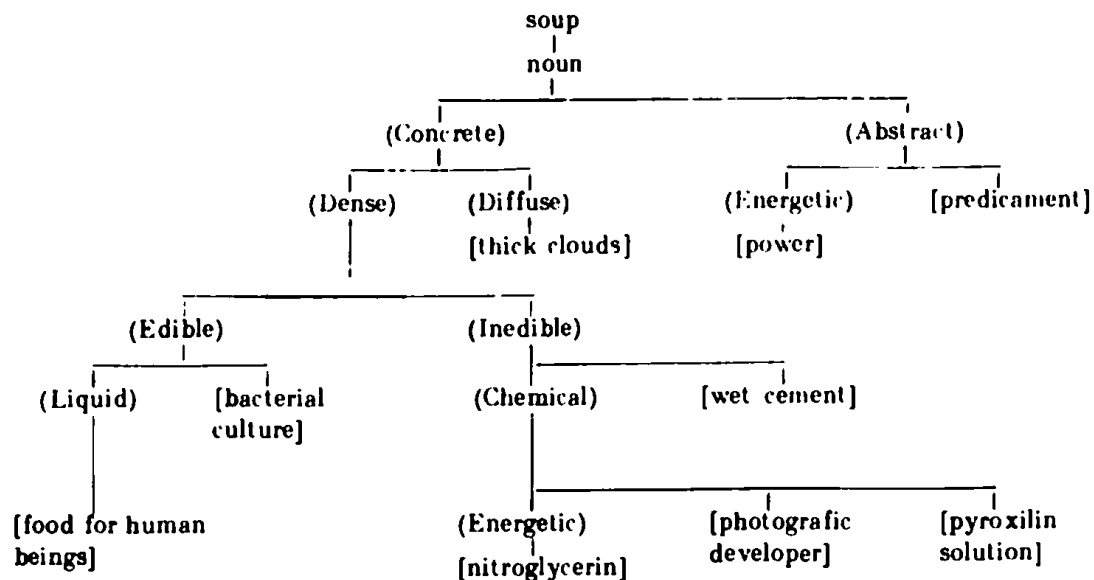
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underlying hierarchically ordered semantic components ranging from abstract ones (e.g. *entity*) to rather concrete ones (*without a mate*). The frozen pantomime of a dictionary (Bolinger (1965:467) can be described in forms exemplified in figure 1 (Katz and Fodor 1964:496) and figure 2 (Bolinger 1965:566).

It is immediately apparent that both the invariant meaning and contextual and/or consituational modifications are included. Both figures, however, are powerless to throw any light on novel combinations or derivations. If I give my soup to my dog, figure two is immediately rendered inadequate and must be supplemented by a new ad hoc distinguisher (*food for dogs*). No native speaker will ever disconnect the colloquial English verb *to bach* from the noun *bachelor*, but figure one as suggested by Katz and Fodor and more or less appreciatively discussed by many others (Bolinger 1965; Abraham and Kiefer 1966; etc.) fails to give us any assistance in semantic interpretation of the verb *bach* which may be used in regard to persons normally dependent on another/others for domestic care, e.g. minors or bachelors reliant on mother, husbands reliant on wives, young women normally dependent on mother/aunt etc. in order to indicate the meaning 'to live without that person or those persons'. If we turn our attention to the invariant components of *bachelor* which can be tentatively described as 'who is without a mate' we will find that the logic of metaphorical invention of both the four meanings of the nouns listed by Katz and Fodor and the meanings of the colloquial verb can be understood as a result of suppression and reinforcement of semantic components. The same applies to the invariant meaning of soup defined as liquid food (as opposed to drink).

In the preceding lines I have tried to sketch, in a very incomplete way, a model for semantic characterization of words in terms of invariant semantic components, which may serve as basis for a dynamic semantic theory.

Compatibility Rules

The two most important factors which control semantic interpretation of syntagms and sentences are 1. the relative power of syntactic positions and 2. compatibility or otherwise of semantic components of the two words considered.

Hypotaxis or syntactic subordination in all its multiformity (predication, predicative-determinative relation, attributive determina-

tion, objective determination, external conditions, apposition) is in the first place governing rejection or enforcement of components. The first step in the suggested model of semantic interpretation can be described as scanning the hierarchy of semantic components of the subordinate word and comparing them successively with those of its overruling counterpart to decide on suppression of the subordinate incompatible semantic components. The word *go* can illustrate this point. I choose the traditional definitions of meaning approximating to presumed semantic components and do not pretend to solve the intricate problems of componential analysis of either the verb or the nouns used in the following examples.

Figure 3

	man	goes
relevant components	entity(substantive) ..... human being	action (verb) motion .....
irrelevant components	..... a special type of locomotion	direction .....

Figure 4

	clock	goes
relevant components	entity (substantive) ..... time-measuring machine	action (verb) motion .....
irrelevant components	no self-originated locomotion	direction .....

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The semantic components of *man* are all compatible with all those used to describe the verb *go:* all of them consequently participate in the interpretation of the syntagm. The irrelevant component of man described as *special type of locomotion* is very near to Weinreich's *transfer features* (Weinreich 1966: 429). The only difference is that according to the model suggested here, no actual transfer is presupposed (synchronically — it may be different with diachrony): the semantic component of the substantive does not become a semantic component of the verb — it just participates in the comprehensive interpretation of the syntagm including both words.

The semantic components of *motion* and *direction* in the subordinate item *goes* are suppressed as incompatible with the components of *clock.* The most abstract of semantic components of *goes* described as *action* is compatible with *time-measuring machine* and can participate in the overall interpretation of the syntagm *The time-measuring machine operates.*

The semantic components of *action* and *motion* are (under normal circumstances) incompatible with the component *long narrow mark traced on surface* and in consequence are suppressed. The irrelevant component of *direction* is the basis for the interpretation of the syntagm given in traditional dictionaries usually as *The line points in a certain direction.*

The interpretration of words like *bachelor* and *soup* in some of the senses included in the respective dictionary entries is more difficult mainly because metaphor is based on consituation rather than on context. The underlying linguistic ratiocination is based on predication of the following type: *This* (e.g. *the photographic developer) is a soup.* The component of *food* is suppressed and irrelevant components of *thickness* and *cook's-broth manner of concoction* are reinforced, and consequently form the metaphorical basis of the given sense, as indicated in a dictionary entry. The broadness of the demonstrative *this* in the underlying predication can be held responsible for the most part of the polysemanticity of words such as *soup:* they can be used in many different consituationally suitable cases, and understood by all language users who have adequate insight into the situation used as basis for the metaphor. Those lacking that type of insight are in need of information offered by traditional dictionary entries. And that is one of the reasons why dictionary entries supply this type of information rather than other types.

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Figure 5

	line	goes
relevant components	entity (substantive) . . . . . long narrow mark traced on surface	action (verb) motion . . . . .
irrelevant components	. . . . .	direction . . . . .

I should like now to give brief attention to another example, mentioned previously in this article. The word *mother* described in terms of relevant semantic components of *senior, linear* and *female* and supposed to have irrelevant components like *care, tenderness* etc. receives the following treatment in COD:MOTHER 1. Female parent. 2. Quality, condition, etc. that gives rise to another, as *necessity is the — of invention*. 3. Head of female religious community (often M— Superior). 4. (Term of address for) elderly woman of lower class. 5. (Also artifical —) apparatus for rearing chickens ... With the exception of 4. which is covered by rules governing the important step from purport to language, i.e. the selection of one of several more or less adequate words pointing in the direction of the intended piece of information, all the other meanings listed can be explained by the suggested model. 'Female parent' is the general meaning covered by all three relevant components and having all irrelevant components as possible connotations. The second meaning, described in COD as 'quality, condition, etc. that gives rise to another' is the result of interaction of semantic components of words such as *necessity* in the position of theme: and *mother* in the position of rheme: the component *female* which in itself postulates another one, superior in the hierarchy, that can be described as *living creature,* the components of *superiority* and *linearity* are retained while *female* and *living creature* are suppressed as being incompatible with the component *abstract notion* in *necessity*. In the third instance *Mother Superior* retains only the relevant component of *seniority,* while some irrelevant components may be reinforced. The fifth

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meaning is quite obvious: *apparatus* in the position of theme suppresses all three relevant components, while stressing the irrelevant ones, rendered in the dictionary entry as *rearing chickens.*

Some Concluding Remarks

One of the principal motivations for paying attention to this particular field of study was the obvious and sometimes programmatic inadequacy of the semantic models offered so far: their attachment to dictionary entries with their inherently limited number of interpretations renders these attempts liable to fail in explaining any novel combinations of words in sentences.

