

WHAT SHOULD WE BASE THE STRATEGY OF GLOTTODIDACTICS ON?

JERZY BAŃCZEROWSKI

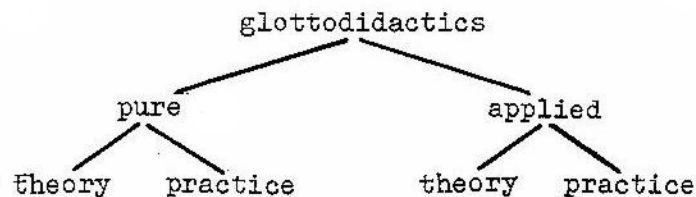
Adam Mickiewicz University, Poznań

Learning and teaching foreign languages nowadays is not in most cases art for art's sake. There are factors in the development of present societies and civilizations that make this activity necessary. Therefore it is not astonishing that a great number of publications about new trends and new methods in this field have been appearing. A serious attempt has been made to exploit recent achievements in linguistics, psychology and related sciences. But a neutral and a slightly cynical observer would probably ask the following question: what are the recent results in foreign language teaching and how they can be correlated with the recent approaches to this problem. The explicit answer to this question is often avoided. Anticipating it however one is forced to state that there is no parallel progress concerning the effects of teaching. In this connection it is further worth noting that not so much the methods are the ultimate goal in the field of teaching and learning but the attainment of positive results. The methods are only the means toward this goal. The failure to arrive at satisfactory effects certainly reflects our failure to construct an adequate teaching and learning strategy.

The pure and applied aspect of glottodidactics

Almost every branch of science has its pure and applied aspect. We use, for example, the terms pure and applied mathematics or physics. Similarly in the field of linguistics one may discern between pure and applied aspect. Both pure as well as applied linguistics may then again be subdivided into linguistic theory and linguistic practice. Such a division of linguistic activity is not the only possible one. Starting from a different point of view we could at first distinguish between linguistic theory and linguistic practice and then in both these branches speak about the pure and applied aspect. The possibility of these two divisions applies also to the disciplines related to linguistics such as psycho-, socio-, ethnolinguistics.

The teaching of languages, i.e. glottodidactics, is sometimes thought of as a field of applied linguistics. But to what extent is it true? We think that the above classifications are applicable here as well, which can be shown in the following diagram:



In accordance with this classification one may propose at least three types of glottodidactic models:

(1) Explanatory models, which account for what occurs in the process of learning and teaching without regard for any immediate practical application. They are based upon the theory and practice of pure glottodidactics. Practice is here to be understood as the verification of theoretical assumptions.

(2) Theoretical applied models or a theory proper of how to teach and learn. They may be considered as a set of alternative strategies.

(3) Demonstration or execution models.

For the construction of the models of type (1) it is of primary importance how we imagine the processes of anthropocommunication. These models exploit the knowledge provided by the disciplines which explore various aspects of the mentioned processes and so guarantee a many-sided approach to them. Human communication can be the object of analyses starting from various points of view. The branches of science that come here into question are: linguistics, psycholinguistics, psychology, sociolinguistics, neurolinguistics, cybernetics, etc. There is an intimate interrelation between the model of communication and the model of learning (cf. Zabrocki 1968 : 11 f).

The establishing of appropriate strategies (models of type (2)) will be influenced by the degree of adequacy of the explanatory models (1). However, it is to be remembered that not all theoretical progress in teaching and learning may be at once followed by immediate practical consequences. The transition from (2) to (3) is often very hard to achieve. The teacher does not always know how to carry out effectively the pure and applied theoretical principles in teaching practice.

The two major theories of today, audiolingual habit theory and cognitive code-learning theory (cf. Carroll 1966 : 101 f) belong to our models (2) and are derived from models (1).

It becomes clear that glottodidactics is a field of science in which the pure

as well as the applied aspects of various disciplines in studying the system of anthropocommunication overlap; it is then a subfield of pure and applied communicatics.

Remarks on the strategy of glottodidactics

The factors which lie at the basis of an overall strategy and tactics* in teaching foreign languages are very complex. The strategies have changed throughout the history of teaching and they are developing further. The ultimate goal of this development is an optimal strategy which will assure the teacher and the learner of the greatest possible expectation of positive results. The attainment of the optimal strategy is possible only gradually in accordance with the advances of our knowledge concerning the manifold aspects of information processing in the system of anthropocommunication; it should be based above all on the explanatory models of teaching and learning.

