Overcoming the Semantic Barrier and Developing the Ability to Use Communicative Tools  
Part I. Issue. Method  
Elena N. Soldatenkova  
Moscow State University of Psychology & Education, Moscow, Russia  
ORCID: https://orcid.org/0000-0001-6901-4396, e-mail: Elenasol08@mail.ru  

The article is devoted to the problem of the functional structure of communicative action. Based on theoretical analysis and many years of pedagogical experience of working with children with affective pathology (autism spectrum disorders), the author recreates and refines the studies of cultural-historical theory and answers its main question — a method problem: the influence of holistic interfunctional analysis on overcoming semantic bias (central defect and syndrome-forming factor of psychopathology) and the development of a more universal communication form — verbal communication in non-speaking children with autism spectrum disorders in preschool age (by means of restructuring the way the impaired function is realized). The described conditions can be taken into account when constructing an intermediary (lively communicative action) both in the practice of general education (to prevent the occurrence of motivational disorders and increase the age limit) and in working with children with affective pathology (especially with children with autism spectrum disorders).

**Keywords:** developmental psychology, experimental genetic method, mediating (live communicative) action, activity approach in education, emotional volitional disorders, autism spectrum disorders.


“In the beginning was the Word.” The Riddle is from the first lines. Did I understand the hint? ...  
“In the beginning, there was a Thought.” Here is a translation. It conveys this verse the closest...  
“There was Power in the beginning.” That is the point. But after a little hesitation I reject this interpretation. As I see, I was baffled again:  
“In the beginning was the Deed” — the verse reads”  

*Faust, by Goethe*

The modern practice of working with children with affective pathology (especially with ASD children) and motivational disorders presents a very multi-sided picture: a kaleidoscope of approaches and correction technologies becomes a prism of the specialists’ subjectivation, makes it possible to satisfy a wide social request, but does not always solve the main issue — the need to provide quality assistance to a child and their families. The replication in the national educational space of the crippled foreign methods based on psychoanalysis [5], behavioral analysis [44—47], biologization direction in science [1; 26; 28; 33]; the impossibility of recreating the meanings inherent to the interdisciplinary field of knowledge — developmental psychology, result in failure to fully realize a child’s cultural potential. After all, the evidence-based practices, albeit based on big data, a double placebo-controlled study, in the absence of completeness of meaningful theoretical analysis, do not take into account the individual history and context of the child’s development, complex intrafunctional connections and relationships that are formed in this situation, also fail, in contrast to a holistic systemic cross-functional analysis that subordinates the analysis of external manifestations and makes it its integral part, but not limited to it. As, for example, in the non-classical paradigm of education, which makes it possible to personify learning on a
more complete basis and even build alternative routes [11, p. 105]. The practice also demonstrates such limitation. So, for example, in behavioral therapy, the formed child’s actions are situational, incomprehensible, formal, limited only to robotic (mechanistic) execution, and in some cases, children show an aggressive reaction, but in the worst cases — an autoaggressive reaction in response to the instrumental nature of communication. After all, behavioral therapists, unlike the followers of the activity approach — the developmental psychologists, do not pay due attention to the experiences, the subjective world of the child, their personal history, context, but focus only on external (formal) performance. They organize their work based on a primitive and easily replicable functional analysis without paying attention to complex interfunctional connections and relationships that allow building alternative routes of the development, so