In order to account for novelty in meaningful sentences a dynamic theory is needed, stressing the abstract character of semantic invariants and — which is perhaps even more important — the role of compatibility rules. The compatibility rules can account for novel combinations as well as for the already existing polysemy of many words. The compatibility rules are one of the factors that bridge the gap between finiteness of language means and infinity of messages.

It perhaps should be pointed out at this stage that compatibility rules cannot account for all shifts of meaning, especially those caused in the early stages of each communicative act when selection of words pointing to the particular purport in the mind of the speaker takes place. Different types of rules are needed to cover those processes (including metonymy etc.).

There seems, however, to be reason to hope that the use of abstract componential definitions of general meanings of words instead of traditional dictionary entries can lead to the establishment of a dynamic semantic theory capable of accounting for novel combinations of words and powerful enough to explain the logic of metaphorical usage.

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THE RUSSIAN CASE SYSTEM*

In a well-known article published in *Travaux du Cercle Linguistique de Prague* 6, Roman Jakobson (1936) distinguishes between *Gesamtbedeutung* and *spezifische Bedeutung* of cases. More recently (1965) he speaks of a "hierarchy of two meanings — one primary, central, proper, context-free; and the other secondary, marginal, figurative, transferred, contextual".

In this paper[1] I wish to show that the distinction between the two types of meaning is to be retained. In recent years many linguists studying case systems of different languages have attempted to find a primary, unified meaning for each case, while others restricted themselves to the morphology of declensional desinences, case uses, historical development of cases, etc. Little or no attention has been paid to the problem of interrelation of primary and secondary meanings or to the mechanism of establishing secondary meanings on the basis of primary meanings of case desinences and their environment.

The following paper examines some more obvious types of interaction of the semantic components of case desinences and the semantic components of their particular environments (nominal stems to which the desinences are attached, verbs governing the nouns in question, etc.).

Many studies of case start out from the point of view of the semantic invariant, the general meaning of any case within the given case system (R. Jakobson 1936 and 1958, Hjelmslev 1935–7, Mareš 1962, etc.), while others (Kuryłowicz 1949 and 1960, de Groot 1956, etc.) restrict themselves to the study of case uses. Apart from the fact that such studies usually do not try to study the invariant and contextual meanings as inter-connected, the major defect of these studies seems to be that the question of adequacy of criteria used for semantic classification is largely ignored. It appears to me that R. Jakobson should be credited with having recognized the essential significance of semantic invariants in the Russian case system. According to R. Jakobson (1958)

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*See Bibliography, item 17. The transliteration which was used to facilitate the setting up of the original text has been replaced by a standardised system. In addition, all examples in Russian have been supplied with English translations.

In its final form this paper was presented at the *International Slavistic Colloquium* held at the University of California, Los Angeles from 11 to 16 September, 1970 (see item 13 in the Bibliography).

[1] An earlier version of this paper was read at the XIII Congress of the Australasian Universities Language and Literature Association held at Monash University in Melbourne from 12 to 19 August, 1970.

the cases in Russian are "grouped into classes each of which is characterized by the presence vs. absence of a particular semantic mark: 1) quantifiers (Genitive, Locative), focussing upon the extent to which the entity takes part in the message, vs. non-quantifiers; 2) directional cases (Accusative, Dative), signalling 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". The reason for omitting the Nominative from the system is the assumption of total unmarkedness of the Nominative as far as quantification, direction and marginality are concerned.

On a little reflection, however, one is tempted to ask questions about adequacy of criteria used for the semantic classification and homogeneity of the case system as a whole. However, reasons can be found (especially in the systematic character of language as a means of communication) for asserting that the meaning of cases reflects primarily the relation of entities (expressed by substantives) to the action (indicated by verbs) and that the meanings of individual cases within the case system of a particular language are subordinated to certain unifying principles and have therefore a deep-rooted tendency towards homogeneity.

The opposition Nominative — Accusative, which seems to be the basic one, clearly reflects the relation of action towards entities (indicated by substantives) as far as direction of action is concerned. The Genitive being in opposition to both the Nominative and Accusative is apparently on the same axis which may be described as the axis of motion. The Nominative and the Instrumental both indicate the originator of action, but are in opposition as far as the fullness of participation in the action is concerned: the Nominative indicating *full* participation and the Instrumental only *restricted* participation in the action. All case oppositions in Contemporary Standard Russian are thus apparently organized along two axes. One of them denotes the relation of the entity (indicated by the substantive) to the action as far as motion is concerned (Nominative — Accusative — Genitive), the other one indicates to what extent the entity expressed by the substantive is affected, effected, etc. by the action (Nominative — Instrumental — Locative). Each of these two semantic variables of Russian cases has three values. The invariant meaning of any of the cases in Contemporary Standard Russian can be described by two components: motion and scission. The variable of motion can be either static, petitive or cessative. The static

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motion reflects the inert, unmoved, quiescent character of the given entity (Nominative — Instrumental — Locative); the petitive value conveys the notion of affectedness or effectedness (Accusative — Dative — Prepositional), while the cessative value has the meaning of separation, disjunction etc. (Genitive — Partitive — Vocative). The variable of scission encompasses three values: integer, fractional and extraneous. The integer scission indicates full participation of the entity (expressed by the noun) in the action (Nominative — Accusative — Genitive); the fractional scission denotes partial or peripheral participation in the action (Instrumental — Dative — Partitive); the extraneous scission means no participation in the action at all (Locative — Prepositional — Vocative).

CASE	MOTION	SCISSION	SEMANTIC COMPONENTS
Nominative	+	+	static—integer
Instrumental	+	–	static—fractional
Locative	+	0	static—extraneous
Accusative	–	+	petitive—integer
Dative	–	–	petitive—fractional
Prepositional	–	0	petitive—extraneous
Genitive	0	+	cessative—integer
Partitive	0	–	cessative—fractional
Vocative	0	0	cessative—extraneous

The static and integer case, the Nominative, is often described as the only case which is completely autonomous. The explication of Nominative as agens is incompatible with its explication as patiens, but both meanings can be covered by the notion of "unmoved integrity" in the center of a message. *Raboče*/the workers and *dom*/the house are both static and integer in sentences *Raboče strojat*/The workers are building and *Dom stroitsja*/The house is being built, the interpretation of the first Nominative as agens and of the second one as patiens being the result of the difference in the verb. The static, inert, unmoved and integer or central character of the Nominative is consistent with different functions of a subject in sentences like *Uspech soprovoždaet ego vystuplenie*/Success accompanies his performance — *Ego vystuplenie soprovoždaetsja uspechom*/His performance is accompanied by success; *Vrač propisyvaet lekarstvo*/The doctor prescribes medicine — *Lekarstvo propisyvaetsja vračom*/Medicine is prescribed by the doctor.

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In both active and passive constructions the subject is the static and integer center of the message, fully participating in the action expressed by the predicate.

As a case which may not depend on any other word, the Nominative is used as the existential nominative (*imenitel'nyj bytijnyj*): *Noč'*/Night. *Tišina*/Quietness. *More*/The sea; the nominative of naming (*im. nazyvnoj*/*im. nazvanija*): *Tichij Don*/The Quiet Don. *Brat'ja Karamazovy*/The Brothers Karamazov. *Mat'*/Mother; or the lexical nominative (*im. slovesnyj*): *Čelovek! Èto zvučit gordo*/A man! This has a proud ring.

