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"Speech Communication Research in the Soviet Union,"  
Communication Theory and Research. Ed. by Lee Thayer.  
Springfield, Ill.: C.C. Thomas Pub., 1967. Pp.273-288.

## **SPEECH COMMUNICATION RESEARCH IN THE SOVIET UNION**

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**B**ARRIERS OF LANGUAGE and culture and the cold war wall of differing political conviction have all played a part in obscuring pertinent Soviet research from the eyes of American speech communication scholars. Unfortunately, there are those who would suggest that our ignorance of such research actually is a manifestation of the lack of any reportable activity on the part of Soviet scholars. This essay is intended to acquaint the reader with some dimensions of speech communication research in the Soviet Union.

My treatment is bounded by two restrictions. First, since the time span covered is approximately eighty-eight years (from 1876 until 1964), I shall be more concerned with sketching general trends and movements than with detailing specific research findings. The time span also means that I will be describing speech communication research in old as well as in new Russia.

Second, although Stalin once suggested that cybernetics and statistical information theory were bourgeois pseudo-sciences, since his death in 1953 there has been an increasing flow of valuable Soviet research in these two areas (1). However, I have not included coverage of this important area since much of it bears only tangentially on our prime interest in human speech communication and since there are significantly more people and more funds devoted to national cross-pollination in cybernetics and statistical information theory.

There seem to be four discernible sources of Soviet speech communication research: (1) the philosophical-political; (2) the linguistic; (3) the physiological-psycho-physiological; and (4) the political-propagandistic. They are here presented in this, the order of their developmental emergence.

### **I**

The *philosophical-political* sources of Soviet speech communication research are found in Marx, Engels and Lenin. The theorists of dialectical materialism and political communism recognized that man's

ability to communicate verbally was a significant human characteristic and an ability of tremendous importance in the dissemination of Marxist-Leninist doctrines and in the shaping of the “new Soviet man.”

In 1876, Frederick Engels briefly treated the phylogenesis of speech in man in his essay *The Part Played by Labour in the Transition from Ape to man* (2). Although later Soviet scholars, such as L. S. Vygotskii, challenged or attempted to modify Engels’ postulates, we still find respected Soviet linguists, such as A. O. Spirkin, giving support to Engels’ theory as recently as 1949 (3). Essentially, Engels’ phylogenetic hypothesis is characterized by oversimplification, chronological contradiction and reductionism, yet it is still upheld (4). Such anomalies in Soviet communication research are evidence in support of Ithiel de Sola Pool’s dictum that “... it is important to document the history of nonsense when the people who talk it have power.”

The importance of the philosophical-political facet in Soviet speech communication research should not be disprized, however, since it permeates the intellectual climate from which all such research emanates.

The *linguistic* sources are old and vital despite repeated tampering by pseudo-linguists and political experts.

The early history of Esperanto in the Soviet Union provides one example of the interaction of the philosophical-political and the linguistic roots. Support of an international language, Esperanto, followed the political expediencies dictated by Marxist-Leninist thought. In the early days of post-revolutionary Bolshevism, Esperanto was viewed as a tool enabling ready agitation and propaganda among the masses throughout the world. However, with the trend toward Great Russian domination and socialism, Esperanto declined in the middle nineteen thirties (5).

The linkage between linguistic theory and political doctrine is also delineated in the controversy between academician N. Ia. Marr, his disciples and Stalin concerning the unification of languages through the fusion of many languages into a new language (Marr’s “fusion-thesis”), or through the triumph of one language over others (Stalin’s “victory-thesis”). Marr, a competent, professional linguist, was challenged by Stalin. Stalin first attacked Marr’s doctrines (which, by the way, were most certainly open to attack on substantive linguistic bases) in *Pravda* (6). Almost immediately, a good part of the Soviet linguistic intelligentsia took up Stalin’s refrain and echoed it throughout

the Soviet press. Comrade Stalin had destroyed the reputation and the doctrines of Academician Marr. Any question of who was victorious at that time can be answered by referring to letters written by prominent Soviet scholars and published in *Pravda*.

Words cannot express our deep gratitude to our dear teacher, the great and wise Stalin, for his work on questions of linguistics. A bright feeling of joy permeated everyone after the appearance of J. V. Stalin's classic article on *Pravda*'s discussion page (7).

Comrade Stalin's article on the discussion of linguistic problems opens a new epoch in our science. With brilliant clarity and precision Comrade Stalin has defined the path of development for Soviet linguistics (8).

Other interesting early Russian linguistic research is characterized by the work of A. A. Potebnia and of L. Iacubinskii, Potebnia, a nineteenth-century philologist and grammarian, insisted upon the functional separation of the language of poetry and the language of prose. "The two language types, he felt, could not be measured by the same yardstick, since they were intended for entirely different functions; the former's task is the creation of imagery and expression, while the latter's task is the conveying of scientific information" (9).

