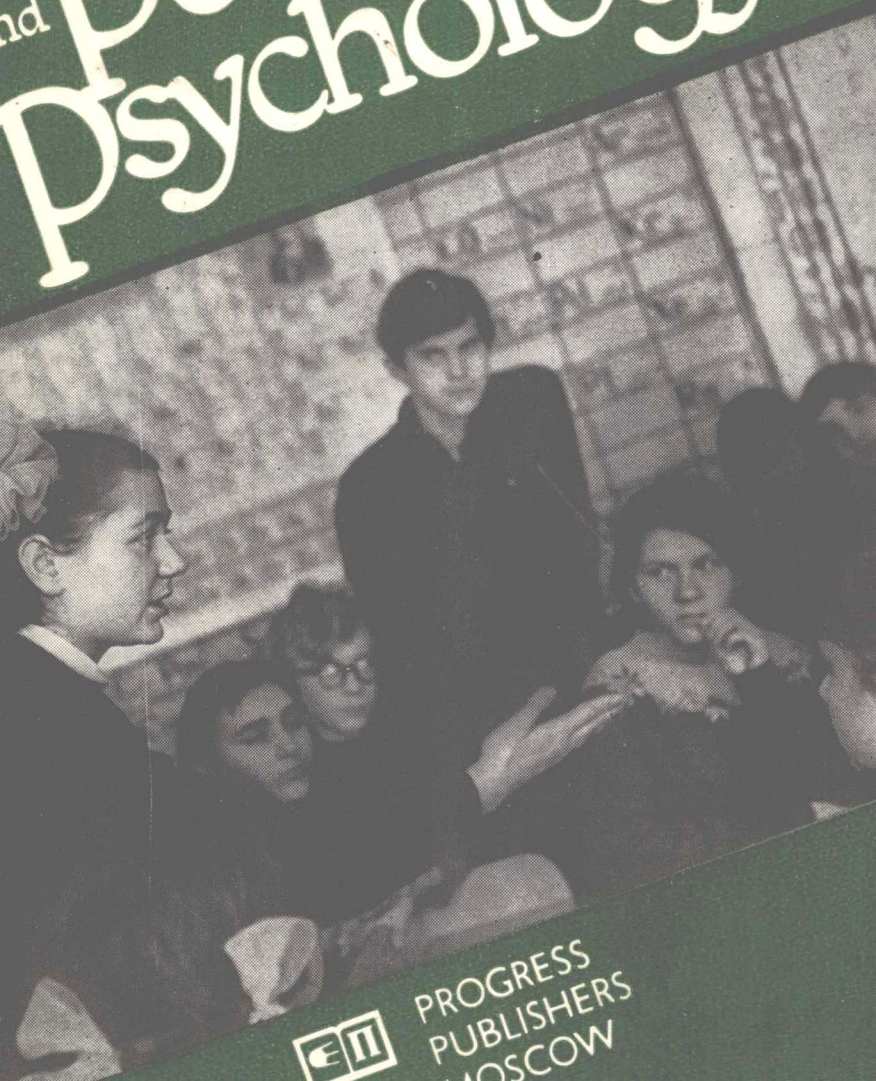


# Age-Group and Pedagogical Psychology



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# Age-Group and Pedagogical Psychology

Ed. Prof. A. Petrovsky



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Translated from the Russian by *Inna P. Medow* and *John Crowfoot*  
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ВОЗРАСТНАЯ И ПЕДАГОГИЧЕСКАЯ ПСИХОЛОГИЯ  
под редакцией проф. А. В. Петровского

*На английском языке*

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## EDITOR'S PREFACE

At the present time the age-group and pedagogical psychology is a rapidly developing and promising branch of psychology both in the USSR and abroad. It is a major area of study at pedagogical institutes. A knowledge of the principles governing the psychological development of children as they pass from age-group to age-group and of basic psychological principles of their education and upbringing is a necessity in the training of teachers and everyone else involved in education.

The contributors to this book attempt to provide an understanding of the psychological development of children, of the corresponding basic principles, as they relate to ontogenesis, of the major characteristics of the psychology of children of various age-groups, of the behaviour and psychological development of schoolchildren in different teaching situations, and of ways to take these characteristics and governing principles into account in the process of education and upbringing. It is important for parents, teachers and instructors to see the dialectics of the formation of the child's psychological characteristics and of his overall personality, to know about the more progressive current theories of age-group and pedagogical psychology.