In analysing the specifics of the learning-teaching system we can distinguish in it at least three main subsystems:

- (a) learner
- (b) foreign language
- (c) teacher

The learner facing the task of acquiring some new skilled acts like a foreign language attempts to choose an appropriate strategy and tactics. He may follow some learning instruction of his own, independently, of the teacher, or may be taught by him. The teacher in his turn also tries to elaborate a strategy of teaching by providing the learner with a verbal program and with exemplification. These kinds of strategies could be called external. They are observable and to a large extent conscious.

Meanwhile the brain of the learner processes the information being received (perception, storage, selection, reproducing). The brain has its own internal strategy to tackle the information. This strategy, i.e. the set of hypotheses and operations, is unconscious. Neither the learner nor the teacher know explicitly what its essence is.

It is obvious that the choice of an adequate internal strategy that should result in the end in coordinated communicative behaviour may be facilitated or impeded by the choice of external strategies. A suitable selection and arrangement of the materials of the target language cannot be among other factors random. The elaboration of skilled acts also requires practice and repetition.

* Strategy is thought of as a general or molar approach to reach the goal of an activity. Tactics refers to particular, detailed acts. Tactical steps acquire a more deep sense only in the frame of general strategy, i.e. when the general principles are clear. Tactics is therefore subordinate to strategy.

Some scholars suggest that the person must learn how to translate Plans, which are formulated verbally i.e. digitally, into analogue processes, namely continuous movements executing the strategy (cf. Miller Galanter, Pribram 1960 : 91 ff). The only way to control the information processing in the brain is through the external strategy. Thus it should be so formulated that it helps the brain in developing the optimal internal strategy. The achieved results are the only measure for evaluating the application of a particular external strategy. The better and earlier the effects in foreign language teaching and learning the better the employed approach.

The choice of an appropriate strategy cannot be carried out only on intuitive grounds. The teacher must be familiar with the findings of a wide range of the disciplines mentioned above, taking into consideration the explanatory glottodidactic models. All those disciplines, as will be shortly discussed below, have their specifics and simultaneously their limitations, but nevertheless they advance our knowledge of learning and teaching. Let us take for example the role of the cybernetic concept of feedback in the strategy of learner and that of teacher. Human behaviour points to the existence of a mechanism to check the effects of an action before this action is completed. A living system when acting makes use of its whole experience and simultaneously takes into account the behaviour of another system which it wishes to influence. Feedback as the property of every communication system should be then always preserved in order to guarantee effective communicative functioning. The teacher ought to register the results of his previous tactical operations, to compare the deviation from the desired goal and to correct respectively the ensuing tactical decisions according to the adopted strategy (cf. Rivers 1964 : 190).

Implications of the theory of games?

In the preceding section we used the terms strategy and tactics which are met in the theory of games. It would be worth studying to what extent, if at all, glottodidactics could be explained in the light of the theory of games, which deals with the methods of choice of optimal strategies in the formalized conflict.

In the conflict situation the players strive for totally contradictory or at least partly discordant purposes. In the present form the theory of games is still too simple to be able to resolve every problem of human society. But it seems justified that the non-zero-sum games especially have great perspectives of various applications. Here the players may not only compete but also cooperate.

Teaching and learning foreign languages is, as often underlined, very complex and its formalization in terms of the theory of games is not easy. The

learner and the teacher partly compete and partly cooperate. Although the final goal of both the players is almost identical, there are factors impeding the efforts in this direction. Even if the learner totally obeys the teaching strategy consciously there are opposing factors in his organism (psychological and psychophysical variables) that do not want to submit; e.g. the ability to use mother language hinders to a large extent the acquisition of foreign language skill. Further there are immanent factors in the foreign language system, which are responsible for the errors of the learner (cf. Richards 1970). His age is also relevant. In the learner there is a conflict between learning and forgetting (Carroll 1966 : 99). The teacher must adjust continuously his strategy to the outcome of this game.

