

M.P. FEOFANOV

The Theory of Cultural Development in Pedology as an Eclectic Conception with Basically Idealist Roots

The development of the human person during childhood is one of the paramount questions in pedology, and is now especially timely for Soviet pedology because existing theories of development are not satisfactory from the perspective of Marxist methodology. But if we have no Marxist-Leninist approach to resolution of this problem, we cannot provide our Marxist-Leninist pedagogy with the solid underpinning needed for educating children to be builders of socialism and fighters for this cause. Of existing attempts to construct a theory of child development, let us now consider the theory of cultural development.

[This theory] is of interest because it attempts to introduce a historical viewpoint into the problem of child development.

Basic methodological postulates of the theory of cultural development

The first and most basic methodological principle of the theory of cultural development is the position that the behavior of a cultured person is the product of three

English translation © 2002 by M.E. Sharpe, Inc., from the Russian “Teoriia kul’ kurnogo razvitiia v pedologii kak elekticheskaia kontseptsiiia, imeiushchaia vosnovnom idealisticheskie korni.” *Pedologiiia*, 1932, No. 1–2, pp. 221–34.

The editors consider that the “theory of cultural development” requires the most severe Marxist-Leninist critique inasmuch as it drags in idealist, subjectivist conceptions intermingled with mechanistic elements from “behaviorist” theory. The editorial board feels that Comrade Feofanov’s article is only the first step toward such a critique and basically is meant only to raise a number of important questions of cultural theory. A number of the expressions in the article are not correct. The present article opens the discussion on this question.—Eds.

lines of development (evolutionary, historical, and ontogenetic), and can be understood and explained scientifically only if one draws on the various lines along which the history of human behavior has developed (Vygotsky).

The second position is a demarcation of three forms of behavior: instinctive, trained, and intellectual. Each of these forms differs fundamentally from the other with regard to the laws governing it, yet, at the same time, they constitute a genetic series. One special type of behavior is the cultural, which is the latest. According to this theory, a child's behavior at various ages differs qualitatively in that the child's ability to make use of the different cultural forms of "behavior" varies; the child goes through specific stages of cultural development, each of which is marked by a different relation of the child toward the external world, differences in the way the child uses objects, and differences in the way specific cultural techniques are invented and utilized (Luria).

Finally, the child progresses gradually as he grows and develops from the phase of "natural forms of behavior," in which he "adapts" to any situation through "natural" functions (i.e., he is still unable to use tools), to a phase of cultural behavior in which he acquires the ability to make use of things in the external world as tools or as signs, and also gradually gains control of his own neural and mental processes.

The authors of this approach (Vygotsky and Luria) take the following laws as the prime "laws" for explaining qualitative changes in a child's development from one stage to another: the law of metamorphosis (qualitative transformation of one form into another), the law of compensation, and the law of convergence. In the opinion of the authors, these are the guiding principles that provide a key to exploration of the qualitative characteristics of the process of development as the child grows and develops organically, culturally, and psychologically.

"The fundamental fact we encounter when we study the child is development," says Vygotsky. Later on, speaking of the essential attributes of a child's development, he says, "As a result of disproportions in the growth of specific aspects of the organism, a qualitative change in the whole structure of the organism takes place at each stage in development: the body proportions change; the relations of individual organs with one another change, *and the entire constitution of the organism, as well as the entire constitution of the child's psychology, acquires a completely different countenance* ([*Pedology of school age*]. Assignment 1, p. 3) [My italics—M.F.].

Already in his very first proposition, the author slips into idealistic positions in subordinating the development of the child's mind to biological laws.

Later, as he presents a discussion of Köhler's argument that childhood is a period of learning, Vygotsky says, "Childhood exhibits complete analogy with the phenomena of growth in general; growth consists of differentiation, and differentiation brings growth to a halt. Differentiation also occurs in the growth of adaptation, and adaptation arrests child development" ([*Pedology of school age*]. Assignment 1, p. 16). The author sees the biological significance of childhood in this point.

Hence, it is clear that the author understands childhood and its functions in a purely biological perspective, severing the child's development completely from the living, class-historical environment.

If we proceeded on the basis of the principles of materialist dialectics, it would be necessary to point out the specific characteristics of "differentiation" in the process of a child's growth and development, since this differentiation still takes place under qualitatively different conditions from those one finds in a nonhuman being (lower and higher animals). Moreover, to regard the essence of childhood as consisting solely of an increase in the degree of "adaptation" to the environment, which leads to the arrest of child development, means not to understand the basic laws of the dialectic development of a child. Of course, one cannot deny the factor of a child's adaptation to the environment in which he is cared for and grows up,¹ but the author nonetheless should have pointed out the difference of this "adaptation" from the adaptation of animals, the aspect of the child's purposeful acting upon the environment, "the change in that environment through the actions of an individual." Another aspect that has also not been explored specifically is the point that "adaptation halts child development." If one understand this to mean that the organic development of a human being comes to a close with the end of the period of childhood, then this is not completely correct; to say that a person's development in general ends with the end of the period of childhood is, of course, out of the question. Finally, "adaptation" does not halt child development; but the end of each period in the development of a child or an adult becomes the starting point for further movement to a higher stage of development through the increasing complexity of man's interrelationship with the environment as he develops and the ever-growing complexity of his social labor activity and his developing into a class type, which is accompanied by further changes in the higher forms of behavior and mind.