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*A. V. Petrovsky*

## Chapter 1

# THE HISTORY OF AGE-GROUP AND PEDAGOGICAL PSYCHOLOGY

### 1. THE SUBJECT OF AGE-GROUP AND PEDAGOGICAL PSYCHOLOGY

*Age-group psychology* is a branch of psychological science. Its subject-matter is the *age-group dynamics of man's psyche, the ontogenesis of psychic processes and of psychic qualities of the developing personality*. Branches of age-group psychology include: child psychology, the psychology of young schoolchildren, the psychology of adolescence, the psychology of young people, adult psychology, and old-age psychology and gerontopsychology. Age-group psychology is concerned with age-group related characteristics of psychic processes, the possibilities of assimilating knowledge, and the major factors in the development of the personality. Age-group psychology is inextricably linked to pedagogical psychology.

*Pedagogical psychology* is concerned with *the study of psychological principles governing the process of teaching and education*. The subjects under the scrutiny of pedagogical psychology include: psychological questions affecting the control of teaching processes, the formation of cognitive processes, the search for reliable criteria concerning mental development, establishing conditions under which effective forms of mental development can be achieved, and looking at questions of the relations between teachers and students, as well as relations amongst the students themselves. In addition pedagogical psychology is also concerned with the questions of individual approaches towards students.

The integral unity of age-group psychology and pedagogical psychology derives from their *common objects of study—pre-school age children, schoolchildren, and adolescents*. They are objects of age-group psychology when studied in terms of the dynamics of age-group development, and objects of pedagogical



psychology when viewed as individuals being taught and educated through the purposeful activities of teachers. *The psychology of pre-school age children, the psychology of schoolchildren, of adolescents, and of young people* are sub-divisions of age-group psychology. *The psychology of teaching, the psychology of education and the psychology of teachers*—are sub-divisions of pedagogical psychology. A sub-division concerned with problems of teaching and development belongs to both age-group and pedagogical psychology. Age-group and pedagogical psychology form an indivisible whole: children are looked at in terms of teaching and education, and teaching and education cannot be viewed independently of its recipients, namely, children. Consequently boundaries within which these problems of age-group and pedagogical psychology are considered become largely a matter of convention.

*The emergence and early development of age-group psychology and of pedagogical psychology.* Age-group and pedagogical psychology appeared in the second half of the 19th century with the infiltration of *genetic ideas* into psychology. The works of K. D. Ushinsky (1824-1870), a prominent Russian pedagogue, and in particular his book *Man as an Object of Education* made an important contribution to the development of this new discipline. Ushinsky believed that teachers who promote a comprehensive education of the individual must first of all gain a comprehensive knowledge of the individual: "Study the principles that govern those psychic phenomena that you wish to influence and let yourself be guided by both these principles and the specific circumstances in which you wish to apply them."<sup>1</sup> The evolutionary ideas of Charles Darwin had a big impact on the development of age-group psychology. They drew attention to the problem of tracing the sources of psychological development. The role of psychic activity in understanding the reflective nature of facts studied by psychology was also stressed by a prominent Russian scientist, I. M. Sechenov (1829-1905).

Together with an accumulation and generalisation of empirical data produced by observing the development of child's psychology and the teaching of children, *experimental research* began

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<sup>1</sup> K. D. Ushinsky, *Collected Works*, Vol. 8, Academy of Pedagogical Sciences of the RSFSR Press. Moscow-Leningrad, p. 55 (in Russian).

to appear in pedagogical and child psychology. It became evident to teachers and child psychologists that experimental research can provide an objective characteristic of the psychological development of children and adolescents and to provide a basis for a scientific approach to teaching and education. In the late 19th and early 20th centuries, however, specific ways of applying psychological experiments in pedagogics had not yet been found. At the same time the success of experiments carried out in general psychology encouraged the belief that similar experiments could also be applied in age-group and pedagogical psychology. It seemed possible to apply the basic principles that had been discovered to the field of pedagogical and child psychology. For example, it was assumed, that once principles of psycho-physiology had been established or facts relating to speeds and types of motor reactions, teachers would inevitably understand the psychic life of children and the principles governing the assimilation of teaching materials. This belief was expressed in P. F. Kapterev's book *Pedagogical Psychology* (1877), and in W. James' book *Talks with Teachers on Psychology* (1902) as well as in other works of that period.