In the game called 'language teaching and learning' we must then expose the opposing factors with which teacher and learner are in conflict. The learner is partly on the side of the teacher and partly plays against him. Also to be taken into account are the utility consequences of the application of particular strategies, which arrive at different aims.

Contribution of linguistics

Sometimes it is assumed that for a long time teaching foreign languages was based upon the achievements of linguistic science (cf. Belyayev 1969 : 145). The validity of such an assumption depends on how we define the scope of linguistic research. If we follow F. de Saussure in drawing a clear demarcation line between *langage*, *langue* and *parole* and also accept his point of view that the only object of linguistics is *langue* (cf. Saussure 1922 : 25; Hjelmslev 1948 : 24; Slama-Cazacu 1966 : 51 ff) then linguistic contribution to the glottodidactics seems to be limited to giving the answer to the question: *WHAT should be taught*. This *WHAT* is here to be understood as the content of teaching (cf. Salistra 1962 : 17; Belyayev 1969 : 144; McIntosh 1971 : 9).

In the sense of de Saussure *langue* is considered as a system of signs used as means of communication. *Langue* as the social side of speech, relatively independent of any speaker and perfect only within a society, is opposed to individual speech acts (*parole*). Thus linguistics studying the language system arrives at various kinds of units such as *phoneme*, *morpheme*, *word*, *sentence* and rules of combining them, but without or with little interest in the *parole*-phenomena, i.e. the speaker's actual ability to use the language while understanding and creating sequences of signs. Similarly the acquisition of language, whether first or second, falls outside the scope of linguistic research. For the glottodidactics the question *What to teach* as well as *How to teach* must be asked. The pure linguist is usually incompetent to give a correct answer to the second question, because it presupposes a knowledge of the whole

phenomenon of speech; he is able only to provide the theory of *What*, i. e. the adequate description of the language to be learned and taught.

In spite of this pure linguists officially striving for a linguistic linguistics, admitting language as the only concern of this discipline, nevertheless sometimes give advice related to the problem of *How*. Of course, they cannot be forbidden this, but in doing so they must have constructed on the basis of linguistic studies some hypothetical models about how language is used and acquired or must have broadened their interest sphere to parole phenomena exceeding thus in both cases the limits of linguistics. Otherwise their intervention would be regarded as unjustified.

The problem of *What* and *How* becomes perhaps clearer when we consider other subjects such as mathematics or physics; how to teach mathematics and what should be taught are two different things.

It is beyond any doubt that linguistic theory will exert important impact on the theory of speech and the theory of functioning of the whole system of anthropocommunication and vice versa. Linguistic theories should investigate various possibilities of modelling a language system or a language competence, to use the notion of transformational grammar. But we ought not to forget that not everything that proves to be convenient and useful in pure linguistic modelling must obligatorily reflect language reality and so can be automatically transferred to the model of language use and language acquisition.

The competence is conceived as the knowledge of the users of their language, i.e. what they must know in order to be able to use the language (cf. Chomsky 1965 : 4). Does the model of competence really reflect the knowledge of the speaker-hearer or does it only account for the knowledge of the linguist about the knowledge of the user of a language? A generative grammar which attempts to characterize the knowledge of language cannot be regarded as a model for speaker and hearer (Chomsky 1965 : 4; Bach 1964 : 64) but this seems sometimes to be overlooked.

It is not our task here to prescribe what linguistics should do or not do. This no doubt depends on the definition. One thing is certain, the results of linguistics in any case will be important for glottodidactics through indicating what must be taught. But surely it is not enough. We also need models which account for the processes taking place in the speaker and hearer.

Psycholinguistic approach

The findings of psycholinguistics are especially relevant to the question of how to teach foreign languages. Psycholinguistics consciously directs its attention to the problems of how people use a language system and how they acquire it and it tries to construct performance and acquisition models re-

spectively. These models are closely connected with the investigation of such processes as *perception, understanding, storage of words and rules in memory, creating sentences etc.*

Here arises the problem of the relation between a psycholinguistic and a linguistic model and to what extent the latter may exist independently (of the model of language use). The psycholinguistic models will incorporate the linguistic models. If we accept that speech has developed as a means of communication in order to allow cooperation in a given speech community then it seems very unnatural to consider it excluded from the system of anthropocommunication which in its turn is closely connected with all human activity (cf. Slama-Cazacu 1966 : 62). Therefore it is not astonishing when some scholars regard psycholinguistics as a theory of speech-activity (cf. Leontiev 1968 : 33). These factors must be seriously taken into consideration by the language teacher.

