

THE MESHCHERYAKOV EXPERIMENT: SOVIET WORK ON THE EDUCATION OF BLIND-DEAF CHILDREN

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Abstract

By its very nature, the predicament of the blind-deaf child invites debate about the course of human development and its contributing forces. From the time they are born, blind-deaf children are seen as grievously lacking in even the most basic of human characteristics. How and on what basis should training and intervention be undertaken? Alexander Meshcheryakov, one of Lev Vygotsky's successors within the Soviet tradition of sociohistorical psychology, embarked on an educational program for blind-deaf children which had at its core a theory of mind rooted in the concept of human activity. Meshcheryakov's theories and methods contrast with those in which the processing of sensory information is seen as the primary motor of the child's psychological development. After his death in 1974, Meshcheryakov's work was widely acclaimed by Soviet psychologists. However, it has recently been challenged within the Soviet Union, providing a window on academic and political debate in the era of *glasnost*.

Introduction

In 1929, Lev Vygotsky wrote of the responsibility facing the new community of Soviet psychologists:

“A sense of the enormity of the tasks facing contemporary psychology . . . is my most basic feeling. And that places an *infinite* responsibility — a most serious, almost tragic (in the finest, most genuine sense of the word) burden on the shoulders of those few who are conducting research in any new branch of the science — and especially the science of the person.” (Levitin, 1982, p. 322)

This paper focuses on one of Vygotsky's successors — Alexander Meshcheryakov (1923–1974) — who rose to this responsibility in a remarkable way. Meshcheryakov was what in Russian is called a *tiflosurdopedagog*, that is, a psychologist concerned

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with the upbringing of individuals who are both blind and deaf. He set the sights of his pupils' development far beyond the basic vocational training typical of programs for the "multi-sensory deprived". In 1977 his four eldest charges — Alexander Suvorov, Sergei Sirotkin, Natalia Korneyeva (now Krylatova), and Yuri Lerner — graduated from Moscow University with degrees in psychology. Each has subsequently been involved in research or teaching. Suvorov, for instance, described in Meshcheryakov's field notes (1979, p. 271) as one of the slowest safety-pin makers in history, has published a number of accomplished articles in Soviet philosophy and psychology journals, and has written and codirected a powerful short film shown recently on Soviet television.¹

Meshcheryakov's work thus represents a remarkable Soviet experiment in education. The experiment is interesting, however, not only for the quality of its results; it is also striking for its relation to *theory*. Meshcheryakov's ideas are steeped in the theoretical framework of the "sociohistorical" school of Soviet psychology, the tradition founded in the 1920s by Vygotsky and developed by his followers, such as Leontiev, Luria, Zaporozhets and Galperin. This school continues to thrive in the work of Davydov and Zinchenko, and has enjoyed a growing influence in the West, where it has figured prominently in the work of Cole (1988), Wertsch (1985a) and others.² Meshcheryakov attests (1979, pp. 22, 31–32) that his work was made possible by the insights of this tradition and, in return, a number of prominent Soviet psychologists and philosophers have maintained that Meshcheryakov's achievements demonstrate the validity of the sociohistorical approach (see, e.g., Gurgendize & Ilyenkov, 1975; Ilyenkov, 1970 & 1977a). Both the practical success and the theoretical sophistication of Meshcheryakov's work suggest that it deserves detailed scrutiny.

This article will first present Meshcheryakov's account of the condition of the blind-deaf child prior to systematic instruction. We shall then turn to Meshcheryakov's theoretical perspective and explore how it influenced his pedagogical methods. Finally, we shall examine how Meshcheryakov's work has been received in the Soviet Union.

The Initial Condition of The Blind-Deaf Child

Blind-deafness may be a consequence of a number of different conditions, including prenatal insult caused by rubella, other congenital disorders such as Usher's syndrome, or childhood diseases such as tuberculous meningitis. The variety of causes, and the complexity of their effects, mean that the profile of each blind-deaf child's condition

¹ See Suvorov (1983 (trans. 1983–4), 1988) and Sirotkin (1979). (Note that the translation of Suvorov 1983, which is devoted to the concept of imagination, is eccentric. Throughout, the Russian "*voobrazhenie*" is translated not as "imagination" but as "representation". Although this helps convey the richness of the Russian word not shared by its usual English equivalent, it obscures an important polemical point. One of Suvorov's aims is to argue that the formation of *any* image or representation of reality involves the creative exercise of imagination, and hence that the blind-deaf individual's conception of the world is not *qualitatively* distinct from that of the sighted and hearing person in virtue of its reliance on the imagination.)

Apart from such theoretical works, each of the four have written a number of insightful biographical pieces. See, for example, those included in Meshcheryakov (1979, pp. 327–344) and Gurgendize and Ilyenkov (1975, pp. 73–84), Suvorov (1989) and the film *Prikosnovenie (Touch)*.

² See, for example, the collections edited by Rogoff and Wertsch (1984) and Wertsch (1985b), and the *Quarterly Newsletter of the Laboratory of Comparative Human Cognition*.

may be unique in significant ways, depending on the time of onset of blind-deafness and the presence or absence of other physical disabilities, including brain damage. This demands that any educational program devised for a blind-deaf child must be tailored to the specific character of the child's abilities and needs (Meshcheryakov, 1970, p. 81). In consequence, any account of the education of blind-deaf children must find some way to reconcile the particularity of individual cases with the need to present a coherent general picture of the blind-deaf child's predicament. Meshcheryakov's approach is to attempt a general account of the theory and practice of the education of children who are "pedagogically blind and deaf", but not mentally retarded, and who have been blind and deaf since birth or early childhood. To say that a child is "pedagogically blind-deaf" is to say that whatever hearing and sight they possess is insufficient to permit them to be educated in a way which relies on the exercise of those faculties (for a more technical definition see Meshcheryakov, 1979, pp. 70-71). Not all Meshcheryakov's pupils were blind and deaf from birth or infancy. This was not true, for example, of three of the four graduates of Moscow University (see Meshcheryakov, 1979, pp. 267-271). Meshcheryakov's account is essentially a "worse case scenario" embodying a general educative framework which he believed applicable to less severe cases. At all times in his writings, Meshcheryakov takes pains to illustrate this framework with extracts from particular case histories.