In the terminology of current statistical *information* theory, it could be stated that Potebnia's "poetic language" carried a maximum load of aesthetic and a minimum of informational values while his prose or "scientific language" carried little of aesthetic value but was loaded down with information. Potebnia's followers extended his bipartite division into a whole spectrum and correlated

"style" with information (10). It was within this general theoretical spectrum that a large number of studies of the speech habits of various groups among the Russian-speaking population were made (11). These studies had an avowed goal of producing data leading to a Marxist linguistic theory and evidencing the role of class determination in language behavior.

Iakubinskii, in a number of publications, but most notably in his article "O dialogicheskoi rechi," in *Russkaia Rech*, Vol. 1, 1923, provided an insightful and predictive treatment of various aspects of speech communication. Iakubinskii believed that the Marxist necessity of social engineering in the field of speech communication made obligatory the study of social dialects, a social dialect being the speech communication behavior of any segment of the population set off by social rather than geographic classification. He suggested that the

results of studies of social dialect would be beneficial to the Soviet writer and public speaker in his understanding of the way in which the people in different social and professional strata speak. This concept certainly foreshadows the current interest in role-theory (12). Iakubinskii's investigations of the interrelationships of the petty bourgeois, the peasant and the urban proletariat are directed to an explanation of the reciprocity of speech communication and social class.

A highly interesting and original digression is Iakubinskii's brief study of the history of public speaking. Only under capitalism does public speaking assume the character of mass communication; in feudal times public speaking takes the following forms:

church oratory including scientific, theological, or educational discourses (with little effect upon the peasantry); artistic folklore (wide-spread among the peasantry, with many "professionals"); and rudimentary political speaking by farmers at community meetings.

Under capitalism public speaking develops many more forms, including the written, serving the bourgeois struggle against the feudal lords on all levels, culminating in parliaments ("speaking establishments") and becoming much more generalized (13).

Iakubinskii insisted that the true existence of language rests in dialogue and that all other language forms are artificial. He arranged all forms of dialogue and monologue within their social contexts ranging from the everyday speech of normal persons to that of the deaf. As his basic unit of analysis, Iakubinskii adopted what he termed the utterance, by which he means any uninterrupted statement, spoken or written. He distinguished between direct and indirect forms, the former being represented ideally by the face-to-face situation in which visual communication normally supports the purely auditory; the latter represented by the letter-writing situation with a considerable time lapse intervening between utterance and reply. For Iakubinskii, the speech form typical of the direct form of communication is the dialogue, that of the indirect form of the monologue. In his treatment of interior dialogue, Iakubinskii leads us into a consideration of the whole area of inner speech which, a few years after him, Vygotskii was to investigate penetratingly (14).

Representative of current Soviet research in linguistics are the essays published in *Exact Methods in Linguistic Research* (15). This book is a translation of a Soviet publication and includes four sections dealing with the following topics: (1) general linguistics; (2) machine translation; (3) application of statistical methods to linguistic research; and (4) possible applications of information theory to language study.

What may well be the most original and valuable contributions of Soviet research to the study of human speech communication are found in the material flowing from the *physiological-psychophysiological* source.

The work initiated by I. M. Sechenov, the father of Russian physiology, served to inspire and stimulate Ivan Petrovich Pavlov. Pavlov, a physician, did his original investigations on the digestive mechanism of animals. It was for this work that he received a Nobel Prize in 1904. When he was approximately fifty-three years old, Doctor Pavlov turned his talents to the investigation of the cerebral hemispheres. The technique by which he chose to conduct his investigations had first been described by Descartes, and was labeled the "conditioned reflex."

Although this is not the place for a full description of the speech communication dimensions of Pavlov's work, *it is important to*

point out that his treatment of the single subcortical and the two cortical signalling systems has determined almost all subsequent psychophysiological speech communication research in the Soviet Union. Essentially, Pavlov claimed that all animate matter exhibits inborn reflexive traits such as withdrawal from pain and attraction to sustenance and self perpetuation. He referred to these traits as the subcortical signal system. In addition, animals with well-developed and differentiated nervous systems are also able to react to secondary stimuli which, while not the primary stimuli that activate the subcortical system of reflexes, signal the presence of such primary stimuli,

Here is [an].. example—the reflex of self-defense. The strong carnivorous animal preys on weaker animals, and these if they waited to defend themselves until the teeth of the foe were in their flesh [subcortical signalling system] would speedily be exterminated. The case takes on a different aspect when the defence reflex is called into play by the sights and sounds of the enemy's approach [the first cortical signalling system]. Then the prey has a chance to save itself by hiding or by flight (16),

Although Pavlov described the subcortical and first cortical signalling systems relatively early, it was only after studying the cerebral mechanism for some time that he began to set forth his observations concerning a system of signals unique to man. Man, it is suggested, enjoys a second cortical signalling system which sets him apart from all other animal life and which endows him with vastly superior powers of discrimination and flexibility. Pavlov equates the second signal system with speech:

In man... the most valuable signalling medium. .speech, on account of the whole preceding life of the adult, is connected up with all the internal and external stimuli which can reach the cortex, signalling all of them and replacing all of them, and therefore, it can call forth all those reactions of the organism which are normally determined by the actual stimuli

themselves (17).