The main syntactical functions of the Nominative are those of subject and nominal part of predicate (the nominative of permanent identity — *im. predikativnyj*): *On byl učitel'*/He was a teacher. The nominative of permanent identity stands in clear opposition to the static fractional Instrumental: *On byl učitel' — On byl učitelem*.

The static and fractional case, the Instrumental, indicates partial participation of the entity expressed by the noun in the action expressed by the finite verb.

The primary meaning of partial participation in the action is modified by the semantic components of the substantival (and in some cases the verbal) stems. The Instrumental is identical with the Nominative as far as motion is concerned (both are static), which means that both are in the center of the action (in active as well as in passive constructions). The Instrumental differs from the Nominative in scission: the latter is integer, the former fractional. The integrity of the Nominative indicates full participation in the action, while the fractionality of the Instrumental indicates partial participation, i.e. a restriction or limitation of the participation in the action expressed by the verb. The interaction of the meaning of partiality (the fractional scission) and the semantic components of substantives results in different semantic interpretations of the whole instrumental phrase.

The Instrumental connected with substantival stems denoting instruments is interpreted as instrumental proper, with stems denoting actors it is interpreted as agential instrumental. If the environment of an instrumental contains a substantival stem which bears the meaning of actor and a verbal (or adverbal) stem conveying the meaning of a restriction in time (such as change of state), the Instrumental assumes the secondary meaning of the predicative or semi-predicative instrumental. Semantic components of lexical items in the environment

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of an instrumental, suggesting other kinds of restriction, may result in the interpretation of the Instrumental as the qualitative or predicative instrumental. Note that in the sentences *Ja sčitaju ego chorošim učenikom*/I consider him to be a good pupil; *Kazak bujnym sokolom rinulsja na vraga*/The Cossack rushed at the enemy like a wild falcon/the entities (denoted by the substantives in the Instrumental) participate in the action only to a certain degree: I consider him to be a good pupil (but other people may be of another opinion); the Cossack was not actually a falcon, he just behaved like one. The restriction in these cases is not temporal but circumstantial.

The Instrumental denotes primarily the instrument by which something is done, cf. the so-called instrumental proper (*tvoritel'nyj orudijnyj*): *rubit' toporom*/to chop with an axe, *pisat' perom*/to write with a pen. The adnominal instrumental (*tv. priimennyj*): *penie basom*/singing bass/is closely related to the instrumental proper and should not be separated from it. The limiting instrumental (*tv. ograničenija*): *izvesten svoimi romanami*/well-known for his novels, *sil'nyj duchom*/strong in spirit, *slab zdorov'em*/weak in health; the instrumental of cause (*tv. pričiny*): *grešnym delom*/much as it is regretted, *Osel moj glupost'ju v poslovicu vošel*/My donkey has become proverbial through stupidity; the instrumental of manner (*tv. obraza dejstvija/sposoba*): *govorit' šepotom*/to speak in a whisper, etc. are very close to the proper use of the Instrumental denoting instrument or means. The so-called agential instrumental (*tv. dejatelja*): *Smeta sostavljaetsja buchgalterom*/The estimate is made up by an accountant. *Zavod proektiruetsja inženerom*/The factory is planned by an engineer. *Lekarstvo propisyvaetsja vračom*/The medicine is prescribed by a doctor. *On byl ubit soldatom*/He was killed by a soldier, does not differ basically from the instrumental proper. The difference between the sentences *On byl ubit soldatom* — *On byl ubit pulej*/He was killed with a bullet is more easily described as a reflection of the opposition of two classes of substantives *soldat*/soldier — *pulja*/bullet. The instrumental used always with certain verbs, including *zanimat'sja*/to be occupied; to study, *voschiščat'sja*/to be delighted, *chvalit'sja*/to boast, *uvlekat'sja*/to be carried away, etc. can also be mentioned in this connection.

The so-called predicative use of the Instrumental can be labelled as puzzling (N. Forbes, 1964) only if its instrumental value, implied by its name, is taken as the basic function of this case. The idea of instrumen-

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tality is, of course, not perceptible in sentences like *My vse byli det'mi*/We had all been children, but limited participation of the entity (denoted by the noun) in the action (expressed by the verb) is, in my opinion, quite obvious, cf. also the predicative instrumental (tv. predikativnyj): *On stal učitelem*/He became a teacher. *On byl vybran predsedatelem*/He was elected president. *Poètom možeš' ty ne byt', No graždaninom byt' objazan*/A poet you cannot be, but a citizen you must be; the semi-predicative instrumental (*tv. polupredikativnyj*): *Rebenkom ja žil v Moskve*/As a child I lived in Moscow; the qualitative instrumental (*tv. priznaka*): *Ja sčitaju ego mertvym*/I consider him dead. *Petrova naznačili brigadirom*/Petrov was appointed brigadier. *Esli že ty vyjdeš' za Lužina, ja totčas že perestaju tebja sestroj sčitat'*/But if you marry Lužin, at that very moment I cease to regard you as my sister; the predicative instrumental of comparison (*tv. predikativnyj sravnenija*): *galstuk verevočkoj*/a tie like a string, *nos krjučkom*/a nose like a hook, *volosy ežikom*/hair in a crew-cut (literally, like a little hedgehog).

The static and fractional values of motion and scission are adequate to account even for other uses of the Instrumental: cf. the instrumental of quantity (*tv. količestva/sovokupnosti*): *Pošli vsem klassom v teatr*/They went as an entire class to the theatre. *Letjat stajami pticy*/The birds are flying in flocks; the temporal instrumental (*tv. vremeni*): *Zimoj my ezdim v gory*/In winter we go to the mountains; the instrumental of itinerary (*tv. puti/prostranstva*): *echat' beregom*/to go by the shore, *echat' lesom*/to go by the woods; the instrumental of comparison (*tv. sravnenija*) *nestis' streloj*/to fly like an arrow, etc.

The opposition between the static extraneous case, the Locative, and the petitive extraneous one, the Prepositional, is limited to a comparatively low number of occurrences, where there is formal support for the semantic distinction: *Ja vstretil ego v lesu*/I met him in the woods. —*Ètu aktrisu ja videl v "Lese" Ostrovskogo*/I saw this actress in "The Woods" by Ostrovskij.

The first of the petitive cases, the petitive and integer Accusative indicates the object which, in its totality, undergoes the action of the verb.

The Accusative is used primarily to denote the direct object (vin. prjamogo ob"ekta); *čitaju knigu*/I'm reading a book, *vižu sestru*/I see my sister, *emu žal' Mašu*/he is sorry for Maša; or the internal (cognate) object (vin. vnutrennego ob"ekta/vin. soderžanija): *pet' pesnju*/to

sing a song, *šutki šutit'*/to amuse oneself (cf. live a life, die a death). Closely related to these uses is the so-called accusative of result (vin. rezul'tativnyj): *peč' plrogi*/to bake pies, *plsat' pis'mo*/to write a letter, *stroit' dom*/to build a house.

With certain groups of substantives the Accusative expresses duration of time, distance, measure, etc., as, for example, the so-called accusative of time (*vin. vremeni*): *Prošluju osen' on bolel*/He was ill last autumn; accusative of measure (*vin. mery*): *My proechali sotnju kilometrov*/We covered a hundred kilometers. *Ja prospal vsju noč'*/I slept the entire night. *Celuju nedelju ja provel na dače*/The whole week I spent at the dacha; the accusative of quantity (*vin. količestva/vin. stoimosti*): *Èta kniga stoit rubl'*/This book costs a rouble. *On byl u menja uže pjat' raz*/He's already been to my place five times. Notice also the directional function of the Accusative after prepositions: *vojti v komnatu*/to go into the room, *poechat' za granicu*/to travel abroad, *položit' knigu na stol*/to put the book on the table, *s pervogo po dvenadcatoe marta*/from the first to the twelfth of March, *brosit' pod stol*/to fling under the table.