The author resolves questions concerning the relationship between the biological and the social in child development in mechanistic terms. He says that child development is contingent on numerous and disparate factors, which he assembles in two groups: the biological and the social. In the author's words, "It is sometimes impossible to clarify and indicate the effects of one factor and another factor separately" (Vygotsky). In another passage the author says that the process of child development is "steered" by a complex intermeshing of social and biological factors ([*Pedology of the adolescent*]. P. 16, assignments 1-4). Finally, he expressed the interaction of these factors as follows: "At every given moment of development, a child represents a combination of various features resembling a chemical compound" ([*Pedology of the adolescent*]. P. 18, assignments 1-4). "Development (cognition)," says Lenin, "is necessarily determined by the nature of things and by their very content" ([*Lenin's collected works*]. Vol. 12, p. 59). It follows from this that with respect to the child, it is necessary first to determine what the child's nature is, and how his development is determined in accordance with that nature. We must define and understand the child in his development as a social being.

Unlike the development of an animal, which conforms to the laws of biology, a child develops under the influence of social laws. A distinction must be drawn between the "superseded" category of "biological laws" operating in the child's development and the specific laws of a social order that determine the type of development of a child's personality.

The human person and the processes underlying man's behavior cannot be understood if they are not seen as contradictory processes. These contradictions indeed must be revealed in order to get to the driving forces of development. First, "a contradiction that advances the development of cognition lies between our ideas of reality (the subject) and actual material reality (object)." This contradiction is the primary color, the fundamental and principal contradiction in the process of child development, beginning from the moment of the child's birth. The child comes to know the world around him in the process of engaged activity or interaction with the environment; in this continuous process of cognition, his imperfect "notions" about particular things and phenomena in the life around him enter into contradiction with the facts of reality and serve as a source and driving force of the further development of his cognition. This process is an uninterrupted one: some contradictions that get resolved in the process of cognition give rise to a new set of contradictions on a new foundation, which, in turn, serve as a source and driving force for further cognition. For example, a child gradually learns to master spatial relations, or gets to know the properties of a variety of objects and phenomena (fire toward which he stretches his hand, etc.). But this is not enough: we are here not yet defining the specific features of the knowing subject, nor do we lay bare the specific features of the contradictions in the development of a human being, specifically as a particular individual shaped and developing under specific conditions of the social environment. We know that a child is born with specific anatomical and physiological mechanisms, and with innate qualitative features of his organism; the development of a child born with these biological capabilities takes place under a variety of environmental conditions, under the influence of social laws that exert their influence on the whole of a child's development, acting also on his biology—hence the contradiction of the so-called "biological" aspect with the social aspect.

Herein indeed is where the majority of scientists make a mistake when they place a "biological" theory at the basis of their theory of child development, thus glossing over all that makes the process of child development unique.

From the standpoint of pedology, what is essential and specific to child development is that the child grows and develops as a social type. It is this that determines our fundamental orientations in ascertaining what is essential, basic, and specific in this development. Consequently, clarification and study of the nature of the contradictions that occur in the child's unitary/unified personality in the process of its development, the contradictions between the biological and the social, must be the fundamental and guiding methodological principle in our investigation of this development and, above all, in our efforts to discover the driving forces

behind that development. Thus, the key to understanding child development lies not only in the child's "future," as Vygotsky puts it, but in both the past and the future. The past is to be discerned in biological capabilities, and the future in those historical and class conditions (i.e., with regard to class society) and requirements of the environment that are, in turn, determined by the child's class status. The child's class status dictates a specific type of upbringing under the conditions of class struggle at a given historical stage, and in a specific, concrete, social-class environment.

It is one thing to rear and educate a child of the ruling class (bourgeois, feudal) and quite another to educate a child from an oppressed class (worker, peasant, serf).

Thus, given the child's class status and given the class struggle, which together determine a child's class type, it is necessary to seek the driving forces behind his education, the specific forms of his social behavior as it has evolved, since underlying it also are typical preconditions that have formed the mind and the mechanisms evolving therefrom (i.e., his neurological foundations).

Metamorphosis, convergence, and compensation—A composite law governing qualitative changes in the process of child development

Vygotsky and Luria based their understanding of qualitative changes in the process of child development on the laws of metamorphosis, convergence, and compensation. But after considering these three laws as quite discreet and independent, they uncritically applied them as explanatory principles of the process of child development.

The result was an eclectic system of qualitative transformations or phases of development.

Vygotsky takes the metamorphosis of gait and speech over the course of a child's development as an example. He says, "If we compare a ten-month-old child with a child a year and a half old, we see that the development of his locomotion in space is manifested not in the fact that the original form of locomotion has developed quantitatively, strengthened, become greater, or has grown, but in the fact that one form of locomotion—crawling—has been replaced by another form, i.e. walking" ([*Pedology of school age*]. P. 4, assignment 1). Vygotsky goes on to say, "*During this period the child will have exchanged the form of locomotion proper to animals for the vertical gait of man*" [my italics—M.F.].

