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Professor L.S. Vygotsky's “Pedological School”

“The Central Committee of the All-Union Communist Party (Bolsheviks) discussed the theory and practice of contemporary so-called pedology. The Central Committee of the All-Union Communist Party (Bolsheviks) deems that the theory and the practice of this pedology is based on pseudoscientific, anti-Marxist postulates.”

(From the resolution of the Central Committee of the All-Union Communist Party (Bolsheviks) entitled “On the pedological distortions in the system of the People’s Commissariat of Education”)

The work of the late Professor L.S. Vygotsky must be viewed in the light of his profound analysis not only of pedological but also of psychological and pedagogical areas of scientific knowledge, for he worked in both areas, and his followers have attempted to transfer without qualification all of his untested and often contradictory conclusions in pedagogy and didactics.

On the basis of the exhaustive assessment of pedology given in the resolution of the Party Central Committee of 4 July 1936, it is our intention in this work to

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From the editors: The authors of the above article, which is a direct response to the Resolution of the Central Committee of the All-Union Communist Party (Bolsheviks) entitled “On the pedological distortions in the system of the People’s Commissariat of Education,” correctly expose the errors in the works of Professor Vygotsky and his followers, but provide no complete analysis of the pseudoscientificity of pedology and of those distortions noted in the Resolution of the Central Committee of the Party of July 4, this year.

The editorial board intends to publish in its next issues a number of articles with extensive criticism of the basic works in this area.

analyze the theoretical and methodological premises of Professor Vygotsky, which he has presented in a number of his writings and which have been developed further by a group of his followers, who have created the "Leningrad Pedological School."

1

In order to approach an assessment of the theoretical and methodological positions of Professor Vygotsky properly, we shall begin our analysis of his works with the latest, in which he not only summed up his ten years of scientific activity but also began approaching an understanding of Marxism-Leninism and its importance for the development of science.

Let us begin with his posthumous and most complete work—his book [*Thinking and speech*],¹ on the basis of which we shall examine his most fundamental works.

The book [*Thinking and speech*] essentially is not the author's completed investigation on this question: it is only an elaboration of discrete materials that are variously dated and are of varied theoretical value in terms of the issues of thinking and speech. V.N. Kolbanovskii, the editor of this work, praised the book highly, which, in our opinion, has in fact caused heads to spin among the numerous uncritical devotees of Professor Vygotsky in psychology and pedology. In his foreword Comrade Kolbanovskii declares:

Publication of the book [*Thinking and speech*] is the summation of decades of experimental work by an outstanding Soviet psychologist and is a noteworthy event for our science. This is the first systematic experimental elaboration of the subject. As far as we know, it is the *only* work at the present stage of development of psychology in which a solid critique is given of bourgeois theories of thinking and speech in that the author compares and contrasts brilliant experimental studies done at a high theoretical level. This is the most comprehensive study of the *history of the intellectual development of the child*, one of the areas of knowledge "from which a theory of cognition and dialectics must be formed" [Lenin].²

F. Muzylev & G. Fortunatov, reviewers of this book in the bulletin of Uchpedzgiz (*Uchebno-pedagogicheskaiia Literatura*, 1935, No. 6), probed even more deeply into the "genius and uniqueness" of this book by Vygotsky, saying, "Despite its shortcomings, Vygotsky's book is a tremendous contribution to science not only for psychologists and pedologists but also for educators and even for linguists and experts in dialectical materialism," for he "touches on all the cardinal questions of the problem of the thinking and speech; and although he was unable to resolve them fully consistently in a Marxist manner, he nonetheless basically showed the correct way to approach them" [!?] (P. 19).

But to what extent are these hymns of praise objective, scientific, and correct? Professor Vygotsky says in discussing the question of thinking and speech that the

genetic roots of language vary and have developed along different lines throughout the whole animal kingdom. He backs up these assertions with his own unique use of materials from studies by Köhler, Enschedé, Yerkes, Ach, Adler, and others.

This fact alone indicates that Vygotsky made insufficient use of the entire preceding legacy in this area. He does not draw on the works of Marx and Engels at all, though Engels was not only a polyglot but also a profound connoisseur of linguistics. And Vygotsky made absolutely no use of the works of linguists, especially of Academician N.Ia. Marr.

By denying the unity of genetic roots in the origin of thinking and speech, Vygotsky denies the leading role of labor, which in Engels's apt definition created man; and he takes a position counter to an axiom of Marxism in that he studies the problem from invalid positions.

The best proof that the genetic root of thought is action is to be found in materials presented by Vygotsky himself, namely, the works of Köhler, Yerkes, and Enschedé, although he attempts to demonstrate the opposite.

