Journal of Russian and East European Psychology
vol. 39, no. 1, January–February 2001, pp. 32–77.

ISSN 1061–0405/2002 $9.50 + 0.00.

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From Classical to Organic Psychology

There are not very many events in twentieth-century science that excite scientists in the twenty-first century, but among them one may rank, with the least risk of error, the theories of Vygotsky, Bernshtein, and Piaget, whose centennial is being observed this year by the world of psychology. The present article is devoted to the first of these figures.

When Vygotsky formulated his thesis of the zone of proximal development, he could hardly have assumed (although who knows?) that his own ideas about development would go far beyond the "zone" in which he developed his thoughts and in which it was his lot to live. . . . For the science of psychology, Vygotsky's notions of development are not part of the past: they are still an insufficiently understood and assimilated part of the present. In Vygotsky's words, they are for psychology a "relevant future field." A private mission that has occupied me in recent years is to continue the work and understand the ideas of Vygotsky. In this I am

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This article was prepared with the support of the Russian Basic Research Foundation, the International Foundation for Basic Research, and the Russian Academy of Education).

following my teachers P. Ia. Gal′perin, A.V. Zaporozhets, P.I. Zinchenko, A.N. Leont′ev, A.R. Luria, and D.B. El′konin, disciples of Vygotsky who, no matter how far they strayed from him, still always return to him. Of course, I myself bear responsibility for my understanding, not they.

El′konin was the first to draw attention to the fact that Vygotsky created the foundations of a completely new, nonclassical psychology. He discerned its origins in Vygotsky's [*The psychology of art*]. It was this idea of El′konin's that forced me to think about how, in one word, one could express the "nonclassical" nature (which in itself has long since ceased to be a compliment) of Vygotsky's cultural-historical psychology. Of course, it is not a question of renaming this customary and established name. One cannot quarrel with language, and I have no desire to do so. But the search for a new name may prove to be heuristically useful for an understanding of cultural-historical psychology as a whole and for identifying the specific nucleus that distinguishes this current from classical psychology. I do not know if the term "organic psychology" is successful; I leave that to the reader. Perhaps it will attract some readers while others will be repelled by its lack of rigueur and logic. The proper contrast to the classical is the nonclassical, and to the organic it is the inorganic. But I had no trouble calling classical psychology inorganic psychology. There is something fascinating and organic about it.

Cultural-historical psychology is truly organic to culture and civilization, cultural anthropology, education, the psychology of art and art itself, the psychology of development, child and developmental psychology, psychological pedagogy, the physiology of activity (psychological physiology), neuropsychology, psycholinguistics and neurolinguistics, psychoanalysis, clinical psychology, psychotherapy, the science of abnormal development, social psychology, industrial psychology, ergonomics, etc. Even cognitive psychology, with all its initial conceits, has been turning to the works of Vygotsky and Piaget in recent years. Perhaps only humanistic psychology has continued to disregard cultural-historical psychology, although the problems of free action, which we shall discuss further on, is related directly to the problems of hu-

man personal growth. In all of these enumerated and nonenumerated areas of psychology and contiguous sciences, the achievements of Vygotsky are useful, which in itself is without precedent. It is no idle question to ask whether cultural-historical psychology has become an organic part of these currents or, on the contrary, whether many of them have become an organic part of cultural-historical psychology, which has been around for seventy years. Indeed, it is now beginning to take the place of classical general psychology, although undoubtedly that is not what it is, as D.B. El′konin has perspicaciously pointed out.

This is an outward justification for introducing the term *organic psychology*. Its internal and substantive justification is the problem for me. The present article is devoted to a discussion of this problem.

According to El′konin, the novelty of nonclassical psychology is that the primary forms of the affective-semantic *structures* of human consciousness exist objectively, independent of each particular person, in aspects of works of art or in any other material creations of human beings. He pointed out that these forms existed prior to individual or subjective affective-semantic structures [39. Pp. 477–78].

Vygotsky and El′konin called these objective affective-semantic structures existing prior to, and independent of, the developing individual ideal forms, which are assimilated and subjectified in the process of individual development, i.e., they become a real form of the person's mind and consciousness. In a first approximation, the process of development in cultural-historical psychology may be described as a drama played out over the balance between real and ideal forms, their transformation, and their conversions back and forth from one to the other. The actor, and sometimes the dramaturge, is the subject of development. The stage is his life in the world, or the world is his life. An ideal form may be defined as the culture that the subject is born into. He either enters into it (or it enters into him), or he stays outside it. I will not speak of vandalism, i.e., the direct destruction of culture, of which there are too many examples in the history of mankind (the Bolsheviks were by no means pioneers in such matters, but it should not be

forgotten that they were led by a "planetary villain," to use the words of I. Bunin). Culture is very sensitive, and nonparticipation in it of even one individual is also a form of its destruction.

Culture is not simply the environment that grows and nurtures the personality. There is no automatism here. Culture is also not the driving force, the determinant of development. There is no coercion here (or, in any case, there should not be) such as is often encountered in education. Otherwise, it is not culture, but a cult of force and violence. It is another matter that culture, as M.K. Mamardashvili pointed out, is man's effort to be man. To borrow a metaphor from Mandelshtam, culture is an invitation for us, not so much a framework as a challenge; and for it the subject is probability, desirability, and that which may be expected. It seizes man, but it can also repel him.

A subject is free to accept or reject the invitation or challenge. The challenge is that there is a difference in potential between ideal and real forms. If the subject accepts the challenge, an act, an event of development, may take place. Through this act the subject takes possession of the ideal form, assimilates it or surpasses it. It becomes the subject's own subjective real form. The latter, in turn, can and must be capable of engendering new forms (in the extreme case, monuments of the human spirit), which become part and parcel of the "body" of the ideal form. Otherwise, cultural development ceases.

Let us dwell on this point a bit. The objectification of affective-semantic structures in the "body" of an ideal form is, of course, a new step compared with classical psychology, for which objectivity is equivalent to materiality. However, despite all the "nonclassical" nature of this step, it is not obvious that one can with it fully eliminate the classical problem (for psychology and philosophy) of transforming the objective (even if ideal thrice over) into the subjective (even if real thrice over). One should not try specifically to argue that this problem has, and perhaps cannot have, a solution by "classical" means [22, 30]. This means that if we accept El′konin's thesis that Vygotsky's psychology is a nonclassical psychology, then the work of understanding that he began should continue. This should consist in trying to eliminate the opposition

between the objective and the subjective not only in epistemology but also in the ontology of human life. Let us try to go down this path.

The first step should be to understand to what extent the ideal form of existence of affective-semantic structures is objective. Does it lose its subjective nature in that it is a product, a creation, of an individual? Let us following Vygotsky's turn to art: here is a statement by his contemporary V.V. Kandinsky:

> A true and genuine work springs mystically, enigmatically, and mysteriously "from the artist." Severing its bonds with the artist, it acquires its own independent life and becomes a personality, an independent, breathing subject also leading a material. real life: it becomes a being. Thus, it is not an indifferent phenomenon that has occurred by chance and remains indifferent in spiritual life: like any being, it has continuing creative, active powers. It lives, acts, and participates in the construction of the intellectual atmosphere. [28. P. 99]

Works of art must, for such participation, have energy, of which V.I. Ivanov did not doubt:

> The energy whose name is art is for us either gathered and crystallized in stable and finished forms of its objectification**,** which we perceive aesthetically, as if melting them and once again reconstituting them in our consciousness, or it is flowing and evolving before us and is, for the first time, objectified in our perception. The static pool in art is architecture; the dynamic pool is music. [27. Vol. 11, p. 92]

Ivanov goes on to say that there is static in music and dynamics in the plastic arts. It is hard to keep from quoting Ivanov's moving description of his witness of the living nature of a work of art:

> The Sistine Madonna moves. The folds of her clothing give the rhythm of her steps. We accompany her into the clouds. The sphere surrounding her is an aggregation of active lives; the entire air is replete with the countenances of angels. Everything is alive and sustains her. Before us is the harmony of heavenly forces, and in it, like a moving melody, there she is herself: in her arms is the infant, his gaze fixed upon the world, filled with willpower and the resolve of genius. The infant whom she herself gives to the world or that which draws her into the world, its flesh and with it carries behind it the entire sphere where she wanders. [Ibid.]

There can be no doubt that the author of [*The psychology of art*] not only knew this, but felt it. The air of the silver century of Russian culture is pervaded by such ideas [8, 15].

It is useful to try to relate to these words of Kandinsky and Ivanov not as artistic metaphors, but as a reality, recalling our own experience in the perception of, and communication with, art. After this let us try to descend from the heights of art to earth and listen to the language. Utensils and tools (not to be confused with consumer goods) are also something living, creative, since the labor and the soul of their manufacturer and creator reside within them. P.A. Florenskii, developing the idea of organoprojection, demonstrated, with a plethora of examples, that the tools of labor are created in the image and likeness of man, his corporeal and spiritual organism. Their "life quality" is intensified by the fact that a person names them with a living word; he gives them a name.

In other words, tools have not only a purpose but also a specification. In his essay [*Tool and sign*], Vygotsky rejected the sharp contrast between the tool and the sign, as was characteristic of the first stages of development of his views. He called specific attention to the *internal intertwining* of the sign and the tool, which finds its material symbolic expression at the very beginning of development of human labor [3. Vol. 6, p. 84]. Vygotsky's psychological analysis of the sign-symbol and tool functions of a primitive stick for digging is very instructive today for understanding (and planning) human activity with computer technology.