The starting point of Meshcheryakov's account is a description of the blind-deaf child's "initial state"; i.e., his or her condition prior to systematic instruction (see, e.g., 1979, pp. 79-84). "All those who have observed such children", he writes, "describe them as absolutely helpless and deprived of the capacities of human behavior and thought" (1979, p. 79). In the words of one of Meshcheryakov's predecessors, Yarmolenko:

"These "inert masses" or "frenzied animals", as they appear to the outside observer, are shut out from ordinary life by the absence of aural and visual impressions. Passive and immobile, they would sit in the same spot for hours at a stretch, sometimes even in the same pose. They do not use the faculty of touch to investigate spatial relationships or to familiarise themselves with new objects: even the process of eating, dressing and undressing and the satisfaction of their most basic physiological needs are only carried out after external stimulus, without which the processes concerned might be postponed in time until an extreme degree of need be reached, which in its turn would produce an outbreak of fury. They do not manifest even the most elementary urge for contact with other people." (Yarmolenko, 1961, p. 82, cited in Meshcheryakov, 1979, p. 80)

A similar description is offered by Meshcheryakov's friend and colleague, philosopher Evald Ilyenkov:

"[The blind-deaf child] is a creature which, as a rule, is immobile and reminds one rather of a plant, of some kind of cactus or ficus, which lives only so long as it is in direct contact with food and water . . . and dies without uttering a sound if one forgets to feed, water and protect it from the cold. It makes no attempt to reach for food, even if that food is half a meter away from its mouth. It utters not a squeak when it is hungry, will not cover itself from the draught with a warm blanket . . . It is a human plant in the full sense of the term." (Ilyenkov, 1977a, p. 23)

In the Soviet literature, the blind-deaf child's "initial condition" is almost always drawn in such rhetorical terms. To put it more prosaically, prior to intervention, blind-deaf children are either *hyperactive*, or (as emphasized by Ilyenkov) *hyppoactive*, i.e., they are passive and immobile apart from occasional anarchic discharges of energy. Crucial here is that blind-deaf children do not engage in end-orientated activity. Indeed,

according to Meshcheryakov, they fail to exhibit many of the unconditional reflexes which, on the Pavlovian or “reactological” framework Meshcheryakov rejects, form the innate basis of animal behavior. For example, Meshcheryakov contends that blind–deaf children do not display the so-called “search-orientation” reflex, showing no interest in finding or manipulating objects, or in orientating themselves with respect to them (Meshcheryakov, 1979, p. 87). Finally, Meshcheryakov argues that, in spite of their total dependence on other people, blind–deaf children show no propensity to communicate. Indeed, they fail to exhibit those facial expressions we deem most “natural”: these are children who must even be taught to smile (Meshcheryakov, 1970, p. 80).

Meshcheryakov draws this picture on the basis of his own work with blind–deaf children (see the numerous case histories cited in 1979) and that of his Soviet predecessors, Sokolyansky and Yarmolenko, particularly the latter’s studies of blind–deaf children who have suffered “pedagogical neglect” (Yarmolenko, 1941, 1961). The picture is difficult to assess because the cited data is fragmentary and anecdotal, drawing, for example, on parents’ accounts of their child’s development before he or she was delivered into the pedagogue’s hands. Nonetheless, such Western literature as exists tends to confirm Meshcheryakov’s story (see, e.g., McInnes & Treffrey, 1982, chap. 1). We should observe, however, that such a description of the “classical” condition of the blind–deaf child prior to instruction is a theoretical construction. Few of the children Meshcheryakov describes had not encountered some kind of “amateur” ‘training’ within the family which modified the classical picture to a degree, sometimes even for the worse.³ Crucial to Meshcheryakov’s stance, however, is the claim that there is little pedagogically relevant difference between the predicament of a child born deaf and blind, and one who loses sight and hearing in infancy or early childhood. In the latter case, he claims, with the onset of blind–deafness the child regresses to the “initial condition”, in spite of prior developmental achievements he or she may have made (1979, p. 83). The initial condition thus expresses the raw material with which the *tiflosurdopedagog* must begin.

Meshcheryakov’s Position Contrasted

How, then, may the blind–deaf child be rescued from this condition? Significantly, this question cannot be answered without a commitment to one or other psychological theory, be it a “folk” or a “scientific” theory. The educator must operate with a conception of what remains of the child’s psychological functioning and of how it might best be harnessed and developed. No such conception is possible without indulging, explicitly or tacitly, in philosophical psychology.