When the child exchanges babbling—the language of birds and animals—for articulate speech, a metamorphosis or transformation occurs in his development.

The author also gives sexual maturation as an example of metamorphosis. From what follows next we can see that the author perceives two types of process in the process of metamorphosis: "On the one hand, a new form comes into being, and on the other, an old form dies away" (Ibid.). The author has made some grave methodological mistakes in his interpretation of his examples. First, the example

of crawling and gait: this interpretation of the exchange of crawling for walking is not correct. The author here assumes a "natural" development as well as an "artificial" development in which the child makes use of "instruments," auxiliary devices he has acquired in the course of his social upbringing.

Basically what he means by "instruments" are skills such as speech and writing, "cultural" memory, etc. In accordance with this theory, the author thinks that it is obvious that even a child's crawling is a "natural" means of locomotion, derived from nature, whereas walking is "cultural." The author backs up his conclusion regarding this fundamental idea with his observation that in the process of metamorphosis of a child's gait, there is one period in which he walks with the aid of artificial tools of an "external nature," i.e., when he walks, he holds onto various objects (table, stool, wall, etc.). In the author's opinion, these are external "tools and instruments" that the child uses as he walks; later, these external devices are replaced by internal devices, i.e., the child begins to walk without the use of a chair or table. The author elaborates all this by an analogy with the "historical process" of development, i.e., of memory and the conditions of man's historical development. From this follows the division of the early period of development of the child's language into a period of babbling, the "language of birds and animals," and the period of articulate speech. Also, the first period is "obviously" a period of the "natural" development of the function of speech whereas the second is a period of its "cultural" development. Why has the child replaced crawling with walking? Indeed, the essence of the process of a child's changing his mode of locomotion is that in the process of organic development, the child was able to crawl depending on the stage of his physical strength, on the level of development of his bone and muscle systems and of his nervous system. But here we see that in the process of his development, the child reaches a point at which he becomes capable of a new, a more advanced mode of locomotion, walking. The moment of transition from the old form of locomotion to the new is a dialectic transition of quantity into quality. The quantitative aspect of this phenomenon lies in the quantitative growth of his physical strength, the growth and development of his bone and muscle systems and nervous system, which, of course, finds its expression in the last period of crawling and in the quantitatively higher stage of this mode of locomotion (speed, endurance). The "intermediate stage" established by the authors of the theory of cultural development (Luria) between crawling and walking (walking with the support of external objects) does not withstand criticism. One cannot single out this stage as something specific, trying to force it into an "artificial" schema of "external" and "internal" cultural tools and instruments. One cannot draw an analogy with them. Even K. Bühler says that the act of walking is instinctive in a child, that even if a child did not develop among human beings, he would nonetheless begin to walk without the help of any of them (*Essays on the intellectual development of the child*. P. 81). Here we see total confusion of the basic criteria among the authors of the theory of "cultural development" with regard to both the "natural" forms of development and the "cultural" forms. Under-

standing metamorphosis as the transformation of a “cocoon into a butterfly,” Vygotsky approaches clarification of the process of speech development in the child in this manner as well. Suddenly, as if by a miracle, the child begins to babble (the language of the birds, to use the author’s expression), and babble becomes human language. Later, the child begins to “discover” the meanings of words, which is also similar to the transformation of a cocoon into a butterfly.

The founders of Marxism (Marx and Engels) clearly posed the question of the social genesis of human speech (“Language exists practically for other people, i.e., a very real consciousness existing also for me, language, like consciousness, comes into being from the need to relate to other people.”). Academician Marr poses the question of the characteristic features of human language and animals directly, noting that the “material basis of the language of animals is nature and only nature”; thus, it is “worthy of each animal species . . . is inseparable from production and is organically inseparably bound up with their species’ physical structure,” etc. (*Language and writing*. P. 10). At the same time, he also explains the process of the development of language in man as a social category. He is right when he says, “Without vibration one cannot hear. Every question, no matter how trivial, is discussed in genetic language without any consideration for the paleontology of speech” (Ibid. P. 7). The authors of the “theory of cultural development,” on the other hand, completely uncritically made biological premises the basis of the development of language in the child, not taking into account the qualitative laws of the development of human language, which led them to an idealistic conception of “discoveries” and “inventions” in a child’s language, presumably occurring by dint of some unknown force. Later, following Baldwin, the author attempts to clarify the essence of the process of metamorphosis: according to Vygotsky, it consists of “evolution” and “involution,” i.e., the old dies, and the new is yet to be born. Here the author found himself captive to the class theories of child development alien to us. In these processes, which the author attempted to explain with the concept of metamorphosis, what happened was not a process of “evolution” and “involution,” as the author thought, following Baldwin, but a dialectic transformation of quantity into quality. This is *one* process, not two: as a result of quantitative changes, the “rupture of a continuum,” a “leap,” a new form is born in the struggle of the old against the new. A purely biological concept of metamorphosis is here wholly inappropriate. The process of transformation of a “cocoon into a butterfly” is a purely biological phenomenon. But a child always develops in a social environment; its influence is exercised on all those quantitative “transformations” about which the author speaks. In psychology this concept is all the more inapplicable for that reason. Noncritical application of the principle of metamorphosis has impelled the author to divorce the child’s development from the very foundations of that development, namely, the child’s active interaction with the social environment, from his engaged activity in the specific conditions of a historical and class environment.