This means that affective-semantic structures like the sign and symbol structures in ideal form taken at the cultural pole in the couplet "culture—individual" are just as objective as they are subjective (subject, person) not only in their origin but also in the mode of their existence and their action—and not just an action upon something else. They are full-fledged participants in spiritual and material production and nurture it with ideas and energies. Of course, to understand and accept this one must look differently at what is alive, at life itself, and reject the definition of life—as contestable as it is meaningless—as a "mode of existence of proteins." In Soviet science there has strangely been no notice

of the astonishingly precise description (not definition) of life given by Vygotsky's contemporary A.A. Ukhtomskii, who, like N.A. Bernshtein, developed nonclassical physiology—the physiology of activeness, often called psychological physiology:

> Life is asymmetry with a constant vacillation on the point of a sword, staying more or less in equilibrium only when it is in constant movement, tending in one direction or another. A chemical agent with energy confronts a living substance with a dilemma: if it refrains from accumulating a substance, that means death; but if it sometimes uses it actively, that means drawing energy into the cycle of life, constructing synthesis and life itself. [34. P. 235]

To demonstrate the compass of this characterization, one may replace the term *chemical agent* with the term *information* or, better, *knowledge and experience*, and the term *living substance* with *living being*. Then we get a description of life as asymmetry (and not homeostasis) with a constant vacillation on the tip of the sword between thought and action, consciousness and activity, experience and its uses, affect and intelligence, etc. To others, an iron sword and a spiritual sword still balance strangely and surrealistically on the tip of the sword. Experience shows it is much more difficult to forge a spiritual sword . . .

Works of art (not all!) are also embraced by his definition. They contain energy, striving, and constant movement, construction synthesis and life itself. There is also asymmetry between dynamics and statics, between the eternal and the temporal, between good and evil, between life and death. . . . We must note that in the matter of transforming nonliving material into living material, art and culture have, to a considerable extent (if not always), been ahead of science, which is still trying to synthesize living matter.

Let us return to the pole of the individual. Are the affective-semantic structures on this pole so subjective? Ukhtomskii said that the subjective is no less object than the so-called objective. This is not an idle statement inasmuch as the anatomy and physiology of the human spirit bothered him. For example, he wrote "From the very beginning, the insipient image of an object is a projection of reality, specifically, a heuristic projection of reality that is later tested many times over and reorganized on a basis of a

practical fusion with reality" [34. P. 274]. I invite the reader to ponder how Vygotsky explains the occurrence *of a heuristic projection of reality*: "The incorporation of symbolic operations makes possible a completely new psychological field that does not rest on what is present in the here and now, but outlines a sketch of the future and thus makes for a free action independent of the immediate situation" [3. Vol. 6. p. 50]. In roughly those same years M.M. Bakhtin characterized the world of action as a world of internal anticipation of the future.

Let me recall that only a few decades later, the concept of "an image of the foreseeable future," the "acceptor of the results of an action," an "operative image," a "manipulator image," a "sensory standard", a "perceptual model," a "magic-conceptual model," and a "perceptual hypothesis" appeared in psychology and physiology, all similar in their purport to the concepts of a "heuristic projection of reality" or a "sketch of the future." For such a project to be realized or for a perceptual hypothesis to be verified, an image has to be objectified, i.e., it has to be situated where reality, the original, is situated.

Ukhtomskii objectified the subjective and the mental in the "body" of the individual's functional organs, which are as real as morphologically discrete structures. He defined a functional organ as "any temporary combination of forces capable of accomplishing a specific thing" [Ibid. P. 95] or as the distribution of activities in space or time (chronotope). He likened it to a dynamic, mobile actor. Ukhtomskii's ranks of functional organs included not only parabiosis, a dominant, but also psychological recollection, desire, and an integral image of the world. He said that these are new structures forming in interaction with the environment, in the activeness of the individual, who himself actively engages with the environment. In accordance with the definition of an organ, an image should have forces. This seems strange and unusual. Indeed, what forces could these be when an image is a reflection of the objective world? It is worth thinking about the plausibility of such commonplaces and recall the old notions of "eidetic energy," i.e., the energy of an image, such as A.F. Losev, for example, developed. No such clarification is

needed for other types of functional organs: e.g., living movement (N.A. Bernshtein), or affect (A.V. Zaporozhets), whose energy is obvious.

The concept of functional organs as new structures in the individual was later widely used and developed by N.A. Bernshtein, A.V. Zaporozhets, A.N. Leont′ev, and A.R. Luria. They invested it with corporeal properties and qualities, for example, a biodynamic sensory affective fabric; they studied their development involution, responsiveness, sensitivity, etc. Functional organs or psychological functional systems must be seen as the material (matter) out of which the spiritual organ is ultimately constituted. They may, in fact, be regarded as the anatomy and physiology of the spirit. What is more, the system of diverse connections within an organ and between organs is the vascular system, which can be cut off (become sclerotic), cause a stupor or a shock [5]. (Let me point out that the term *organic psychology* may also be seen as a derivative of the concept of "functional organ." That is one more external argument stressing the organic nature of cultural-historical psychology.)

Let us return to ideal and real forms. The reflections resourced above give reason not to draw a boundary between them along the lines of objective—subjective, external—internal, body—soul. Both forms are objective and subjective, although to different degrees, which makes it possible to pose correctly the question of the transition of one form into another, and of the organic nature of their interaction. D.B. El′konin saw this to be the source of the nonclassical nature of Vygotsky's approach, who thus succeeded in avoiding abolishing and overcoming the psychophysical problem, which has no solution. Ideal and real forms are living forms. The presence in them of common properties makes them potentially and actually compatible. Hence, if we can say that the nonclassical aspect of Vygotsky's approach is positive rather than negative, then the term I chose, *organic psychology*, is best suited to it. Luria sometimes called Vygotsky's psychology romantic. It is a proper matter of astonishment and delight that organic psychology was created in a medium that was inorganic for the development of science. A.M. Piatigorskii described the times in which

Vygotsky lived as not being a season for thought, but thoughts were born nevertheless, including unseasonal ones.

Despite the compatibility between real and ideal forms, the transition from one to the other cannot take place automatically. The problem of transition remains. Initially it was resolved in the paradigm of classical psychology in terms of external and internal, objective and subjective, soul and body, internalization and externalization, etc., which I shall come back to in more detail.

* * *

The next step is to understand how, in cultural-historical psychology, the transition from an ideal form to a real form is possible. An ideal form has quite real vehicles that serve as mediators of the development of the real form. Vygotsky examined the role of three mediators in this capacity: the *adult* (in interindividual activity), the *sign*, and the *word*. Symbol and myth, whose role in development was noted by A.F. Losev, were left out of his analysis. Nevertheless, Vygotsky quite often spoke about sign-symbol and symbolic activity. One might also add to the ranks of mediators *sense*, which in the logic of G.G. Shpet is rooted in being, and Wittgenstein's logic sense, which exists, so to speak, in itself, and can be identical with any possible fact. In other words, sense may be seen as something objective alongside a sign, a symbol, etc. But the ranks of mediators must be open. The polyphony of mediators is matched by the polyphony of consciousness. Polyphonic consciousness cannot be constructed on only a sign or an action with the sign. It is only reflexive.

When in the course of development of symbolic activity the subject gains mastery over mediators, its real form (in Vygotsky, previously natural form) becomes ideal, or at least idealized and cultural.

The gist of the cultural-historical approach lies in mediation. The mediating act, which El´konin and his colleagues are currently studying intensively, contains a secret of development, the secret of the transformation of the real form into an ideal form and an ideal into a real form. The embodiment of an object, a tool or a

sign in natural forms of mental functions (let us, for the time being, retain this term of Vygotsky's, which has been frequently criticized), are transformed into ideal cultural forms; the latter acquire the appearance of operations with objects, tools, signs, words, and symbols, in the broad sense, instrumental mental operations, actions, activity.

But what does transformation signify? It is a construction, a formation of new functional organs. It takes place with the aid of mediators, means that Vygotsky called "psychological tools" or "psychological instruments." Let us look into these in more detail. Vygotsky distinguished (categorically, perhaps deliberately) a material from a psychological tool:

> The most essential difference between a sign and a tool is that the two have different orientations. A tool serves as a conduit for a person's actions upon an object of his activity; it is steered from without; it must produce some changes in the object; it is a means of man's external activity, aimed at the subjugation of nature. A sign changes nothing in the object of a psychological operation; it is a means for acting psychologically on behavior, one's own and someone else's, a means of internal activity to be mastered by the individual himself; a sign is directed inwardly. The two types of activity are so different that even the nature of the means used cannot be the same in both cases. [3. Vol. 3, p. 90]

What we have said applies not only to the sign but also to a symbol, to a word, etc., about which Vygotsky also wrote: "A word directed toward the resolution of a problem relates not only to the objects belonging to the external world but also to the child's own behavior, his actions and intentions. A child for the first time is able, with the help of language, to give attention to himself, looking at himself as if from the side, like some object" (quoted in [36. P. 14]). And there you have the remarkable characteristic of psychological tools, whether it be a sign, a word, or a symbol. They perform not only the role of stimuli capable of eliciting various responses, reactions, and behavioral acts: they also arouse inner forms of activity, that make external behavior predictable, among other things. Being attentive to oneself, looking at oneself from the side, is the beginning of the capacity, or the capacity itself, to

look within oneself; it is the beginning of the formation of an image of oneself and its placement, whole or in part, outside oneself. This is an objectification of oneself, of one's own subjectivity, the emergence of self-awareness. What we have said is, of course, sufficient; but it is still not all. Herein lie the secret and the primary condition of the development of self, the condition for man's building of himself, of the cultural formation of the personality.