For the purposes of the language teacher, language cannot be conceived as a self-contained formal calculus devoid of its communicative context and extralinguistic experience of the speaker (cf. Oller 1971). All the teaching methods attempting to imitate the natural way of learning and employing only one sensory modality, i.e. hearing, are unnatural because they fail to draw the correct conclusion from the relation of language to the system of human activity. Therefore it is to be expected that language learning associated with the corresponding motor performances will bring positive effects on fluency in a foreign language. The way to this fluency is not only the repetition of a set of utterances and internalization process of another set of rules but becomes a sort of physical exercise while listening to a command in foreign language and imitating the instructor (cf. Asher 1966; Carroll 1966 : 105).

The linguistic theory, as expected, has exerted remarkable influence on the direction of psycholinguistic research. It is often associated with the transfer of linguistic models of generative grammar upon the natural process of speech generation. Thus the former are sometimes considered as explanatory models of the latter. That has given rise to the problem to what extent, if at all, linguistic models mirror the psycholinguistic substance of the process of generation or whether they are only creations of linguistic theory (cf. Glanzer 1965 : 44; Leontiev 1969 : 104; Iliasov 1968). Some scholars are even afraid that the said transfer may impede the progress in the field of psycholinguistics and consider the linguistic generation process as much too distant from the tasks of psycholinguistic modelling (cf. e.g. Kopylenko 1969 : 101). Some of their arguments seem to be relevant to the discussion. Generative grammar makes use of a given list of objects on the input. It is doubtful if such a list should be admitted in psycholinguistic modelling or rather should we concentrate our efforts in order to disclose the characteristic factors of primary meaningful complexes. Thus far it is hard to state to what these complexes are isomorphic and/or

homomorphic: to morphemes, words, word groups or sentences (cf. Kopylenko 1969 : 102).

At present psycholinguistics cannot put at our disposal satisfactory explanatory model of language performance and acquisition. Here we cannot expect suddenly great progress. But it will have more substantial influence on language teaching and learning than the progress in pure linguistics.

Socio- and ethnolinguistic contributions

The minimal systems of anthropocommunication are imbedded in larger ones namely in language communities or in communicative communities. Language community has its own extralinguistic structure which is mirrored in communication acts. Language is a model of a given extralinguistic reality.

The language communities are socially and culturally differentiated. Social structure imposes some limitations upon the verbal as well as non-verbal communication conditioning, among other things, an appropriate choice of means of communication. Persons communicating are obliged to keep up the system of social norms accepted in a given community. Their social status and their social role may be different or the same. This is preserved in the language they speak or more precisely this is manifested in the adequate choice of words, language structures etc. (cf. Friedrich 1966). A violation of the standards of social behaviour by an individual may be associated with a condemning reaction of others.

For every native speaker it is desirable to know the social status of his interlocutor in order to control appropriately his own communicative behaviour paying attention to this that the hearer, on the one hand, does not feel offended and, on the other, understands the message. Thus the socio- and ethnolinguistic research becomes very important when one teaches and learns foreign languages because the social structure and cultural background of two communities using different languages may also differ in many respects (cf. Hoijer 1954). The studies in contrastive socio- and ethnolinguistics would be especially valuable in revealing the relevant differences in question. These differences are sometimes significant to such a degree that the student of a foreign language is not able to understand the content of the communiqué although its form is perfectly clear to him. Thus the literal understanding of a text without the knowledge of the specifics of social and cultural references may turn out to be senseless. The pure linguistic (distributional) meaning (cf. Joos 1958 : 356) is not sufficient here.

Ignoring the socio- and ethnolinguistic differences, one runs the risk of not comprehending the native speaker or being misunderstood by him. Further his behaviour may be regarded as foreign causing false impressions, not to mention

disagreeables that often cannot be avoided (cf. Hall 1959 : 27; Papp 1964; Vereshchagin 1969 : 65-85).