The vocabulary of the signalling systems permeated Soviet psychophysiological speech communication research. Even more important than the vocabulary, Pavlov's signalling systems structure influenced his fellow researchers.

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In 1934, Lev Semenovich Vygotskii's *Myshleniye i rech* [*Thought and Speech*] was published (18). Vygotskii's work in many ways paralleled the thinking of George Herbert Mead. Vygotskii extended and refined some of the philosophical-psychological aspects of Pavlov's observations. Vygotskii observed that "...true human communication presupposes a generalizing attitude" (19), and then tried to show that a generalized reflection of reality is the basic characteristic of words. This aspect of the word, he stated, brings us to the threshold of a wide, and deeper, subject—the general problem of consciousness. Thought and speech, which reflect reality in a way different from that of perception, are the key to the nature of human consciousness: "Words play a central part not only in the development of thought but in the historical growth of consciousness as a whole. A word is a microcosm of human consciousness" (20).

At the time, at the end of the twenties and the beginning of the thirties, Vygotskii's theory was a new and valuable contribution to the problem of the relationship of thought and speech. His theory originated from the concept that the basic structure of social life should determine likewise the basic structure of the human psyche. Since life in society is based on work, and work is characterized by the use of tools, then, according to Vygotskii's concept, the characteristic distinction between the human psyche and the animal psyche likewise consisted in the use of unique "tools" of psychic activity. These "tools" are symbols of all kinds. The use of symbols, said Vygotskii, leads to a radical reconstruction of psychic activity: the indirect and involuntary, lower, natural, and, in essence, still animal psychic functions, are replaced by mediated and voluntary higher socio-historical psychic functions of the human being. This transition is accomplished not only in the development of mankind but as well in the development of every human being (21).

Vygotskii treated at length the development and function of inner-speech in the child. Soviet concern with the role of inner speech can be seen beginning in Iakubinskii, deriving theoretical impetus and sophistication from Vygotskii, and maintaining itself in such recent studies as G. S. Kostyuk's *Problems of the Psychology of Thinking* (22).

In the early thirties, Alexander Rornanovich Luria, also greatly influenced by Pavlov, published *The Nature Of human\_Conflicts*. Beginning with that publication and continuing to date, Luria has been one of the leading speech communication researchers in the Soviet Union. Although Luria took his initial cues from the work of Pavlov, he has gone much further in terms of conceptual sophistication in his treatment of speech communication. In his essay, *Speech Development and the Formation of Mental Processes*, Luria states: "The question of speech and its role in the formation of mental processes occupies a completely special place in Soviet psychology. [The] development and role of [speech] in the formation of mental processes [has] turned into the principal chapter of Soviet psychology . . . (23). Echoing Pavlov, Luria later comments:

The characteristic feature for the structure of verbal meanings of the adult is the fact that *the word preserves in itself all systems of connections inherent in it* beginning with the very elementary and visual and ending with the very complex and abstract; and that depending on the different tasks, dominating connections can be established either by this or by other systems of connections. Without this, any plastic thinking could not be possible and the person using the system of most abstract relations for the solution of more concrete everyday problems, always risked finding himself in the position of a schizophrenic patient, in whom the second signalling system is severed from the first and behavior loses its sensible and expedient character (24).

In 1959, Luria and F. Ia. Yudovich published the English translation of their study *Speech and the Development of Mental Processes in the Child*. On the basis of a controlled study of twins, they drew the conclusion that, with the advent of normal speech acquisition the entire mental life structure of the twins was simultaneously and sharply changed. Changes in ability to plan and execute plans occurred which could only be attributed to the influence of the one changed factor—the acquisition of a language system. They summarized: "There is no doubt that these facts provide new material for an understanding of the changes brought about by speech in the formation of the more complex mental processes in man"(25).

**The Luria-Yudovich publication** prepared the way for Luria's 1961 work, *The Role of Speech in the Regulation of Normal and Abnormal Behavior*. In this book, Luria discriminates between the impelling and the significative functions

of speech and concludes that *...the regulatory function is steadily transferred from the impulse side of speech to the analytic system of elective significative connections which are produced by speech*. Moreover, and this is most interesting, *it simultaneously shifts from the external to the internal speech of the child*" (26).