To appreciate Meshcheryakov’s contribution, it helps to understand the position he rejects. This approach has its roots in the philosophy of mind of the seventeenth and eighteenth centuries and informs many of the “classical” Western descriptions of blind–deaf children, such as Helen Keller and Laura Bridgman. Important components

³ See, e.g., the discussion of Lena G., who came into Meshcheryakov’s care at the age of two. Until this time, she had been carried around by adults to such a degree that she appeared to have lost the capacity to regulate her own body temperature (Meshcheryakov, 1979, p. 111). For a case where “amateur” training in the home yielded some progress in the child’s development see the case history for Valya P. (1979, pp. 146–9).

of the picture are implicit in the following passage from one of the first modern authors to consider blind-deafness, Denis Diderot:

“We have arranged that . . . signs should be a common property and serve, as it were, for the staple in the exchange of our ideas. We have made them for our eyes in the alphabet, and for our ears in articulate sounds; but we have none for the sense of touch, although there is a way of speaking to this sense and obtaining its responses. For the lack of this language, there is no communication between us and those born deaf, blind and mute. They grow, but they remain in a condition of mental imbecility. Perhaps they would have ideas, if we were to communicate with them in a definite and uniform manner from their infancy; for instance, if we were to trace on their hands the same letters we trace on paper, and associated always the same meaning with them.

Is not this language as good as any other? Is it not ready to hand, and would you dare to say that you have never been communicated with by this method? Nothing remains but to fix it, and make its grammar and dictionaries, if it is found that the expression by the common characters of writing is too slow for the sense of touch. Knowledge has three entrances by which it reaches our mind, and we keep one barricaded for want of signs . . . We have to lose one sense before we realise the advantage of symbols given to the remainder, and people who have the misfortune to be born deaf, blind, and mute, or who have lost these three senses by some accident, would be delighted if there existed a clear and precise language of touch.” (Diderot, 1916, pp. 89–90)

This remarkably advanced passage — written 120 years before the adoption of braille — conveys the idea that a blind-deaf individual is a being imprisoned in a dark, noiseless and impenetrable world of solitude, into which no other being may intrude and beyond which he or she cannot reach, for want of a channel of communication. Meshcheryakov would find much to agree with in Diderot’s remarks. He would concur that the child’s ultimate disadvantage is his or her enforced isolation for want of communication, and that the primary task is to give the child the kind of “language of touch” Diderot describes. What Meshcheryakov would resist, however, is the reasons for which Diderot privileges language. These reasons derive ultimately from Diderot’s general picture of the mind, a picture which owes its origin to Descartes. According to this view, each human mind constitutes its own self-contained “internal” world of thoughts and experiences, which are directly revealed only to the thinking subject itself. We are all, on this picture, prisoners within our own minds. Language, however, permits each subject to reveal the contents of his or her private mental world to others. It forms a medium through which we may compare our conception of the world with those of others, and receive new ideas from them.

On this picture, the blind-deaf child is, like any other, a thinking self at the center of a world of mental events. The child’s predicament, however, is twofold. First, the child’s handicap prevents him or her from learning a language from elders and peers, and without language the child cannot name such sensations as he or she has, and is unable to convey thoughts and experiences to others. Second, and more significantly, on Diderot’s empiricist framework, the absence of the two primary senses means that the child has insufficient sensory material to form the basis of a coherent mental life. The child can think, but is unable to make anything the object of thought. Hence, in virtue of this sensory deprivation, the child’s psychological faculties fall into a dormant state. For this reason, Diderot looks to communication as an alternative *source* of sensory information for the child. Language is to provide an artificial channel which is to compensate for the child’s lack of sight and hearing.

This image of the blind-deaf child as a dormant mind or “soul” (as the nineteenth century literature often has it), asleep for want of things to think, leads naturally to a

compelling idea of the education of a blind–deaf child as a process of the *awakening* of a mind imprisoned in the body.⁴ Interestingly, it is language once again that is presented as the key to this process. The child’s mind awakens at the moment it grasps the idea of *meaning*, that some configuration of physical movements may serve as a sign which *represents*. Since this awakening is precipitated by a single leap of intuition on the child’s part — the grasping of the idea of *reference* — it is taken to occur not gradually, but in a moment of revelation, a sudden dawning which, as it were, casts light across the whole terrain of the child’s mind.⁵

Thus, on this “classical” picture, the crucial moment in the development of the blind–deaf child is the *awakening* of the child’s mind through the *revelation* of *language*. This idea, and the philosophy of mind at its heart, is Meshcheryakov’s principal target.⁶

Meshcheryakov’s Theoretical Alternative

Meshcheryakov was not a “professional theorist” by inclination, preferring to commit most of his career to “hands on” work with blind–deaf children. He engaged in little theoretical research, and his writings contain few purely theoretical discussions. Nonetheless, circumstances were such that Meshcheryakov’s approach became steeped in theory. Meshcheryakov studied psychology at Moscow University in the immediately post-war years. At that time, there was no independent department of psychology at the university; psychology was taught in the philosophy department. This brought Meshcheryakov into contact with a fellow student who was to have a great influence over his work, the philosopher Evald Ilyenkov (1924–1979). By 1952, when Meshcheryakov entered the laboratory of one of the founding fathers of the sociohistorical school of psychology, Alexander Luria, he was well versed in the Marxist philosophical idiom which had so influenced the school.

Three years later, Meshcheryakov encountered another figure who was to be an important source of his theoretical perspective, Ivan Sokolyansky (1889–1960), the man from whom he learnt his basic educational techniques. Sokolyansky, the “father” of Russian *tiflosurdopedagogika*, had worked with blind–deaf children since the Revolution, basing himself in the Ukraine until 1939, and afterwards in Moscow. Sokolyansky’s work was a victim of the tempestuous times in which he lived. He was twice arrested, in 1933 and 1937, the second arrest resulting in a prison term of 20

⁴ The image of the awakening of an imprisoned soul dominates discussion of the two most famous Western cases of the education of blind–deaf children: Laura Bridgman’s education in the 1830s and ’40s by Samuel Howe — the founder of the Perkins Institute for the Blind, and the more successful and better known case of Helen Keller and her tutor Anne Sullivan, who was a graduate of Howe’s Institute. Take, for example, Charles Dickens’s description of Laura Bridgman: “There she was before me; built up, as it were, in a marble cell, impervious to any ray of light, or particle of sound; with her poor white hand peeping through a chink in the wall, beckoning to some good man for help, that an immortal soul might be awakened” (quoted in Levitin, 1982, p. 223).