many children with a lack of verbal communication remain users of alternative communication. The followers of the psychoanalytic direction put the child mirroring at the forefront, but it is also insufficient for the completeness of their development and the formation of an existential component. In this context, it is possible to recall N. Chomsky’s criticism of F. Skinner, about a distance polemic of L. Vygotsky with Z. Freud, which reached the stage of rivalry between scientific programs back in 1932, when the possibility of rethinking classical psychoanalysis in the context of the ideas of L.S. Vygotsky, namely, the idea of consciousness as a dynamic semantic system, the idea of a semantic field, was discussed [17]. The popular biologization direction also creates a deceptive impression of helping a child, while stimulating the child’s natural activity, it does not in any way formulate its semantic content. Notwithstanding the fact that a decisive step in resolving these methodological contradictions was made by L.S. Vygotsky back in 1927 in his work “The Historical Meaning of the Psychological Crisis” [17], despite the need to study the conditions leading to the prevention of motivational disorders, the normalization of the state under emotional-volitional disorders, the experts have not yet realized the possibilities of non-classical psychology — developmental psychology, and “clinical developmental psychology which has arisen on the verge of developmental psychology and child psychiatry is in the period of its formation. Though the first studies in this area began to appear more than 100 years ago” [8, p. 3]. The stressed topics allow to hope that the spontaneously formed supporters of foreign technologies who are based on fragmentary, not always specialized training will critically treat their experience and the inert routine nature of the practices introduced, and their focus on systemic cross-functional analysis and interdisciplinarity of knowledge, in-depth study of the historical context in resolving the issue, a reflexive dialogue with scientific schools will lead them to understanding the ideas outlined earlier by domestic researchers [4; 9—14; 25; 31; 37—42]. The choice of a work method should be determined not by its newness, modernity, foreign origin, and majority, but by the work content, the way to achieve a given result, the productive and negative effects of work, the formation of consciousness and regulatory forms of activities in combination with speech communication, not only imitative (reflected), formalized child’s activity and alternative communication. After all, the key question — to be or not to be — is central in the theory of L.S. Vygotsky and arises before us when interacting with other people and before the experimental genetic method², it is especially acute for ASD children as resolving unsuccessfully in most cases due to the unformed subjectivity (consciousness (mental model)). So far it has not been problematized, as evidenced by the conducted experiments [33], although it was earlier indicated by L.S. Vygotsky as a method question [13, p. 25]. Let us illustrate the statement with a typical example from the practice: the primary visit of a primary school Grade 4 student with his parents. The child copes with the program requirements, but, mostly due to mechanical memorization. The parents have traditional and predictable complaints of his aggressive behavior: “we learn the program, but the situation with behavior it is very bad, he got out of hand”. A child, seeing that a specialist opens a math textbook in front of him, begins to shout, throw everything off the table, push the specialist, looking into his eyes, and repeating in a reflection: “Vova, what do you want?”, “Vova, what do you want?” — a phrase repeated by his mother in confusion in such situations. Needless to say, the parents themselves did not know what the child wanted. Or they didn’t want to know: in their opinion, the substantive results are more important. However, the child with preserved articulation capabilities and readiness to recite the multiplication table, could not say anything: he was never taught the most important things. Inconsistency in relationships, insufficient conditions for personal self-determination and sense generation led him to a conflict with the world, fencing off, which is a non-existence.