Lest theory become too far removed from political doctrine, K. I. Platonov in *The Word as a Physiological and Therapeutic Factor* points out: "The emergence and development of the function of speech have led to the development of language which is one of the necessary conditions for the existence of society." Platonov also bows to the work of Pavlov when stating:

But as long as it is a question of the activity of the same nervous tissue, we must remember that the basic laws established for the first signal system also govern the second. These Pavlovian premises serve as points of departure for revealing the mechanism of influencing the second signal system by words and through it., the first signal system and the subcortex. Another and no less important premise is that the higher nervous activity of man is socially determined. The social environment is therefore reflected in the joint work of the second and first signal systems (27).

Representative of some current Soviet research in speech communication is the following summary of a study appearing in *The Pavlov Journal of Higher Nervous Activity*. The study was carried out by S. A. Kosilov and was entitled *Interaction Between the First and Second Signal Systems in Work Processes*:

The physiological investigation of work processes revealed a number of actual manifestations of the laws of interaction between the first and second signal systems in the work, and particularly in the formation and disturbance of working movements and skills. The formation of new working skills was subordinate to the law of closure of temporary connexions with speech reinforcement. The importance of the elementary reactions in the system of conditioned reflexes underlying complex working actions was determined by their effect on the result of the work obtained. Full working capacity and exercise were connected with concentration and fatigue was connected with loss of concentration of the nervous processes. The indices of signal system interaction, particularly the concentration of nerve processes, disturbance in strength relationships, and so on, were used to assess the degree of perfection of working movements for the establishment of rational working instructions, for determination of measures to prevent fatigue and for testing of their effectiveness (28).

To give a feeling for some other recent Soviet studies of interest to speech communication scholars, three more may be mentioned.



A. N. Krinchik, in his paper, *On Some Features of the Human Information Processing*, tries to explain how humans screen stimuli presented to them by means of probability structure (29). In *The Understanding of the Spoken Language*, Z. A. Kochkina deals with what we commonly refer to as “listening” and includes numerous bibliographical references to American researchers such as Ralph Nichols, Sam Duker, James I. Brown and the late Donald Bird (30). In the book, *Recent Soviet Psychology*, A. R. Luria writes of *The Genesis of Voluntary Movements*, F. V. Bassin and E. S. Bein describe the *Application of Electromyography to the Study of Speech*, L. A. Novikova treats the *Electrophysiological Investigation of Speech* and R. G. Natadze reports on *Studies on Thought and Speech Problems by Psychologists of the Georgian S.S.R.* (31).

#### IV

A final wellspring of Soviet speech communication research is the *political-propagandistic*. This differs from the philosophical-political in that the political-propagandistic is considerably more action-oriented.

Lenin once declared that the Soviet regime rested on a balance of coercion and persuasion. In one form or another, this statement has been constantly repeated by subsequent Soviet leaders. Lenin’s doctrine found its organizational manifestation in the department of Agitation and Propaganda. This department was charged with the total control of the agitation and propaganda activities of the Soviet Union. Such activities embrace private as well as public communication

The party’s control of public communication follows from the fact that it has assigned itself the role of teacher, guide and leader, and from the assumption that the party must influence the psychology of the masses and win them over to its side. The ends to which communication must be put are justified in terms of Marxist-Leninist theory. That theory is interpreted by the only group with the right to interpret it in the Soviet Union—the Communist Party—as meaning that the communication media are to be used primarily to strengthen the party’s leadership in its self-assigned role as leader, teacher and guide of the Soviet people (32).

Yale Professor Frederick Barghoom, in *Soviet Foreign Propaganda*, observes that, “Words and pictures have played a more continuous, and perhaps a more vital role than bullets or rubles in Moscow’s struggle to undermine the social order of capitalism and to reconstruct society on Marxist-Leninist foundations” (33). Since there is quite a corpus of

material dealing with this last wellspring (34), there is little value in a lengthier treatment here.

Flowing from philosophical, linguistic, psycho-physiological and political wellsprings, Soviet speech communication research has developed from a trickle to a flood. Research in human speech communication in the Soviet Union is based upon theoretical and political belief that speech is the sole distinguishing characteristic of man and that speech communication is a transmission belt for the formation of the individual along the lines of the "new Soviet man" and of the world upon the pattern of Marxist-Leninist communism..

Soviet studies deserve more attention and a concentrated effort at translation, replication and extension by speech communication theorists and researchers outside the Soviet Union.

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*Reprinted from*  
Communication: Theory and Research  
**Compiled and Edited by Lee Thayer, Ph.D.**  
CHARLES C THOMAS, PUBLISHER  
**Springfield, Illinois, U.S.A.**