B.D. El′konin quotes Vygotsky's comment that a sign is oriented from outside to within, and, second, that the associated reconstruction, objectification, and externalization of the internal is the focal point of the "work" of the sign:

> If we ponder deeply the fact that man, bound to memory, essentially controls the process of remembering from without and compels the external object to remind him, i.e., to recall itself through an external object and, so to speak, resituate the process of remembering to a locus outside, thereby transforming it into an external activity, if we think about the essence of what takes place here, then we will appreciate the utter uniqueness of higher forms of behavior. In the one case, something is recalled, and in the other, a person recalls something. [Ibid. Pp. 14–15]

The action of a sign extends even more deeply:

> When you study mediated recall, i.e., how a person recalls, through reliance on certain signs and techniques, you will see that memory changes its place in the system of mental functions. What is grasped by direct memory is immediate recollection, and mediated recollection is grasped through a series of mental operations that may have nothing in common with memory; what takes place, therefore, is something on the order of the substitution of one set of mental functions by another set. [3. Vol. 2, p. 392]

There are many such examples in the early works of A.N. Leont′ev on the development of memory, and in the works of P.I. Zinchenko on the dynamics of voluntary and involuntary recall [26].

What kind of mystical properties of the sign, the word, and other mediators are not simply perceived, assimilated, and remembered but also arouse the dreamer or contribute to the formation of new mental functions, reorganizing them and the relations among them?

Let us try to answer this question, although it is not easy—the reason being not a lack, but an excess, of material. Let us return once again to memory and see how, in 1939, P.I. Zinchenko interpreted the mediated nature of memory:

> From this perspective, what is fundamental in the development of human memory is man's mastery of the use of the tools of remembering, i.e., signs; but a sign is a means that comes from within, from the specifically psychological: it signifies. Signification, however, is nothing more than a generalization of reality. This signification, this generalization, develops from the nature of the connections and relations that are generalized in the sign (mainly in a word as a sign) and through changes in the structure of this generalization, i.e., the nature of intellectual operations. Mastering the sign as a tool also involves the development of its internal aspect, the development of generalization. Thus, the development of memory is determined primarily by the development of thought, for the development of any meaning of generalization entails the development of thought.
>
> In these fundamental propositions . . . for the first time in psychology, remembering begins to be regarded not as the content of consciousness, enclosed in the subject and its phenomenal, subjective world, and not as an abstract, metaphysical faculty: rather, for the first time remembering appears as an active process, as a specific mental *action*. Hence, for the first time it becomes possible to undertake real study of the development of memory as a process, a study of the structure of the processes of remembering at the various stages of their development. [25. P. 153]

Let me call attention to the words *for the first time*, used three times in this extract. According to Zinchenko, the theory of mediation for the first time enabled people to study memory as a *mental* action, and the development of memory *as a process*. We see clearly here the genetic, organic connection between cultural-historical psychology and the psychological theory of activity, which was then still only in its embryonic stages. The latter theory took mediated, i.e., cultural, action as its ontology and renounced the study of natural mental functions—the principal subject matter of research in classical psychology. I should say that the above extract from a work by Zinchenko, written between 1936 and 1937, is incontestable testimony or argument against attempts, repeated

time and time again, to divorce one psychological current from another and to set them off against one another. In a later work, Zinchenko, for this reason, quotes a categorical statement made by Vygotsky himself in 1926: "memory signifies the use and participation of preceding experience in present behavior; from this perspective, memory is an activity in the precise sense of the word, both at the moment a reaction is established and at the moment it is reproduced" [26. P. 117].

I might mention that Zinchenko, a pupil of A.N. Leont′ev's, was one of the active participants in the "Leont′ev crusade" against psychology. To be fair, one must say that this was also, at the same time, an assault on cultural-historical psychology. Zinchenko wrote the following about the erroneousness of cultural-historical psychology as a whole, doubtless with the blessing (or complicity?) of his teacher:

> The principal question about understanding the nature of the mental is resolved incorrectly. Mastery by the mind by the natural and the biological through the use of auxiliary psychological means was regarded as a specific, as well as the most essential, characteristic of the human mind. We see in this proposition the principal mistake of Vygotsky's theory. A Marxist understanding of the historical and social determinateness of the development of the human mind was distorted and understood idealistically. The fact that the human mind is socially and historically determined was reduced to the effect of human culture on the subject. Thus, the development of the mind was regarded not as determined by the development of real relations between the subject and reality, but as limited to communication between the consciousness of the subject and ideal, cultural reality. [Ibid.]

Put in the most straightforward terms, this criticism is baseless and wrongheaded. I present Vygotsky's response, written before the criticism: "Behind all higher functions and their relations are social relations, the real relations of people" [3. Vol. 3, p. 145]. But the entire point is that this response was first published a quarter-century after Zinchenko wrote his article.

For those times this criticism was still mild compared with the unreigned criticism, the denunciatory articles, written about Vygotsky even while he was still alive. It should be recalled that

by the time Zinchenko's article was being written and published, Vygotsky's works were already banned—not to mention that only a small number of them were published during his lifetime. Before Vygotsky's collective works in six volumes (still not complete) were published, only P. Ia. Gal′perin and D.B. El′konin were fortunate enough to live to see them. Zaporozhets and Luria, through whose efforts they were published, did not live to see them.

But back to Zinchenko's article; it is easy to assume that after the above panegyric of Vygotsky, this criticism was forced and for immediate consumption; after all, it fit on one page. However, let us not oversimplify the matter, especially as subsequent critics of Vygotsky referred only to the critical passage in Zinchenko and did not notice the most important. Of course, from our perspective today, the principal merit of cultural-historical psychology is transformed into its principal form. But one should bear in mind that this marked a change, if not as a subject of investigation, at least of its main points. It is not the internal aspect of a psychological tool that is signification, but a mediated mental action. Let me recall that in the 1930s, the members of the Kharkov group (the term *school* came into use much later) took up the study of the various forms of "mental actions": the simplest actions with tools performed by a child (Gal′perin), sensory actions (Zaporozhets), mnemonic actions (Zinchenko), and intellectual actions (Zaporozhets). An authentic activity approach to the mind began to evolve and, after it, a psychological theory of activity. Signification, which for Vygotsky was the primary unit of analysis of the mind, was relegated to second or third plane [11]. Signification is too closely linked to culture, to ideal activity, and to consciousness. The latter became out of fashion and a reflection of Soviet life and times.

The reproaches of idealism levied against Vygotsky, and the reproaches of departing from Vygotsky, i.e., from idealism (?!), aimed at Leont′ev even now, strangely, find a place in our historical-psychological literature. G.P. Shchedrovitskii [35] interpreted the clash between cultural-historical psychology and activity psychology—indeed, a special theme for historians of psychology—in a methodologically correct manner. In general, one should say,

with regard to the criticism of Vygotsky, that practically all the criticism published before 1984, i.e., before his collected works were published, represent a misunderstanding from a historical point of view. Their authors simply could not have been familiar with the vast number of Vygotsky's fundamental works, among which is ["The historical meaning of the crisis in psychology"], [*Tool and sign in the development of the child*], [*The theory of the emotions*], and many others. It is, of course, not the critics' fault if they, with a stubbornness worthy of the best uses, do not insist on it and do not reproduce it monotonously. Such criticism from a cultural perspective is more than just a *misunderstanding*.

Let us follow Vygotsky and try to understand what the internal aspect of the word or sign is. For example, psychological tools have an external and an internal form. The external form is most often extremely simple, but it is nevertheless completely unintelligible if the internal form is not known. The term *internal form* should not mislead us. It is, after all, invisible, like the other side of the moon. Vygotsky used this figure of speech to talk about the aspect of a word that remains unknown terrain for experimental psychology. Vygotsky himself did not use the expression *the internal form of a word*, which was introduced earlier by Von Humbolt. The reason for this is unclear since Vygotsky must have known Shpet's book [*The internal form of a word*] (1927). Perhaps Vygotsky wanted to avoid confusion between the terms *the internal form of a word* and *inner speech*, the latter, of course, being the subject of his special investigation. Whatever the case, from Vygotsky's and, particularly, Shpet's work, it follows that the internal form of this psychological tool is extraordinarily rich, especially compared with a directive sign. The internal form of a directive sign is quite simple and allows no alternative interpretations. "The sign is always used so that the actual, objective content indicated by the sign is totally exhausted by the act of using the sign," wrote Mamardashvili [31. P. 373].

A symbol admits of a multitude of interpretations compared with a sign, and even with a word. Its external, visible form may be extremely elementary, and its internal form may be boundless. The problem is to discover, to discern, the internal form by pen-

etrating the outer casing of the symbol and how to get one's bearings within the internal form. There should be no illusions here. An orientation in the bottomless depths of the meaning behind a symbol is an extremely difficult business. Let me reproduce here an example of a clash between two well-known symbols that give rise to unexpected meanings, an example we know so well it hurts: "There was a rose blossom in the 45th volume of Lenin." (I beg the author's pardon: his name I have forgotten, but I will never forget that line.)

In the words of Mamardashvili, the invisible second half of this symbol, unlike the substantive part visible to all, sprouts in some depths of conscious life. Often such a sprouting takes place irrespective of the subject's will and desire, and he does not possess the symbol: rather, the symbol seizes and possesses him. In the latter case, the symbol is not a human tool, but man becomes a tool of the symbol—he becomes a "man tool" (the term comes from Daniil Andreev). But if this sprouting does not occur, man, in the words of Friedrich Nietzsche, is hollow. Similar metamorphoses take place with language. I. Brodskii would repeat incessantly that language is not the poet's tool, the poet is the tool of language, language's "means of livelihood."