Professor Vygotsky, following Köhler, recognizes that primates communicate through gestures and facial expressions. As Vygotsky indicates, Enschedé even compiled a dictionary of the phonetic language of chimpanzees, consisting of 32 "words." Enschedé concludes from all this that language is not only a means of expressing emotion but also of psychological contact with others like oneself. Both the apes observed by Köhler and Yerkes and Enschedé's chimpanzees demonstrate this function of language beyond any doubt.

After such assertions, Vygotsky, in kindred spirit with Bühler and others, concludes that the "action of chimpanzees is independent of language."

In denying that chimpanzees use signs in communication, Vygotsky completely omits or disregards their pantomimic signs, which, for example, are expressed in one chimpanzee's call to another chimpanzee to go.

The phonetic speech of the chimpanzee is weak; it does not yet serve as a means of communication among them. One can only say, with qualification, that it contains the rudiments of speech or, more accurately, that it is a means of communication directly preceding the human means of communication. Gestures are a means of communication for the chimpanzee; but these are not yet pantomimic gestures, for the chimpanzee does not walk erect, and his hands are underdeveloped.

In his book *Worttaubheit, Melodientaubheit und Gebardenagnossie*, Kogerer distinguishes four stages of expressive movement: (1) pantomimic, (2) automatic, (3) facial expression, and (4) laughter, weeping, etc. Kogerer's stages show how speech develops—from expressive movements of the entire body to movements of the face and hands and then to sounds and, in the final analysis, to speech. The need for joint action was the principal incentive for its development.

Engels formulated brilliantly the genetic path of development. He writes:

Rational activity, induction, deduction, and consequently also abstraction (the generic content of the four-legged and the two-legged), the analysis of unknown

objects ([?] breaking open a nut is also an instance of analysis), synthesis (in which animals do tricks), and experiment as a combination of both (in the case of new obstacles and in unknown situations) are common to animals and ourselves. All of these methods, i.e., all the means of scientific investigation known to ordinary logic, are of identical type in man and in higher animals. They differ only in degree (the development of the corresponding method).³

We also found confirmation of the common genetic root of thinking and speech in linguistics. Academician Marr writes:

Language, phonetic speech, is not simply a gift of nature in any of its stages of development or in any part of them. Mankind created his language in the process of labor under specific social conditions and will refabricate it when real new social forms of life and living set in, in conformity to the new kind of thought under these conditions. . . . The *roots of inherited speech* lie not in external nature, not within us, not within our physical nature, but in social life, in its material basis, in the economy, and in technology.⁴

With regard to questions of thinking, Academician Marr says: “Consciousness was not an achievement of natural history, the bare consequence of an object existing in a physical environment: rather, it was the result of development of that object and of technical means derived not from nature, but from production.”⁵

Marr thus follows the path marked out by Marx, who said:

The production of ideas, notions, consciousness was originally directly woven into material activity and in people’s material communication—the language of real life. Ideas, thoughts, and intellectual communication among people at this point still derives directly from material relations among people. . . . People produce new concepts and ideas, etc.; but these are real acting people, defined by the specific development of their productive forces and the form of social contact corresponding to that contact.⁶

An analysis of Professor Vygotsky’s starting premises in the study of thinking and speech reveals that they consist not of scientific positions on that subject and that, although he does attempt to criticize bourgeois scientists, those attempts and that criticism are such as to make him an adherent to the idealistic statements of Köhler, Yerkes, Learned, Bühler, and others.

Vygotsky explains the problem of development in subjective, idealist, and formal logical terms, completely disregarding Marxism-Leninism and not wishing, or being able, to approach and test critically the bourgeois legacy.

The second major shortcoming that permeates all of Professor Vygotsky’s works is his rather quick and totally unscientific formulation, in most cases totally unfounded, of a large number of laws, the vast majority of which cannot be confirmed because sufficient empirical material has not yet been accumulated.

In his chapter on the development of scientific concepts, Vygotsky formulates the law of the zone of proximal development, which he suggests should guide all schoolwork.

The gist of this “discovery” (in fact McCarthy made this discovery before

Vygotsky), which is backed up by absolutely no data and rests only on surmises and logical inferences by the author, or on an uncritical transfer of McCarthy's ideas to Soviet reality, is as follows: "Psychological studies of the problem of formal learning have usually gone no further than establishing a level of intellectual development of the child" (217). But this is inadequate, for at this point tests only determine the "level of actual development." But the level of development

is not determined solely by that part of it which has come to maturity. Just as a gardener who wishes to determine the state of his garden would be wrong if he thought to evaluate it only on the basis of those trees that have matured and produced fruit but rather must take into account the trees that are maturing as well, so must the psychologist necessarily take into account in evaluating the state of development not only functions that have matured but also those that are in the process of becoming mature, not only the actual level but also the zone of proximal development. (217)

According to Vygotsky, the zone of proximal development can be established by helping a child, by showing and giving hints, by leading questions, by starting to work on a problem, etc. From this he concludes that a child will thereby also demonstrate the zone of its proximal development—in other words, it will show what data he has from nature to assimilate in some concrete discipline or subsection of a discipline.