This was soon followed, however, by disappointment. At that time general psychology could only provide a very sparse body of knowledge for fulfilling the pedagogics' needs. Moreover some of the available data served only to confuse pedagogics.

In 1906 the first conference on pedagogical psychology was held in Petersburg. Representatives of pedagogical psychology such as A. P. Nechaev, N. E. Rumyantsev and others voiced strong criticism of contemporary pedagogical literature. In A. P. Nechaev's view, all debatable issues of didactics and teaching methods constitute a field that is accessible to experimental psychological studies, i.e., to studies that rely on a precise recording of phenomena and on a mathematical processing of results. In fact, however, this precise recording of phenomena did not amount to more than an ability to make use of a tachystoscope and to carry out "associated experiments", in other words, all this merely represented an attempt to place faith in some of the methods of general psychology.

Efforts to link pedagogics with general psychology and to see in such a symbiosis a new pedagogical psychology also failed because the theoretical foundations of general psychology on which

A. P. Nechaev sought to base his analysis were in essence idealistic. The unreliable character of pedagogical psychology ("experimental pedagogics" as it became known after 1910) became clear to all.

The principal conclusion derived from the first attempts to develop a pedagogical psychology was that a closer relation between *psychology* and *pedagogical practice* (largely accredited to A. P. Nechaev) *is only possible through experimental studies in the course of the teaching and education process itself*. Experimental data must be taken from the psychological-pedagogic study itself. Correct solutions need to be found to major theoretical and methodological problems of age-group and pedagogical psychology. Thus, particular importance is attached to the problem of sources of psychological development in relation to the process of teaching.

*The role of biogenetic and socio-genetic approaches in the development of age-group and pedagogical psychology.* The problem of the psychological development of children, and the sources and principles governing this development holds a central position in age-group and pedagogical psychology. The way in which a solution is reached influences the approach towards teaching and education, the approach towards children and establishes specific characteristics distinguishing children from adults.

Two trends were in evidence at the beginning of the 20th century in the field of age-group and pedagogical psychology which differed in their interpretation of the *sources* (factors) of the psychological development of children. They disagreed upon what they believed the major factor in the development of children to be: whether it is biological or social. This does not mean that protagonists of one trend utterly rejected social influences on children nor does this mean that protagonists of the other trend fully rejected biological influences on children. In referring to a biogenetic or a socio-genetic approach one does not imply that these classifications are absolute: one is simply categorising prevailing tendencies relating to the psychological development of children. Both these approaches were subjected to criticism in Soviet psychology in the early 1930s.

What is characteristic in the *biogenetic* approach of interpreting the psychological development of children? Emphasis is

placed on "innate abilities" of children, on a simplified, mechanistic approach to investigating the behaviour and development of children. To specialists who apply this approach biological and social factors of development stand side by side, as it were, but still the determining factor is the *biological* one and in particular *heredity*. Both the qualitative and quantitative aspects of the development of personalities are determined in a fateful manner by heredity, while the environment, in their opinion, is just a "manifestation medium", a permanent factor with which a flexible heredity containing a multitude of possibilities continuously interacts.

The overemphasis of hereditary factors of psychological development that is characteristic in those following a biological approach is especially evident in approaches that follow the so-called biogenetic law in psychology. The biogenetic law in psychology refers to attempts to transfer the well-known law of evolution formulated during the 19th century by E. H. Haeckel (ontogenesis is an abbreviated repetition of phylogenesis) to the sphere of age-group psychology; just as during its intra-uterine existence a human embryo repeats all stages of development from unicellular existence to man's development, so in children the major stages of human history are reproduced. Under the influence of biological forces the stages of psychological development and forms of behaviour of children replace each other according to governing principles. Five periods were established through which children were supposed to pass: a period of savagery, a period of hunting, a period of herd-raising, agriculture, and commerce and industry. According to this periodisation, a child born as a savage passes through all the stages of development and finally, inevitably displays an interest in money, trade, exchange, i.e., is in full harmony with a capitalist structure.

Thus, the biogenetic law in psychology was based on the idea of a *spontaneity* in the psychological development of children, independence of education which appears merely as an external factor able to either impede or else accelerate the process through which certain, supposedly natural hereditarily-given psychological qualities express themselves. But the biogenetic law was used to draw reactionary pedagogical conclusions. Intervention into the natural course of a child's development was considered impermissible. The biogenetic approach became the

psychological foundation for the pedagogical theory of "permissive education".