The Dative, characterized in the present study as dynamic and fractional, indicates the remoter object to which the action of the verb applies less completely than in the Accusative (*datel'nyj kosvennogo ob''ekta*): *peredat' knigu bratu*/to pass on the book to one's brother. The adnominal dative (*d. priimennyj/prisubstantivnyj*): *pomoč' bratu*/to help one's brother, and the dative adjunct (*d. priad''ektivnyj*): *On mne čužoj*/He is a stranger to me, are basically identical with the adverbal "lax-government" dative.

The petitive and fractional character of the Dative is quite clear even in the ethical dative (*d. zainteresovannogo lica/d. ètičeskij*): *Ono, pravda, ne blizko, a tut tebe i les i splavnaja reka*/True, it's not close, but for you there's both timber here and a river suitable for timber-floating; the dative of advantage-disadvantage (*d. naznačenija/d. celi*): *On postroil daču svoim starikam*/He built a dacha for his elderly parents, and in the subjective dative (*d. sub''ekta*): *Mne ne zdorovitsja*/I don't feel well. *Maše chočetsja spat'*/Maša feels like sleeping.

The so-called "strict-government" dative (*d. sil'noupravljaemyj*) can be accounted for as a reflection of the semantic structure of the verbs commonly associated with the dative constructions: *vredit'*/to harm, *ugoždat'*/to please, *potakat'*/to indulge.

The Genitive is characterized as cessative and integer. This for-

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mula, however, embraces many varieties of usage, which reflects to a certain extent the rather complicated development of the Slavonic Genitive.

There are at least two big groups of genitive uses, without referring to minor groups, more or less closely related to the first two.

The first group includes the genitive ablative or the genitive in negative expressions (*rod. otložitel'nyj—v otricatel'nych predloženijach*): *Otca net doma*/Father is not at home. *A vozu vse net chodu*/But the cart is still not going. *Ne nadejus' polučit' žalovanija*/I'm not hoping to receive a salary; and the genitive of privation (*r. lišenija/ opasenija/udalenija*): *bojat'sja skvoznjakov*/to be afraid of draughts, *izbegat' opasnosti*/to avoid danger, *pugat'sja temnoty*/to be frightened of the dark. This group clearly reflects the cessative motion of the Genitive.

The second group expresses a separated inclusion, i.e. an entity, forming a part of a wider sphere, separated for the purpose of focussing the interlocutor's attention to it. This group includes the so-called part-whole genitive (*r. celogo*): *kryša doma*/the roof of the house, *kusok chleba*/a piece of bread; the possessive genitive (*r. prinadležnosti/pritjažatel'nyj/possessivnyj*): *dom otca*/father's house, *kniga brata*/a brother's book; the genitive of relation (*r. otnošenija*): *student universiteta*/a student of the university, *doč' vrača*/a doctor's daughter; the evaluative genitive or the genitive of possessor of specified quality (*r. kačestvennoj ocenki/kačestva/kačestvennogo opredelenija ili r. nositelja priznaka*): *čelovek vysokogo rosta*/a person of large stature, *čelovek bol'šogo uma*/a person of great intellect, *čelovek dobrogo serdca*/a person with a good heart, *chrabrost' voina*/a warrior's valour, *krasota devuški*/a girl's beauty. This group also embraces some types of genitive used to denote quantity, as for example: the genitive of weight or measure (*r. vesa*): *tonna kartofelja*/a ton of potato, *kilo sachara*/a kilo of sugar; the genitive of age (*r. vozrasta*): *čelovek preklonnogo vozrasta*/a person of extreme old age, *mal'čik let semi*/a boy of about seven; the genitive of time or of date (*r. vremeni ili daty*): *sego goda*/of the present year, *tekuščego goda*/of the current year, *včerašnego dnja*/yesterday, *12-go avgusta*/on the twelfth of August; the genitive of abundance (*r. izobilija*): *ispolnennyj blagorodstva*/full of nobility.

The subjective and objective genitive (*r. dejatelja/podležaščego i r. ob"ekta*): *čtenie učenikov*/the pupils' reading, *čtenie doklada*/the

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reading of the lecture/reflect the double opposition of the cessative motion of both the static and the petitive ones.

The Partitive is closely related to the Genitive, the opposition of integer and fractional scission having a tendency to be less perceived among the younger generation of Russian speakers, cf. *kilo sacharu — kilo sachara* etc.

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THE DISTRIBUTION OF PHONEMES IN CONTEMPORARY RUSSIAN

1. Selection of Control Material

Most statistical essays treat of data obtained from fractional material as valid for the language under investigation as a whole. The mathematical criteria for determining the relevant scope of the sample are certainly reliable, but merely within the framework of homogenous entities. They do not, however, justify any transference from one set to other, different sets of speech utterances. In a statistical analysis of Russian resting on material gleaned from conversations in a delicatessen, we shall ascertain a particular frequency of words, of grammatical categories (e.g. the imperative: *dajte/*give, *pokažite/* show, *skažite/*tell, *otrež'te/*cut off, *zavernite/*wrap up). The greatest possible length of the text examined (of such dialogues) entitles us to nothing other than conclusions precisely about this type of text: these conclusions are not transferable to other types of text and, of course, not to the language as a whole. The more specific the "language" under consideration, the more we can expect surprising results. The works of F.C. Frick and W.H. Sumby,[1] in quoting results of an analysis of exchanges between an airport tower and captains of aircraft, establish a redundancy equal to 96% (i.e. a value very markedly different from redundancy values quoted currently for "average written language").

A summing up of partial data gained from the study of samples of "special languages" would also have to take into account the frequency of situations in which these "languages" are used; only then would such results have a chance of being less controversial than in the present state of affairs.

For the present work a sample (not more than one sample) of sufficient uniformity was chosen in order to be able to regard the utterances it contains as 1) belonging to a single language style, 2) thematically coherent.

2. Scope of the Language Material

An examination of the total linguistic material, i.e. a set of all utterances of a given character (the only worthwhile guarantee of one hundred per cent success) is patently impossible. What is feasible, however, is to gain relatively adequate data with recourse to the statistical method about the whole set of phenomena on the basis of

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merely processing part of the set. From the above reflections, however, (cf. 1) there follows a high requisite on uniformity of both set and sample. The more uniform the set and the more aptly chosen the sample, the more legitimate will be the conclusions from the particular to the general.

The size of the necessary sample depends (granted certain simplifications) on the frequency of elements and the relative error. If, proceeding from the relation

$$N = \frac{\left(\frac{z_\varrho}{\delta}\right)^2}{P}$$

where N is the length of the text (a count of all elements), P = the frequency, δ = the relative error, Z_ϱ = a constant),[2] we set δ equal to 0.1, we shall deem on the basis of preliminary data a text of about 15,000 phonemes a sufficiently large set for phoneme frequency. A considerably larger text, of course, will be needed for allomorph frequency given the same value of δ = 0.1. Relying on preliminary calculations, the text size was estimated at 25,000 to 30,000 allomorphs, i.e. somewhat over 10,000 lexical forms.[3]

On the basis of these reflections the choice fell on Šolochov's story *Sud'ba čeloveka.*[4]

3. The Concept of the Phoneme

The tens and hundreds of various definitions of the phoneme to be found in the rich phonological literature of our century differ in both formulation and concept. If we ignore the substantial differences of formulation, we obtain a smallish number of phoneme-definition groups which are classifiable from various standpoints.[5]

If we sort the definition groups according to what segment of the communication process they comprise (or aspire to), we arrive at a further classification clarifying the previous ones. Most authors aim at either the function of the brain and nervous channels (psychological definitions) or the work of the speech organs (physiological/articulatory definitions), or the acoustical basis (acoustical definitions) or, finally, speech aperception (auditive definitions). All these types of definition are, in fact, complementary, rendering merely a different expression of a given unit (phoneme) in various inter-codes through which

the given unit passes at particular stages of the communication process. The unity of a phoneme (even granted its alterations in inter-codes) is precisely what ensures the possibility of information-transfer in the course of the whole communication process.