⁵ Hence, in the folkloric accounts of Helen Keller’s education, the crucial moment in her development is taken to be the appearance of her first word. For example, the well-known play *The Miracle Worker* concludes with the famous scene at the pump, when Helen grasps the word “water”.

⁶ It is thus ironic that Meshcheryakov’s book, prosaically entitled in Russian *Slepoglukonemyi deti* (*Blind–deaf Children*) was translated into English as *Awakening to Life*.

months, and in 1938, his special clinic was closed by the Ukrainian government on the grounds that blind-deaf children were mentally retarded. In this process, most of Sokolyansky's equipment and materials were lost. Of the ten children in the clinic's care, four were moved to Leningrad, where three perished during the war, and all but two who remained in the Ukraine were killed during the Nazi occupation.⁷ But Sokolyansky's career had one stunning success: the education of Olga Skorokhodova, who survived the war to become, like Helen Keller, a distinguished woman of letters. Sokolyansky was even less a professional theorist than Meshcheryakov. Nonetheless, the fact that he was based in Kharkov between 1930 and 1939 brought him into contact with the leading representatives of the sociohistorical school, who had moved the focus of their activities to the Ukraine to avoid the growing political heat in Moscow. Vygotsky, Zaporozhets and Galperin all took an interest in Sokolyansky's work (Vasilova, 1989, p. 73) and their ideas influenced his pedagogy, which in turn was passed on to Meshcheryakov.

How may we characterize the sociohistorical perspective Meshcheryakov inherited? The perspective is best captured by the following four tenets:

- (1) the mental life of the human individual exists in the forms of its expression; that is, certain species of activity constitute the exercise of mental functions. These activities share, among other things, the fact that they are socially significant. Linguistic or, more generally, communicative activity is thus a central example of mental activity;
- (2) language is an essentially social phenomenon, in at least the sense that the possibility of language presupposes the existence of a socially forged communicative medium: a set of shared social meanings against which any communicative act has its reality;
- (3) this set of shared social meanings represents a culture. Cultures are real phenomena constituted by socially significant forms of activity of a community: cultures objectively exist in the form of social practices;
- (4) it is only through the appropriation, or internalization, of such socially significant forms of activity that the child becomes a conscious being. The child's mind comes to be his or her inauguration into a culture.

How does allegiance to these tenets affect Meshcheryakov's strategy to the education of blind-deaf children? First, this perspective dictates that the educator has less material to work with than the "classical" model implies. According to (4), prior to the child appropriating certain forms of social activity, it is less than a conscious being. The blind-deaf child thus cannot be seen as a mind imprisoned in a body for want of communication. The educator's task is therefore not to "awaken" the child's dormant mind, but to bring that mind into being. Second, we know that if (4) is true, this will be achieved only if the child can be made to appropriate certain socially significant forms of activity (see Meshcheryakov, 1979, pp. 84-94). Third, we can suppose that this process of appropriation is unlikely to be revelatory (there is, after all, nothing to experience revelation!), but will be drawn out in time as the child gradually internalizes particular activities. Fourth, we may also suppose that the appropriation of language will be crucial to the development of the child's mind; however, on this view, language practices are just one of the relevant forms of socially significant activity, and by no means the most

⁷ It is difficult to assemble the facts of Sokolyansky's career for it has only recently come to light that the Ukrainian government, as well as the Nazis, contributed to the destruction of his Ukrainian base (cf. Vasilova (1989) and Levitin (1982), pp. 266-267).

fundamental. Language, according to (2), presupposes shared social meanings; we may therefore surmise that before we can even begin to teach the child language, we must first get the child to orientate him or herself in a socially significant environment. Finally, fifth, the sociohistorical idiom leads us to reconsider how we should describe the blind–deaf child’s handicap. The child’s primary deficiency, inhibiting the development of psychological functions, is conceived not simply as the absence of sensory information from the primary senses but as access to what Russian calls *obshcheniya* (i.e., interpersonal relations), and the principal task is not to compensate for the technical deficiency of his or her impaired sense-organs, but to inaugurate the child into the social environment. This is an important reorientation, for while it is impossible ever to compensate for the absence of sight and hearing, nothing in the child’s condition makes him or her in principle unable to enter into relations with others.

Meshcheryakov’s Methods

Meshcheryakov’s theoretical framework leads him to the first principle of his pedagogy: the first stage in the education of the blind–deaf child is to engage the child in basic forms of meaningful activity. The activities on which Meshcheryakov focuses are self-care skills. The child’s mental life first begins in the process of learning how to dress him- or herself, to use the toilet, to make a bed, to eat with a spoon, and so on. It is important to note that Meshcheryakov’s strategy differs from approaches which see such skills as important primarily because, once the child has basic self-care skills, caretakers need not squander valuable time on menial activities. For Meshcheryakov, in contrast, these “menial” activities are valued as the very basis of future intellectual development for the reason, as we shall discuss below, that they are activities carried out *jointly* with others.

However, if the educator is to involve the child in these self-care activities, the child must be capable of participating. But as we saw, the classical blind–deaf child lacks, not only higher mental states, but many of the basic behaviors taken for granted in sighted and hearing children: an exploratory interest in a world of objects and people. So, before any interaction between child and educator can begin, “orientating–investigatory” activity must be engendered in the child.

