

# L.S. Vygotsky's idea of mediation: semiotic and educational projections

**Yuri L. Troitsky**

Russian State University for the Humanities (RSUH), Moscow, Russia  
ORCID: <https://orcid.org/0000-0003-1592-0224> e-mail: [troitski@gmail.com](mailto:troitski@gmail.com)

**Natalia V. Maksimova**

Novosibirsk State Theater University (GAOU VO NSO NGTI), Novosibirsk, Russia  
ORCID: <https://orcid.org/0000-0001-6312-7824>, e-mail: [maksimova1@mail.ru](mailto:maksimova1@mail.ru)

**Liliya G. Albul**

Municipal Budgetary Educational Institution Progymnasium “Kingfisher”, Novosibirsk, Russia  
ORCID: <https://orcid.org/0009-0000-8227-2306>, e-mail: [albul.2017@bk.ru](mailto:albul.2017@bk.ru)

The work is aimed at discussing and clarifying the understanding of L.S. Vygotsky's idea of mediation in relation to educational processes and the semiotic perspective of their research. The provisions interpreting the concept of “sign” as a mediating mechanism of cultural and historical development of a person, the growing up of a child, the development of his mental processes, language thinking are presented. The history of the formation of semiotic concepts, their isomorphism to the ideas of L.S. Vygotsky is considered: the development of a sign, including verbal, allows you to move from natural actions into a conditional, virtual space, with a wide repertoire of not only mimesis, but also symbolic actions. The idea of the mediating mechanism of speech reflection as the basis of functional literacy is being developed. Speech reflection and diary activity are considered as the realization of the idea of mediation in language teaching. The semiotic interpretation of L.S. Vygotsky's mediation theory is presented, educational projections of its implementation in teaching the native language are shown. From the point of view of epistemological searches, a comparison of the ideas of Vygotsky and Levi-Strauss is undertaken. L.S. Understanding model Vygotsky, which underlies modern ideas about meaning and speech affirmation, is indicated by the metaphor of translation: it is the translation of alienated external meanings into the mental language of internal speech and the transformation of meaning into meaning, and then – the “internalization” of meaning, that is, the translation of the meanings that have arisen into external speech and the formation of a new, enriched meaning. It is shown that L.S. Vygotsky's semiotic merit also consists in the fact that the scientist understood the linguistic sign as an intermediary sign and brought it into the space of culture, thereby opening the cultural and historical horizon of interpretation of semiotic phenomena.

**Keywords:** sign, semiotics, theory of mediation, diary of speech observation, functional literacy, school of understanding.

**For citation:** Troitsky Y.L., Maksimova N.V., Albul L.G. L.S. Vygotsky's Idea of Mediation: Semiotic and Educational Projections. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2023. Vol. 19, no. 1, pp. 18–26. DOI: <https://doi.org/10.17759/chp.2023190203>

# Идея опосредствования Л.С. Выготского: семиотические и образовательные проекции

**Ю.Л. Троицкий**

Российский государственный гуманитарный университет (ФГБОУ ВО РГГУ),  
г. Москва, Российская Федерация

ORCID: <https://orcid.org/0000-0003-1592-0224>, e-mail: [troitski@gmail.com](mailto:troitski@gmail.com)

**Н.В. Максимова**

Новосибирский государственный театральный университет (ГАОУ ВО НСО НГТИ),  
г. Новосибирск, Российская Федерация

ORCID: <https://orcid.org/0000-0001-6312-7824>, e-mail: [maksimova1@mail.ru](mailto:maksimova1@mail.ru)

**Л.Г. Албул**

Муниципальное бюджетное общеобразовательное учреждение города Новосибирска

«Прогимназия “Зимородок”», г. Новосибирск, Российская Федерация

ORCID: <https://orcid.org/0009-0000-8227-2306>, e-mail: [albul.2017@bk.ru](mailto:albul.2017@bk.ru)

Работа направлена на обсуждение и прояснение понимания идеи опосредствования Л.С. Выготского применительно к образовательным процессам и семиотическому ракурсу их исследования. Представлены положения, осмысляющие понятие «знак» как опосредствующий механизм культурно-исторического развития человека, взросления ребенка, развития его психических процессов, языкового мышления. Рассмотрена история становления семиотических концепций, их изоморфность идеям Л.С. Выготского: освоение знака, в том числе словесного, позволяет перейти от натуральных действий в условное, виртуальное пространство, с широким репертуаром не только мимесиса, но и символических действий. Развивается представление об опосредующем механизме речевой рефлексии как основе функциональной грамотности. Речевая рефлексия и дневниковая деятельность рассмотрены как реализация идеи опосредствования в обучении языку. Представлена семиотическая интерпретация теории опосредствования Л.С. Выготского, показаны образовательные проекции ее реализации при обучении родному языку. С точки зрения эпистемологических поисков предпринято сопоставление идей Выготского и Леви-Стросса. Модель понимания Л.С. Выготского, лежащая в основании современных представлений о смысло- и речепорядении, обозначена метафорой перевода: это перевод отчужденных внешних значений на ментальный язык внутренней речи и превращение значения в смысл, а затем «овнешнение» смысла, т. е. перевод возникших смыслов во внешнюю речь и образование нового, обогащенного значения. Показано, что семиотическая заслуга Л.С. Выготского состоит и в том, что ученый понял лингвистический знак как знак-посредник и вывел его в пространство культуры, тем самым открыв культурно-исторический горизонт интерпретации семиотических феноменов.