Most recently, of course, definitions linking articulatory and acoustic characteristics clearly predominate. This is clearly due to progress in acoustical phonetics, which has attained correlations between articulation and the corresponding acoustic effect.[6] N.S. Trubetzkoy[7] adduces three functions of acoustic properties (*Schalleigenschaften*), i.e.: culminative (*gipfelbildende*), delimitative (*abgrenzende*) and distinctive (*bedeutungsunterscheidende*).[8] Of these the last — distinctive — acquired the greatest popularity. In current usage Trubetzkoy's term "distinctive" has been connected with the phoneme (the reference is to the distinctive function of the phoneme), wherein the distinctiveness is ascribed exclusively to the immanent articulatory-acoustic qualities of segments, corresponding to a given phoneme. Thus the distinctive function came to the forefront of public interest, and the constitutive function (albeit nowhere denied) was lost sight of. In order that a particular element in a system be distinguished from the remaining ones in the given system, it must be capable of identification as identical in two separate occurrences. The constitutive function, then, is in dialectical connection with the distinctive function: one without the other is inconceivable.

The constitutive function of a phoneme is directed to the nearest member of a hierarchy of a row of discrete linguistic units: a phoneme constitutes (on the expression plane) a morpheme, namely via the allomorph (a phoneme being incapable of constituting a word, which can only be composed of morphemes).

The distinctive function of a phoneme rests primarily on immanent articulatory-acoustic properties of allophones, secondarily on distributional limitation of allophones, i.e. on their position.[9] The following definition of the phoneme flows from its conception as a discrete functional unit: The phoneme is a minimal discrete unit of the expression plane of a language system equipped with constitutive, distinctive and contrastive functions.

The contrastive function is, by implication, one of the causes of some distributional limitations on the occurrence of phonemes. Segmentation of the acoustic flow of language should be impossible without it.

4. Phoneme Identification in a Text

An analysis based on complementary distribution, which takes into account position in its broad sense, provides a basis for distinguishing two articulatorily-acoustically converging segments with differing functions, without the necessity of exceeding the terms of reference of the expression plane.[10] This concept affords a far simpler description of the phonological and morphological system of a language than the contrary views, which would not admit complete overlapping of phonemes.

In establishing phoneme inventories quite considerable differences are found with different authors, emanating partly from explicitly differing principles, partly from different applications of identical principles.

The commonest differences in establishing the inventory for contemporary Russian concern: vowels in unstressed syllables, hard and soft [и/ы], soft velars and so-called long consonants.[11] This exercise recognizes forty discrete minimal units of language – phonemes, i.e. five vocalic

a e i o u

and thirty-five consonantal (comprising consonants, sonorants and semi-vowels)

		r	r,		
	l l,				
m m,	n n,				.
b b,	d d,			g g,	
p p,	t t,			k k,	
	c		č,		
v v,	z z,	ž			
f f,	s s,	š		j	x x,

In identifying the recognized forty phonemes in a text we proceed from accepting their complete overlap, syncretism. Syncretism is seen as soluble on the basis of position broadly understood. In a negligible portion of syncretisms, insoluble on the level of phonic variant of the expression plane, we seek, for the present purpose, solutions with regard to historical connexions reflected in orthographic norm.

5. Relevance of the Data Acquired

The control text (M. Šolochov, *Sud'ba čeloveka*) contains a total of 10,872 lexical forms, a 25,153 allomorph total (excepting zeroes, which were disregarded) and a 51,686 total of phonemes.

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The text has 2,748 various lexemes with frequency 504 to 1; further, 4,121 various lexical forms with frequency from 504 to 1; 2,099 various allomorphs with frequency from 782 to 1; 40 various phonemes with frequency from 6,281 to 12.

From the equation

$$N = \frac{\left(\frac{z_\varrho}{\delta}\right)^2}{P}$$

it follows, assuming we put $\delta = 0.1$, that 17,227 phonemes represent an adequate text (with relative error $\pm$ 10%) for establishing phoneme frequency (including the least frequent). The control text thus is more than sufficient in this regard.

The data obtained from a text of length 51,686 phonemes have a far higher reliability than that which we reckoned with. The relative error of the least frequent phoneme (resulting from the above equation) will here equal 0.057.

With the relative error set at 0.1 data on a phoneme with a frequency of 0.0077 would likewise be reliable. (One such has not been found — the smallest frequency was four times higher.)

With regard to data concerning allomorphs, results with frequencies higher than 0.159 are reliable (with relative error at 0.1), which corresponds to frequency 4.

6. Distribution of Phonemes in the Text

From table 1, which gathers phonemes according to diminishing frequency, it follows that in contemporary Russian vowels have the highest frequency at 42.139%, followed by consonants at 35.446%; sonorants are next at 18.452% and the semi-vowel /j/ at 3.963%. It follows, further, that individual vowels also (excepting /u/) have the highest frequency, taking up the first four places and the seventh. From the second two columns of table 1 it is likewise evident that hard consonants, as a whole, are more frequent than soft ones, i.e. in the ratio of 39.146 : 18.715. It is also intriguing that individual pairs — without one exception — occur in the order hard — soft.

Further, table 1 indicates that all vowels expressly exceed the frequency to be expected, given an even distribution of phonemes (i.e. 2.5%); this limit is further exceeded by a number of sonorants /n/, /l/, /r/ (it is nearly reached by /m/, /n,/) and the semi-vowel /j/, but this

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applies to a tiny number of consonants, i.e. the four /t/, /v/, /k/ and /s/. The overwhelming majority of consonants and the few remaining sonorants (soft) do not reach this frequency.

Table 2 indicates a comparison of the occurrence of phonemes in inventory and text (in langue and parole). Data in column E are particularly significant, characterizing the difference in the use of individual phoneme groups in both inventory and utterance. The vowels which form 12.5% of the inventory of phonemes of contemporary Russian take up 42.139% of the text; the difference in use amounts to +29.639%. Conversely, the consonants which form 65% of the inventory take up in the text only 35.446%; the difference in use equals −29.554%. Thus the intensity of use of vowels in a contemporary Russian text far exceeds that of consonants. The sonorants and semi-vowels do not show substantial differences — something in which their distribution differs substantially from vowels and consonants.

7. Distribution of Phonemes in Allomorphs
Table 3 shows that the majority of phonemes are realized in allomorphs with the lowest count of phonemes, and then on the whole quite evenly in single-count ones (20.724%), two-count ones (27.776%) and three-count ones (25.231%). In four- and five-count allomorphs a considerably smaller portion of phonemes is realized (12.189% and 9.229%), while in allomorphs of still higher count the occurrence of phonemes is relatively negligible: it vacillates between 2.925% with counts of six to 0.038% with ten. From column E, in which percentages are adduced cumulatively, it transpires that no less than three quarters of phonemes (73.731%) are realized in allomorphs with counts from one to three; 95.149% of them are realized in allomorphs with phoneme-counts of 5 and lower.

Table 4 indicates the participation of individual phonemes within allomorphs of individual counts, divided according to vocality/non-vocality and consonantism/non-consonantism into vowels, consonants, sonorants and semi-vowels. Data for percentage use of vowels, consonants, sonorants and semi-vowels in allomorphs of given counts in columns C, D, E and F in comparison with column B, which gives the frequency of morphemes of a given count, indicate that in allomorphs of lower phonemic counts vowels are more frequent (contrary to the average) than consonants and sonorants. The situation in column F is somewhat exceptional in showing that the maximum occurrence of

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semi-vowels is in two-count allomorphs and very clearly exceeds the occurrence in allomorphs of all other counts. We may then speak of a tendency on the part of allomorphs with lower phonemic counts towards a vocalic composition and an express tendency on the part of the semi-vowel /j/ to occurrence in two-count allomorphs.