The discovery of the internal form of mediators, or, more accurately, the infinite number of discoveries, begins in a child's joint activity with an adult and continues independently throughout the whole of life. Psychology had just begun to study the work of psychological mediating tools during Vygotsky's lifetime. He himself warned against a simplistic understanding of the connection between sign and signification: "To situate a mastery of the connection between the sign and meaning at the very beginning of the child's cultural development means to disregard the extremely complex history of the internal structure of this connection, which extends for more than a whole decade" [3. Vol. 6, p. 15]. B.D. El′konin resumed the studies after a too long interruption [28].

From the little that has been said about psychological tools, it follows that they are similar, compatible, and internally organic with an ideal form as well as with the real form. They, too, have their objective in subjective components. They may perform a me-

diating function between real and ideal forms since they exhibit great similarity to the latter. Psychological tools, means, and instruments are often likened to human organs or organs of human activity. Since they are artificial means of activity, they are often called artifacts [2]. They are also called functional organs, which sometimes causes difficulties in understanding. But this once again underscores the potential compatibility and possibility of fusion, union (unity), the establishment of an organic connection between psychological tools and an ideal form, on the one hand, and, on the other hand, a real form. Psychological tools—the word, the sign, and the symbol—are living (even life-creating), active forms. Like all things living, they are mortal. There are many dead symbols, dead words, and even dead languages.

The above analysis of the ideal, real, and meditative forms permits one other conclusion. Despite all their uniformity, these are heterogeneous forms. This idea corresponds completely with Vygotsky's ideas about the properties of the unit analysis of the mind. These units are living, integral, and heterogeneous structures [11, 24].

* * *

The prevailing description of work with psychological tools in terms of their assimilation, appropriation, and internalization considerably simplifies the matter. Indeed, it is difficult to reduce internal activity, so-called, to operating and manipulating with internalized, external means. More about this later on. To show the authentic complexity of the mastery of psychological tools and their role in the formation and development of psychological operations, mental actions, and new, functional organ structures, let us look at some "elementary" examples. To understand what takes place when behavior is mastered, let us see what happens when a movement is assimilated.

N.A. Bernshtein wrote that a person learning a movement establishes "how those movements of which a skill is composed will *look* (from within)" [1. P. 172]. Zaporozhets later noted that a movement can be regarded as an external object and even as an internal

subject. This interesting idea may be taken to signify objectification or even personification of a movement. One must understand how objectification is achieved by the individual. Bernshtein identifies a phase of learning in which the learner "gets to a point where these movements themselves, plus the sensory corrections governing them, must be *sensed* from within" [Ibid.]. He goes on to write that these secrets cannot be interpreted by any sort of demonstration, especially as they cannot be represented with signs or described in words.

But what does "sensed from within" mean? This question is answered in a study by M.I. Lisina on the basis of an idea, and under the direction, of A.V. Zaporozhets. The idea was to show that the "perceptibility of afferent impulses from a person's own reactions plays an important role in the transformation of those actions from involuntary into voluntary actions" [10. P. 80]. This point was demonstrated in experiments with autonomic functions in which subjects learned to sensorially perceive their vascular responses and to control them. In her experimental technique, Lisina gave the subjects additional signals about their vascular reactions and even allowed them to observe their plethysmograms visually. The plethysmogram performed the sign functions of a psychological tool. The subjects saw it, but this was not enough to control their vascular responses: they had to learn how to sense them, perceive them, objectify them, and correlate them with the plethysmogram. Zaporozhets concluded from the results that "perceptibility of movements is not only a necessary accompaniment of their voluntariness: it is also a necessary premise. Before a movement can be made into a voluntary control movement, it must become perceptible by the senses" [Ibid. P. 88]. This study was done within the mainstream of the ideas of Bernshtein and Vygotsky, whose respective views of the world undoubtedly had many features in common [21]. Vygotsky wrote that "becoming aware and mastering go hand in hand . . . becoming aware means, to a certain extent, to master" [3. Vol. 5, p. 251]. In Lisina's experiments, sensing from within, a becoming aware or realization occurred; and on this basis, vascular responses that cannot be controlled under ordinary conditions were brought under control.

Thanks to the sign function of a psychological tool, the subjects developed the ability to "sense from within"; a functional new organ formation was formed. What is more, a movement seen from without and sensed from within is not simply a movement, but a dynamic, meaningful image. This interpretation is also possible with regard to earlier experiments, conducted by Leont′ev, Asnin, and Zaporozhets, to develop an ability to sense color and discriminate color with the palm of the hand [29. Vol. 1, pp. 143–83], and also with respect to later experiments by Leont′ev, Gippenreiter, and Ovchinnikova on cultivation of high-frequency hearing [29. Vol. 2, pp. 26–30]. It is noteworthy that in the case of color discrimination, the subjects objectified their sensations in a form suited for touch. They described them as the blowing of a breeze, touching the feathers of a bird, etc.

These investigations, exotic from the standpoint of the cultural-historical theory of the development of the mind, were, moreover, conducted on psychophysiological and psychophysical material and demonstrated the importance of a mechanism of mediation for the cultivation of functional new organ structures. These same experiments showed that the auxiliary means themselves, i.e., psychological tools, never become ingrown. They really are means whose role is to aid objectification and externalization of various subjective states, affective-semantic formations, etc. The latter, brought to the surface, acquire features of objectivity while preserving their subjectivity. However, once they are formed, they may be reproduced without auxiliary means. On the basis of these examples we can conclude that these auxiliary instruments themselves have no mystical properties. Their importance is revealed to the subject or constructed by the subject only to the extent that the subject, after so many successful and unsuccessful actions, fills them with a biodynamic sensory affective fabric, with its own subjectivity.

This brings us up against a strange situation. The authors of studies carried out in strict correspondence with the conceptual framework of cultural-historical psychology, and using a "causal genetic method," interpreted the results in terms of the psychological theory of activity. One may assume that Vygotsky would

have preferred to interpret them as is done above, with the stress on the discovery and formation of meaning. Vygotsky's followers at the time saw mainly the logical content behind the concept of meaning. Only gradually did they fill it with a psychological content, coming to this through concepts of operational and objective significance. In the 1960s Leont′ev, returning to the problems of consciousness, gave meaning the status of one of its most important components. Later, V.V. Davydov, studying the psychological functions of meaning, came up with a classification of types of generalization [9].

In the context of the present exposition, the way the above results are interpreted is not so important. It is quite obvious that both are equally necessary and complement one another. What is important is something else. Zaporozhets, Lisina, Leont′ev, and later many others, intentionally or not, consciously or not, carried out some studies that could have been conceived by Vygotsky. In the same vein, they departed from the classical oppositions of subjective vs. objective, the material vs. the ideal, and discovered a new ontology for psychology.

Many years later, after Vygotsky's death, M.K. Mamardashvili, developing the philosophical problem of distorted form and in search of illustrations for his thoughts, would come back again and again to psychological reality, including the reality of consciousness. He sought names and terms that would fit it: the growing together of the subjective and objective, "centaur" formations, artifacts, functional organs, amplifiers of our natural abilities, new formations, etc. All these artificial structures he called "tertiary entities," "things of the understanding," "intelligible material." One may add to this list the terms also familiar to psychologists of set: dominant, objective receptors, sense organs—theoreticians, accentuations, etc.

This continuing list of terms of psychological reality is a departure from the Cartesian dichotomy of soul and body, as well as a departure from a naturalistic treatment of the external (objective) and internal (subjective) that informs such a naturalistic treatment of the processes of internalization and externalization. Let us try once more to explore them.

* * *

The situation now is that any self-respecting author writing about Vygotsky begins on a path known to psychologists long before Vygotsky, i.e., the path of internalization and externalization, which still seems to many the high road of the psychology of development and learning. I, too, cannot disregard it.

The first process is an "engrafting" of external, objective reality and its means onto internal activity; the second is the exit from internal activity to the surface, to the outside world. It seems to me that because the terms *internalization* and *externalization* have been used for so long, the reality behind them has ceased to be perceived as a drama and an enigma of development. These terms became a schematism for psychological consciousness, and the processes behind them were likened to "waterworks logic," as in fifth-grade problems about "receptacles and port wines" (as much flows in as flows out . . .).

But once again, the most important point lies elsewhere. If we can somehow imagine an activity with objects, i.e., *from there* something comes, then we can also have a foggy notion of *where* something is going. Gal′perin said that behind an internalized operation is the ideal level, "pure thought." Leont′ev said that behind it was the tremendous work of the brain, which, among other things, contradicted his assertion that functional organs are extracortical, so that behind an objective activity, with all its real actions and operations, there are no ideal plans, designs, intentions, purposes, schemes, "ulterior motives," or the work of the brain behind it is less monumental.

There was also another logic behind the use of the term *internalization*. As Gal′perin wrote, "The true structure of mental functions is revealed only in genesis; when they have become definitively constituted, their structure becomes indiscernible; moreover, they 'recede into the depths' and are covered by 'phenomena' of a completely different appearance, structure, and nature" [4. P. 26]. Golden words! Stated with astonishing precision. But what is said cannot serve as a basis for negating the possibility of studying these "phenomena" of a *completely different appear-*

ance, structure, and nature. Although what has been said may serve, and did serve Gal′perin himself, as a basis for renouncing study of what "receded into the depths," I remember that when I told him I failed to comprehend why, among his stages in the formation of mental actions there was no stage for the formation of an image, and for operating and manipulating it, he answered that I should not drive him onto the "rickety bridge" of subjectivity from which it was difficult to escape. And this although, in his earlier works on the formation of sensuous images and concepts, he wrote that the abbreviation and automation of mental actions make it possible to move directly from the present situation to the result of such an action: "The latter appears immediately before us, as a simultaneously given image-system" [3a. P. 425].