The ASD children of preschool age require special attention, since their development is characterized not only by the contact specificity, but also by a decrease in the level of development of speech understanding, as well as by a practical absence of communicative tools (approximately 65% of ASD children in preschool age do not speak) [2]. It should be noted that their communication is very specific. The following is observed in a number of cases: the action of an adult’s hand, vocalizations or a bird’s language that do not carry a semantic load. The affect of inadequacy [31, p. 21], which is expressed in screaming, crying, aggression, self-aggression or in the isolation of children (autostimulation) is more often observed. The close ones, when characterizing the interaction with such

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¹ It would be more correct to say that this work includes parents who have learned from foreign experts, replicating the technology of work according to a certain template without correlating this technology with other scientific data (that is, without a holistic methodological analysis) and, often without practical work experience with children.

² Here the words of A.A. Puzyrei ring the bell: “cultural-historical psychology is a possible thing, but not inevitable” [30, p. 10].
а child, say: “got sick again”, “flew away”, and often call these children as “foreigners”, “aliens”. The special literature characterizes a contact of such children as inadequate, negativistic, absent, and formal. How else can you characterize them when hear from a five-year-old kid: “I am here in Russia ... you are great that you live in Russia ... an elevator ... an elevator.” Gradually, human relations and the social world for such children cease to exist, since they ceased to exist for this world: blind imitation to foreign experts working within the framework of quantitative reflexological concepts that have long lost their relevance led to the fact that only reflective thinking was formed in children, but “the seven-star symptoms” [12, p. 374] were built up, revealing its new features. Until we see the child’s personal action, we do not form his “self-action” [40, p. 163], associative and reflexive thinking [9], we will not provide them with the opportunity to experience the joy of experience from designing the reality [24], we will not be able to grow up a Human, Personality focused only on self, but also on Another: complex forms and motives of cultural behavior are not formed in reflexological work, primitive motivation aimed at manipulating the child’s needs will only aggravate the emotional-volitional defect. A child’s life will be accompanied by a conflict of contradictions [25, p. 273], which each of us can become a hostage under a situation of the conflict of interests or a situation of the collision of two internal motives reflected in consciousness in the form of independent opposite values. The conflict of contradictions in ASD child is aggravated by the syncretic nature of his thinking (unformed speech generalizations), insufficient development of the “concept comprehension field” [19, p. 224] and is critically enhanced by the presence of a semantic barrier [31, p. 10]. After all, it is difficult to understand a child with ASD, even a speaking one. To understand him/her, it is necessary to know the history of their development, to see what they have “absorbed from the entire context” [9, p. 347]. Then, instead of the phrase: I am here in Russia ... you are great that you live in Russia ... an elevator ... an elevator”, one can catch: “Hello, I came, let’s go play, let’s build an elevator from soft blocks again.” Considering that speech syncretes used by a child with ASD are captured on the basis of random similarity (“I am here in Russia ...” and “Hello, I am here ...” — as a sign of greeting, meeting with a loved one), external closeness (“shoe” — “boot”), emotional reaction (“The postman” instead of “has frightened” in a situation where the child is frightened by a stranger (the postman), and the mother designates the situation as the “postman”, but not with the word “frightened”), it becomes clear that “there is a sense in his nonsense” [19, p. 224]. Therefore, “I am here in Russia” has a completely different meaning for a child than for an adult. The meaning of this phrase will be clear to anyone who studies his personal history and social context. A child, like a word, “acquires the meaning only in the phrase, and the phrase itself — only in the context of a paragraph, a paragraph — in the context of a book, a book — in the context of the author’s work” [9, p. 347]. Addressing an adult: “I am here in Russia ... you are great that you live in Russia ... an elevator ... an elevator,” the child expects an answer. If we analyze his personal history, it will become clear that the described dialogue is constantly repeated by him with his closed ones, and then they pay attention to him, laugh, repeat his words, give him an answer, but without correcting his addressing and setting a pattern of action. Meanwhile, the child’s activity, like “... the meaning of the word, is a complex phenomenon, mobile, constantly changing in connection with the circumstances” [9, p. 347]. However, the child does not change here because of the context as a social situation is unchangeable, not adapted to the child specifics, and due to lack of special conditions and a communicative model given on behalf of the child and approved by the adult. The personal history of each child is unique, as is the situation in which he lives and acts. The mediator must “read” this peculiarity: “The success of the educational influence can be ensured only if the real reason for this or that act (offense) is established ... in many cases, aggravating it ... Limiting himself to external manifestations ... the teacher often acts "by trial and error", not eliminating the cause of deficiency, and in many cases exacerbating it ... One and the same manifestation ... may have different reasons and require different effects” [31, p. 9]. A holistic analysis of the social situation and developmental history of a child with ASD helps the mediator in rethinking the child’s message, allows the child to be given an adequate orientation in the use of a communicative tool, prevents the emergence of a semantic barrier [31] and the formation of a semantic bias [29] which aggravates affective disorders, making work with children not evidence-based and imitation, but a truly personified practice. It is important to remember in this work about the conflict of insufficiency [25, p. 273], which may also lead to an affective explosion. We talked about it when “the subject is not able to perform a difficult task, especially if he considered it achievable for himself. It is as a result of the collision of an attempt to act with the impossibility of performing it a state arises that is characterized by confusion, affect and disorganization of behavior” [25, p. 273], rejection of activity, and passive aggressiveness. The impossibility of performing an action is due to the lack of orientation [14, p. 278] in the methods of its implementation or the impossibility of its implementation (overload, leading to satiety

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1 The term used by A.R. Laria, but transformed into the mutually exclusive tendencies in behavior in his work “The Nature of Human Conflicts: An Objective Study of the Disorganization of Human Behavior.” The conflict of contradictions accompanies the daily life of the ASD child and manifests itself when the parents want to intensively get rid of the painful manifestations of the child, which the child does not consider painful, but are HIS individual NORM. In situations where the ASD child cannot fulfill a requirement (for example, not able clapping hands), the conflict of contradictions is aggravated by the insufficiency conflict: the disorganization of the child’s behavior becomes more marked.

2 Syncretism of thinking is the initial stage of the generalization formation. The term was introduced by Claparede, and P.P. Blonsky called it “the incoherent connection of children’s thinking.” The study of the thinking formation stages (from syncretic thinking to thinking in complexes, and then to thinking in concepts) is described in the methodology for studying the development of concepts by L.S. Vygotsky - L.S. Sakharov.