To back up his "discovery," which he claims his investigations establish, Vygotsky refers to his investigations and to the "commonly known and undisputed point that a child can always do more and can always solve the most difficult problems in collaboration, with guidance, and with help, than he can do independently" (218). This assertion is based not on investigations, but on the old, belabored position, rephrased and formulated differently by Vygotsky, that the capacity for learning is biologically inherited, although in Vygotsky it is disguised very skillfully.

The theory of limit that he discovered best of all confirms that we formulated the above conclusion on the basis of Vygotsky's own materials and discoveries, and is not an arbitrary assumption on our part.

The theory of limit in Vygotsky's formulation assumes the following form: new pedagogical conclusions must draw from psychological investigations.

Previously one asked whether a child was mature enough to learn to read, to do arithmetic, etc. The question of matured functions remains in force. We must always determine the lower threshold of learning. But that is not all of the problem: we must also be able to determine the top threshold of learning. Formal learning will be fruitful only between these two limits. The optimal period of formal learning of a particular subject lies solely between them. (221)

The latter statement also implies that to establish the lower and upper limits of learning, the "key point for the whole of the psychology of learning is the possibility of rising to a higher level of intellectual capability in cooperation, the possibility of making the transition from what a child is able to do to what he is unable to do, with the help of imitation" (220). We read further:

Learning and development do not directly coincide, but are two processes that exist in very complex relationships with one another. Learning is good only when it advances development. Then it will awaken and call to light a number of functions that are in a state of maturation and that lie in the zone of proximal development. (222)

To back up these conclusions, Vygotsky refers to Fortuini and Montessori, who called this period, i.e., the zone of proximal development, the “sensitive period.” Professor Vygotsky writes:

As is known, the famous biologist de Vries used this name to designate those periods in ontogenetic development, which he established empirically, in which the organism is especially sensitive to influences of a specific type. During this period, certain influences have a sensitive influence on the entire course of development, producing in it a variety of profound changes. In other periods the same conditions may be neutral or even have the reverse effect on the course of development. Sensitive periods coincide totally with what we have earlier called the optimal periods for learning. There are only two differences:

1. We tried not only empirically but also experimentally and theoretically to determine the nature of these periods, and found an explanation of the specific sensitivity of these periods for learning of a specific type in the zone of proximal development.

2. Montessori and other authors construct their theory of sensitive periods from a direct biological analogy between findings concerning the sensitive periods in the development of lower animals, which de Vries found, and processes of development such as the development of written language. But our studies showed that these periods are processes of a purely social nature, processes of development of higher psychological functions that arise from a child’s cultural development, which has its source in cooperation and formal learning. (222–223)

Thus, after drawing a categorical line between Montessori et al. and himself, Professor Vygotsky at this point declares his total and unqualified agreement with Montessori’s conclusions, in particular, that the best period for learning to write is between the ages of four and a half and five. Here Professor Vygotsky does not even qualify these conclusions by noting that they were made on the basis of a study of children of quite well-off parents who helped them (the children) show the fruitfulness of learning to write at this age.

Referring to Montessori’s opinion that “it is at this age that the optimal time for learning to write, its sensitive period, is concentrated,” Vygotsky, concurring with this, concludes: “The same applies to any subject to be learned, which always has its sensitive period” (223).

The conclusion from the above can be only one: since sensitive periods, which determine the optimal periods of learning, are in the early stages of a child’s development, elimination of illiteracy among the “adult population, and even youth, is an idle undertaking; similarly, training of cadres of the Soviet intelligentsia, not only those who have come from the working class (children of workers) but even

workers themselves who have completed workers' college and then higher education, is also an excessive waste of funds."

Vygotsky's statements place him objectively among those who "argued for" and continue to "argue for" the inability of the working class to acquire the heights of scientific knowledge, their incapacity for creativity as a result of some alleged biological inferiority of the working class that has for centuries adapted its human essence to performing only physical functions in production.