I am least of all inclined to doubt the productivity of causal-genetic methods of study, methods of deliberate cultivation of perceptual, mnemonic, or mental actions—"genetic-modeling experiments," to use Davydov's terminology. They have brought, and will continue to bring, some noteworthy results. But their development and application do not deny, but rather require, a study of the structure, the functional structure, the microstructure, the functional genesis, the microgenesis, and the microdynamics of "*what has been definitively constituted and has become indistinguishable*." These *phenomena that have receded into the depths* are also transformed (or distorted) forms. They are a challenge to any theory of internalization that contemporary psychology has already accepted [5, 9, 32].

Vygotsky's reflections on the point that when "functions become ingrown, i.e., when they move within, an extremely complex transformation of all of a function's structure takes place" should be a guidepost in this matter. Vygotsky goes on to say that as experimental analysis shows, the essential aspects characterizing this transformation would be: (*1*) substitution of functions, (*2*) a change in natural functions (elementary processes underlying a higher function and part of its composition), and (*3*) the emergence of new psychological functional systems (or systemic functions) that assume the purpose in the general structure of behavior that was fulfilled by particular functions [3. Vol. 6, p. 15]. He goes

on to sum up: "As a result of all changes, new functions of memory (internally mediated process) coincide only in name with the elementary processes of remembering; with regard to its inner essence, this is a specific new formation with its own special laws" [Ibid. P. 16]. In these extracts, "engrafting" or ingrowing appears to be no more than a metaphorical symptom of extremely complex processes leading to the emergence of *new formations, new psychological functional systems or functional organs*, to use A.A. Ukhtomskii's expression.

So long as we do not shed a naturalistic interpretation of the internal, akin to the just as naturalistically understood unconscious of Sigmund Freud, internalization can be interpreted as a "ingrowing" into nowhere. Leont′ev sensed the possibility of such an interpretation and, in his last works, he therefore remarked that the inner level is first created in processes of internalization. This would have entailed tracing the subsequent fate of this "newborn" thing, which he did not do. But for him, it was sufficient to affirm that internalization is a "growing into," an implantation, and a "growing out" at the same time. If it is a growing out, then at least an objective (or social!) activity is not buried "within"; it is not immersed in some "physical substrate" or settled in some precipitate. Nor is it the process of a Freudian repression from memory into the unconscious. Indeed, Freud also used the term *internalization* to describe this phenomenon. Repression is, in fact, a reworking of something that once happened and remained in memory into the terms of activity theory or semiotics, an effectively colored reworking after which the event surges into consciousness (or influences action) with absolute precision [22]. If the terms *internalization* and *externalization* are used to characterize psychoanalysis, the techniques of psychoanalysis imply externalization. In this sense it is contrary to the techniques of forming intellectual actions with concepts and meanings.

A naturalistic understanding of the idea of internalization has held back investigation of activity and actions with objects as such for a long time. It is good that Bernshtein was not captive to this idea and understood an action with an object not as something given in the present, but as something set beforehand. But psy-

chologists doubted the self-sufficiency of an action with an object and regarded it not so much as a foundation of higher mental functions as a trampoline, facilitating the leap to perception, memory, thinking, and emotions. Zaporozhets, Leont′ev, and Rubinshtein even constructed a system of arguments in support of regarding movement and action with an object as full-fledged subject matter in its own right for psychology to study, such as are perception, memory, and thought. But they were impatient to move on, to jump from an action to higher mental functions, among which they did not rank an action in any case. Let us recall P. Ia. Gal′perin. His first remarkable studies were devoted to actions with tools (objects) on the part of the child. Then he left these studies and went on to a study of mental actions. Perhaps only Zaporozhets proceeded in the contrary direction. Beginning with sensory and intellectual actions, he then turned to study of their origins, voluntary movements and actions.

Search, orientation, remembering, and decision-making are higher, but execution is just that—execution. It is subservient, self-evident, elementary, and almost lower, although this last word was not uttered, only implied. But from the lower, of course, one wants to go to the higher as rapidly as possible. And that is what they did, referring to the theory of internalization according to which a practical action with weighty, crude, visible objects becomes ingrown, gradually passes into the subtle ideal material of the mind in the strict sense, into the internal level of a mental action. But Vygotsky's division of mental functions into natural and cultural, lower and higher, clashed with this position, although he himself considered movement among the higher functions of perception, memory, and attention and linked it to the development of symbolic activity [3. Vol. 6, p. 54].

This logic seems indisputable, self-evident, and empirically justified. And in fact a child first counts sticks on its fingers, then aloud, then only with the eyes and voice, and then, finally, to himself in his head. This is so visible that experimental studies even seem to be superfluous, although they have discovered not only astonishingly interesting details about learning but also about lessons concerning the world of objects that preserve higher mental

functions despite their subsequent autonomization from an action with an object.

Another point about this logic. An external action with objects realizes an ideal intention and disappears in the product, or, as they say, it is internalized. And indeed it seems that this is the fate of all activity with objects, so then why study it? It is enough to accept that an action is the primary unit of analysis of the entire mind, the undeveloped beginning of the developed whole, and then find or choose an action that would end quickly when it became internalized either in the head, the brain, the ideal plane, etc.—although for something to be internalized anywhere and, moreover, to be able to give rise to something, that something must also already exist. It must put in its appearance, come into being, acquire form, if only to grow and acquire generative capabilities.

A simple motor response to a stimulus is also an action with objects. A reaction may be repeated endlessly, but it never generates anything, and it never becomes ingrown. It is either executed or not executed. Similarly, even more complex forms of object-related actions are not internalized; they are preserved as such, and they may be improved without end or disintegrate from nonuse. It is another matter that object-related activity and object-related actions constitute the foundation of the development of higher mental functions. The founders and the followers of the psychological theory of activity are right in this respect. But more about this later; now let us return to Vygotsky's logic.

Let us begin with Vygotsky's first step. A mental function is born twice. Note well: *born*!—at first in joint activity (or, according to El′konin, collective activity), and then in individual activity. Development is from interindividual to intraindividual activity. One subject shares his object-related activity and its mediating means with another. That is the sense of Vygotsky's concept of internalization. Not telepathy, but actual transmission, organized well or poorly, of an activity and a *second*, not the first, *birth* (and not internalization) of higher mental functions. According to Gal′perin, what for Vygotsky is a birth or generation is the result of internalization. In Gal′perin's conceptual model, the transmission of object-related activity and the first generation of higher

mental functions, and indeed object-related activity itself, remained in parenthesis. He took away the adult mediator who was part of Vygotsky's theory, to which El′konin, Davydov, and Rubtsov later returned. Gal′perin examined a second derivative internalization, or a second-order internalization, which by no means detracts from his merit in the analysis of the process of formation of mental actions. But should essences be multiplied without end?

The misfortune, not the flaw, of Soviet psychology was that it did not develop a theoretical concept of "object-related activity." A.M. Piatigorskii called attention to this recently. Work of this sort was begun by E.V. Il′enkov, V.V. Davydov, and E.G. Iudin. But the philosophical concept of object-related activity, like the concept of external and internal, is still used completely naturalistically in the context of psychology. It is reasonable to ask why, precisely, the concepts of "object-related activity," "practical activity with objects," sensuous-object-related activity," not the concept of "intellectual and practical activity," similar to or even equivalent to them, even in the philosophy of Hegel and Marx, have entered psychology? Why did Rubinshtein and Leont′ev prefer the first and not the second term? This is quite understandable from a sociological point of view. They had no choice. One does not speak of ropes in the house of the hanged. Under conditions of the Soviet ideological commonweal, there was no talking of the spirit and mind and their dubious values. Most important was practice, which is everything in the world, the basis of cognition, a criterion of truth, and a supreme value. The introduction back then of the concept of object-related activity was almost an exploit, a kind of challenge, a protest against the incipient epoch of semiactivity and vacuous activism. But when it was introduced, it was necessary gradually to eliminate from it not only spirit and mind, the ideal, which belonged to the subject of activity, but also its soul, an entity that had been part of it when it was created. The object lost its symbolic functions and its properties as a utensil, a device: it lost its materiality. Even the objects of art had not only to be realistic but correspond to the ideology and possess properties established beforehand. Activity acquired some strange epithets: not intellectual but material (and reflexive with regard to

mechanisms), and in Gal′perin we often even read "materialized." The latter term was very sensible and was evidently introduced without the irony typical of Petr Iakovlevich. After all, only that which is spiritual or ideal can be materialized. The term *materialization* makes no sense with regard to the material.

After such a reduction of intellectual practical activity to object-related activity, psychology was able to go on and successfully establish the truisms of dialectical materialism about the primary and the secondary (see A.A. Zinov′ev: Matter is primary). Activity with soul expelled from it not only could but had to be internalized at some point, to utilize the chance to acquire, at least in interindividual space, the features of spirituality or even of soul, by a miracle preserved. The basic model was similar to Lysenko's: One thing was sowed, and a quite different thing was reaped. The rational biosocial law: "What you sow so shall ye reap" of Soviet power was unwritten—as, for that matter, were other laws. I recall its authentic hymn: We shall harvest, we shall sow, and we shall plow." And they really did sow wheat, but harvested wild oats; they sowed matter and dined on consciousness, sowed peace and dined on war. The truth is, when they sowed war, they dined on it as well . . . How convenient is the science of dialectics! It made it possible to plan the birth and development of the mind, consciousness, and the personality with preset properties in accordance with the laws of determinism that spring from matter that has no consciousness. This simple and intelligible science was actually able to bring joy to world science (evidently without the latter's knowledge), which, poor thing, had not yet been able to understand how living matter could spring from nonliving matter; but our dialectics, coupled with a systems approach, and with a helping hand from psychology as well, solved all of the world's riddles. It even understood and explained what the mind and consciousness were and how they were born from inanimate matter, from "materialized forms of activity with objects." In this awe-inspiring phrase one hears not irony, but a mockery of ideology: "You ask for songs, I have some."