Now let us go on to the concept of convergence. Following Stern, the author

says: "Convergence signifies an intersecting, a crossing or coincidence of intrinsic characteristics within the organism and the external conditions in which these characteristics are manifested." The author goes on to say, "Child development can be explained and understood only in terms of the coincidence of these two factors" ([*Pedology of school age*]. P. 6, assignment 1).

He then says that the principle of convergence has been "brilliantly" confirmed and substantiated in the theory of conditioned reflexes (Ibid. Pp. 6-7), since the development of animal and human behavior takes place in accordance with the principle of convergence.

This mechanistic-idealistic conception of the authors of the theory of cultural development is typically expressed not just in this particular question: it actually pervades the entire system of their theory. Despite the fact that the authors of the theory of "cultural development" devote special attention to the development of higher mental functions in man's historical development and ontogeny, they derive these functions from the conditioned reflex and the laws of its formation in a purely mechanistic way. Thus, in another passage the authors say that the cultural patterns of behavior are structurally more complex than ordinary conditioned reflexes only in that they can be dissected totally into a specific system of conditioned reflexes. They say the same about "thought that operates with words" ("the system of speech reflexes") and about any other form of cultural development ([*Pedology of school age*]. P. 12, assignments 5-6). The authors even derive different social types of human beings from the development of conditioned reflexes ([*Pedology of the adolescent*]. P. 31, assignments 6-7).

This extremely crude mechanism is combined with a kind of biologization of the child's personality; for example, the entire development of an adolescent is interpreted totally in biological terms on the basis of sexual driving forces ([*Pedology of school age*]. P. 27, assignments 6-7). The development of an adolescent's interest is also placed on purely biological foundations, with total disregard of the young person's class position and changes during this period in the conditions of his social-labor relations, etc. ([*Pedology of the adolescent*]. Pp. 197-98 et seq.). This inevitably impels the author to an idealistic conception when he examines the questions of psychological development divorced from the conditions of the historical and class environment in which the child develops.

The principle of convergence cannot be considered the principle that enables us to "understand" and "explain" this development; and a critical attitude is all the more necessary toward it in that it is taken from the typically idealistic conception of Stern.

Finally, let us look at the principle of compensation. The author has the following to say on this subject: "There is one other special and extremely important form of child development, which we can call development through compensation. Essentially, this form amounts to the fact that any function in the child's organism develops in response to a difficulty or obstacle confronting the child" ([*Pedology of school age*]. P. 7, assignment 1). The basic driving force of child

development resides in the process of the child's continuous and engaged cognition (practice) in interaction with the environment. The obstacles that arise in the course of this act of cognition derive from the discrepancy between them and the "tools" available to the child for action, and hence serve as a driving force for development. This applies equally to the development of the child's sense organs, his motor skills and other skills (for example, speech), his perceptions, his intellectual functions, his memory and his attention. The same can be said about the entire process of development of his "instrumental" tools that develop in the context of his social labor and under conditions of class struggle (for example, cultivation of a certain restraint, self-control; an ability to suppress one's feelings, then to subordinate them to one's evolving consciousness; the special development of a "mechanistic" memory in persons with professions in which a multitude of names of a whole range of goods and much else must be remembered).

The phenomena of compensation are only a particular case of one of the basic laws of materialist dialectics, the law of the unity of opposites. The author should have approached these concepts (metamorphosis, convergence, compensation), taken from bourgeois science, critically, probed into their true meaning and significance, and extracted their valuable core to use it, discarding what is alien to class and hostile to Marxism. Therein lies the task of a dialectical critique. Lenin represents for us a model of just such a critical approach. He said: "Generally speaking, to refute a philosophical system does not mean to discard it, but to develop it further; not to replace it with some other one-sided opposite, but to incorporate it into something higher" ([*Lenin reader*]. No. 9, p. 177). It is incumbent upon us to relate in a Leninist manner to the huge amount of scientific material we have inherited from bourgeois science.

The period of "natural" and "cultural" forms of behavior and of the child's mind in the theory of cultural development

The authors of the theory of cultural development and of the child think that the child's psychological development goes through three basic stages: instinct, conditioned reflex or training, and intelligence. A fourth stage then develops on the basis of these three stages, i.e., the stage of a child's "cultural" development when he masters the cultural tools and signs that, like "artificial tools," help the child develop as a "cultural historical" type. The first three stages of development are called the period of "natural development" of psychological functions; and the stage of "cultural development" entails mastering one's own behavioral processes and transforming them into functions of the will, which "constitutes the basis of the cultural development of behavior." A child's behavior consists of *synthetic acts* from the very earliest period of childhood. A child begins to recognize his mother at the age of two to three months, and even earlier the instinctual act of sucking becomes part of an entire system of reflex actions. Therefore, what we see in this period in the child is not purely instinctual behavior, but synthetic acts.

Moreover, when we examine the stages of "instinctual behavior" and "training," we cannot say that these stages are similar to the matching stages in the development of an animal, as the author says: "Study of animal instinct, the conditioned reflexes of a dog and the intelligence of the primate, will outline for us the principal stages through which the psychological development of the child takes place" (Vygotsky).