**Ключевые слова:** знак, семиотика, теория опосредствования, дневник речевого наблюдения, функциональная грамотность, Школа понимания.

**Для цитаты:** Троицкий Ю.Л., Максимова Н.В., Албул Л.Г. Идея опосредствования Л.С. Выготского: семиотические и образовательные проекции // Культурно-историческая психология. 2023. Том 19. № 2. С. 18–26. DOI: <https://doi.org/10.17759/chp.2023190203>

## Introduction

L.S. Vygotsky's cultural-historical approach in its entirety contains an essential instrumental part — the concept of mediation. It reveals the whole whole of the approach. To see this, it is necessary to address the problem of the sign as a semiotic phenomenon. It is noteworthy that in one of his reports V.V. Ivanov spoke about L.S. Vygotsky as the predecessor of the Moscow-Tartu semiotics. The idea put into the wording of the topic of the report might seem to be some exaggeration. But it turned out that this is exactly a statement of fact.

Sign mediation is the basic category of L.S. Vygotsky's cultural–historical theory [5], meaning a way to control behavior using a sign or a sign complex. A radical change in the very structure of activity due to the inclusion of a sign in it leads to the transformation of natural, direct processes into cultural, mediated ones.

The speech maturation of a child goes this way: the initial identity of himself and his speech, the syncretism of speech and other types of behavioral actions, their non-reflexivity must be transformed. Through awareness, arbitrariness, intention, a "person–language" relationship should develop. Speech reflection and its tools

should act as intermediaries in the development of human language. Finding an activity-based tool for mediating these relationships is one of the unsolved tasks of language education.

The purpose of the article is to present a semiotic interpretation of the idea of L.S. Vygotsky's teaching and to show educational projections of its implementation in teaching the native language.

### **Semiotic projections of the mediation concept**

As is known, initially, in ontogenetic development, the sign (as an artificial tool) acts as an intermediary in the relationship between a child and an adult. In this process, the sign acquires additional meanings corresponding to certain social and cultural norms and pragmatic contexts. When L.S. Vygotsky proposed this idea in the late 20s and when he introduced the concept of a sign into his concept, he was obviously familiar with the works of F. Saussure [14], but could not yet know the work of Ch. The Pier, published in the second half of the 30s and later translated into Russian (see the section "The Doctrine of signs" in the book [12, pp. 176-223]).

We emphasize that L.S. Vygotsky introduces the concept of a sign as an instrument that becomes a means of transforming the psyche from natural, biological, into "cultural" and "historical". Thus, L.S. Vygotsky found a universal meta-tool, with the help of which it was possible to get out of the field of psychological proper into the space of culture and communication.

The question arises, why exactly does the sign have the ability to synthesize the natural and cultural and be a source of generating new meanings? The structure and essence of the sign is the replacement of one by another, it is the reference of one to another, the establishment of their relations. Due to the referential property of the sign and its ostranizing ability, sign complexes participate in the complex process of producing new meanings. The world of signs turned out to be the universal tool with which higher mental functions and human behavior proper were formed.

F. Saussure, one of the founders of semiotics, had in mind only the conventional type of sign. This is a sign-symbol, according to the typology of Charles Pierce. Later, Pierce identifies three types of signs: the iconic sign, in which the signifier and the signified are similar to each other, the index sign, in which this similarity could be indirect, not obvious, but still took place and could be objectively reconstructed. And finally, a symbolic sign that does not imply any similarity between the signifier and the signified. The semantics of this sign is exclusively conventional, contractual. An example of a sign-symbol is a traffic light: a community of citizens can always agree on a change in the semantics of colors, which is highly conditional.

According to Peirce, cognition is a process of mediating reality by signs. The need for mediation arises because cognitive activity is carried out not by an isolated subject, but by a community that develops a general idea of the world. Cognitive processes are always the production of signs and their use in communication. In this sense, truth, according to Peirce, is not the correspondence of judgments to some objective state of affairs. It represents a consensus reached within the community. In other words, truth is not a semantic, but a conventional result. The sign becomes a means of constructing an imaginary space for the execution of volitional decisions and access to the socio-cultural space of communication, including autocommunication.