What I have said about Soviet science is not a criticism, but a work of understanding, promised above, colored by the experi-

ence of people dear and close to me; and finally, it is a reflection on my own views formed not so long ago.

Let us go back to object-related activity. If one acknowledges from the very outset that it is as material as it is ideal, that it is as much objective as it is mental, and at times spiritual; if one acknowledges that living movement is alive not only (and not so much) in its external forms but also in internal forms; if one acknowledges that an object-related reaction is mediated not only by external tools or signs but contains within itself, within its internal picture, a form, an image, an aim, an intention, a motive, and a word; if, finally, one acknowledges that object-related activity itself is an ideal form—then the concept of internalization in theoretical psychology becomes superfluous. But we are in no hurry to refute it, although its place is already beginning to be occupied by the concept of differentiation of living movement, or object-related (or joint) action, object-related (or social) activity [5, 16]. As a result of differentiation, the embryonic mental formations existing in object-related activity from the outset are never internalized but, on the contrary, are objectified and externalized, i.e., they grow and become autonomous from object-related activity. If we take the complex forms of object-related activity and try to shape them, we find that they are a special territory, a field on which, if cultivated properly, images, programs, memory devices, and intellectual operations can grow and affects can be curbed. We find an excellent description of this *territory*, this *field*, in Rubinshtein:

> Man's sensuousness as practical activity with objects is contradictory in content. Sensation and perception in themselves reflect that which is at hand. But through practical action, purposefully encountering things (objects and the means of labor), another content enters into sensuousness, namely, the external and the internal, the present and the mediate, the singular and the universal. These aspects are in direct unity with one another. [31a. P. 284]

Understanding this, Rubinshtein purposefully acknowledged an action to be the primary unit, the undeveloped beginning of a developed whole, the unit of analysis of development of the entire mind.

Thus, the question is not one of foreshortenings and reductions

(I should note in passing that this term is utterly ambiguous in the context of studies of internalization), but perfection of the externally executed form and the development of internal forms of activity and the actions constituting them. It is important to point out that internal forms are the reality of the subjective and do not obey the language of the internal, the eluded; they separate themselves from it, and they stubbornly resist any conceptualizations. This is similar to the impossibility of conceptualizing the multitude of nuances of the broad range of emotional experiences, the subtleties of color, odor, etc. Their conceptualization is possible only after they have been externalized and objectified.

This interpretation corresponds to Vygotsky's proposition of the externalization of higher mental functions through the use of mediators, their transformation into external activity, and, finally, the transformation of one's behavior into an object that can be controlled. Vygotsky's thesis that the direction is from without to within, which we discussed earlier, should not be understood literally, for a literal understanding invites the generally accepted interpretation of internalization. But the most important point in this proposition of Vygotsky's is that mental functions are brought to the surface by means of signs; they are objectified and transformed into external (or more precisely, visible) actions and activities.

Rejection of a naturalistic interpretation of object-related action requires accepting the point that it in itself is not only external (material or materialized) but also internal, i.e., it is filled with cognitive, affective-semantic formations. Its external form is perfected as its internal form is differentiated. As mentioned above, of all Vygotsky's students, only Zaporozhets studied movement and voluntary action with objects as such, or, more accurately, as mental actions. He said that objectively movement is a dynamically meaningful image, and not itself a tool for realization of an intention. Moreover, he saw an action as a need, a motive, an end, and asked: How can an action become an end for another action? How does the subject begin to orient toward an action as to a known, external thing, an external object satisfying his need? The only possibility for this, noted Zaporozhets, is that an action becomes *objectified*. Then a subject's action separates itself from him, so to

speak, and performs not only as an external object but also as an "external subject" in which it is materialized and personified. The materialized and personified subject nature of an action is no longer a complete action, but a Deed. The question of the subject nature of an action led Zaporozhets to the problem of personal attitudes, the problem of "motor activity and the personality," which he discusses at the end of his book [10].

Thus, a transition from an interindividual (aggregate) to an intraindividual (personal) performance of an object-related action does not mean that that action is internalized. It signifies that there exists a possibility that an action can be performed independently—no more and no less than that. To retain the usual logic of internalization-externalization, these two opposite movements should at least change places. At the beginning, there is simply nothing to internalize. It is only after they have been externalized, objectified, and autonomized from object-related activity that higher mental functions can return to their origins while retaining all their birthmarks.

In the ideal case, thought, consciousness, and mind return (i.e., are internalized) to object-related activity in a more fully developed form. But actually, if we just forget for a moment the logic of internalization-externalization, we may return to object-related activity: they raise (or lower?) it to their own level and transform it into an intellectual, practical activity or reduce it to a biological, technological act.

Essentially, the argument above is reducible to one simple idea: an external, object-related activity and an internal, mental activity are both psychological; they both have to do with object and both are ideal; they both are cultural and both constitute the object of psychological inquiry. The differences between them have no bearing on the philosophical problem of what is primary and what is secondary, or the general problem of the genesis of mind. Goethe, who understood everything, wrote about this not without irony: "If you comprehend the universe, you will know everything without selecting: what is within, seek it without; what is without, you will find within. So accept the intelligible riddles of the world without reservations."

Vygotsky understood this as well:

> But we also know that both types of activity—thought and real action—are not realms separated from one another by an impassable abyss; in fact, we observe the transition from thought to action and from action to thought at each step in living reality. Consequently, these two dynamic systems—more mobile, when associated with thought and less mobile when associated with action—are also not isolated from one another. In fact, one should observe, and can observe, at each step the transition of a fluid dynamics of thought into a firm and congealed dynamics of action, and vice versa, the transition from the sluggish and restrained dynamics of an action into the fluid dynamics of thought. [3. Vol. 5, p. 249]

Vygotsky goes on to concretize this point:

> As Schiller said, thoughts accommodate easily to one another, but in space they clash violently. Hence, when a child begins to think in some actual situation, this signifies not only a change in the situation in his perception and in his semantic field but, first and foremost, a change in its dynamics, the dynamics of a real situation, once it has been transformed into the fluid dynamics of thought, begun to display new properties, new possibilities of movement, unification and communication among discreet systems. However, this direct movement of dynamics from an actual situation to thought would be utterly useless and unnecessary if the reverse movement did not also take place, i.e., the transformation of the fluid dynamics of thought into the rigid and stable dynamic system of a real action. In fact, what makes the performance of many intentions difficult is that the dynamics of thought, fluid and free, must be transformed into the dynamics of a real action. [Ibid. P. 250]

I am convinced that Bernstein would have liked Vygotsky's expression: "The rigid and stable dynamic system of a real action." Bernstein's concept of the image of a foreseeable future is exactly equivalent to Vygotsky's concepts of a semantic field, a psychological field, or an actual future field. It is important that there is nothing about external and internal, or internalization and externalization in the above fragments. Nor is there the opposition between an action with objects and a psychological action.

Let me mention A.N. Leont′ev's efforts to demonstrate that, basically, the external and the internal have a common structure. This cautious thesis was transformed by some of his disciples into

the proposition of the identity of an external activity and an internal activity. Vygotsky had no illusions on this score:

> The dynamics of thought is not a mere image of the dynamic relation that holds true in a real action. If thought changed nothing in a dynamic action, it would be utterly unnecessary. Of course, life determines consciousness. Consciousness is born of life and forms only one of its aspects. But once thought has come into being, it itself determines life, or, more accurately, cogitating life determines itself through consciousness. As soon as we separated thought from life, from dynamics and from need, we stripped it of all its efficacy; we barred to ourselves the way to clarification and explication of the properties and principal purpose of thought: to define a way of life and behavior, to change our actions, to direct them and to free them from the thrall of the specific situation. [Ibid. P. 252]

This psychology is not yet spoiled by the Leninist theory of reflection or by ideological dictates (In any case, it was spoiled less than the psychological theory of activity [13].), although Vygotsky considered himself a Marxist and was hurt when others did not consider him so. I actually think that S. Toulmin exaggerated considerably when he wrote that Vygotsky was *happy* to call himself a Marxist [33].

The effort expended above to reintegrate the concept of internalization does not mean that the extraordinarily rich empirical reality behind it is invalid or unnecessary. All the facts discovered concerning the genesis and reduction of the various forms of attention— which, for some reason, have been dubbed orientation in the material at hand and control of the results—the stage of formation of sensory, perceptual, mnemonic, cognitive, executory, intellectual, and emotional actions and much else that relates to the authentic achievements of Vygotsky's cultural-historical psychology and its sister, the psychological theory of activity, retain their scientific and practical value [13–15]. This empirical field can, and must, be looked at not from the standpoint of internalization, immersion, and engrafting, not from the standpoint of involution of an object-related action, and not from the standpoint of the transformation of the material into the ideal, into the mental or the intellectual: rather, it must be seen from the perspective of the

evolution of intraindividual, intrasubject, or simply personal forms of object-related activity; the genesis, maturation, and growth of higher mental functions, psychological functional systems, mental structures, artifacts, dominants, functional organs, accentuations, amplifiers, transformed forms, new formations, etc., in an a priori, meaningful, psychological field of activity.