Although in the first days after birth the child is guided by instinctual-reflex mechanisms, his behavior can in no way be compared with the behavior of animals. The basis of the child's development is totally different: the sense organs develop in a process of active immersion in the specific conditions of a historical and class environment, and a child's physiological mechanisms and functions develop in the same way. We must not overlook this aspect of social-class mediation when we study this period. Moreover, with regard to the child's instincts, we should recall that they are not unchanging forms of behavior fixed once and for all by heredity as in animals: they bear the imprint of the mediation by social factors already at the historical level of man's development; and if that is so, this aspect determines the qualitative difference between them and animal instincts. In a child they are an organic basis for the emergence of new human forms of behavior within the social environment. As the child develops his instinctual organic underpinnings, his inherited reflex background, he develops his own set of conditioned reflexes step by step. The essential difference in the growth of the child's conditioned-reflex underpinnings compared with the same process in higher animals is that in the child it takes shape in totally different systems depending on the specific historical and class environment (in a class society). If, according to Marx, the development of man's sense organs is a product of history, then, of course, the historical and class aspects, the state of the productive forces and productive relations, etc., exert their influence on the whole development of both sense organs and the child's entire emotional sphere, and not only on the content but also on the entire structure of these and other domains. And if such intellectual acts as Köhler found in the chimpanzee have been established experimentally in the 11-12-month-old child, then we see that, already at an early age, the recalled "third stage" of psychological development begins forcefully to appear. Numerous findings from studies of early childhood leave no doubt of this (Gesell, Arkin, Babanova, etc.). Even a study by Schelovanov of a child's reflexes before the age of one yielded findings that he was unable to explain on the basis of the theory of conditioned reflexes "without the existence of complex central relationships" that combined "motor responses in different ways depending on the circumstances" (*Problems of genetic reflexology*). Vol. 1, pp. 79-80). These works feature many findings that elucidate with particular clarity the dialectics of development of synthetic acts of behavior in the child from the early stages of infancy. Thus, genetically these three stages differ; but they are so similar in ontogeny, and become *component parts* of synthetic acts in a child's behavior so early, that it is difficult to claim that they are *independent stages* of development, and certainly not as is the case in animals.

These three stages are called by the authors the period of "natural child behavior" or the stages in the child's "natural" development.

The next stage in "cultural development" is fundamentally different. It is obvious that before this the child developed as a creature of "nature," so to speak, i.e., this was a stage of development in which the child had not yet mastered the system of cultural artificial signs and tools (language, writing, attention, according to the author). It is essentially not a stage of the child's social development. But is this true? From birth a child grows and develops in a specific environment. Development takes place as part of a process of active interaction with that environment and his own active influence on the environment. At the beginning of his life, the child gets to know the world around him with his mouth, then with his hands, and finally through the use of his mouth, then his hands, and later his feet and eyesight. But the entire process of this cognitive exploration that takes place through the child's active engagement is undoubtedly mediated by the social environment.

The same is true for the development of the child's perception of objects and phenomena. We must not understand child development isolated from the development of his systems of skills and forms of behavior. Organic development is inseparable from psychological formation and development. The child's "rearmament" takes place simultaneously, but again, closely dependent on the type of environment in which the child's activity takes place and the circumstances of his upbringing. Moreover, numerous experimental data regarding the very young child testify to this fact. The growth and development of the concentration of attention, the child's ability to focus attention on certain objects (already in children nine months of age we see planned, coordinated movements), etc., all this material abundantly proves that the child begins to master his behavior from the earliest stages of his development. But we must take care to consider the process of the development of this mastery as a dialectical process that qualitatively changes across the phases and stages of development, and in the simplest forms we must distinguish between the genetic level of a lower form and the higher one of the next stage of development. At the same time, the child's mastery of his behavior begins in the early stages of his development when he begins to acquire the first skills. The initial manifestations of the child's activity, the uncoordinated movements of his extremities (arms and legs), have an instinctive reflex origin. In this period of his development, the child does not yet "make a distinction between himself and the environment." His impulsive movements are not yet consciously purposeful. The mechanism of his movements and their coordination are still in the stage of "becoming," in the initial stage of maturation.

But gradually we see the child turning his head toward the light or toward a noise, extending his arms toward something, toward his mother, etc. The child begins to distinguish himself from the environment. These acts of movement already have a direction, and are the expression of the child's active effort to "master the environment" and interact with it. During this period conditioned reflex connections are being developed on the basis of unconditional reflexes in the pro-

cess of the child's action on the environment. He gradually acquires mastery of specific acts of motion and behavior. As the child grows in development and as his functional capabilities increase, activity in the environment changes steadily and becomes ever more complicated in the following respects: one, as the child's bone and muscle apparatus becomes stronger, and as his central nervous system develops and, at the same time, as the child's mind develops, his active engagement in the environment around him begins to increase as well: his active cooperation with other people develops; two, together with all this, the form and content of the child's active engagement become more complicated; they change qualitatively, moving from lower forms to higher forms. That is how we should also approach our examination of the overall process of child development; then all the succession of stages of development—instinct, training, and intelligence—will appear to us as dialectic stages in a qualitative succession of forms of activity, as stages in the development of the child's mind, in inseparable connection with the child's organic growth and development under the conditions of the class labor and environment. Thus we establish the unity of the biological and the social in child development. Seen from this perspective, the division of child development into periods of "natural" behavior and "cultural" behavior loses significance and establishes itself as a *unitary* process of development and growth of the child as a growing and evolving *social* being.