A summary of some observations of phoneme-occurrence in particular positions in allomorphs, which gives us a certain notion of the phonemic composition of given types of allomorph, is given in table 5 which quotes the occurrence of vowels, consonants, sonorants and semi-vowels in different positions in an allomorph. In two-count allomorphs the sums of occurrence of phonemes in the second place in an allomorph are given and compared to sums of occurrence in the first place of the given allomorph. With three-count allomorphs sums of first and third place (divided by two) are taken as the basis of comparison, as well as the sums of occurrence in second place. In allomorphs whose expression facet is constituted by four phonemes the comparison is of the first and fourth place in an allomorph (divided by two) with the sums of occurrence in second and third place (divided by two). In the five-count allomorphs the comparison is of phoneme-occurrence in first, third and fifth places (divided by three) with the sum of occurrence of phonemes in second and fourth places (divided by two).

In lines marked by capital letters with double strokes (B'', C'' and so on) the ratio of two preceding lines of column 2 is indicated. This ratio may be interpreted as the relative vocality of the position of phonemes in allomorphs under comparison: in a span of 1 to 0 it affirms the vocality of the position given in the second line, in a span of 1 to ∞ its non-vocality. A similar index indicated in lines marked by three-stroke letters shows the relative consonantism (consonants, sonorants and semi-vowels being treated as consonants) of a position given in the first place.

These indices show that single-count allomorphs are vocalic from the standpoint of phonemic position.

In allomorphs of counts of two the first place needs to be regarded as vocalic, in three-count ones the second, in four-count ones the second and third, and in five-count ones the second and fourth.

The second place in two-count allomorphs is to be regarded as consonantal, in three-count ones the first and third, in four-count ones the first and fourth, and in five-count ones the third and fifth.

Table 1
FREQUENCY OF PHONEMES IN THE TEXT

A	B	C	D	B	C	D	B	C	D
1	o	6 281	12,153						
2	a	5 423	10,493						
3	i	4 205	8,136						
4	e	3 831	7,412						
5				t	2 339	4,526			
6							j	2 048	3,963
7	u	2 040							
8				n	1 909	3,694			
9				v	1 817	3,516			
10				k	1 782	3,448			
11				s	1 696	3,282			
12				l	1 529	2,959			
13				r	1 488	2,879			
14				m	1 242	2,403			
15				p	1 231	2,382			
16							n,	1 212	2,346
17				d	1 141	2,208			
18							l,	954	1,847
19							t,	799	1,547
20				z	796	1,540			
21							č,	795	1,538
22				š	790	1,529			
23							r,	721	1,396
24							s,	721	1,395

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A	B	C	D	B	C	D	B	C	D
25				b	644	1,232			
26				g	633	1,225			
27				ž	508	0,983			
28				x	486	0,941			
29							m,	482	0,933
30							d,	476	0,921
31							v,	472	0,913
32							k,	269	0,521
33							p,	260	0,503
34							b,	257	0,497
35				c	173	0,335			
36							g,	92	0,178
37							z,	81	0,157
38				f	29	0,056			
39							f,	22	0,043
40							x,	12	0,023
Σ		21 780	42,139		20 233	39,146		9 673	18,715

A — order according to descending frequency;
B — phoneme;
C — number of occurrences;
D — %

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Table 2
OCCURRENCE AND FREQUENCY OF PHONEMES
IN THE INVENTORY AND TEXT

	A	B	C	D	A
1	5	12,5	21 780	42,139	+29,639
2	26	65,0	18 321	35,446	−29,554
3	8	20,0	9 537	18,452	−1,548
4	1	2,5	2 048	3,963	+1,463
Σ	40	100,0	51 686	100,000	0,000

1 — vowels;
2 — consonants;
3 — sonorants;
4 — semi-vowels (/j/);
A — inventory of phonemes;
B — %
C — occurrence in text;
D — %;
E — deviation (%).

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Table 3
DISTRIBUTION OF PHONEMES IN ALLOMORPHS

A	B	C	D	E
1	10 711	10 711	20,724	20,724
2	7 178	14 356	27,776	48,500
3	4 347	13 041	25,231	73,731
4	1 575	6 300	12,189	85,920
5	954	4 770	9,229	95,149
6	252	1 512	2,925	98,074
7	101	707	1,368	99,442
8	28	224	0,433	99,875
9	5	45	0,087	99,962
10	2	20	0,038	100,000
Σ	25 153	51 686	100,000	—

A — phoneme count of the allomorph (i.e. number of phonemes constituting the given allomorph);
B — occurrence of all allomorphs of the given count;
C — occurrence of phonemes in allomorphs of the given count;
D — % of phonemes in allomorphs of the given count;
E — cumulative %.

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Table 4
DISTRIBUTION OF PHONEMES IN ALLOMORPHS OF DIFFERENT PHONEME-COUNTS
(according to vowels, consonants, sonants and semi-vowels)

A	B	C	D	E	F
1	20,724	26,951 +6,227	15,687 -5,037	18,968 -1,756	7,617 -13,107
2	27,776	28,917 +1,141	25,348 -2,428	23,869 -3,907	60,205 +32,429
3	25,231	23,737 -1,494	27,328 +2,097	24,134 -1,097	22,901 -2,330
4	12,189	8,237 -3,952	15,885 +3,696	16,221 +4,032	2,393 -9,796
5	9,229	7,943 -1,286	10,490 1,261	10,674 +1,445	4,883 -4,346
6	2,925	2,438 -0,487	3,040 +0,115	4,226 +1,301	1,025 -1,900
7-10	1,926	1,777 -0,149	2,222 -0,296	1,908 -0,018	0,976 -0,950

A — phoneme-count of the allomorph;
B — frequency of phonemes in allomorphs of the given count;
C — % (of the whole number) of vowels occurring in the allomorph of the given count;
D — % of consonants;
E — % of sonorants;
F — % of semi-vowels (/j/).

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Table 5
DISTRIBUTION OF PHONEMES IN DIFFERENT PLACES
IN ALLOMORPHS

	1	2	3	4	5	6
A	5 870	2 849	1 836	156	4 841	10 711
B	2 692	1 343	2 181	962	4 486	7 178
B'	3 606	2 201	1 100	271	3 572	7 178
B"	0,746					
B‴					0 796	
C	1 207	2 059,5	1 022,5	58	3 140	4 347
C'	2 756	672	566	353	1 591	4 347
C"	0,438					
C‴					0,507	
D	123	1 148,5	283,5	20	1 452	1 575
D'	774	306,5	490	4,5	801	1 575
D"	0,159					
D‴					0,552	
E	107,6	550,1	285	11,3	846,4	954
E'	733,5	136	81,5	3	220,5	954
E"	0,147					
E‴					0,261	

A — occurrence of phonemes in one-count allomorphs;
B — occurrence in two-count allomorphs in second place;
C — ccurrence in three-count allomorphs in first and third place divided by two;
C' — in second place;
D — occurrence in four-count allomorphs in first and fourth place divided by two;
D' — in second and third place divided by two;
E — occurrence in five-count allomorphs in first, third and fifth place divided by three;
E' — in second and fourth place divided by two;
B", C", D", E" — the ratio B/B', C/C', D/D', E/E';
B‴, C‴, D‴, E‴ — the ratio B'/B, C'/C, D'/D, E'/E;
1 — vowels; 2 — consonants; 3 — sonorants; 4 — semi-vowel /j/;
5 — the sum 2 + 3 + 4; 6 — the sum 1 + 5.