The anti-dialectical, mechanistic character of the biogenetic approach in pedagogical psychology was realised by Soviet teachers and psychologists at the beginning of the early 1930s.

Equally erroneous was the *socio-genetic* approach to pedagogical psychology. Although these two theories appear to differ from each other, they are similar in many respects. According to adherents of that position the environment appears as a crucial factor in a child's development and accordingly, in order to study man it is sufficient to analyse his environment. An individual's personality is a personality in full accord with the environment in which he exists, and his behaviour mechanisms and course of development are firmly established by the nature of his immediate environment. Just as the biogenetic approach failed to acknowledge the role of individual activities and reduced behaviour and development to the manifestation of genetic propensities, so adherents of the socio-genetic approach also denied the active role of the personality and attributed everything to influences derived from the social environment. As a result it remained unclear as to how individuals within a common social environment develop with a different number of indicators, nor was it clear why individuals that are very similar in terms of internal make-up and form of behaviour develop in different social environments. A mechanistic approach to development, and a neglect of the active behaviour of individual persons and dialectical contradictions in their development are the less obvious theoretical flaws of the sociogenetic approach in pedagogical psychology. Both biogenetic and socio-genetic approaches in psychology were subjected to criticism in the 1930s by academics of Soviet psychological and pedagogical science.

Neither biogenetics nor socio-genetics could provide a genuine representation of the sources and mechanisms governing the psychic development of children.

A vast number of research studies were published in the USSR during the 1920s and 1930s in the field of pedagogical psychology, that contained a wealth of research data which has contributed greatly to modern psychology. At that time many psychological and pedagogical theories were developed that

continue to be of value today. Their scientific importance is now felt more than ever. In this connection one must mention the ideas of A. S. Makarenko (1888-1939) concerning the personality of children and the children's collective. These were a point of departure for a number of psychological studies concerned with the development of personality and collectives. One should also mention L. S. Vygotsky (1896-1934) and his theory of the development of higher psychological functions.

*A. S. Makarenko and pedagogical psychology.* The psychological ideas of A. S. Makarenko, formed during the 1920s and the first half of the 1930s concerning a child's personality and its development, represent a teaching of the shaping of the personality in collectives. A. S. Makarenko's teachings exemplified a very fortuitous pedagogical period and became a basis for subsequent work in the field of communist education.

In the scientific conception of Makarenko the psychology of the development of the personality was viewed in many aspects (the inter-relationship of the personality and the collective, perspective lines of development of the personality, the formation of the motivational sphere of personality, the formation of character and others).

Makarenko solved the nodal problems of the psychology of the personality in sharp polemics with the biogenetic and socio-genetic interpretations of the relationship of the personality and the collective. The assertion by socio-geneticists that a collective is a collection of individuals reacting similarly to certain stimuli prompted a strong protest from Makarenko who saw the collective as a meaningful complex of organised individuals. "And where there is an organisation of a collective there are organs of a collective, there is an organisation of authorised persons, that are trusted by the collective, and the question of the relationship of a comrade to a comrade is not a question of friendship, nor a question of love, nor a question of being neighbours, but a question of responsible dependence."<sup>1</sup> Such a formulation of the question made it possible for Makarenko, while changing the position of an individual in a collective, to exert a substan-

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<sup>1</sup> A. S. Makarenko, *Collected Works* in seven volumes, Vol. V, Academy of Pedagogical Sciences of the RSFSR Press, Moscow, 1958, p. 210 (in Russian). (The quotes that follow are from this edition.)

tial influence on shaping personality. In this connection the pupil himself does not suspect that he is the subject of education (the principle of parallel action).

Makarenko attached great importance to the study of the qualities of personality. This was primarily because he believed the objective of the education process to be the designed qualities of the personality, the pictures of the characters and lines of their development which form distinctly for each individual person. The list itself of personality traits that the pedagogue synthesises in a general complex ("how a person feels in a collective, the character of his collective ties and reactions, his state of discipline, his readiness for action and inhibition, capability of tact and orientation, principle and emotionally perspective tendency"<sup>1</sup> speaks of the deep psychological analysis of the intrinsic qualities of man. The method of study of the personality of pupils contained in the work of Makarenko entitled *The Methodology of the Organisation of the Educational Process* also speaks of the excellent characteristic traits of pupils, describing the designed traits of their personality laconically and exactly.