The growth and development of a child's mind are a reflection of his "everyday existence," his engagement with the environment and his interaction with it. Hence its foundation must be sought in the conditions of a child's life, his class and labor relations. On that basis we must make an effort to understand the child's psychological development. If we adhere to this principle, the process of the child's "inventing" instruments, "artificial" signs, which the authors of the theory of "cultural development" have spoken about, becomes understandable. The need to master one's own behavior in a specific social-class environment during the child's active participation in it is the key to understanding the principle and source of a child's "cultural" development. In this process of development, the child's whole organism begins to change, and his type of behavior begins to take shape as the behavior of a specific historical class type, in parallel with the child's psychological development and his assimilation of "cultural" signs and tools. But the conception of the theory of "cultural development" assumes false premises, namely: (1) that the psychological development of the historical person is separated from the conditions and forms of that person's social labor, from the development of his productive activity; (2) that the historical class underpinnings that determine how the child's personality will develop are in abeyance in ontogeny, which ignores a basic factor in the determination of the qualitative changes of the child's overall mental development—his everyday existence; (3) the very concept of "cultural tools, instruments, and signs," first is utterly confused in its principle of classification (writing, walking, speech attention, etc.), and, second, viewing them as technical devices, tools, divorced from their place and significance in social labor

independent of the historical class conditions of a child's development is an anti-Marxist concept. Hence, the core of this theory is idealistic.

The theory of "cultural development" sees a parallel between the invention of "tools" during the historical period of man's evolution and a child's "discoveries" and "inventions" during the period of ontogenetic development. This comparison at bottom distorts both processes of development. First, the distortion of the historical process of development takes place in two directions: (1) an "invention or discovery of a tool or an instrument" is viewed as unrelated to the development of a person's social labor, i.e., it is idealistic and mystical, and hence the overall picture of these inventions is distorted (what conditions and needs of man's life in social labor gave birth to a particular invention or discovery, for example, writing and speech, etc.); in addition, the change in these "tools and instruments and signs" is closely related to which tools historical man used to gain his means for existence (technique, industry, the tools of production), i.e., all "cultural instruments" are the ideological superstructure above the economic structure. The interaction of the base (economic base, productive forces and productive relations) and the superstructure is not at all touched on by the author; (2) in ontogeny, "tools and instruments" are invented by the child primarily by the transmission to him of already finished resources through education and in the process of his active engagement in the environment and his interaction with it; and if it is acquired, its basis is his vital needs, the stimulating conditions of the external environment. Only such an approach can provide a basis for clarifying the basic principles of formation of instruments, tools, and signs, in the child as well as in adults. According to Vygotsky, these inventions are invented without the environment's making any demands on the child, independent of the child's class situation, of the conditions of class struggle and the type of education they produce, and of his own practice.

Refracted through the prism of class, economic, hygienic, and other conditions of the environment act upon the child, making active adaptation of the organism to the conditions of the environment necessary. The child's active interventions in the environment and his interaction with it vary in type depending on the specific type or stage of development: they are manifested in play activity and in labor activity; its types are conditioned in their succession by the degree of development of the child and the conditions of the class and production environment, its requirements and its demands. On the basis of this development, the child's mind also develops, and consciousness grows as the child grows and as his behavior is shaped into a class type of a specific historical epoch.

Taking the principle of a historical perspective in child development as their basis, the representatives of this theory committed serious methodological errors in their premises that prohibited them from building their theory on the basis of Marxist-Leninist methodology. First, they divided the period of child development into two independent periods, namely, (1) the period of so-called "natural" development, and (2) the period of "cultural" development. They made cultural

development the defining principle in child development. In the system of these authors, a child first goes through a phase of "natural forms of behavior," i.e., a phase in which the child is not yet able to make use of "tools," after which he enters a phase of "cultural behavior," in which he acquires the ability to use these tools and artificial signs as "instruments"; and in this phase the child learns and acquires mastery of his own "neuropsychological processes." By positing this fundamental difference between two phases of development, the representatives of this theory make a gross methodological mistake: first, it is impossible to establish such a metaphysical separation between two phases of development ("natural" and "cultural") since a child is born into specific conditions of a class-based production environment, and from that moment on, his development proceeds along distinct lines that leave their imprint on all the child's "organic" premises and that are marked by the given conditions of the class and production environment in which the child is born, grows, and develops. There is no so-called "natural" development, and there cannot be. This in no way denies the fact that the "organic substrate" with which the child is born plays a tremendous role in the period of early childhood and even in subsequent periods. Neither does it exclude the role of the hereditary laws that underlie the development of the child's organism. But at the same time we must demarcate those basic higher social laws that determine development and the shaping of the child as a specific type in a specific historical epoch and a specific class-based production environment from the biological laws that determine the child's organic development and that, from our perspective, are superseded. The model of development upheld by our authors introduces a dualism in the theory of child development by subjecting this development to different types of laws in the different periods of development ("biological" in the first period and "social-historical" in the second). Distinguishing in this process of development "natural forms" and "cultural forms" is tantamount to disregarding the class-historical foundation of child development, and we totally lose sight of the real qualitative changes taking place that serve the transition from lower forms of mind and behavior to higher forms. This completely invalid methodological orientation is also applied later when the authors examine specific periods of child development and, moreover, is responsible for other methodological mistakes in this theory. This fundamental error of the authors of this theory is, in its turn, due to the invalidity of the most basic concept, which the authors take as a primary premise, namely, the concept of "cultural development." Upon further analysis of the theory of "cultural development," the falsity and vagueness of this concept are reflected in the specific developmental stages the authors address in their works and interpret from the perspective of their theory. Vygotsky, in discussing the periods of child development, says, "School age can be characterized as preeminently a stage of cultural molding." This assertion is totally incorrect from any point of view.