3 The term first used by L.S. Vygotsky, which will later be transformed into the concept of the semantic field.
of the child, mismatch of requirements, etc.) [20]. Considering the fact that ASD is a spectral disorder with a wide range of manifestations, and any child from this spectrum is disharmonious in his/her development, the search for opportunities for the formation of his/her orientation is impossible without a holistic cross-functional analysis. What can become a pier for one is not at all suitable for another, therefore the use of template technologies and functional analysis in work with ASD children, like a mix of approaches, is unacceptable from the viewpoint of scientific theory and systemogenesis, because the interest concentration on individual, although very significant work aspects with a child turns out to be unjustified from the viewpoint of the generally recognized systemic methodology and results in the under-disclosure of the child’s resources and the aggravation of affective pathology. The conflict of insufficiency is most often found in the process of the “act of mediation” [37, p. 123] — in situations of teaching a child to use a communicative tool. Introducing an ASD child with a communicative tool (photography, writing, speaking), it is important to take into account the fact of his being in symbiosis with a parent (the “Pra-we” situation according to Vygotsky [12, p. 300–310]). A child in this situation, as a rule, acts with the hand of an adult, or without highlighting it at all climbs over it to reach the object of his need. It is important for the mediator in this situation to set a boundary for the child’s action (for example, not to complete his action), forming in him an awareness of the limits of his capabilities and the need to turn to the mediator. When forming “self-action”, it is important to ensure that the child has formed the idea of “his action in the situation as an action with the situation” [37, p. 123] based on a communicative tool (photography, writing, speaking). The adult’s response to the child’s speech (at the level of sound, syllable, word, phrase) solves this problem.

The dialogism of non-classical theory opens additional horizons in overcoming the effect of inadequacy [41]. The nature of the construction of a mediating (living’ communicative) action as a “method to include and involve an individual into a life situation” [4; 38; 39] influences not only the appearance of qualitative neologisms (of verbal communication [2; 24], not alternative communication, comprehension), but also the child’s experiences: it can either encourage openness, mutual communication, increase the boundaries of one’s capabilities, or cement the child’s obsession on some action, form an emasculated, formal performance or lead to an affective breakdown and refusal of action. To build up an appropriate dialogue with the child and prevent the emergence of “crisis symptoms” [12, p. 374], it is important to consider the “transitions between different forms” [38] of the work; it should be constructed with a view of a contact dosing at its early stages with a gradual intensification of the interaction in subsequent stages with an increase in the activity of the mediator through the variability of his tentative-orientational actions and the regulation of conflicts of insufficiency and contradictions, and aimed at building a common space and forming the cultural behavior forms. The adult’s insensitivity to the child’s responses leads to the fact that the disorganization of his behavior only intensifies. In some cases, for example, when a child’s endurance reduces, he may demonstrate an aggressive response to addressing or, even worse, an autoaggressive reaction (as a response to excessive pressure from the outside world, inconsistent or uncoordinated attitude from the social environment [20]). Transformation of the child’s personal action into “self-action” [40, p. 163] is often difficult. Not only parents, but also practitioners do not go out of the clinical paradigm into the developmental plane, saying about the child: “he does not want anything at all” or “he agrees with everything (disagrees)”, “I do not know what he likes...”. Moreover, the child himself, with a rigid external organization of behavior, can demonstrate opposite tendencies, adjusting to the environment. In this situation, we are helped by a reference point for analyzing the child’s activity and reading his response to the proposed interaction options. At the same time, it is important to observe ethologically important characteristics of the child’s behavior: facial expressions, gestures, locomotions, vegetative reactions to events while correlating them with the child history and the social situation of his development. After all, a conversation with parents does not always reveal the completeness of the problem and, more importantly, the possible piers of development. In the process of development of the child’s “self-action”, it is important to change the nature of the child’s/adult’s thinking (from mirroring to reflexive/transformative, from functional to interfunctional) [24] and to form a way of using a communicative tool/method, as well as to form a conditioned position, planning a transition from egocentrism (centralization) to decentralization (when a child with ASD, leaving the position of “Pra-we”, begins to indirectly (through a communicative tool) influence the mediator, initiate his actions, reflexively refers to them, developing the completeness of orientation in the situation, comparing the result with an image standard, to understand a different way of acting and limiting self