So, if the iconic sign and the index sign have a different degree of identity as a common ground, then the symbolic sign has a different quality: for example, higher animals can be taught to distinguish between iconic and even index signs, but not symbolic ones, for which the connection of the signified and the signifier is always conventional. The typology of Pierce's signs has not only theoretical, but also quite pragmatic significance. Michel Foucault convincingly showed (see [16; 17]) that in the era of the European Middle Ages, an iconic sign dominated the culture, which determined the visual appearance of cities, up to street advertising. And in Modern times, the sign-index dominated, which resulted in the appearance of paper money, as well as the rapid growth of the insurance business. This is understandable: the deep strategy of the index sign was a metonymic strategy, which, in our opinion, is productive for generating mythologies, stable stereotypes and ideologies. This is confirmed by the reflections of M.M. Bakhtin: "Everything ideological has a meaning: it represents, depicts, replaces something outside of it, i.e. it is a sign. Where there is no sign, there is no ideology. The physical body, so to speak, is equal to itself – it means nothing, completely coinciding with its natural single reality. There is no need to talk about ideology here" [4, p. 13].

R. Jakobson substantially supplemented and developed the division of signs into types [18], proposed by Ch. By the pier. If the signs at the Pier – icons, indexes and symbols – stand separately from each other, then Jakobson believed that all signs have common features, the difference lies in the predominance of one characteristic over the others.

Mastering the sign, including the word, allows you to move from natural actions into a conditional, virtual space, with a wide repertoire of not only mimesis, but also symbolic actions. It is important that in his semiotic studies L.S. Vygotsky [5] never went into the field of naive ontology, which sometimes even structuralists who demonize the concept of "structure" sinned. Thus, Vygotsky retained a scientific epistemology that rigidly separates the content (object) and the metalanguage of description.

In this regard, it is possible to compare Vygotsky and Levi-Strauss, despite the difference in their scientific fields and research strategies. Compare them in terms of their epistemological searches. What is the instructiveness of the epistemological experience of the French ethnologist?

K. Levi-Strauss is the title figure for a galaxy of French semiotics and structuralists. His main research interest is the study of myths of South American Indian tribes. As a result of numerous expeditions, he published (1947) the book "Sad Tropics", which presents a lively story about the trips and myths of the Indians. 10 years later, in the situation of the structuralist boom that has begun, "Structural Anthropology" is published, which immediately became a scientific bestseller. At the same time K. Levi-Strauss was not entirely satisfied with the chosen metalanguage: binary oppositions destroyed the living body of the myth, although they gave a coherent picture of its structure. The scientist began to look for a metalanguage that would be in relation to the object of description in the relationship of "participial non-occurrence" (the well-known Bakhtin formula). And such a metalanguage was found: it was the language of musical poetics, primarily the sonata form. The concepts of "main theme", "counterpoint", "variations" and others turned out to be relevant to the mythopoetic language [13, p. 13–15]. But this was already the paradigm of post-nonclassical science. The nature of such objects as mythology, music, poetry (due to its complexity) does not imply the rigidity of binary-oppositional analysis, which inevitably entails some kind of rational violence of the researcher. The explanatory strategies of classical rationality in this case may give way to non-classical, understanding strategies for translating the language of myth into a musical or poetic language, and the choice of the translation language is probably related to the paradigmatic completeness and syntagmatic diversity of such a language.

It seems that L.S. Vygotsky, who drew attention to semiotics emerging in his time, visionarily understood the potential of the sign, and managed to transform this category into an instrument of cultural and historical measurement. The idea of mediation is the most important here. In M. M. Bakhtin's later recordings there is a lapidary and meaning-intensive definition of an artistic utterance. He defined it as "indirect speaking." What is "indirect speaking"? According to Bakhtin, the author is doomed to silence. Those who are authorized by the author speak: narrator, narrator, lyrical hero, chronicler, etc. [3] An expressive example is Pushkin's Ivan Petrovich Belkin, whose manuscript was allegedly found by the author and publisher of Belkin's Stories. Such intermediaries in modern narratology are called "narrative instances". They embody the idea of mediation. We cannot yet reconstruct the genesis of the concept of mediation for Vygotsky: there is a Hegelian version, there are others. But the coincidence of this category for psychology and aesthetics, and in fact for the whole understand-

ing of the interaction of consciousness with the outside world, becomes an ontological fact.

In the works of scientists, participants of the Moscow-Tartu Semiotic school (V.V. Ivanov, Yu.M. Lotman, etc.), it was shown that among the various mechanisms of meaning generation, tropes, generally symbolic means, change of reader codes, change of receptive attitudes occupy an important place. An important meaning-forming mechanism of culture is associated with the "palimpsest effect", when meaning generation occurs as if by accident. The production of new meanings due to the layering of different text layers and the interaction of these layers generates new super-meanings. "And since I didn't have enough paper, I'm writing on your draft, And someone else's word comes out..." (A.A. Akhmatova). The poet Vyacheslav Ivanov: "Here is a long minea of life, a palimpsest of memories." Memories are arranged as a complex palimpsest mechanism, also with the generation of new, unpredictable, unplanned meanings.