This shift of focus of attention from internalization to differentiation, followed by externalization, frees us from many pseudoproblems, for example, what happens to object-related activity after it has been internalized? How can we find analogues or prototypes of object-related activity not only for doing arithmetical operations in one's head or reading to oneself, but for the entire wealth of our inner world? Psychology should indeed have been more concerned about the reverse problem: how new forms of object-related activity are born within, on the ideal level. This is the real riddle and mystery: how thought seeks not only words, but also a single deed, known to no one, so long as it is approached only with the instruments of art. Let me take the problem to the extreme. What is behind the deed, not in the everyday sense of the word, but in an elevated sense, in the sense given to it by Bakhtin, as a nonalibi in existence? Consciousness or motive? Or perhaps revelation? True, in the latter case this would be a deed as construed by Pavel Florenskii.

Vygotsky, of course, could not refrain from commenting on Faust's reflection on the Bible. He proposed his version of reconciling the opposition between the word and the deed. Following Gutsman, he shifted the emphasis of Goethe's "*At the beginning* was the deed" and writes: "The word forms an end rather than the beginning of development. The word is the end that crowns the deed" [3. Vol. 2, p. 360]. This is, of course, elegantly put; but one must add to it Vygotsky's constant refrain that cause and effect change places during the course of development. He studied especially how a child begins to formulate the "*blueprint of an action* in words directly before beginning an action, anticipating its further development" [3. Vol. 6, p. 35]. There was no concept of a "deed" in Vygotsky's lexicon; he preferred the term *free action* and attempted to understand how the development of activity with

signs and symbols gave rise to such an action. "A human action born in the process of the cultural-historical development of behavior is a free action, i.e., it is independent of any immediate need and of any directly perceived situation: it is an action oriented toward the future" [Ibid. P. 85].

Vygotsky distinguished between irrational action, which animals also possessed, and irrational and free action, which is proper exclusively to man. The psychological theory of activity (for reasons indicated earlier) did not develop further, as it should have, this line of inquiry of Vygotsky's.

In discussing the problems of the relationship between the word and the deed, what is important is not so much what is at the beginning and what is at the end, but rather that, in Vygotsky's sense the word (thought) and the deed (action) are on an equal footing, and the struggle between them takes place also on an equal footing. This is evidenced by the long extracts given earlier from Vygotsky's writings about the relationship between thought and action. These relations are far from being epic; but they are rather dramatic, even tragic. When thought, reflection, and Hamlet's doubt acquire an autonomous existence independent of action or become excessively intellectual actions, a practical action and its subject can become entangled in them and lose the name of action:

> Thus conscience does make cowards of us all
>
> And thus the native hue of resolution
>
> is sicklied o'er with the pale cast of thought
>
> And enterprises of great pith and moment
>
> With this regard their currents turn awry
>
> And lose the name of action . . .

Let us add to Shakespeare, so beloved by Vygotsky, one more aesthetic description that belongs to Viacheslav Ivanov:

> In every act, as in every discrete event, lies a longing for its death, turned inwardly. The death of an action is its disintegration: it becomes its opposite—"it forges its own prison," while the original will is resurrected in another action, which in turn goes through the same

> circle. Every action is like a staff with serpents wound about it: the serpents squeeze one another to death, and the staff slips from the ring they formed. An action should be winged, i.e., it should aspire, even if with titanic effort, to the Absolute, to the perfection of the pure Idea, so as not to slip away into the abyss below: then it is embraced by a new set of serpents, and the resurrection of the action will be continued. [27. Vol. 2, p. 159]

It is hardly necessary to say how miserable would be an interpretation of these dramatic images in terms of internalization and externalization, the *appropriation and reproduction of given sociocultural archetypes*. The problem is not merely one of the inappropriateness of the terms. That would still only be half a misfortune. The entire tragedy lies in the fact that the logic of internalization and externalization eliminates the creative nature of development without which new structures cannot come about. This logic leaves no room for intuition, insight, or, finally, revelation. The fact that total understanding and total reproduction are impossible is an aid to a psychological-pedagogical practice oriented toward the laws of internalization. A.N. Bernshtein noted that "exercise is repetition without rehearsal." Hence, there is always some room for creativity and self-development.

In a previous chapter we discussed the extreme complexity of processes of mastering the connection between sign and meaning. According to Vygotsky, assimilation of this connection marks the birth and development of symbolic activity. The latter "does not come about in the same way that a complex skill is developed or in the way a child makes a discovery of an invention. A child's symbolic activity is not invented or learned by rote" [3. Vol. 6, p. 14]. One cannot say that Vygotsky resolved the problem of the genesis and development of activity with signs and symbols, through which behavior becomes rational and free. It would be naive to demand this even of a genius. Vygotsky himself called these layers of behavior "new historical formations." On the other hand, his outline of the subject matter of future investigation was extremely clear: he gave precedence to a phenomenological description of an action free of the power of the current situation exercised directly on the child.

> A child who has begun to speak is able to create a time field for an action, just as real and perceptible as an optic situation (although perhaps more blurred) alongside a spatial field, and thereby acquires the ability to guide dynamically his attention, acting in the present from the standpoint of the future and often relating to changes created in the present situation from the standpoint of his past actions. It is thanks to the participation of speech and the transition to an attention free to roam that a future field of action is transformed from an old and abstract verbal formula into an optical situation here and now: all the elements in the plan of the future action are clearly discernible in that situation as a basic configuration, and possible actions are thereby singled out from the broader general background. The specific difference between a child's operation and an operation performed by higher animals lies in the fact that the field of attention, which is not coincident with the field of perception, makes use of speech to select, from the latter, elements of the *future field* at hand. [Ibid. Pp. 47–48]

To my embarrassment, I began to perceive (and perhaps not fully) the sense of this excerpt only in the process of working on the present article. It is essentially a description of the chronotope of conscious and unconscious life, although Vygotsky did not use this term. It was introduced by A.A. Ukhtomskii, and widely used by Bakhtin in the analysis of artistic creativity.

Psychology is only just beginning to explore the psychological mechanisms of a chronotope or the mysterious transformations of space-time in a psychological field—the field of meaning. The chronotopic dimension of being-consciousness "embraces not only perception but an entire range of potential perceptions forming a general, successive, dynamic structure spread over time" [Ibid. P. 48]. This same structure is the "*background of possible actions*," or, more accurately, their program in which the *figure* of the present action is identified. I can only say that this is one of Vygotsky's strokes of genius. My colleagues and I came to this conclusion many years ago, but were unable to formulate either our investigatory tasks or our results with such clarity [5, 6, 12, 15, 17, 22, 23]. Now, after the works of Bakhtin, Mamardashvili, and Toporov on the "aesthetic chronotope," it is interesting to turn to [*The psychology of art*], in which the origins of Vygotsky's organic psychology lie. Let me just mention as an example the psychological

analysis of the tremendous distortion of all timescales in the "Tragedy of Hamlet," where time, derailed, formed a gap in eternity, where inaction is fraught with a mystical rhythm of the internal movement of the tragedy toward disaster. The "background of possible actions" is not simply a description of the systematic, practical side of an activity. It is an entry into the "space of personal meaning" (A.G. Asmolov), into "suprasituational engagement" (V.A. Petrovskii), into the fifth dimension, the meaning dimension of being (A.N. Leont′ev, M.K. Mamardashvili, and Michael Cole). It seems to me that psychology will, in the not too distant future, arrive at the realization that in fact this is the first and not the last dimension of human existence [17]. But this is a topic for another story, including how Michael Cole "introduced" the fifth dimension into the vast University of California.

* * *

I have devoted so much space to the problems of the external and the internal, internalization and externalization, since many researchers and critics of cultural-historical psychology see these to be the principal achievements (or shortcomings) of Vygotsky. There is no doubt that Vygotsky devoted considerable attention to this classic problem. However, as has been noted, the dynamic core of cultural-historical psychology, its nonclassical nature, consists in something else.

The subject's mastery of the full range of mediators expands the degrees of freedom of behavior and, it seems, makes the task of controlling it much more difficult. In Vygotsky's theory of development, the concepts of mediation, mastery, and realization are key. A surplus of tools, instruments, and means (and forces) is undoubtedly an additional source of freedom for the evolving human being. It is in addition to the "uncreated freedom," i.e., the natural degrees of freedom that a living being obtains from birth. This same "internal excess of space" gives rise to the problem of choice of proper actions, tools, and means, a problem that must be solved here and now. Choice requires time, of which there is not always enough. Many studies done by students and followers of

Vygotsky have outlined ways to deal with this problem. Many examples of the inverse transformation of what is mediated and voluntary into what is immediate and nonvoluntary have been obtained. This is a special type of transformation in which acquired instrumentality is preserved—in other words, the mediated nature of actions, of an activity, or of behavior, is preserved; but with respect to duration and self-observation, such actions appear direct, natural, and spontaneous, i.e., as if unaccountable. But this is only what seems to be the case. When an action has been mastered, it becomes intelligent, conscious, and free, and does not descend to the level of reflex. What is born is not an automatic action, but "instrumental spontaneity," which has generative properties. Created freedom develops here; it enriches and limits uncreated freedom; it does not enter into contradiction with the human essence, or with what is distinctively human.

However, not everything is so cloudless and smooth in the modern world. Its problems are problems not so much of culture as of civilization. Man is in fact equipped with such a vast number of tools, means, "artifacts," amplifiers, accentuations, attitude dominants, new aesthetic forms, functional organs, ideological maxims, etc., that there is a real danger that man himself will become a "human tool," an instrument, a machine, a robot, etc. Such fears have been articulated in culture independent of the cultural-historical theory of the development of mind and consciousness. Many of these fears have proven real already and are being proven now, and cultural psychology cannot, and must not, disregard them. Let me recall the words of Karl Jaspers: "It seems that man, objectified, torn from his roots, has lost the most essential. He can perceive the presence of authentic being in nothing. In his pleasures and displeasures, in effort and fatigue, he expresses only a specific function" [41. P. 311].