A native speaker does not have at his disposal all the communicative habits for every social situation (cf. Tarasov 1969 : 82). He must acquire them. Similarly the acquisition of a foreign language may be considered as a process of communicative adjustment of an individual to the foreign social and cultural reality. It ought to be further emphasized that the social, cultural and civilizational information about the specific aspect of a community may also be expressed by means of paralinguistic and kinesic behaviour.

A paralinguistic contribution

In the communication act verbal speech may be not only accompanied by non-verbal communication means but also partly or totally substituted by them. Thus only a part of the information transmitted is verbally i.e. lexically and grammatically formalized. To a large extent information is also conveyed by means of voice modulation (intensity, loudness, speech rate, intonation, distribution of pauses, laughter, cry, whisper), gestures, body movement, mimicry and the like.

The discipline covering this range of phenomena is called paralinguistics. Broadly speaking paralinguistics is concerned with informational significance of all non-verbal communication means accompanying normal speech. It may be subdivided into paralinguistics *sensu stricto* being interested only in the information carried by the acoustic (and audible) signal and kinesics covering the information associated with optic (and so visual) signal such as manifested for example by smile, wink, pointed finger, the movement of the head, the eyes, spatial separation and the like.

It is worth stating that sometimes it is not easy to draw clear borderline between linguistic and paralinguistic phenomena. The paralinguistic features may be redundant or not to normal speech. In the second case they supplement the verbal communication helping to reduce the entropy (polysemantics) of language units. Thus it is reasonable to assume that increasing noise in the communication channel results in increasing number of non-verbal elements (cf. Nikolayeva 1969 : 63).

Paralanguage like language characterizes the speaker in three main ways bringing the information about his 1. individual characteristics, 2. social and cultural attitude, 3. nationality. Paralinguistic and kinesic means of communication seem so natural to the native communicators that they even do not suspect that other people can behave in another way. This "naturalness" causes that in the foreign language teaching the differences in paralinguistic and kinesic behaviour are often neglected. But on the basis of this behaviour one can easily distinguish a foreigner from a native communicator.

Such a factor as spatial distance between interlocutors may vary from culture to culture. E. T. Hall distinguishes several zones. In Latin America, for example, "impersonal" information is transmitted at the distance appropriate for "confidential" discussions in North America (Hall 1959). Or, as it is assumed, the Americans exhibit an inclination to express by mimicry that what Europeans express by gestures.

In foreign language teaching the paralinguistic and kinesic aspect should not be underestimated. The teacher should derive his knowledge in this area from studies in contrastive paralinguistics and contrastive kinesics. The student of a foreign language must be in command of the code used in verbal as well as in non-verbal communication, otherwise he will not be able to decode completely the information being received. Thus the term foreign language teaching is a little inadequate to the problems discussed above and one could rather propose foreign communication teaching.

The possibilities and limitations of cybernetic modelling

Cybernetics as a general theory of abstract communication systems investigates certain aspects of their informational behaviour (or functioning possibilities). Thus it covers a wide range of phenomena such as communication, control, monitoring. The materiality of the systems is not essential here. The cybernetic approach puts at our disposal a common set of homogeneous notions that may be applied to every type of communication system.

The systems of learning and teaching foreign languages in which a vast amount of information is processed are concrete realizations of communication systems. Every communication system functions only insofar as there occurs transmission of information within it. Cybernetic principles may be applied to the functioning of the learning and teaching systems. They are also applicable to the research of psycho-, neuro- and sociolinguistic systems.

Cybernetic analysis in such terms as *amount of information, entropy, redundancy, feedback, channel capacity, control* etc. enables us to approach the systems in question from a different point of view and to pay attention to the phenomena that would be overlooked if investigated only on the narrow basis of one particular discipline.