It is necessary to correlate what has been said with educational and, in general, with the anthropological problems of today. According to A.G. Asmolov, the code of unpredictability in human behavior can be considered an anthropological code [1]. The capacity and accuracy of this definition, in our opinion, consists in the fact that unpredictability is one of the highest manifestations of the human in man.

The uncertainty of the present and the code of unpredictability of human behavior are certainly related: uncertainty is a condition for the unpredictability of progressive choice. But for all the drama of this collision, it is a resource of preadaptive strategies, including non-trivial statements and actions, that is, such discursive and behavioral actions that create precedent events that open up new spaces, logics, and even possible worlds.

The inefficiency (unpredictability) of the syntagmatic generation of poetic speech – the highest manifestation of human discourse, according to V. Vs. Ivanov, distinguishes genius poetry from trivial. At the same time, the qualification "genius poetry" is not a subjective (taste) characteristic, but means in the language of information theory not only the maximum possible semantic saturation of the utterance, but also the interactive work of the poetic text to mobilize readers' cognitive resources (memory, background knowledge and contexts, subjective experience, "understanding" strategies). The result of such "poetic communication" is the generation of new meanings, which the potential reader "carves" in an understanding effort from the poetic text, formalizing these meanings in the author's version, interpretation, theory [7].

### Educational projections

Speech reflection and diary activity as the realization of the idea of mediation in language teaching. The poetic

text shows the essence of the structure of the language as a whole. The functioning of the word, the implementation of speech behavior has the same mechanisms of mediation — symbolic. The question arises about the method and forms of their extension for a native speaker, about educational projections of the idea of mediation in language teaching.

L.S. Vygotsky outlined the question of the unconsciousness of speech processes (in relation to the content of teaching the native language). We often have speech skills, but we don't know that we have them. These operations are often not realized by us, we own them spontaneously, situationally, automatically. This is the limitation of our behavior: if I have some skill and do not know that I own it, I use it automatically. [6].

In the activity pledge, not the sign itself, but the reflection of a person, aimed at awareness, understanding of the sign, becomes the mediating link of the relationship "I am the world", "I am the language". The development of speech reflection "is the emergence, expansion, qualitative change, internal structural restructuring of the indicative link of initially spontaneous speech activity." [9] Speech reflection can be defined through the metaphor of a mirror, peering into which we try to consider our speech experience, its features, details, and see our speech portrait. How to organize this speech mirror intermediary for the student?

Let's denote an effective means of developing speech reflection, which we found in the educational plan for the language development of schoolchildren and students. This is a special educational genre of a speech observation diary. Working with a diary involves observing the surrounding speech (everything I hear, read, write, say) and realizing my speech characteristics, difficulties, mistakes, preferences, speech tasks, values, as well as answering the question why I say so (which means that I say so) — and myself the formulation of such a question. This work is very important for correcting speech behavior and understanding their tasks in the field of speech culture. "I am in the mirror of my own speech" — this is what a diary of speech observations is as a tool for the development of speech reflection.

In order for the mediation mechanism to work, it is important to keep in mind two characteristics of speech reflection that determine diary work: subjectivity and eventfulness. Reflection is not generalized conclusions about the laws of language, but the ability to work with your own, unique, subjective experience. This moment is connected with the formation of students' needs and with the actual needs of children. For example, in the diary there is a traditional heading "Amazing word". Students write down "amazing words", but the reasons for surprise here will be extremely subjective. Another example: students are invited to lead their own creative column, but exactly the one that everyone is interested in leading — and this choice is also extremely subjective.

To arouse this kind of individual interest, to create conditions for the emergence and steady presence of a motivational background of this type is one of the successes of working with a diary and speech reflection in general.

The eventfulness in this case is connected with such a fact of speech, the meeting with which became a bright spot, an amazing moment that made you think about something, realize something, discover for yourself in the language or in the idea of the person speaking, about yourself. It became an event that remained in my memory, changed me. The speech event made me look at my speech differently, at the problems of communication, at the word and the laws of language in general, made me wonder, look for an answer to it. It is these speech facts that should first of all get into the diary and be supported by the teacher as valuable, developing.