One would have to be naive, blind, or completely ignorant of school practice to claim seriously that the opening of a new era lies in the discovery of the fact that a child is able to raise himself to a new stage in development in cooperation and with help. The whole of school practice has always been built on this cooperation and on the teacher's helping the child. The only ones who have denied this are the "theoreticians" of the demise of the school, who said, following Rousseau, that the child should himself learn and develop, and that the teacher should not interfere in this. Thus, establishing the notorious zone of proximal development, Vygotsky failed to notice, and continues to deny, that teachers and schools are necessary; as we see, learning and development are not determined by them, but by the zone of the child's proximal development. Only this zone, and this zone alone, can indicate beforehand the path that learning and development will take, so assistance from teacher and parents, the school, playmates, etc., is not necessary.

The gist of the zone of proximal development and optimal periods of learning, Vygotsky's "discovery," are reactionary, unscientific, and contrived; they deny the practice and the tremendous, boundless possibilities of mankind to develop and learn in very diverse development periods, irrespective of the establishment of restrictions and the protests of the whole bourgeois pleiad of scholars who attempt to frighten the working class away from learning the sciences by a "scientific" demonstration of sensitive periods.

Considering the book [*Thinking and speech*] as a whole, one can say that it is full of overhasty, invalid, unscientific, and sometimes utterly unfounded "scientific" conclusions about the nature of thinking and speech, the laws of proximal development, and concept formation in childhood, about the genetic roots of thinking and speech, etc.

Despite the shining assessment given this book by Professor Kolbanovskii and reviewers, one must say that it (the book) is only a collection of still very crude, experimentally untested facts requiring careful and thoughtful work—and not just by a psychologist but also by a linguist and philosopher, i.e., this book is only material for investigators yet to come. Some of the passages in this book demonstrate the author's inadequate familiarity with the state of contemporary philosophical knowledge and with the state of linguistics (the author demonstrated his total ignorance of the works of Academician Marr and of Potebnya and others, not to mention the studies of foreign linguists). If Professor Vygotsky had had even an elementary knowledge of the works of linguists, he would not have claimed truths that have been known for a long time as his own.

As a result of his poor orientation in the most important areas of knowledge for any investigator of thinking and speech, Vygotsky did not even develop a method of research. Though he criticizes Ach, Learned, Piaget, and Stern, he still does not go beyond their method; what is more, he made no use of the wealth of their procedure, and especially of Gesell's procedure, in his research. This procedure is unsuited for our research in the form in which it is used by these authors, but it does open up an extremely rich range of possibilities and provide a wealth of techniques that the investigator cannot disregard.

We must add to the above general description of Vygotsky's work the point that this book still finds him immersed in cultural-historical theory, which he developed together with Luria and which, in its final conclusions, led them (inevitably) into the swamp of stagnation.

2

Now let us look at the second series of writings by Professor Vygotsky on questions of pedology. We shall examine in this connection both his lectures on pedology, published in offset form by the Second Moscow State Medical Institute, and his previous statements about pedology.

Vygotsky comes up with no less strange things in his treatment of pedology than in his investigation of thinking and speech.⁷

First, it is evident from the lectures published by the MGMI that pedology has already managed to establish a huge number of laws that the author formulates very liberally, without even resorting to references and demonstrations.

He derives the following laws, for example, in discussing the role of heredity and the environment:

1. Divergence in the higher functions is less in elementary functions, all other conditions being equal. Hence the conclusion that "the longer it takes any function to develop, the less direct its influence on heredity; it is not so direct. The shorter the path of development of any function, the more direct is the influence of heredity on it" (80). [What is this but unconcealed Lamarckism?]

2. The coefficient of similarity between monozygotic twins and dizygotic twins with respect to the same attribute is not a constant that is unchanging throughout a child's entire development, but changes in moving from one age period to another, as a result of which the discrepancy between the coefficient for monozygotic twins and dizygotic twins changes respectively. The conclusion: heredity does not change throughout the entire period of development, but the relative weight of hereditary influence may vary throughout development if something new that is not contained in finished form in inherited genes actually does arise during the course of development (83).

3. There is no summary definition of the influences of heredity on the course of development nor can there be (summary in the sense that it would apply equally to all aspects of development and all ages) (85).

4. We see disparities in the coefficients as a sign or a measure of the heredity of that particular sign (87).

The last three "laws" are derived by the author from his study of twins at the VIEM, begun not long before this. This evidences the ease with which "laws" are formed, even in the absence of any material necessary to do so, the process of investigation of a question being, in fact, still in an embryonic stage.

Professor Vygotsky derived just as seriously two "laws" on the influence of the environment on development. The first of these states: "The environment is a source of development for the evolution of higher properties and forms of activity specific to man. Conclusion: man is a social being, so he will never develop those qualities and properties that have developed as a result of historical development of the whole of mankind if he is not exposed to society" (118). The second "law" says: "The child's higher psychological functions and higher properties specific to mankind arise first as forms of the child's collective behavior, forms of cooperation with other people; only later do they become individual functions of the child himself" (120).