Notes

1. F.C. Frick, W.H. Sumby, "Control Tower Language", *Journal of the Acoustics Society of America*, 24, 1952, pp.595–6.

2. Cf. E.S. Ventcel', *Teorija verojatnostej* / The Theory of Probabilities, Moscow, 1958.

3. This estimate was confirmed on the whole by calculations done after completing the text analysis, compare §5.

4. M. Šolochov, *Sud'ba čeloveka* / A Man's Fate, Collected Works, Volume 8, Moscow, 1960.
   The text was tape-recorded with the pronunciation of two speakers (R.K., born in 1931, resident of Moscow, graduate of Moscow State University, teacher; L.H., born in Leningrad, resident of Moscow, graduate of the Lenin Teachers' Institute in Moscow, teacher). The first recording was regarded as basic, the second as control.
   Based on these hearings the text was then re-written in phonetic transcription and entered on small cards of A7 size according to allomorphs. Each card held these data:
   1) given allomorph in phonetic transcription,
   2) given allomorph in phonological transcription,
   3) the whole word containing the allomorph,
   4) "address" of the word (page, line, respective order in line, if recurrent).
   From the material thus prepared the frequency count was composed, containing these data:
   1) the allomorph in phonological transcription,
   2) frequency in the control material,
   3) valency indicated by two figures, e.g. 8/3, the former being the number of possible positions immediately preceding the allomorph (within the word), in which respect both the allomorph and empty slot on the word-boundary were regarded as allomorphs; the latter figure indicates the number of possibilities immediately following the given allomorph.

5. Compare, for example, classifications in the following works: W.F. Twaddell, "On Defining the Phoneme", Supplement to *Language*, 16, 1935; R. Jakobson, M. Halle, *Fundamentals of Language*, The Hague, 1956; S.K. Šaumjan, *Problemy teoretičeskoj fonologii* / Problems of Theoretical Phonology, Moscow, 1962.

6. R. Jakobson, C.G. Fant, M. Halle, *Preliminaries to Speech Analysis, The Distinctive Features and their Correlates*, Technical Report No. 13, 1955; R. Jakobson, M. Halle, *Manual of Phonetics*, Amsterdam, 1957; E.C. Cherry, M. Halle, R. Jakobson, "Toward the Logical Description of Languages in their Phonemic Aspect", *Language*, 29, 1953, pp.34–46; M. Halle, *The Sound Pattern of Russian, A Linguistic and Acoustical Investigation*, s'Gravenhage, 1959; M. Romportl, *Zvukový rozbor ruštiny* / A Speech-Sound Analysis of Russin, *A UC — Philologica — Monographia III*, Prague, 1962.

7. N.S. Trubetzkoy, *Grundzüge der Phonologie*, TCLP, 7, Prague, 1939, pp.29–30.

8. The German term, adduced by N.S. Trubetzkoy and translated into Russian with the word smyslorazličitel'nyj, is, of course, lacking in precision: the phoneme is not directly bound to the plane of meaning, therefore is unable to change meaning; at most it may alter the phonematic composition of the allomorph, but even in this case a shift in meaning is not present in all cases, because languages have redundancy and do not realize all possible phoneme-combinations in the framework of allomorphs.

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9. Z.F. Oliverius, "Morfemnyj analiz sovremennogo russkogo jazyka" / A morpheme analysis of contemporary Russian, *Problemy sovremennoj lingvistiki,* Prague, 1967, pp.7–78.

10. Z.F. Oliverius, "Překrýváni foném "/ The overlap of phonemes, *Československá rusistika,* 8, 1963, pp.181–187.

11. Z.F. Oliverius, *Fonetika russkogo jazyka* / The Phonetics of Russian, Prague, 1967.

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OLIVERIUS'S LIFE — CHRONOLOGY

1927	5th January, born in Mlečice (Western Bohemia).
1933	Moved to Prague where he received his primary and secondary education.
1946-50	Enrolled at Charles University (philosophy, psychology, English language and literature).
1953-57	Enrolled at the Institute of Russian Language and Literature (Russian and Czech language and literature)
1957-61	Lecturer, Pedagogical Institute (Ústí nad Labem, Western Bohemia).
1961-68	Lecturer and Associate Professor of Russian, Pedagogical Faculty, Charles University.
1966	Obtained the degree *Candidatus Scientiarum.*
1968	December, arrived in Australia to occupy the position of Professor and Chairman of the Russian Department, Monash University.
1970	Elected the first president of the Australian and New Zealand Slavists' Association.
	Co-editor of *Melbourne Slavonic Studies,* until his departure from Australia.
1972	September, returned to his post at Charles University.
1974	*The Phonetics of Russian* published.
1976	*The Morphemes of Russian* published.
1978	Obtained the degree of *Doctor Scientiarum,* nominated for the post of Professor at Charles University.
1978	20th September, died in Prague.

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Dr J.E.M. Clarke (Monash University):
principal editor; contributed the review of *Fonetika russkogo jazyka (Čast' vtoraja, Upražnenija)*/The Phonetics of Russian (Part Two, Exercises) and the translation, "Semantic Rules for the Generation and Interpretation of Russian Words".

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* * *

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co-editor and research consultant; contributed the biographical section, "Zdeněk F. Oliverius (5.1.1927 — 20.9.1978)".

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Zdeněk F. OLIVERIUS (1927 — 1978)

Der vorliegende Sammelband ist dem Andenken des hervorragenden tschechischen Russisten Zdeněk F. Oliverius gewidmet, der 1978 vorzeitig im Alter von 51 Jahren in Prag verstorben ist.

Das wissenschaftliche Werk von Oliverius steht in Beziehung zu zwei Ländern — nicht nur zu seiner Heimat, sondern auch zum fernen Australien. Unsere Ausgabe, an deren Bearbeitung sechs Slavisten zweier Melbourner Universitäten beteiligt waren, konzentriert sich auf Aufsätze aus dem Zeitraum von knapp vier Jahren (1968 — 1972), den Oliverius auf dem fünften Kontinent verbracht hat. Diese verhältnismässig kurze Periode ist durch eine verstärkte Tätigkeit gekennzeichnet. Das wichtigste Ergebnis der intensiven Forschungstätigkeit dieser Jahre waren zwei Bücher, die einen wesentlichen Beitrag zur internationalen Russistik leisteten.

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Oliverius kam aus dem westböhmischen Dorf Mlečice, Bezirk Rokycany, wo er die ersten sechs Jahre seines Lebens verbrachte. In Prag besuchte er die Grundschule und das Gymnasium. 1946 begann er sein Studium an der Karls-Universität, 1953 trat er in das Institut für russische Sprache und Literatur ein, das er nach vier Jahren mit einem Abschluss verliess.

Von 1956 bis zum Ende seines Lebens war Oliverius in erster Linie Lehrer. Seine pädagogischen Interessen, die sich auch in seinen rein theoretischen Schriften widerspiegeln, ziehen sich wie ein roter Faden durch sein Werk.

1966 erhielt Oliverius den Titel eines Kandidaten der Wissenschaften, und 1968 wurde er zum Dozenten für russische Sprache der pädagogischen Fakultät der Karls-Universität ernannt. Von 1968 bis 1972 vertrat er den Lehrstuhl für Russisch an der Monash University in Melbourne. Von hier brachte er seine beiden grundlegenden Arbeiten zur russischen Sprache mit, die er anschliessend in Prag veröffentlichte: 1972 die *Phonetik der russischen Sprache* und 1976 das Buch *Morpheme der russischen Sprache*, für das er den Titel des Doktors der Wissenschaften erhielt. Am 20. September 1978, gerade als seine Ernennung zum Professor erwogen wurde, starb Oliverius. * * * * * *

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Oliverius' Wirkungsbereich in Australien war in erster Linie Monash University , wo er von Dezember 1968 bis September 1972 das Department of Russian leitete. Mit seinem Namen sind jedoch auch alle wichtigen Marksteine der Entwicklung der australischen und neuseeländischen Russistik verbunden, insbesondere die Gründung der *Association of Australian and New Zealand Slavists*, zu deren erstem Vorsitzenden er 1970 gewählt wurde. Während der Zeit seines Aufenthaltes in Australien begann er die wichtigsten Arbeiten seiner letzten Lebensjahre, die in tschechischer, russischer und englischer Sprache nicht nur in der Tschechoslowakei und Australien, sondern auch in der Sowjetunion, den Vereinigten Staaten und in anderen Ländern erschienen.