The teacher begins by exploiting the child’s primitive unstructured and uncognized needs. In particular, the bridge between adult and blind–deaf child is the latter’s need for food:

“We used special methods to encourage [Nina (aged at least 4) to take] a more active approach to food. A teaspoon was used to feed her. Only the first spoonful was poured into the child’s mouth, while she remained completely passive. The second spoonful would then be placed in the child’s mouth, but the food not poured in immediately, only after she had taken hold of the food with her top teeth and top lip, after which the spoon would be drawn out, while the food gripped by the upper lip would remain in her mouth. This constituted the manifestation of the child’s first active response to food, and it was vital, come what might, not to overlook that activity and let it die out. It was essential that the next spoonful of food should not simply be poured into her mouth; that it should be taken by the child actively moving its lips. This way, gradually and in measured doses, holding back the moment when food would actually be poured into the child’s mouth, we encouraged her to make an active movement with her upper lip, and later to carry out a more difficult movement — that of sucking in food . . . The child’s active movements during feeding gradually and slowly increased . . .” (Meshcheryakov, 1979, pp. 97–98)

Several weeks, perhaps months of patient training are condensed into that paragraph, and the subsequent program Meshcheryakov describes is no less painstaking — getting the child to respond when the spoon was placed on her lower lip, getting her to respond “at a distance” to the smell or warmth of the food, and so on.

Once the child has the wherewithal to engage in simple activities, Meshcheryakov’s program of “primary humanization” (*pervonachal’noe ochelovechivanie*) commences. In this, the motor of the child’s development is a form of interaction between child and caretaker very different from the almost Skinnerian conditioning employed to encourage the child to enter a reactive relation to the environment. The program of primary humanization is based on the notion of joint activity (*sovместnaya deyatel’nost’*) between child and adult. The child is encouraged to engage in simple self-care activities jointly with his or her adult helpmate. At first, the child is simply led through the activity by the adult: for instance, as the adult dresses the child, she simultaneously leads the child through the appropriate movements. Eventually, however, the child comes to take an active part in these movements, so that the task is fulfilled jointly by adult and child. This joint activity is the seed “from which sprouts the whole body of human behavior and mentality” (Meshcheryakov, 1979, p. 307).

In time, the adult need only initiate the activity to cause the child to begin the appropriate behavior. This is a very significant moment, for though the child is prompted to begin the activity by the adult’s initiation, typically he or she cannot complete it without the latter’s help. The child gets stuck on the difficult bits! Thus, a simple division of labor develops between adult and child: now the activity is joint, but it is “joint, separate activity” (i.e., both participants make their own contribution to the task). Now, crucially, such a division of labor requires co-ordination, and co-ordination can only be achieved if adult and child communicate with each other: joint activity generates a need for communication.⁸

Significantly, Meshcheryakov argues that this form of joint activity engenders not only the need for communication, but also the means with which to satisfy that need. The germ of language is to be found in the interaction in which these simple activities are realized. This is so in two respects. First, as we described, the adult initiates the activity and invites the child to attempt to proceed with it, and in so doing provides the basis of *gesture*. The adult’s movements have the *meaning* “action so-and-so”, or perhaps the command “do such-and-such”. Second, the fact that the child actively participates in an aim-orientated activity means that he or she comes to stand in a special relation both to the object of his or her actions and to the actions themselves. The task is identified as the *thing-which-has-to-be-done*, and the child’s movements as *that-by-which-*

⁸ It is artificial to drive a hard wedge between the initial stage in which the child is trained to enter a reactive relation with the environment and the later program of primary humanization based on joint activity. For example, as Meshcheryakov’s description of Nina’s training continues (pp. 98–99, 101–102), we come to see that the caretaker’s purpose is not only to cause Nina to react in a certain way to food, but also to encourage her to negotiate a socially significant object: the spoon. Meshcheryakov earlier establishes that Nina displays no interest in objects, failing even to hold them when placed in her hand. In the feeding activity, she at first displays only incidental interest in the spoon, but gradually, through selective changes on the part of the teacher, she grows not only to take in food, but to interact with her teacher and the object she proffers. Here, of course, the spoon plays an instrumental role in the child’s new-found ability to participate in feeding. But the spoon is not merely an instrument, a technical device. It also serves as a socially meaningful medium of interaction, for to come to interact with a physical object as a spoon is to appropriate a small part of human culture, to master something about the way we eat.

the-thing-gets-done. As such, both object and activity become the kinds of things which could have names, which could be the object of a gesture.

The “primary gestures” with which child and adult co-ordinate their joint activity take their form from the movements that compose the activities from which they originate and which they denote. A primary gesture may directly reproduce the physical movement at the core of some activity (e.g., raising a cupped hand to the mouth for “drink”, moving hands upwards from ankle to waist for “putting on trousers”), or may be based on the actions which precipitate an activity (e.g., movements as of putting on a coat to indicate “going outside”). Such gestures become the foundation for the development of more advanced communicative skills (see Sirotkin, 1977). First, the primary gestures are simplified, stylized, and “decontextualized” (i.e., the child must learn that one can refer to an activity without actually going on to do it). Second, the primary gestures are then accompanied by exposure to dactylic Russian: cyrillic alphabetic handshapes spelled out into the palm of the child’s hand.⁹ As the child appropriates the Russian language, so he or she is able to participate in a structured program of schooling.¹⁰

Meshcheryakov, like Sokolyansky before him (see Vasilova 1989), was adamant that blind–deaf individuals’ developmental potential crucially depends on the extent to which they can master a spoken language, for only through such a language can they appropriate the legacy of “world culture” and become participating members of society. Thus, for Meshcheryakov, the development of speech skills, mastery of braille, and competence in foreign languages (through use of “interdactyl”, the dactylic version of the roman alphabet) are essential skills for literate blind–deaf individuals, and should figure prominently in any school curriculum for blind–deaf children.