In the School of Understanding [11], the Russian language course is based on a reflexive basis, in an activity-based manner and with the aim of developing components of the culture of linguistic, communicative thinking. The better a student observes a live speech, a word, the better his functional literacy, critical attitude to speech, and research skills are formed [10]. At the same time, the event-developing environment, which includes work with the diary of speech observation, assumes

- creating conditions for actualizing the understanding of the word as an act — based on understanding the laws of speech communication, solving rhetorical tasks, analyzing situations of language conflict, mastering speech strategies of dialog communication;
- mastering the methods of speech reflection, self-control;
- development of information culture based on knowledge of dictionaries and the ability to use them in a situation of natural difficulty in creating statements and text;
- instilling research skills while observing the word;
- formation of the main components of functional literacy.

With this approach, the analysis of one's own speech difficulties, the formulation of individual tasks for self-development in the field of speech culture are carried out on the basis of working with one's own speech experience. This leads to a new quality of speech communication.

The loss of live observation of the word as the most important link in teaching the native language remains one of the most significant omissions of modern methodology, which has a negative impact on the entire course and on the results of language education. These results are characterized primarily by functional illiteracy and a low level of motivation for literate speech.

Instead of a spiral ascent from what we "know how to do, but do not realize that we can", to increasing arbitrariness, intention and awareness, we go by not recognizing our skills and learning "from scratch". Someone

has already observed everything for the student and gave him a selection of words in a ready-made form in exercises, textbook material, teacher's handout. The technology of working with the speech observation diary systematically fills this niche. The diary is kept by schoolchildren of all levels and students.

The mediating mechanism of the development of speech reflection as the basis of functional literacy. In written and oral speech, communication participants strive for understanding and mutual understanding. Transcoding of information should not interfere with the ability to understand the speech design. The need to write something so that you are understood is actualized in the modern socio-cultural situation (already children of primary school age, I use various electronic devices, post information messages in personal correspondence, in general chats, in social networks, run their own blogs, etc.). This is a resource for motivating competent writing and forming the motive "I write competently so that I am understood." The ratio of understanding/mutual understanding and literacy of speech is one of the aspects of teaching the native language that are not developed in an active way. This aspect is included in the model of functional literacy development, the criteria of which are described in [10].

One of such criteria is the development of speech reflection. In diary work, this is the ability to observe, stop, fix and analyze students' own speech and the speech of people around them in various communicative situations. Most often, in educational technologies, a teacher organizes work with an educational text at a lesson or training session, when the student's personal speech experience is not involved and is not discussed. The language is studied object-wise, the purpose of learning the native language becomes abstract, related to everyone, but not to the individual experience of the participants in the training. The student masters the study of norms, rules of oral and written speech at the level of meanings, but not personal meanings.

A high level of development of speech reflection is an important condition for the development of functional literacy. The better the child observes the word, the higher the level of his functional literacy. At the same time, diary activity implements the idea of mediation in several aspects. An event-based educational environment helps students analyze their speech experience and form the value of their attention to the word. The organization of joint reflection is associated with transitions from a general meaning to a personal meaning and again to a new, generalized meaning, enriched by the child's own understanding. At the same time, the student's personal speech experience and understanding effort are actualized to such an extent that they lead to the formulation of the principle "effort is more important than result" — the principle underlying the organization of the processes of discovering new personal opportunities [8].

In this context, the speech observation diary functions as a technology that prevents gaps between natural

and educational speech. The diary of speech observation allows students to form a lively motive for learning "to be literate in order to be understood", and language learning in this case opens the framework of learning, drawing into it important life situations and values for students. There is a lively reaction of the child to someone else's and his own word, the emotional and intellectual involvement of the student in the personal living of the educational situation.

Within the framework of the School of Understanding educational system, focused on the transition from knowledge to understanding, the experience of working with a diary of speech observations is summarized. This technology is determined by the goals and objectives at each stage. So, the goal of the first, initial stage is to motivate children to observe their speech experience. The discoveries made through observation make the child look closely at the surrounding speech. Motivational mechanisms of observation are developed here thanks to a collective search, which includes significant adults (friends, family). The second stage is associated with the creation of a collective diary of speech observation, common to a class or a group. There is a need to formalize the observation with the help of symbolic and symbolic means so that it is understandable to another. For example, the reflection of one's reading experience that is relevant for first graders (awareness of gaps in speaking and writing) brings gaps in visual and auditory images of the word into the subject of discussion and allows us to raise questions: why do we not write the way we speak; why are there rules of writing that differ from the rules of oral speech, etc. The third stage is the student's personal diary. At this stage, involvement in the diary activity of different aspects of the child's life makes the observation process synthetic, lively, meaningful and emotionally attractive, individually and socially significant. One of the tasks here is the emergence and support of child—adult interaction that is scarce for today's socio-cultural situation. Overcoming intergenerational gaps and the development of convergence of consciousness of all participants in interaction occurs here through the creation of family diary headings (these are some precedents-impulses that have the effect of a chain reaction and include family collectives in the developing educational environment). Thus, the diary forms both the "I —language" relationship and the "I—world" relationship, acting as a mediating way of realizing these relationships and correcting them, managing them.