A number of "laws" on a child's mental development are presented on the same level.

The situation regarding laws of the child's physical development and the development of the central nervous system is no better.

Vygotsky's laws on the nervous system are:

1. A function moves upward in the course of development of one of the principal laws. This means that at the beginning stage of development, certain cerebral functions are performed with the help of lower centers; but as development continues, these functions are passed on to higher centers (188).

2. When functions move upward, the lower centers that had previously exercised this function do not part definitively from this function; they are preserved, becoming a lower, subordinate level in the activity of the higher centers (188-189).

3. The law of emancipation of nervous centers. This signifies that, if higher centers are functionally weak as a consequence of organic or dynamic factors, lower centers are freed and begin to act independently, assuming exercise of the function that the injured or damaged higher centers are no longer able to carry out. (193-194)

At this point Vygotsky introduces a number of corrections, alterations, and amendments of this law in regard to child development, so that afterward nothing remains of the law.

If we disregard the overhasty formulation of "laws" and refrain from carping at the author for uncritically reproducing the psychological theories of Gesell in his pedological lectures, for confusing the concepts of intellectual, physical, and legal ages, respectively, we will not reproach him for not regarding the problem of development in a Leninist manner but as an increase or a decrease, then even on the basis of materials Vygotsky gives in his lectures, this is not a science in its own right, but information from juvenile anatomy and physiology, from the anatomy and physiology of the central nervous system and the theory of the brain, from

child psychology, etc.—moreover, not always accurately presented, and not always on a sufficiently high scientific level.

To resolve the basic question of what is the object of pedology as a science in its own right, let us look at some of the author's specialized writings.

The first establishes the boundary between pedology and psychology (the journal *Psikhologiiia*, 1931, 4[1]); the second, between pedology and psychotechnology (the journal *Psikhotekhnika i psikhofiziologiia truda*, 1931, No. 2–3); and the third, which is a preface to Gesell's book *Pedology of early childhood*, translated by Ostrovskii in 1932, sums up the conclusions of the first two of Vygotsky's writings.

Vygotsky says, "The basis for the construction of pedology as a science in its own right lies in recognition of the objective reality of the unified process of child development, which is what it studies" (*Psikhologiiia*, p. 80). To back up the claim that this objective reality exists, Vygotsky adduces "various works published in America or in the West" that "are often truly exemplary models of empirical research; it is also a demonstration of how truly ineluctable, how historically inevitable and methodologically correct, are those elementary tendencies that have led to the emergence of pedology as a discipline" (87). The fact that pedology had already been born once and quietly died because it did not find a reason for its existence (Stanley Hall) does not bother the author; he thinks that it died only methodologically, but continues to live empirically.

To resurrect pedology methodologically, Vygotsky thinks it necessary to resolve the question of the relationship between pedology and other contiguous sciences, for "pedology will not be able to determine its subject matter properly if it does not resolve this question, since to do so signifies at the same time to 'determine the relation of this subject matter to the subject matters of other sciences'" (87).

According to Vygotsky's presentation, the foundation of biological, organic, inorganic, agronomic chemistry, and other areas of scientific knowledge does not derive from the practice of mankind, but comes from the head of the investigator who has decided to create a new science. Thus it was with pedology as well—not just for Vygotsky but also for all those who defend it. We can include Professor Zalkind in those ranks, who, on 20 March 1936 in the newspaper *Za kommunisticheskoe prosveshchenie* published an article in defense of pedology. His defense was also as "real" as were Professor Vygotsky's arguments. The difference between the two of them is that in demonstrating the historical inevitability of pedology, Vygotsky starts with an analogy with zoology and animal geography, and thus finds a place for pedology among the ranks of pedagogical sciences analogous to the place of biology and its relation to all of the natural sciences; Professor Zalkind, on the other hand, proclaims the necessity of the independent existence of pedology on the basis of the fact that earlier no one wanted to grant psychiatry the right to be a science in its own right.⁸

It is noteworthy that Vygotsky's "demonstration" that pedology was an independent discipline was his attempt to draw a distinction between a pedological and

a psychological study on the basis of our inquiry into understanding the process of remembering in a seven-year-old.

In an article in the journal *Psikhologiya* (1931, Vol. 4, No. 1), he writes as follows:

The psychologist is interested primarily in memory and the loss of its activity, not the age of seven as a specific stage in the overall development of the child and the genesis of an adult human being. He finds in the memory of a seven-year-old a number of aspects that shed light on the general laws of memory and enrich our understanding of its structure and activity. His conclusions are not on the nature of the age of seven, but the nature of memory and generalization. Laws and theories will enrich our notion of the nature of memory. (P. 95)

When a pedologist studies the memory of a seven-year-old, he is interested predominantly not in memory and its nature, but in the laws of the progressive evolution of the child. Memory is one of the symptoms, one of the real aspects participating in that overall change that underlies that evolution. The pedologist will compare memory not with other phenomena of memory, but with other phenomena of the age of seven. (p. 95)

These extracts show very clearly how contrived and artificial is Vygotsky's proposed delimitation of the spheres of inquiry of psychology and pedology respectively.