Acclaim and Adversity

With four of his eldest pupils at Moscow University, Meshcheryakov’s work began to receive considerable critical acclaim. All the major living exponents of the sociohistorical school, Luria, Leontiev, Davydov, Zaporozhets, Galperin and, of course, Ilyenkov, gave voice to their admiration. For these thinkers, Meshcheryakov’s work made an important contribution to their paradigm for two reasons. First, they argued that Meshcheryakov had produced an “*experimentum crucis*” demonstrating the validity of the sociohistorical tradition’s conception of the mind. As Zaporozhets wrote in the foreword to the English translation of Meshcheryakov’s book:

“Dr Meshcheryakov’s practical work has provided experimental substantiation, more convincing than anything yielded by research into the development and instruction of normal children, of the main tenets of the dialectical–materialist theory of knowledge and psychology to the effect that the subject’s

⁹ For an excellent account of the details and principles of dactylic Russian see Krylatov (1988). As Diderot foresaw, the principal disadvantage of dactylic languages is the speed at which speech may be conveyed. In response to this problem, Yuri and Natalia Krylatov have recently been working to produce a cyrillic version of the dactylic alphabet devised by Lorm in the last century and presently deployed in West Germany. This alphabet is much faster to use since it indicates letters, not by whole hand-shapes, but by a system of points and lines which the speaker describes on the listener’s palm.

¹⁰ A very basic sketch of a school curriculum for the blind–deaf is included in Meshcheryakov (1979, pp. 211–227).

ideal, mental activity takes shape on the basis of his practical material activity and emerges as a result of the infinitely complex process of internalizing external activity.” (Meshcheryakov, 1979, p. 9)

Second, Meshcheryakov’s works makes available a gold mine of data with which to give the Vygotskian framework empirical content. In Leontiev’s words, Meshcheryakov’s work reveals:

“The conditions in which the key events in the process of the formation of the person and (just think of it!) the coming-to-be of human consciousness become *visible* — one wants even to say touchable, and moreover drawn out in time as if in slow motion — the conditions which, as it were, open a window on the depths of consciousness’ hidden nature.” (reported in Gurgenidze & Ilyenkov, 1975, p. 63)

In light of these two claims, the philosopher Kedrov called for a major research initiative to explore in full the educational, psychological and philosophical implications of Meshcheryakov’s work (see Levitin, 1982, p. 238).

It would be wrong, however, to close our presentation of Meshcheryakov’s contribution on this celebratory note. The research program Kedrov proposed was never undertaken. Indeed, worse than that, no Soviet scholar has yet produced convincing arguments to show that the sociohistorical perspective is vindicated by Meshcheryakov’s work, and no empirical research has been conducted with Meshcheryakov’s materials that promises to unlock “consciousness’ hidden nature”.

The only thinker to attempt to argue the first point was Ilyenkov. But the case he develops (in 1970 and 1977a) is weak. Ilyenkov treats the blind-deaf child as a modern day *enfant sauvage*. He argues that the child’s initial state represents the condition of any human child prior to the influence of society. This shows, he maintains, (a) that the human mind is not a gift of nature, and (b) that our mental capacities do not develop spontaneously according to some biological program. He concludes, therefore, that Meshcheryakov’s work confirms that:

“All the specifically human mental functions without exception . . . are in their genesis and in their essence “internalized” modes and forms of external, sensuous-objective activity of man as a social subject . . . [and therefore] *that in the composition of man’s higher mental functions neither is there nor can there be absolutely anything innate or genetically inherited*, that the human mind in its entirety is the result of up-bringing in the broadest sense of the term — that is, it is passed from generation to generation not by a natural, but by an entirely artificial route.” (Ilyenkov 1970, p. 89, our emphasis)

It should be clear, however, that Meshcheryakov’s work cannot be presented as “experimental proof” of such a position. As Ilyenkov’s opponents immediately pointed out (e.g., Malinovsky, 1970), Meshcheryakov’s achievements are perfectly consistent with nativism about mental development and with empiricism about concept formation. For where Ilyenkov takes the “initial condition” of the blind-deaf child to reveal the biological endowment of the normal human mind, his nativist opponent sees there a paradigm case of abnormality, wherein the mind’s innate faculties are suppressed due to sensory deprivation. To make good Ilyenkov’s case would take a great deal more argument than he provides in his brief writings on Meshcheryakov.

However, anyone familiar with Ilyenkov’s major writings (e.g. 1977b) will wonder why a thinker who usually makes a sophisticated philosophical case against innatism and empiricism resorts to such primitive “knock down” arguments in this context? The

answer is that much of what was written in support of Meshcheryakov's work, particularly in the years immediately following his death, has a political function. Meshcheryakov never received the support he deserved (see Mareev in Dubrovsky, 1989, pp. 32–34). Throughout his career his work was beset by bureaucratic obstacles, generated in part by objections to the substantial cost of his methods and in part by his theoretical allegiances. He was never in charge of the Zagorsk children's home where he conducted his principal work. He always worked there on secondment from his principal position, which was head of a laboratory at Moscow's Institute of Defectology. It seems, however, that he was not entirely comfortable at either place. The ideology of the Institute was closer to Diderot's than to Vygotsky's idiom, and Meshcheryakov constantly clashed with its Director. And at Zagorsk, Meshcheryakov sometimes found himself in the position of the intruding academic, whose concern with issues of high science disrupted routines and distracted teachers and children from their prescribed duties. It was thus Meshcheryakov's dream that a scientific research center might be established at which he and other researchers could pursue their work for the benefit of both science and their pupils. For this reason, he and his friends, particularly Ilyenkov, did their best to popularize his work in the "party press" and the mass media (see Goncharova in Dubrovsky, 1989, pp. 55–57). This explains, therefore, the rather simple-minded nature of the enthusiastic treatments of Meshcheryakov's work. Ilyenkov's strategy, however, did not work: resources remained unavailable and, hence, none of the promised research materialized.