Eine der Aufgaben des vorliegenden Sammelbandes ist, einen kurzen Überblick über die Tätigkeiten des Gelehrten zu geben; hinzu kommen eine Biographie, eine Bibliographie sowie die wichtigsten Aufsätze, die auf diese Periode zurückgehen, ferner Besprechungen seiner Bücher, und zwar veröffentlichte wie unveröffentlichte, um so einen Beitrag zur Beleuchtung einer wichtigen Epoche der noch jungen Geschichte der australischen Slavistik zu leisten. Das Hauptziel des vorliegenden Sammelbandes ist es jedoch, dem wissenschaftlichen Erbe, das der australischen und internationalischen Russistik von Zdeněk František Oliverius, dem hervorragenden Vertreter der Nachkriegsgeneration der tschechischen Sprachwissenschaft, hinterlassen wurde, die gebührende Ehre zu erweisen.

INHALT

ZDENĚK F. OLIVERIUS (1927 — 1978)

Tento sborník je věnován památce předního českého rusisty Zdeňka F. Oliveriuse, předčasně zesnulého v Praze ve věku 51 let.

Vědecké dílo Oliveriusovo patří dvěma zemím, nejen jeho vlasti, ale též daleké Austrálii. Naše publikace, na jejíž přípravě se podílelo šest slavistů ze dvou melbournských univerzit, se soustřeďuje na necelé čtyři roky (1968-1972), které Oliverius strávil v nejvzdálenějším světadílu. Tato poměrně krátká doba byla naplněna intenzívní činností, jejímž výsledkem byly nejvýznamnější plody jeho vědeckého úsilí včetně dvou knih, plody, které se staly trvalou součástí mezinárodní rusistiky.

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Oliverius byl původem ze západních Čech, z Mlečic u Rokycan, kde se 5. ledna 1927 narodil a kde strávil prvních šest let. V Praze po ukončení základního a středního vzdělání vstupuje r. 1946 na Karlovu univerzitu a v r. 1953 na Vysokou školu ruského jazyka a literatury, kde po čtyřech letech studia promuje.

Od r. 1956 až do konce svého života byl Oliverius především pedagogem. Výchovné zřetele, příznačné i pro jeho práce se zaměřením čistě teoretickým, se vinou jako červená nit celým jeho dílem.

V r. 1966 získává hodnost kandidáta věd, v r. 1968 je jmenován docentem ruského jazyka pedagogické fakulty Karlovy univerzity. V září 1972 přiváží z Austrálie dvě své stěžejní, rusky napsané práce, které posléze vydává v Praze: r. 1972 *Fonetiku ruštiny* a r. 1976 knihu *Morfémy ruštiny,* za niž získává hodnost doktora věd. Dne 20. září 1978, ve chvíli, kdy jeho jmenování univerzitním profesorem je již předmětem oficiálního řízení, Oliverius umírá.
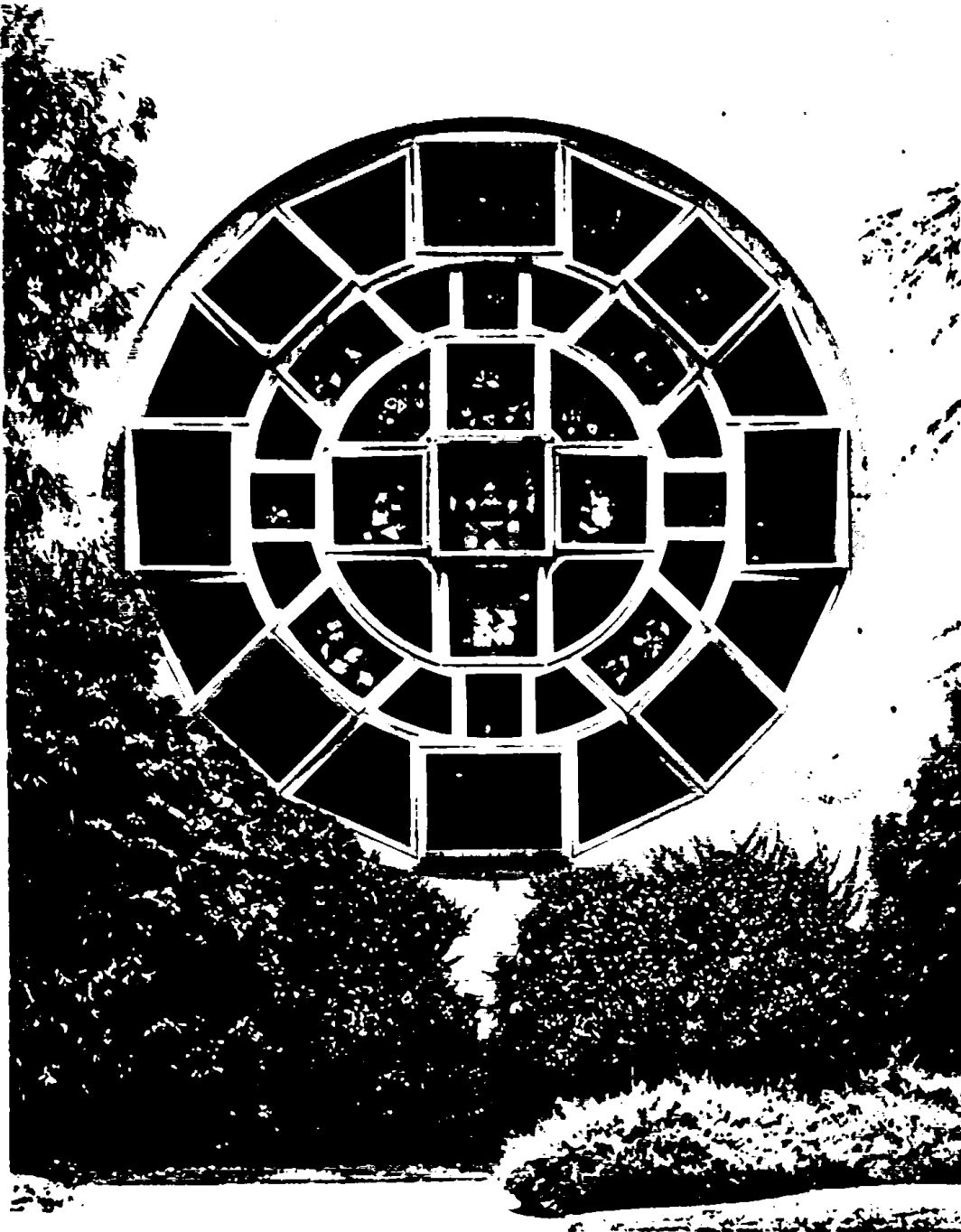
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Polem Oliveriusovy australské působnosti byla především Monashova univerzita v Melbournu, na níž od prosince 1968 do září 1972 vedl katedru ruštiny. S jeho jménem jsou však také spojeny všechny ostatní mezníky ve vývoji australské i novozélandské rusistiky tohoto období, zvláště pak zrod *Asociace australských a novozélandských slavistů,* jejímž prvním předsedou byl r. 1970 zvolen. Období Oliveriusovy australské činnosti dává vzniknout nejdůležitějším pracím jeho

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posledních let, uveřejněným česky, rusky a anglicky nejen v Československu a Austrálii, ale také v Sovětském svazu, Spojených státech a jiných zemích.

Jedním z úkolů našeho sborníku je podat stručný přehled této činnosti — zahrnující životopis, bibliografii, nejvýznamnější články se vztahem k tomuto období, jakož i recenze jeho knižních děl vydaných i nevydaných — a tímto způsobem přispět k osvětlení důležitého článku v dosud mladých dějinách australské slavistiky. Hlavním účelem této publikace je však uctění vědeckého odkazu, který zanechal australské a mezinárodní rusistice Zdeněk František Oliverius, významný představitel poválečné generace české jazykovědy.

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