But then what remains to the pedologist if we recall that a pedagogue, who also studies the problem of development in connection with education, upbringing, and formal learning, considers a concrete age, not an abstract age, an age within a concrete specific environment? In his investigations the pedagogue makes use not only of the findings of psychology but also of its method; in establishing the laws of education and formal learning, the pedagogue tests and sometimes corrects conclusions from the investigations of psychologists, especially in those areas where psychology, shunning life and practice, limits itself to the child and bases all of its inquiry on the so-called clinical method, disregarding the fact that in a group this same child will assume a completely new quality.

Defenders of pedology usually answer this objection roughly as follows: "We address our inquiry to those areas that at the present moment are poorly studied or are studied unsatisfactorily by psychologists and pedagogues; and from this we wish to create a special science of its own," i.e., they thus confirm that pedology is not a science that has been promoted by life and human practice, but something contrived.

Pedology, "as yet unformed, and vacillating, not having yet defined its subject matter and method, and full of harmful anti-Marxist tendencies, was declared a universal science whose purpose was to control all aspects of educational work, including pedagogy and pedagogues themselves." This description given by the Central Committee of the All-Union Communist Party (Bolsheviks) in its resolution of 4 July exhaustively defines pedology and its claims to the role of being a science in its own right.

As for other, earlier works of Professor Vygotsky, we can only refer the reader

to a review by P. Razmyslov devoted to an analysis of Vygotsky's works (see the journal *Kniga i Proletarskaia Revoliutsiia*, 1934, No. 4), in which the author analyzes these works in considerable detail and reveals the idealist core of both Vygotsky's cultural-historical theory and all of his other positions in psychology.

We might say with regard to these earlier works that Vygotsky began in his latest works to seek for ways to surmount his earlier errors. He understood that a denial of the philosophy of Marxism invariably results in the utilization of the worst and most reactionary philosophy and that the true way to self-verification is through a solid mastery of Marxist philosophy, arming oneself with the methodology of Marxism-Leninism to resolve even such "subtle" problems as the development of the individual and individual psychology. Vygotsky's premature death prevented him from embarking upon a truly scientific path.

3

After Vygotsky's death, some people attempted uncritically to make him the banner of Soviet psychology and of the so-called science of pedology (Leningrad Pedological Institute, some of the staff of the Pedological Department of the Herzen Institute, etc.); most guilty of this were those who uncritically approached his book [*Thinking and speech*], i.e., who saw it as the culmination of a decade of research.

Hence, we decided, at the same time as we undertook a critical analysis of a number of Professor Vygotsky's works, to show what path his disciples took. To this end we shall take only two of the most recent works of two followers of Professor Vygotsky: L.P. Zankov, [*On the question of the development of the schoolchild's thought*], and the dissertation of Comrade Konnikova, graduate student at the Leningrad Herzen Pedagogical Institute entitled ["The transitional stage in the development of speech (autonomous speech)"].

Zankov's work on "the question of the development of the preschooler's thought" was published in 1935 in the collection [*New paths in abnormal development*]. In this work the author, studying the thought of the mentally retarded and the normal schoolchild, in the context of teaching natural science (P. 67), promises to dethrone Piaget's incorrect orientations and to give a correct resolution to the problem that should help the teacher in the practical aspects of his work and the theoretician in his further development of questions concerning thought, enabling him to move on to the next stages of scientific cognition of the processes of a child's thinking.

Zankov, who remained faithful to the traditions of his teacher, went no further than verbal battles with Piaget, as a result of which he failed to gain not only a solution to the problem he posed but could not even examine and clarify it competently.

In his investigation he continues to operate with utterly unscientific concepts that only confuse the gist of the problem—"everyday concepts and scientific concepts"—classifying among the latter everything that the child learns in the process

of formal learning, and among the former everything that a child has learned from his environment. These concepts enable the same concept to be regarded as both a scientific and an everyday concept, and to deny any scientific quality to those concepts the child acquires from his environment. But one must not forget that a child has a concept of a machine before school as well as in the early primary grades, but that it is only in the later grades that he approaches the scientific concept of a machine. This example is sufficient to understand the invalidity of Vygotsky's and Zankov's new terminology.

It is of dubious scientific value to dispute the "spontaneous" concept Piaget uses and to invent at the same time even less intelligible and less rational concepts that utterly fail to reflect the essence of the matter. This is no more than playing with words.