Meshcheryakov's bad fortune was bequeathed to his four most famous students. When they graduated from Moscow University in 1977, their future was unclear. On Ilyenkov's instigation, however, they were brought to the Institute of General and Pedagogical Psychology, then under the directorship of Davydov, where they were installed in the laboratory of Felix Mikhailov, a philosopher of considerable distinction, who had long been involved with both Meshcheryakov's and Ilyenkov's work. This remarkable arrangement — four blind-deaf researchers working together! — was disturbed in 1983, when Davydov lost his position as director of the Institute and Mikhailov moved to the Institute of Philosophy. The new directorship proved less willing to fund this research and, though Sirotkin has found support elsewhere, only Suvorov remains on the staff of the Institute as a "Junior Scientific Worker". Suvorov's most recent publication, a tribute to Ilyenkov, suggests that the present climate is no more hospitable: it is a masked appeal for the means to continue the work Meshcheryakov began. New resources seem to be absolutely urgent. The Zagorsk school, for example, which has been the principal center of blind-deaf education in the Soviet Union since its foundation in 1963, now has a brand new site, but it badly needs equipment if it is to function effectively as a teaching institution, let alone as a research center (see Goncharova and Kondratov in Dubrovsky, 1989, pp. 55–57, 61–63).

Additionally, Sirotkin has recently joined forces with a group of long-standing critics of the sociohistorical approach, including Dubrovsky, Narsky and Brushlinsky. Together with a number of disgruntled teachers of the blind-deaf, this group has recently subjected Meshcheryakov's legacy to severe public criticism. The disturbing feature of this assault is that it is by no means restricted to matters of science, but includes accusations of unethical conduct and falsification of data. These accusations are directed not so much at Meshcheryakov himself as to those who propagandized his work, especially Ilyenkov.

As a recently published symposium reveals (Dubrovsky, 1989), this is a debate charged with personal animosity. Western observers are in a poor position to adjudicate the more *ad hominum* of the accusations. Nonetheless, Ilyenkov can be defended from the central charge against him.

Dubrovsky, Narsky, and Brushlinsky all, curiously, seem to endorse the weakest part of Ilyenkov's argument for the significance of Meshcheryakov's work: namely, the conditional that if individuals who are totally blind-deaf from birth could attain high levels of psychological development, this would show that human mental functions are not gifts of nature, but are socially-constituted phenomena. Ilyenkov's present detractors accept this argument is valid, and then object that in none of the most successful cases of the education of the blind-deaf have the individuals in question been totally blind-deaf from birth. They then accuse Ilyenkov of unethically distorting the facts of these case histories in his writings. In order to vindicate his own theory of the socially-constituted subject, it is argued, Ilyenkov exploited the party press and lied to the public, pretending Meshcheryakov's pupils were profoundly blind-deaf from birth (see Dubrovsky, 1989, pp. 3-6, 30-31, 47-50, 79-84). Finally, Ilyenkov's critics try to turn the argument they attribute to him on its head, arguing that those blind-deaf children who have been successfully educated in the Soviet Union have triumphed in virtue of their "innate gifts". "After all", Igor Narsky surmises, "not everyone with normal sight and hearing is capable of going to university, let alone passing with flying colours" (Dubrovsky, 1989, p. 50).

The great irony of this attack on Ilyenkov is that it is conducted under the banner of *perestroika*. Dubrovsky calls for a "battle for truth in *tiflosurdopedagogika*" (1989, p. 3) and portrays Ilyenkov as the Lysenko of the Brezhnev era, manipulating the party press to ensure that his own views are unchallenged.¹¹ Yet for all its rhetoric of *glasnost*, the case against Ilyenkov ignores the constraints under which he was writing. His opponents conveniently forget that no Soviet publication in the 1970s would have carried an article on "defectology" unless it grandly advertized Soviet educational practices and heralded the victories of Soviet science. If he was to publicize Meshcheryakov's work, Ilyenkov could not permit himself the luxury of rigorous case histories and subtle theoretical arguments. True advocates of *glasnost*, however, would ask themselves how the political conditions under which Ilyenkov was writing might have influenced his choice of arguments. Instead, Ilyenkov's opponents remain faithful to traditional Soviet methods of argumentation, presenting their target as an opportunist whose actions are out of keeping with the present "party line".

More ironic still is that Ilyenkov's opponents take the case he makes in his popularization of Meshcheryakov at face value, and then argue against it by advancing a position Ilyenkov himself deemed unethical. For Ilyenkov, the idea that individuals are predisposed to different developmental paths in virtue of genetically determined characteristics of their brains was simply a rationale for dividing individuals between

¹¹ Ilyenkov's opponents even go so far as to claim that Ilyenkov was himself a Lysenkoite (see Sirotkin and Shakenova in Dubrovsky, 1989, pp. 92-94). This charge is absurd, since where Lysenko advanced a theory of genetics on which characteristics organisms acquire through environmental influences might be passed on genetically to the next generation, Ilyenkov's theory of mind gives no substantial role to genetic inheritance, however understood, in the explanation of individual psychological functioning. For Ilyenkov, psychological capacities are transmitted across generations by a process of cultural, and not biological, inheritance.

the talented and the talentless, the intellectual and the practical, between those who are able and those who are not. As such, Ilyenkov believed that such a view served as an excuse to place what was ultimately the responsibility of the education system on to the shoulders of biological chance. For Ilyenkov, the experience of Meshcheryakov's blind-deaf students indicated that even individuals for whom the vagaries of nature had had the harshest consequences might come to lead flourishing intellectual lives in a society prepared to take full and proper responsibility for the education of its citizens.