6 Systemogenesis is a selective maturation of functional systems and their individual parts in the process of ontogenesis. The term was introduced by P.K. Anokhin: Systemogenesis as a general pattern of the evolutionary process. Bull. exp. biol. and med. 1948. V. 26. No. 8, p.
7 L.S. Vygotsky called it “melting down” [10, p. 109], and V.P. Zinchenko - “a live movement” [21, p. 255].
8 It is important to note that the replicated examples of successful work with children within this technique are based on the functional children category (potentially speaking children): a child with apraxia will never be able to talk based only on alternative communication, they need the qualitatively different ways of working to help overcome also a defect.
9 As to thinking of adults, we judge by their assimilation of the mode of action, and of a child - of the speech tool.
10 D.B. Elkonin has been writing about the possibility of overcoming cognitive egocentrism. His students and him realized a special experimental program for the formation of a conditional position - the ability to move arbitrarily from the factual to the conditionally admitted point of view. According to the book by B.D. Elkonin "The Introduction to the Developmental Psychology" (in the tradition of the cultural-historical theory by L.S. Vygotsky). M.: Trivola, 1994. 168 p., III [10, p. 109].
due to which the process of reality perception acquires a meaningful character, and the dialogue is built on the basis of positional vision and a spatio-temporal model, and the parents are motivated not by a clinical diagnosis, but by the content of a social situation.

The preliminary data obtained allow us to draw a positive conclusion that the work within the framework of “melting down” [10, p. 109], “living movement” [21, p. 255] gives good results: taking into account the semantic component allows us to form a child as a subject of his own activity, with a reflexive attitude to what is happening, while forming cultural forms of action and difficult motives [18, p. 279]. Later we will give a description of psychotechnics: It should be clear to the mediator which factors of the pedagogical element need to be fixed and put under control. Indeed, the child is no longer a “prisoner standing in the middle of the freest and widest of the roads, He is a Passenger ... a prisoner of the Passage.” But “the land to which his ship will moor” is already known [34, p. 32].

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Преодоление смыслового барьера и развитие способности к использованию коммуникативных средств
Часть I. Проблема. Метод

Е.Н. Солдатенкова
Московский государственный психолого-педагогический университет (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация
ORCID: https://orcid.org/0000-0001-6901-4396, e-mail: Elenasol08@mail.ru

Статья посвящена проблеме функциональной структуры коммуникативного действия. На основе теоретического анализа и многолетнего педагогического опыта работы с детьми с аффективной патологией (расстройствами аутистического спектра) автор воссоздает и дорабатывает исследования культурно-исторической теории, отвечая на ее главный вопрос — проблему метода: влияния целостного межфункционального анализа на преодоление смыслового смещения (центрального дефекта и синдромообразующего фактора психопатологии) и развития более универсальной формы коммуникации — речевого общения у неговорящих детей с расстройствами аутистического спектра в дошкольном возрасте (посредством перестройки способа реализации нарушенной функции). Описанные условия могут быть учтены при построении посреднического (живого коммуникативного) действия, как в практике общего образования (с целью предупреждения возникновения мотивационных нарушений и повышения границы возраста), так и в работе с детьми с аффективной патологией (в особенности с детьми с расстройствами аутистического спектра).

Ключевые слова: психология развития, экспериментально-генетический метод, посредническое (живое коммуникативное) действие, деятельностный подход в образовании, эмоционально-волевые нарушения, расстройства аутистического спектра.


Information about the authors
Elena N. Soldatenkova, Psychologist, School and Preschool Department, Federal Resource Center for the Organization of Comprehensive Support to Children with Autism Spectrum Disorders, Moscow State University of Psychology & Education, Moscow, Russia, ORCID: https://orcid.org/0000-0001-6901-4396, e-mail: Elenasol08@mail.ru

Информация об авторах
Солдатенкова Елена Николаевна, педагог-психолог школьно-дошкольного отделения Федерального ресурсного центра по организации комплексного сопровождения детей с расстройствами аутистического спектра, аспирант факультета психологии, Московский государственный психолого-педагогический университет (ФГБОУ ВО МГППУ), г. Москва, Российская Федерация, ORCID: https://orcid.org/0000-0001-6901-4396, e-mail: Elenasol08@mail.ru

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