After beginning by denying anything positive in Piaget's studies of children's thought (after all, it is much easier to ascribe all merits to oneself and one's teacher), Comrade Zankov nonetheless is compelled to acknowledge that he has wholly made use of Piaget's method in his studies. This alone shows that he is not approaching Piaget's studies with sufficient depth. It is incontestable that Piaget did much in study of the schoolchild's thought, but it is also incontestable that in his studies of the schoolchild he used a flawed method of research, a method of questioning, and thus admitted error both into his investigations and into the conclusions he drew from them (the conclusions often do not correspond to reality). Yet Zankov, the uncritical critic of Piaget, used this same flawed method of questions or incomplete sentences.

A second shortcoming that rules out even a hint of scientific quality in his research is the absence of any preliminary study of the children who were investigated. He himself points this out: "We have no pedological data on the subjects we chose from pupils in a normal school and hence are unable to use IQ as a guideline in our choice of subjects" (P. 71).

One can also judge the scientific quality of the investigation from the conclusions drawn by the author: "Indeed, even in the worst case, normal schoolchildren solve more than half, or even three-fourths, of the 'natural science tests' they are given, i.e., they have basically assimilated cause-and-effect relations that occur in the material presented to them" (P. 73). This may also mean that schoolchildren remembered quite well the material they studied in their classroom, but the author does not even bother to say when, i.e., how long before the study this material was studied in the classroom.

And in the light of such studies, Zankov assures the reader that he, following in the footsteps of his "teacher," who so acutely, thoroughly, and profoundly criticized Piaget's conceptions, will demonstrate the complete untenability of the whole of Piaget's conceptions and the genius of his investigations.

Piaget must be criticized, but not with the tools that Comrade Zankov chose for this, following in the footsteps of his "teacher." Piaget's statements, which are based on numerous findings he studied, can be declared invalid only if the inves-

tigator examines thoroughly identical facts, but uses not only Piaget's methods but also another method devised independently. This means that he will take the most diverse human material for his study and will show where the flaws in Piaget's conclusions depend on the procedure, where they depend on his class orientation or other factors, and, finally, where his conclusions coincide with ours. He will probably criticize *in toto* everything done outside Soviet science as bourgeois. But bourgeois scientists, who spontaneously start out from positions of materialism, sometimes approach knowledge and discovery of a concrete truth. Only when studies are oriented in this way and only when a particular problem is approached thus can one ensure that research is scientific and has material strength; then teacher and pupil will be able to make use of it.

We find nothing of the like in Zankov and his research. The more than a dozen tables and curves he presents in his article merely underscore the absence of scientificity and the failure to solve the problem posed.

All the conclusions drawn from the materials gathered by the researcher are only arbitrary opinions and hypotheses of Zankov's and are entirely unfounded. They are the worst form of a stage we already left behind when we considered an author, did not familiarize ourselves with the state of the problem and how it had been studied throughout the world, made a few overhasty and random observations, or examined materials acquired no less randomly and unsystematically by a variety of investigators for various reasons, chose self-evident facts, and destroyed our "victim," making mincemeat of him.

Attempts using unsuited means have always given the opposite results. That is what happened with Piaget and the "devastating, most acute and thorough" criticism by Professor Vygotsky and his pupil Zankov. After an intensive reading of the criticism, the reader still has a chance to acquaint himself with the specific material on the question of thinking and speech of the child in Piaget.

Instead of an enrichment of science, what we have in the work of Comrade Zankov is formalism and scholasticism.

4

And so, to finish with the so-called Vygotsky school, which, as the reader has seen, has managed to spoil and confuse many things, it remains for us only to study the results of the activities of his disciples in the training of young scientific cadres. We shall do this on the basis of an analysis of the dissertation by Konnikova, written under the guidance of Vygotsky's disciple Comrade Levina, Head of the Department of Pedology of the Herzen State Pedagogical Institute at Leningrad.

The theme of Konnikova's dissertation, entitled ["The transitional stage in the development of children's speech (autonomous speech)"], is quite relevant today, necessary and worthwhile. Many scholars participated in its investigation. But its subject is still far from being definitively handled. Comrade Konnikova's study has brought mankind not one bit closer to its solution, not because the author does

not have enough knowledge or lacks research skills. These she has in abundance; and had she so wished, she could have achieved to some extent the perfection necessary for the investigation; but Comrade Konnikova focused the whole of her research not on resolving the problem, but on demonstrating the "genius" of her teacher, i.e., Vygotsky; and, blinded by this seeming genius and grandeur, she could not "see the forest for the trees" and was unable to make use of the legacy accumulated by scientists on this question.