## Conclusions and conclusion

Typologically, the non-redundancy, unpredictability of the poetic text brings it closer to the uncertainty of the present time, the rapid change of speech and other processes and phenomena. This makes it possible to directly or indirectly use the inventions of poetic language as a

resource for preadaptive discursive and translational actions. Thus, the poetry of futurists (Velimir Khlebnikov, Vasily Kamensky, etc.), the experience of poetic zaumi "Chinaries" and "Oberiutov" opened new directions not only in the development of world poetry and theater, but also expanded the mental horizon of "new worlds". The convergence of distant things in culture can become a resource for understanding the uncertainty of the present.

The choice of L.S. Vygotsky's model of understanding is not accidental: even today this model is the basis of modern ideas about meaning and speech affirmation [2]. The compressed expression of this model can be designated by a metaphor of translation: it is the translation of alienated external meanings into the mental language of internal speech (always purely predicative and agglutinative) and the transformation of meaning into meaning, and then — the "internalization" of meaning, that is, the translation of the meanings that have arisen into external speech and the formation of a new, enriched meaning. The pragmatics of the L.S. model Vygotsky consists not only in its explanatory power of the most intimate processes of human consciousness and not only in the fact that it allows, thanks to the new developments of Vygotsky's students and followers, to accurately diagnose possible speech pathologies.

The meaning of the model, its refinement and development is a resource for understanding complex cultural phenomena, some of which seem to copy individual features of human consciousness. Poetic and prosaic absurdism (Gogol's "Notes of a Madman" or Vvedensky's poetry, the paradoxes of "two Alises" by L. Approaching human psychopathologies, they give productive projections associated with linguistic, socio-cultural explications: lexical neologisms, intentional agrammatism of written speech, paradoxes that contradict common sense and ordinary logic — all this constructs new cultural worlds.

Vygotsky's mediation model and its semiotic modification clearly influenced R. Jakobson's formation of the concept of generative mechanism — "the axis of selection and the axis of combinations" [18]. This generative scheme was used by us when creating a computer educational product "Historical Cubes", in which history is presented as a text, an "alphabet": the paradigmatic axis of selection was made up of ten historical concepts, and the syntagma of the axis of combinations was formed by a combination of this "alphabet" according to the text of the "Initial Russian Chronicle". The semiotic basis of the game was the opposition "paradigm / syntagma": each cube represents a paradigmatic set of various iconic signs of the concept of this cube, from which the student can choose only one image in accordance with the narrative of the "Tale of Bygone Years". Then the user places the selected image on a horizontal ribbon (syntagma), thereby repeating the mental model of speech generation.

As historical material in the game are used: The Initial Russian chronicle, the epics of the Kiev cycle, fragments

of the "Words about Igor's regiment". The educational game "Historical Cubes" gives the student an opportunity not only to get acquainted with the most ancient period of national history and the masterpieces of written and oral culture of Kievan Rus, but also to learn how to highlight key episodes in a narrative source, master the "translation" of verbal information into iconic and vice versa. As a result, an idea is formed about the complexity and inconsistency of the historical process and its reflection in historical texts; skills are developed to use generalized (theoretical) concepts as a tool of cognitive activity. The approach to this kind of historical technology is reflected in the work [15].

In educational and linguistic terms, the idea of L.S. Vygotsky's mediation is not realized with an object approach to the study of the word and is fully realized with the communicative-activity study of the language through the development of speech reflection and live observation of the sign in communication situations. From this point of view, diary work with the word ensures the development of speech reflection and mastering the actions of speech behavior on the basis of overcoming the syncretism of the "I—language" relationship and bringing (thanks to the intermediary diary) the speaker into a meta-speech position. In language education, an important link has been missed: working with your own and someone else's speech, included in a live situation, which you need to be able to observe, stop, fix, detect speech laws and your own meanings. Without this, functional literacy is unattainable.

Why is it difficult to wrap on your speech behavior what is being studied in native language courses? Because the students are not offered an appropriate mechanism. As a result, there is a gap between everyday (natural) speech behavior and its artificial modification in an educational situation. The diary also mediates these relationships, since it is charged not only with the subject potential, but also with the meta-subject. Since it acts as a means to control the dynamics of the development of individual speech culture and form individual relationships with the word, it is directly related to the personal development of a person. By blurring the subject boundaries, the diary brings its author into the "man— world" relationship, mediating them with a word. The results of working with the diary can be extrapolated into integrative areas of activity related to the analysis and use of symbolic means, the expression of personal meanings.

The semiotic merit of L.S. Vygotsky also consists in the fact that the scientist understood the linguistic sign as an intermediary sign and brought it into the space of culture, which opened the cultural and historical horizon to psychology. The productive longevity of Vygotsky's cultural and historical school and its relevance are due to the interdisciplinary synthesis of the ideas of its founder and the systematic developments of his students and followers.