Ilyenkov's reputation will probably survive this assault on his integrity. However, the discussion has certainly had damaging consequences. In particular, its bitter tone has obscured a number of potentially constructive criticisms of Meshcheryakov's work. For example, Sirotkin and Shakenova challenge Meshcheryakov's account of language acquisition, arguing that the emphasis traditionally placed on the assimilation of Russian has led to a neglect of the significance of gesture. Indeed, Sokolyansky, Meshcheryakov and many of their followers have a contemptuous attitude to gesture as a mode of communication, mistakenly dismissing sign languages of deaf communities as primitive analogs of spoken language. In consequence, scant attention has been paid, Sirotkin argues, to the spontaneous gestures that blind-deaf children develop to converse among themselves. These gestures, he suggests, might profitably be made the basis of further language development. Such objections raise profound issues, the exploration of which might advance both the theory and practice of blind-deaf education. It is a shame, therefore, that the polemical mood of the case against Meshcheryakov has not facilitated the productive discussion of this and other theoretical issues.

It is to be hoped that, in a new climate of Soviet democracy, productive discussion of such criticisms will prove possible in the future. However, there is grave danger that the present controversy will unjustly tarnish the reputation of Meshcheryakov's contribution, and discredit the work of his disciples such as Suvorov. This would be a tragedy, for Meshcheryakov's contribution unquestionably deserves analysis for what it is: one of the finest applications to date of Soviet sociohistorical psychology in an educational context.

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References

- Cole, M. (1988). Cross-cultural research in the socio-historical tradition. *Human Development*, 31, 137–157.
- Diderot, D. (1916). Letter on the blind for the use of those who see. In M. Jourdain (Ed. and Trans.), *Diderot's early philosophical works*. Chicago: Open Court. (Original work published 1744).
- Dubrovsky, D.I. (Ed.). (1989). *Slepoglukhonemota: Istoricheskie i metodologicheskie aspekty. Mify i real "nost"* [*Blind-deafness: historical and methodological aspects: Myths and reality*]. Moscow: Filosofskoe obshchestvo SSSR.
- Gurgenidze, G.S., & Ilyenkov, E.V. (1975). *Vydaiushcheesya dostizhenie sovetsoi nauki. Voprosy filosofii*, no. 6, 63–84. (Translated as: A unique experiment by Soviet psychologists, *Social Sciences*, no. 8, 182–208.)
- Ilyenkov, E.V. (1970). *Psikhika cheloveka pod "lupoi vremeni"* [The human mind under "the magnifying glass of time"]. *Priroda*, no. 1, 87–91.

- Ilyenkov, E.V. (1977a). Stanovlenie lichnosti [The genesis of personhood]. *Kommunist*, no. 2, 68–79.
- Ilyenkov, E.V. (1977b). The concept of the ideal. In R. Daglish (Trans.), *Philosophy in the USSR: Problems of dialectical materialism*. Moscow: Progress.
- Krylatov, Y.D. (1988). *Azbuka chutkikh ruk* [An alphabet for keen hands]. Leningrad: Leningradskii vosstanovitel'nyi tsentr VOG.
- Levitin, K. (1982). *One is not born a personality*. Moscow: Progress.
- Malinovsky, A.A. (1970). Nekotorye vozpazheniya E.V. Ilyenkovu i A.I. Meshcheryakovu [Some objections to E.V. Ilyenkov and A.I. Meshcheryakov]. *Priroda*, no. 1, 92–95.
- McInnes, J.M., & Treffrey, J.A. (1982). *Blind-deaf infants and children*. Toronto: Toronto University Press.
- Meshcheryakov, A.I. (1970). Poznanie mira bez sluka i zreniya [Understanding the world without sight or hearing]. *Priroda*, no. 1, 78–87.
- Meshcheryakov, A.I. (1979). *Awakening to life* (K. Judelson, Trans.). Moscow: Progress.
- Rogoff, B. & Wertsch, J.V. (Eds.) (1984). *Children's learning in the zone of proximal development* (New Directions in Child Development, no 23). San Francisco: Jossey-Bass.
- Sirotkin, S.A. (1979). The transition from gesture to symbol. *Soviet Psychology*, 17, no. 3 46–59.
- Suvorov, A.V. (1983). Problema formirovaniya vobrazheniya u slepoglukhonemykh detei. *Voprosy psikhologii* no. 3, 62–72, (Translated as: The formation of representation in blind-deaf children. *Soviet Psychology*, (1983–4) 22, no. 2, 3–28.
- Suvorov, A.V. (1988). Myzhestvo soznaniya [The fortitude of consciousness]. *Voprosy filosofii*, no. 4, 68–69.
- Suvorov, A.V. (1989). *The blind-deaf and those who see and hear*. Paper presented at the World Congress for the Blind-Deaf, Stockholm.
- Vasilova, T.A. (1989). Ivan Afanas'evich Sokolyansky. *Defektologiya*, no. 2 71–75.
- Wertsch, J.V. (1985a). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J.V. (1985b). *Culture, communication, and cognition. Vygotskian perspectives*. Cambridge: Cambridge University Press.
- Yarmolenko, A.V. (1941). Psikhologiya slepoglukhonemykh do obucheniya [The psychology of the blind-deaf child prior to instruction]. *Sovetskaya nevro-psikhiatriya*, no. 6.
- Yarmolenko, A.V. (1961). *Ocherki psikhologii slepoglukhonemykh* [Essays in the psychology of the blind-deaf]. Leningrad: Leningrad University Press.