In the introduction, in which the author tries to demonstrate her starting positions and give a glimpse of her research method, almost every page is speckled with extraordinary praise of Professor Vygotsky.

"Vygotsky summed up the results of contemporary theories on thinking and speech with extraordinary clarity," we read on page 9 of Konnikova's dissertation. Or: "Resolution of the question of the unity of the sensory and the logical within the framework of the broader problem of the unity of affect and intelligence in human consciousness puts the problem of the unity of thinking and speech, so brilliantly developed by Vygotsky, center stage" (P. 15); or: "Vygotsky reinforces the methodologically very important idea that a human child is not born with a finished and ready-made consciousness, but must traverse a path of its birth and genesis" (P. 28).

What does it matter to Konnikova that this was confirmed long before Vygotsky and is a basic law of Marxism-Leninism, discovered not by Vygotsky, but by Marx (see *The German ideology*), and later developed brilliantly by Lenin even before Vygotsky appeared on the scene? In the same way, she is not bothered that a number of the propositions she employs have nothing in common either with Marxism or with science in general. What is important for her is that this was confirmed by Vygotsky, for otherwise she cannot trust the theory of Marx and Lenin.

Konnikova places the following thesis, so "brilliantly" developed by Vygotsky, at the basis of her investigation:

1. Each word is a generalized reflection of existence, and accordingly is a unit of consciousness.
2. Thus we find revealed before us the inseparable link between it and communication, existence.
3. The unit of this unity of thinking and speech, which is to be found in the meaning of a word, is not given a priori, but comes into being and develops, changing at every stage of the interaction between the child and the environment. (P. 31)

It is not difficult to say what conclusions Konnikova reaches in her investigations. She sums up a vast number of quotations and gets even with all theoreticians incompatible with Vygotsky in one sentence: "The obsolescence and falsity of this theory are clear" (P. 5). But having nothing that is original and her own either in her arsenal or in what her study should have produced, she repeats Piaget, Stern, the Gestaltists, Foucault, Koffka, etc.; and, still captive to Vygotsky's eclecticism, is unable to overcome the idealism and narrowness of some of Stern's and, espe-

cially, Bühler's and Piaget's postulates in the area of concern to her, and hence arrives at no fruitful scientific conclusions whatever.

An analysis of the works of the late Professor L.S. Vygotsky and his followers, who until recently were firmly established in many institutions—the VIEM and the VKIP, the Scientific-Practical Pedological Institute in Leningrad, and the Department of Pedology in the Herzen Pedagogical Institute, the Moscow Institute of Abnormal Development (Zankov), etc.—showed that they:

(1) took the worst from their “teacher,” did nothing to overcome his mistakes, and obstructed the development of true science;

(2) sometimes reinforced the worst theories of fascism about the intellectual inferiority of the children of workers with their practical activities, which rested on their anti-Marxist positions (the Scientific and Practical Institute of Pedology at Leningrad, which has contributed to the considerable growth in schools for the intellectually retarded and children with learning problems).

The example of pedology again and again convinces us how extremely important it is to master the whole of contemporary knowledge in a scientific domain in which every worker in science works; how necessary it is to test all conclusions of our science and practice in the land of the Soviets; and, in order to do so, to have mastered the theory of Marx and Lenin, Engels and Stalin, and to use it as a guide to action.

The example of the uncritical perception and adoration of Professor L.S. Vygotsky once again underscores the necessity of stepping up class vigilance in all areas of scientific knowledge, for the enemy uses the smallest opportunity to wreak its damage and to do harm where sometimes we least expect it.

The Resolution of the Central Committee of the All-Union Communist Party (Bolsheviks) of 4 July on the pedological distortions in the system of the People's Commissariat of Education teaches us a great deal. It is our duty to test, with the whole of Bolshevik self-criticism, everything that, in one degree or another, has to do with harmful, essentially anti-Soviet, pedological “theories.”

Notes

1. Published by Sotsekgiz, 1931. P. 318.
2. [*Preface*], p. III. Razriadka V. Kolbanovskogo.
3. F. Engels, [*The nature of dialectics*] (6th ed.). Partizdat, 1934. P. 33.
4. N. Ia. Marr. [*Iafeticheskaia theory*]. Baku, 1928. P. 18.
5. N. Ia. Marr. Ibid. P. 84.
6. Marx & Engels, [*The German ideology*]. 1934. P. 16.
7. See [*Lectures on pedology*] (2nd ed.). MGMI. P. 80.
8. Professor A. B. Zalkind [in his article of 18 July 1936 in the newspaper, *For Communist Enlightenment*] was subjected to sharp criticism for his views, which he admitted were clearly anti-Bolshevik.