References

1. Asmolov A.G., Shekhter E.D., Chernorizov A.M. Preadaptatsiya k neopredelennosti: nepredskazuemye marshruty evolyutsii [Preadaptation to Uncertainty: Unpredictable Paths of Evolution]. Moscow: Publ. Akropol', 2018. 212 p. (In Russ.).
2. Akhutina T. V. Porozhdenie rechi. Neirolingvisticheskii analiz sintaksisa [Generation of speech. Neurolinguistic Syntax Analysis]. Moscow: Publ. MGU, 1989. 215 p. (In Russ.).
3. Bakhtin M.M. K metodologii gumanitarnykh nauk [Towards the methodology of the humanities]. In Bakhtin M.M. *Estetika slovesnogo tvorchestva* [Aesthetics of verbal creativity]. Moscow: Publ. Iskusstvo, 1979, pp. 361–373. (In Russ.).
4. Voloshinov V.N. (Bakhtin M.M.) Marksizm i filosofiya yazyka: Osnovnye problemy sotsiologicheskogo metoda v nauke o yazyke [Marxism and the Philosophy of Language: Main Problems of the Sociological Method in the Science of Language]. Moscow: Publ. Libirint. 1993. 190 p. (In Russ.).
5. Vygotskii L.S. Myshlenie i rech' [Thinking and speech]. Moscow: Publ. Natsional'noe obrazovanie, 2016. 368 p. (In Russ.).
6. Vygotskii L.S. Pedagogicheskaya psikhologiya [Pedagogical psychology]. Moscow: Publ. Pedagogika-Press, 1996. 536 p. (In Russ.).
7. Ivanov Vyach. Vs. Semiotika kul'tury, iskusstva, nauki [Semiotics of culture, art, science]. Moscow: Publ. Yazyki slavyanskikh kul'tur, 2007. 792 p. (In Russ.).
8. Kuzin V.I., Maksimova N.V. Usilie vazhnee rezul'tata: printsip otkrytiya novykh vozmozhnostei cheloveka [Effort is more important than result: the principle of discovering new human capabilities]. *Kul'turno-antropologicheskie issledovaniya* [Cultural and anthropological research], 2022, no. 1, pp. 111–121. (In Russ.).
9. Leont'ev A.A. Osnovy psikholingvistiki [Fundamentals of Psycholinguistics]. Moscow: Publ. Smysl, 1997. 287 p. (In Russ.).
10. Maksimova N.V. Funktsional'naya gramotnost' i razvitie rechevoi kul'tury studenta [Functional literacy and development of student speech culture]. Novosibirsk: Publ. NGTI, 2023. 130 p. (In Russ.).
11. Troitskii Yu.L. (ed.) Obrazovatel'nye sistemy sovremennoi Rossii. Spravochnik [Educational systems of modern Russia. Directory]. Moscow: Publ. RGGU, 2010, pp. 226–382. (In Russ.).
12. Pirs Ch.S. Izbrannye filosofskie proizvedeniya [Selected philosophical works]. Moscow: Publ. Logos, 2000. 448 p. (In Russ.).
13. Yu.M. Lotman (ed.) Semiotika i iskusstvometriya. Sovremennye zarubezhnye issledovaniya [Semiotics and artmetry. Modern foreign research]. Moscow: Publ. Mir, 1972. 364 p. (In Russ.).
14. Sosyur F. Kurs obshchei lingvistiki [General Linguistics Course]. Moscow: Publ. YuRAIT, 2022. 304 p. (In Russ.).
15. Troitskii Yu.L. Mozhet li byt' istoricheskoe obrazovanie neangazhirovannym? [Elektronnyi resurs] [Can history education be unbiased?]. *Elektronnyi filosofskii zhurnal Vox* [Electronic Philosophical Journal Vox], 2022, no. 37. Available at: <https://vox-journal.org/html/issues/658/674> (Accessed 28.03.2023) (In Russ.).
16. Fuko M. Arkheologiya znaniya [Archeology of knowledge]. Moscow: Publ. Gumanitarnaya Akademiya. 2020. 416 p. (In Russ.).