First, it is invalid because a child is brought up as a representative of a specific class and production environment. He is wholly immersed in that environment,

and develops and is molded in interaction with it not from the beginning of school age, but from the moment he is born. The system of formal basic education is part of the more general educational system of a particular class and exists under specific conditions of the historical environment; it is only one of its aspects, one of its levels.

The author's assertion that the period of school age is preeminently a period of cultural development is invalid because play and work become distinct at the beginning of this period, i.e., the child grows so much that he is already capable not only of playing and working in the strict sense of the word but of drawing a distinction between play and work. A class-historical perspective is needed here since it alone can provide a correct approach to resolution of this question. Indeed, we know that a serious scientific debate is still going on about the age at which systematic study of reading and writing can begin. Some authors argue that it can begin at the age of five, whereas others say that a child has grown and developed sufficiently to begin studying reading and writing systematically and effectively only at the age of seven. There are also many other views, and they are not unfounded, but based on selected "scientific" data. How is that possible? The point is that it is utterly wrong to pose this question in abstract form: it must be resolved with regard to the child's being educated in a specific class-historical environment, taking into account also the conditions of class struggle therein. This environment has reached a certain technical and productive level, a certain level of culture. If we bear in mind that the acts of writing and reading are acts that pass through the cortex and hence require a certain degree of development of this organ, it becomes clear that this development does not take place at the same pace under all different environmental conditions. Similarly, one can and must approach the question of the child's transition from playing to working. This will be clear if we compare a peasant child, who at the age of five begins to participate in the work of his family (serving the everyday needs of the family, sending the herds out to pasture, and even performing easy tasks in the main kinds of work) and a child from an intellectual family or bourgeois family who is barred from access to any work processes at this stage and even later—hence the distinctive aspects of this child's development will be different. Even Vygotsky, regarding "cultural" development as a "special type of development," illustrates this with some of Binet's findings: one of Binet's subjects remembered well thanks to an outstanding natural memory, whereas another's recall was based on his use of memory techniques. But if we take into account the historical perspective that the author places at the basis of his theory of cultural development, these findings are not very instructive for clarifying the essential aspects of the theory of "cultural development." The child's mastery of the use of "tools" and "instruments" and his assimilation of the techniques of controlling his own behavior specific to historical man at a certain stage of his development and under certain conditions of class and productive environments—this entire domain is extremely varied in terms of its techniques, skills, and modes of action. It embraces the entire area of language, broad systems

of external forms of social and work behavior and thinking, and other "cultural" devices we apply during our lifetime. From this standpoint, "cultural" development cannot be some specific form of development; it cannot be a part of the series of behavioral acts that the author demonstrates through Binet's experiments. It is no more than a detail, and one cannot conclude from its perspective anything about the qualitative characteristics of the entire baggage of "cultural instruments and tools." The authors confuse the development of behavior with the development of higher mental functions (attention, thought, etc.). Cultural development takes place alongside a child's organic growth and development, and the shaping of the child's personality is a process that extends throughout the entire course of organic growth and development of the organism; that personality will therefore be of a specific type characteristic of the particular historical, class, and production environment. Throughout this period the child learns to use all the "instruments" and artificial tools that the social environment in which he is being raised employs. This process of mastering tools and instruments begins in the early stages of development in the child's class education. This process of cultural "acquisition" takes place together with the development of the child's nervous system in general, the whole of his muscle and bone systems, and is not a special type of development separate from the physical and the mental. One cannot say from this perspective, for example, that the savage with the "photographic" memory has a "natural" memory and that we, cultural people, possess an "artificial" memory. The memory of the savage is also "artificial," just as ours, in the sense that it is a result of his growth and development under specific conditions of the social and productive environment. At a certain stage in historical development, we see the formation in a child of "cultural" memory. In another example given by Vygotsky, one sees that the question is posed dualistically. He says:

A child at an older level can remember better than a young child for two completely different reasons: first, because the nervous "apparatus" underlying memory has evolved and become refined; second, because the "techniques and methods of remembering" have been developed and refined in the child. (*Pedology of school age*. P. 21, assignment 1)