Must we continue to rank overcoming the good old postulate of immediacy among the assets of psychology in light of these fears, many of which have become a reality, as D.N. Uznadze and A.N. Leont′ev did? Indeed, even the term *artificial intelligence* is now popular in the literature. Unfortunately, not just the term.

Let me make the problem even more pointed. What we value in

man is not the artificial and the mediated, but the natural, the direct, the immediate, the authentic, the nonarbitrary, the spontaneous, openness, uniqueness, pure and simple. Could it mean that all of the items on this list have remained but an infantile atavism, a Robinson's reflex as a result of the acquisition of such an extremely rich range of instruments? Has man himself become an artifact? That would be too sad. Indeed, Christ himself did not say idly to his disciples: "Be as children . . ." We know that the most talented of them preserve their uniqueness and childlike qualities throughout their life.

The theory of the mediated development of the mind contains a vaccine against "the force of things," against the total instrumentalism and gun-dependence of civilization. Vygotsky's ideas about the semantic structure of consciousness is an extremely important element of ideal form (the relationship between consciousness and an ideal form should be the object of special reflection).

In its origins, consciousness is undoubtedly linked to the symbol, i.e., strictly speaking, to an artifact that may be ambiguous, may have a metaphorical sense, and may lose it. In its structure and functioning, consciousness is tied to a sense that is rooted not in the symbol (although that also happens), but in being, in existence itself, which cannot go missing. In any event, one cannot agree that absolute sense is rooted in being. Absolute sense restricts the degree of freedom of relative senses, which contain mediator artifacts. Absolute sense, if revealing itself to the subject, can strip a symbol, a word, a myth, or a utopia of their meaning and put itself in their place. Absolute sense, grounded in being, cannot be manipulated as can verbal symbolic senses. Absolute sense in general (the sense and purpose of life) is difficult to verbalize, and it is not acceptable to speak about it in polite society, although it is dangerous to underestimate the abilities of the "manipulators" of human consciousness. This is indeed borne out by the sorry experience of pedagogy when it subordinates itself to an ideology that, by definition, strives for totality, however pretty the symbols, words, and myths it uses as camouflage may be. The disguising of ideology as absolute sense is sooner or later discovered, but more often later.

One source of optimism is that, fortunately, not all mediators are artificial. In Vygotsky's logic, the principal one of them is the Other, the direct substrate of the senses of being and other mediators. In the logic of Feuerbach, Buber, Bakhtin, and Vygotsky, the Other is not an artifact. In the logic of P.A. Florenskii, man is not even a fact, but an act. B.D. El′konin develops the ideas of D.B. El′konin about the original or primal forms of the interpsychic in an interesting way, which he called "presign forms of the organization by one person of the behavior of another" [37]. This is the special theme contained in Bakhtin's aphorism: "Man is the equation man plus other." In the light of Vygotsky's theory, it is not the "force of things," but the "links among people" that determine the development of higher mental functions and consciousness. Let me draw on M. Prishvin's aphoristic distinction: "Culture is the links among people"; "civilization is the power of things." One can express this distinction in other things as well. Culture is *cogito ergo sum*, and civilization is *agum ergo sum*. The difference between *cogito* and *actio* is not only very essential: it is also not totally innocuous. Let me refer to Jaspers: "Man probably hoped to get to the secret of being in his activity, but he was dismayed by the emptiness that he himself had opened up before his eyes" [41. P. 299]. The cultural theory of consciousness and the civilization theory of activity should both equally help to overcome this emptiness; indeed, they are organically interrelated, and I hope they are just as organic to human existence.

Let me now sum up all that I have said. Thus, structures of affect and meaning, objectified in ideal form, both of which have a material existence, i.e., they are objectified in culture, do not, for all that, lose their subjectivity. They exist as both object and subject that transcend the individual. Their real individual form in these structures of affect and meaning is not internal; it is no less objective: it exists in the space Buber calls "between" (between I and thou), i.e., a real form has an existence as subject and object simultaneously. Mediators, i.e., operators of transformation, artifacts, in a word, mediators that provide for the interrelationship and movement back and forth between an ideal and a real form, may be both object and subject and subject and object. Thus, all

three forms, ideal, real, and mediative, are living, active forms; they have a common nature. They are organic, complementary, congenial to one another, and compatible with one another, although, of course, all kinds of nonacceptance of one form by another, including rejection, exist in life. Put more simply, all these forms have a human nature, which, however, does not prevent them from at times being inhuman. The relationship between an ideal form and a real form may be most accurately described as a mutual generation: a real form engenders an ideal form, and an ideal form engenders a real form. In the latter case, the individual, personal form transcends itself and becomes a super-individual, metapersonal form, and, in extreme cases, is dissolved without a trace in an ideal form, or even alters and transcends the latter. When cultural-historical psychology moves closer to an understanding of this, it will become a "historical event." B.D. El′konin, who regards acts of development as events, has taken the first steps in this direction [36]. Of course, the psychology of a historical event cannot be structured without a full-fledged theory of the personality (for that reason, it seems to me, not just without a theory). Whatever the case, ideal, real, and mediative forms enter into or constitute human existence—or, more accurately, to use a metaphor of Mamardashvili's, a single continuum of being-consciousness. Herein lies, in my opinion, the nonclassical nature of Vygotsky's approach and the organic nature of cultural-historical psychology.

A reader accustomed to dialectical materialism and familiar with the history of attempts to resolve the mind-body problem might reasonably ask: What about the main question of philosophy? What actually happens, and where is (in the conceptual schema of organic psychology as well) the objective world of Nature and Cosmos existing outside of and independent of myself? Surely it cannot be placed in the objectified structures of affect and meaning, in what man has created. This world really does exist, and exists where it should exist, i.e., outside of and independently of man. But it exists only so long as it does not become a human world. It can become such only by entering into the circle, the continuum, of being-consciousness, the world of human activity.

Once it enters this circuit, the objective world or its objects

become humanized; they become part of man; they are called something; they acquire a *name*. I found this eloquent expression "enter into man" in St. Augustine and in Blok. There are other terms that have the same sense: Merleau-Ponty spoke of incrustation, Bakhtin of incarnation, Avenarius used the term *intraspective*. One can just as effectively speak of the internalization of the objects of the world into the continuum of being-consciousness, into the world of human activity.

The entry of the world into man is a way for the world to become enlivened, filled with spirit. Man is not comfortable living in a dead world. The cosmos becomes not only alive, but also *ethically alive*. This remarkable linguistic term belongs to K.A. Kedrov. Let me recall Mandelshtam:

> In the cradle of wee eternity
>
> The great universe sleeps.
>
> Or:
>
> I take the whole world in my hand
>
> Like a simple apple.

Science, following mythology, poetry, and religion, is gradually arriving at the realization that the universe is organic to man from the outset. The eye is just as much a progeny of the sun as the sun (at least in the mythopoetic tradition) is an offspring of the eye. Science finds ever newer proofs in support of the anthropic principle in its organization. Reflections on this matter by poets, philosophers, and physicists are, of course, extremely interesting. They broaden the professional consciousness of psychologists; in particular, they help us understand how human thought acquires planetary dimensions, and that man's stupidity reaches cosmic heights. But these reflections, of course, do not make our psychological problem easier.

The drama of development remains a drama of man's becoming part of the world and the world's becoming part of man. These asymmetric processes ensure the survival of man and mankind (one can only dream of more at the present time, for example,

such trivia as dignity, freedom, and responsibility). Psychology cannot remain a nonparticipating observer in this drama. Notions of child development as a smooth, quiet epic—true, interrupted from time to time by completely predictable crises—which became widespread later in Soviet psychology, were alien to Vygotsky. He could not imagine that cultural-historical experience, personified in the "good adult," would benignly encounter the child in the zone of proximal development, that the child would tranquilly wait for a favorable sensitive period, and, having done so, that cultural-historical experience would then energetically be internalized in the child's mind, settling down in it, and then later be externalized after amplification, and again return within . . . Vygotsky clearly understood the dramatic, even catastrophic, nature of human development. He endeavored to separate what has now been merged into one, and to study experimentally (i.e., in a kind of inverse time scan) the higher mental process in the drama that takes place between people, i.e., in a genuine sociogenesis of higher forms of behavior [3. Vol. 3, p. 145].

Soviet and Russian psychology have long (fortunately, not all of it and not forever) abandoned this design, which could not be realized at that time. It then embarked upon study of the functional genesis and microgenesis of higher mental processes and their practical, ongoing mechanisms. In other words, it followed a path not behind Vygotsky, but behind two other geniuses of psychology of the twentieth century, Bernshtein and Piaget. It is interesting that, in criticizing Piaget from Vygotsky's position, Soviet psychology criticized itself. That is how one should receive the invocation of D.B. El′konin: "Back to Vygotsky!" With the intention of studying the *cultural sociogenesis* (not the socialization of the personality) of the mind, behavior, and consciousness, producing clear associations with ideas of consciousness and unconsciousness as an active chronotope [17, 22], once again the unity of intelligence and affect that Vygotsky postulated has again appeared. He was for many, and for a few remains, an instructive example to imitate and carry on the cause that occupied his life.

Now a few words in conclusions. Vygotsky's theory has been developed further by outstanding minds. But this theory is proper

to its own object: the more you develop it, the more remains. I have had no aspirations to develop it—only to understand and to pass on that understanding to others. It obviously differs from the way others have understood it, but neither they nor I are to blame for that. Perhaps Vygotsky himself is to blame, in that he left too firm an imprint on his times.

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