Литература

1. Асмолов А.Г., Шехтер Е.Д., Черноризов А.М. Преадаптация к неопределенности: непредсказуемые маршруты эволюции. М.: Акрополь, 2018. 212 с.
2. Ахутина Т.В. Порождение речи. Нейролингвистический анализ синтаксиса. М.: Изд-во МГУ, 1989. 215 с.
3. Бахтин М.М. К методологии гуманитарных наук (фрагмент книги) // М.М. Бахтин. Эстетика словесного творчества. М.: Искусство, 1979. С. 361–373.
4. Волошинов В.Н. (Бахтин М.М.) Марксизм и философия языка: Основные проблемы социологического метода в науке о языке. М.: Либирифт. 1993. 190 с.
5. Выготский Л.С. Мышление и речь. М.: Национальное образование, 2016. 368 с.
6. Выготский Л.С. Педагогическая психология. М.: Педагогика-Пресс, 1996. 536 с.
7. Иванов Вяч. Вс. Семиотика культуры, искусства, науки. М.: Языки славянских культур, 2007. 792 с.
8. Кузин В.И., Максимова Н.В. Усилие важнее результата: принцип открытия новых возможностей человека // Культурно-антропологические исследования. 2022. № 1. С. 111–121.
9. Леонтьев А.А. Основы психолингвистики. М.: Смысл, 1997. 287 с.
10. Максимова Н.В. Функциональная грамотность и развитие речевой культуры студента. Новосибирск: НГТИ, 2023. 130 с.
11. Образовательные системы современной России: Справочник / Под ред. Ю.Л. Троицкого. М.: Изд. центр РГГУ, 2010. С. 226–382.
12. Пирс Ч.С. Избранные философские произведения. М.: Логос, 2000. 448 с.
13. Семиотика и искусствометрия. Современные зарубежные исследования / Под ред. Ю.М. Лотмана. М.: Мир, 1972. 364 с.
14. Сосюр Ф. Курс общей лингвистики. М.: ЮРАИТ, 2022. 304 с.
15. Троицкий Ю.Л. Может ли быть историческое образование неангажированным? [Электронный ресурс] // Электронный философский журнал Vox. 2022. Вып. 37 (июнь). С. 52–56. URL: <http://vox-journal.org> (дата обращения: 28.03.2023).
16. Фуко М. Археология знания. М.: Гуманитарная Академия, 2020. 416 с.
17. Фуко М. Слова и вещи. Археология гуманитарных наук. М.: Прогресс, 1997. 407 с.
18. Якобсон Р. В поисках сущности языка // Семиотика. М.: Радуга, 1983. С. 102–117.

17. Fuko M. Slova i veshchi. Arkheologiya gumanitarnykh nauk [Words and things. Archeology of the Humanities]. Moscow: Publ. Progress, 1997. 407 p. (In Russ.).

18. Yakobson R. V poiskakh sushchnosti yazyka [In Search of the Essence of Language]. In Semiotika [Semiotics]. Moscow: Publ. Raduga, 1983, pp. 102–117. (In Russ.).

#### **Information about the authors**

*Yury L. Troitsky*, Candidate of Historical Sciences, Associate Professor of the Department of Theory and Methodology of Humanities Knowledge, Russian State University for the Humanities (RSUH), Moscow, Russia, ORCID: <https://orcid.org/0000-0003-1592-0224>, e-mail: [troitski@gmail.com](mailto:troitski@gmail.com)

*Natalia V. Maksimova*, Doctor of Philology, Professor of the Department of Theater History, Literature and Music, Novosibirsk State Theater University (GAOU VO NSO NGTI), Novosibirsk, Russia, ORCID: <https://orcid.org/0000-0001-6312-7824>, e-mail: [maksimova1@mail.ru](mailto:maksimova1@mail.ru)

*Liliya G. Albul*, primary school teacher, Municipal Budgetary Educational Institution Progymnasium “Kingfisher”, Novosibirsk, Russia, ORCID: <https://orcid.org/0009-0000-8227-2306>, e-mail: [albul.2017@bk.ru](mailto:albul.2017@bk.ru)

#### **Информация об авторах**

*Троицкий Юрий Львович*, кандидат исторических наук, доцент кафедры теории и методологии гуманитарного знания, Российский государственный гуманитарный университет (ФГБОУ ВО РГГУ), г. Москва, Российская Федерация, ORCID: <https://orcid.org/0000-0003-1592-0224>, e-mail: [troitski@gmail.com](mailto:troitski@gmail.com)

*Максимова Наталия Викторовна*, доктор филологических наук, профессор кафедры истории театра, литературы и музыки, Новосибирский государственный театральный университет (ГАОУ ВО НСО НГТИ), г. Новосибирск, Российская Федерация, ORCID: <https://orcid.org/0000-0001-6312-7824>, e-mail: [maksimova1@mail.ru](mailto:maksimova1@mail.ru)

*Албул Лилия Геннадьевна*, учитель начальных классов, Муниципальное бюджетное общеобразовательное учреждение «Прогимназия “Зимородок”», г. Новосибирск, Российская Федерация, ORCID: <https://orcid.org/0009-0000-8227-2306>, e-mail: [albul.2017@bk.ru](mailto:albul.2017@bk.ru)

Получена 17.05.2023

Принята в печать 22.06.2023

Received 17.05.2023

Accepted 22.06.2023