Later he names the first type "organic" development, and the second, "functional" development. But one must not conceive the development of an organ as something isolated from the development of the "functions" of that organ. The organic foundation of memory in man is the cerebral cortex. All the development of the central nervous system takes place during continuous, active interaction of the child with the social environment around him. The development of the child's nervous system and of all of its functions (development of the mind) takes place as a single process in this interaction. Hence, there can be only one conclusion: separation of the "organic" development of memory from its "functional" development clashes with the methodological principles of dialectic

materialism. The organic foundation of memory, the central nervous system, develops along with its overall development; and memory, too, develops with it as a function of the brain under the specific conditions of a specific class and social environment and under the influence of the demands of that environment and social-class conditions. That is the way a specific type of memory (“natural,” “mnemonic,” “logical”) is formed. Hence, we see in the period of childhood a kind of continuity in the development of higher types of memory from lower types. Hence also, it is quite natural that “logical” memory develops in the child when the central nervous system has reached a certain level of development and when the class and production environment meets certain conditions. In light of this, we can fully understand that under certain conditions of the environment, higher forms of memory (for example, the logical form) do not develop. The conditions for their development do not exist in the environment around the child. The materials of other investigators whom the author quotes also speak about the fact that the development of memory and the transition from lower stages to higher stages is linked especially with the growth and development of the child’s overall organism as well as his higher nervous system (Troshin, Meuman). The authors’ explanation does not explain the principal driving forces in the development of a child’s memory: it merely links cultural development in general and the development of memory in particular to specific age stages and to a specific level of *organic* development, ignoring the mediation of this development by social conditions, class status, and type of social labor. But how and why this development takes place in this specific direction and not another is something the author fails to explain (e.g., the changes in memory at school age, the discontinuity that strikes cultural development at precisely this age). Why the child moves from an instinctual, “mechanical” memory to voluntary memory, for example—we get no clarification of the driving forces of this development, whereas in fact it is in school that conditions are created that trigger this movement—i.e., those driving forces originate in the school. We could say that if a child did not go to school, but remained beyond its pale, his memory would develop differently, as a function of the type of memory life and social labor would require of him. If it is required, as it is in school, thorough, systematic imprinting of the material taken in is the kind of memory that would develop. If not, another type would develop. Hence, only one conclusion can be drawn from this: the type of memory that will develop is determined by the conditions of a child’s social labor, i.e., by his class situation. It is quite normal that “mechanical” memory should be encountered in the early stages of ontogeny since a child’s environment at that time requires no other type of memory from him. Furthermore, given the level of development reached by the higher nervous system at that particular time, the higher forms of memory might not yet be accessible to him. But this latter feature, namely, that development of the higher nervous system proceeds in accordance with the ages of childhood, is variable, as we have seen from the example of learning to write. These are the

causes of the transformation of "mechanical" memory into voluntary or logical memory. The rate of development of memory as a voluntary process is also explainable on the basis of this law. But the author, following Stern and Groos, has not gotten to the basic principle that could provide the key to an understanding of the development of memory ([*Pedology of school age*]. Pp. 37–38, assignments 3–4).

Thus, a child's physical and mental development, his acquisition of "cultural tools and instruments," is a single process of child development that occurs in a specific social environment. These tools and instruments acquired by the child also vary as a function of the characteristics of that environment, and hence also the differences in types of children among the different social classes and from one historical period to another. That is why the position put forward by the authors of the theory of "cultural development" that a child's psychological development "is subordinate to and conditioned by general organic development" is invalid. It is also conditioned by the social environment in which the child grows up. The type of mind (perception, memory, thought, and consciousness), the speech patterns, his gestures and movement, and his feelings all bear the stamp of a social-class type of a particular historical epoch.

Conclusion

The theory of "cultural development" is the product of an uncritical import into our pedology of theories hostile to Marxism. It is based on specifically idealistic sources. One can discern in it the strong influence of idealistic views such as those of Spranger, Stern, Bühler, and Adler. The vast factual material gathered by the authors of the theory, mainly from foreign sources, is proffered almost without criticism. The authors' attempt to resolve certain issues in terms of Marxist-Leninist theory produce only eclecticism. The entire theory of "cultural development" is based on the metaphysical idea, alien to Marxism, of drawing a clear distinction between the natural sciences and the sciences of the mind. This is reflected in the divorce of the development of the human mind from man's "nature" (from the material substrate, the brain) and from man's activity in performing social labor. The authors totally disregard Marx's fundamental position that "The first historical act of these individuals, which distinguishes them from animals, is not that they think, but that they have begun to produce the means of their subsistence."

The situation is the same with regard to children: the very first display of a child's active nature is acts directed toward the environment for the purpose of mastering and knowing it through practice. It is in this process that the child acquires "cultural tools and instruments" in the corresponding system of upbringing, which has its historical class foundation. The complex theory of cultural development requires serious and thorough criticism throughout. This article is only the first beginning of this criticism. It can make no claim whatever to the necessary depth and breadth required by this theory. The theory is misleading in the issues of

the development of the Soviet child. It also has a baleful influence on the practice of our education and upbringing.

Note

1. As a subsidiary aspect that must be broached not as a leading aspect, but as a kind of by-product that emanates naturally from the active interaction of a child with his environment, in which all mind and all its mechanisms are formed in conformity with the type of class and work environment in which the child lives.