The importance of cybernetics for the theory of learning and teaching is doubtless. We can construct more adequate models of learning and teaching as well as derive some useful information with regard to control of the learning and teaching processes. Generally speaking all acts of learning may be characterized as the processes of diminishing information (entropy) or increasing organization. The learner proceeds thus from a probabilistic to a deterministic behaviour (cf. von Cube 1965 : 18). But the relevance of cybernetic modelling has some limitations (cf. Novik 1969 : 88-134) and should not be overestima-

ted. The language of cybernetics is to a large extent the language of mathematics. (However the language of the cybernetic models constructed by H. Greniewski is not the language of mathematics; cf. Greniewski 1960). Cybernetics, especially the information theory, handles the information processing in a quantitative way (although efforts have been made to account also for the semantic aspect of a message; cf. Poletayev 1970 : 211-227). Thus such notions as the amount of information expresses only the statistic characteristic of a message or of a sender by measuring the degree of randomness and does not refer to the meaning (von Cube 1965 : 16,27). Therefore it was reasonably proposed to replace the label information theory by theory of signal transmission. The information in the sense of information theory should not be confused with information in its common referential sense. Such considerations lead some scholars to deny the relevance of the information theory approach to the anthropocommunication (cf. Osgood & Sebeok 1965 : 47). The question remains how far the processes that are qualitative in their nature may be quantitatively reflected, by the description tools of present information theory, i.e. how far they may be translated into the language of cybernetics.

Conclusions

Although the research work in all of the fields discussed briefly above is advancing very rapidly and the achieved results seem to be certain we are however very often not able to make correct inferences about the strategy of foreign language teaching. But it does not mean that this knowledge is useless for us. Further it should be stated that the explanatory models in teaching and learning of languages cannot be of primary concern for the teacher. What he should be interested most in is the transfer of these models into applied glottodidactics in order to achieve strongest possible control of the adaptation process of the learner to the foreign speech community.

So we should stress once again that pure glottodidactics, the explanatory models of teaching and learning, does not yet mean that we are pursuing applied science (in our case applied glottodidactics) but only lays the scientific groundwork which is essential.

As for the methods or strategies of teaching at least two things seem to be certain:

(1) there is not as yet any reason to insist upon any single method for teaching foreign languages because there does not yet exist a homogeneous method which guarantees the best results in teaching all skills (listening comprehension, speaking, reading, writing, translation, etc.)

(2) every particular method of teaching foreign languages emphasizes certain aspects of teaching and neglects others (cf. Scherer, Wertheimer 1964).

Therefore, it is reasonable to try to develop a kind of *complementary method*

or in other words a set of mutually complementary approaches (based on the notion of complementarity, cf. Bohr 1958 : 26,74; Heisenberg 1968 : 106) which would incorporate various aspects of all known methods of teaching. Only in this way can we account for language-teaching which is a multi-aspectual process.

We are convinced that a complementary method is one which has been most frequently, although unconsciously, applied in practice. The time is ripe to give it a theoretical and practical justification.

REFERENCES

- Ashby, W. R. 1958. *An introduction to cybernetics*. London: Chapman & Hall Ltd.
- Asher, J. J. 1966. "The strategy of the total physical response: an application to learning Russian". *Forum* 5. 3 - 5.
- Bach, E. 1964. *An introduction to transformational grammars*. New York: Holt, Rinehart and Winston, Inc.
- Bohr, N. 1958. *Atomic physics and human knowledge*. N. Y.: John Wiley & Sons, Inc.
- Belyayev, B. V. 1969. "New trends in psychology of foreign language learning" (in Russian). In: *Psychological and Psycholinguistic Problems of Language Use and Language Learning*. Moscow: Изд. Московского Унив.
- Carroll, J. B. 1966. "The contributions of psychological theory and educational research to the teaching of foreign languages". In: A. Valdman (ed.), *Trends in language teaching*. New York: McGraw-Hill, Inc.
- Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: The M.I.T. Press.
- Cube, F. von 1965. *Kybernetische Grundlagen des Lernens und Lehrens*. Stuttgart: Ernst Klett Verlag.
- Friedrich, P. 1966. "Structural implications of Russian pronominal usage". In: W. Bright (ed.), *Sociolinguistics*. The Hague: Mouton.
- Glanzer, M. 1965. "Psycholinguistics and verbal learning". Paper prepared for the Verbal Behavior Conference. N.Y.
- Greniewski, H. 1960. *Cybernetics without mathematics*. Warszawa: PWN.
- Grobstein, C. 1965. *The strategy of life*. San Francisco: W. H. Freeman and Company.
- Hall, E. T. 1959. *The silent language*. Garden City, N. Y.: Doubleday.
- Heisenberg, W. 1968. "Quantum theory and its interpretation" In: *Niels Bohr*. Ed. by S. Rozental, Amsterdam; North-Holland Publishing Company.
- Hjelmslev, L. 1948. "Linguistique structurale". In: *Essais linguistiques*. Copenhagen: Nordisk Sprog- og Kulturforlag, 1959.
- Hoijer, H. (ed.), 1954. *Language in culture*. Chicago: The University Press.
- Ильясов, И. И. 1968. „Эксперимент Дж. Миллера по проверке психологической реальности трансформационной модели". In: *Психология грамматики*. Москва: Изд. Московского Унив.
- Jakobovits, L. A. 1970. *Foreign language learning. A psycholinguistic analysis of the issues*. Rowley, Mass.: Newbury House Publishers.
- Joos, M. 1958. "Description of language design". *Readings in linguistics*. New York: American Council of Learned Societies.
- Kopylenko, M. M. 1969. "On difference between speech production, speech generation and speech synthesis" (in Russian). In: *Psychological and psycholinguistic problems of language use and language learning*. Moscow: Изд. Московского Унив.
- Леонтьев, А. А. 1968. „Объект и предмет психолингвистики и ее отношение к другим наукам о речевой деятельности." In: *Теория речевой деятельности*. Москва: Наука.
- Леонтьев, А. А. 1969. *Психолингвистические единицы и порождение речевого потока*. Москва: Наука.
- Lyons, J. 1971. *Introduction to theoretical linguistics*. Cambridge: Univ. Press.
- McIntosh, L. 1971. "The art of the language lesson". *Forum* 9. 9 - 11.
- Miller, G. A., Galanter, E., Pribram, K. H. 1960. *Plans and the structure of behavior*. New York: Holt, Rinehart and Winston, Inc.
- Miller, G. A., McNeill, D. 1969. "Psycholinguistics". In: *The handbook of social psychology*. Vol. Three. Reading, Mass.: Addison-Wesley Publishing Company.
- Николаева, Т. М. 1969. „Несвербальные средства человеческой коммуникации и их место в преподавании языка". In: *Роль и место страноведения в практике преподавания русского языка как иностранного*. Москва: Изд. Московского Унив.
- Новик, И. Б. 1969. *Философские вопросы моделирования психики*. Москва: Наука.
- Oller, J. W. 1971. "Transformational grammar, pragmatics, and language teaching". *Forum* 9. 8 - 11.
- Osgood, Ch. E., Sebeok, Th. A. (eds.), 1965. *Psycholinguistics. A survey of theory and research problems*. Bloomington: The University of Indiana Press.
- Паш, Ф. 1964. "Язык и этикет. Русский язык в национальной школе I: Просвещение.
- Полетаев, И. А. 1970. "К определению понятия информация I. Семантический аспект. Об информации по смыслу". In: *Исследования по кибернетике*. Москва: Изд. Советское радио.
- Richards, J. C. 1970. "A non-contrastive approach to error analysis". San Francisco, Prepared for the 1970 TESOL Convention.
- Rivers, W. M. 1964. *The psychologist and the foreign-language teacher*. Chicago & London: Univ. of Chicago Press.
- Salistra, I. D. 1962. *Methodik des neusprachlichen Unterrichts*. Berlin: Volk und Wissen.
- Saussure, F. de 1922. *Cours de linguistique générale*. Paris: Payot.
- Scherer, G. A., Wertheimer, M. 1964. *A psycholinguistic experiment in foreign language teaching*. N. Y.: McGraw-Hill.
- Slama-Cazacu, T. 1966. "Essay on psycholinguistic methodology and some of its applications". *Linguistics* 24. 51 - 72.
- Тарасов, Е. Ф. 1969. "Социологические аспекты речевого общения". In: *Роль и место страноведения в практике преподавания русского языка как иностранного*. Москва: Изд. Московского Унив.
- Верещагин, Е. М. 1969. *Вопросы теории речи и методики преподавания иностранных языков*. Москва: Изд. Московского Унив.
- Williams, J. D. 1954. *The complete strategist being a primer on the theory of games of strategy*. N. Y.: McGraw-Hill.
- Zabrocki, L. 1968. Dydaktyka ogólna a dydaktyka języków obcych. *Dydaktyka Szkoły Wyższej* 3/4. 3 - 35.