A. S. Makarenko studied the motivational sphere of the personality and the mechanisms governing the formation of its social qualities in depth. The problem of the formation and development of human needs was of central importance. "A deep meaning of the work of education . . . consists in the choice and education of human needs, elevating them to high moral standards which are only possible in a classless society and which alone can stimulate man in the struggle for further perfection".<sup>2</sup> The works of Makarenko contain a broad and daring programme of study of the motive forces of the development of the human personality where the central role is set aside for the education of the needs of the collective-spirited person.

The possibilities for the analysis of the integral personality of man in the process of its formation during labour and social activity were evident to Soviet psychologists in the works of Makarenko. A vital feature of Makarenko's work is the overcoming of the passive contemplation of the psychological study of the

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<sup>1</sup> A. S. Makarenko, *op. cit.*, Vol. V, p. 106.

<sup>2</sup> Ibid., Vol. IV, p. 39.

personality. "A knowledge of a pupil should come to his educator not in the process of an indifferent study of him but during a process of joint work and active assistance to him. *The educator should view the pupil not as an object of study but as an object of education.*"<sup>1</sup>

*L. S. Vygotsky's theory of the development of higher psychological functions.* L. S. Vygotsky's *theory of the development of higher psychological functions* was formulated during the 1920s and the 1930s.

Vygotsky based his theories on the ideas of F. Engels concerning the role of labour in the adaptation of man to nature and the transformation of natural forces with the help of the tools used during the process of production, and expounds the view that the use of tools leads to a change in the type of man's behaviour and makes him distinct from animals. This distinction of man consists in the mediated character of his activity. Mediation becomes possible because man makes use of *symbols* in his inner psychic activity (words, figures, etc.), in the same way that in the external, practical activity he uses *tools*. The similarity between tools and symbols (in the psychological sense) is that they make it possible to carry out mediated activity. The *difference* between tools and symbols lies in the act that they are differently oriented. Tools are directed to the *outside*, they should bring about a change in the object, they are the means of external activity of man, directed towards the mastering of nature. A symbol is directed *internally*, not changing anything in the object, it affects the behaviour of man. The mastering of nature and the mastering of behaviour are connected, since the changing of nature by man changes the nature of man himself. The use of symbols (auxiliary means), i.e., the transition to mediated activity, reorganises the entire psychic activity of man in much the same way that the use of a tool alters the natural activity of organs and increases and widens the possibilities for psychological activity immensely.

The development of man takes place in the process of mastering all of these means (both tools and symbols) through learning. It is precisely for this reason that *learning occupies a central place in the entire system of the organisation of a child's life*,

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<sup>1</sup> Ibid., Vol. V, p. 91.



determining his psychological development. Consequently, the development of the psyche cannot be examined outside of the *social sphere* in which the mastering of the means of symbols is taking place, making it possible to master the experience of preceding generations and cannot be understood outside of learning. In this way L. S. Vygotsky's psychological theory encompasses the Marxist idea concerning the social essence of man. Vygotsky formulated the general genetic law governing cultural development as follows: "Each function in a child's cultural development appears twice, on two planes, first—the social one, and second—the psychological one, at first among people as an inter-psychic category, and then within the child as an intra-psychic category... Every higher psychic function inevitably passes through the external stage in its development, because it is primarily a social function."<sup>1</sup>

Such is the case for indicatory gestures playing an extremely important role in the development of speech in children and being, in the words of L. S. Vygotsky, to a large extent the age-old basis of all higher forms of behaviour. Initially the indicatory gesture was no more than an unsuccessful grasping movement directed at the object which should have preceded the action (the hand reaches towards the object but is suspended in the air). An adult comes to the assistance of the infant understanding the gesture as *pointing* to the object that interests the infant. Thus, an indicatory gesture is transformed from the grasping movement that did not succeed, into a gesture for others that endow it with an indicator having meaning. The gesture becomes a *sign* and the grasping—an indicator. And only after this does the infant himself begin to consider its movement as an indicator. The gesture (sign) intended for others becomes a gesture (sign) for oneself. Thus, the infant is last one to perceive its gesture. At the beginning its meaning is formed by means of an objective situation, and then by people that surround the infant. This law is substantiated by L. S. Vygotsky through examples of the formation of speech in a child. A word expresses a correlation to an object (first step). This correlation is

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<sup>1</sup> L. S. Vygotsky, *The Development of Higher Psychic Functions*. From unpublished works, Academy of Pedagogical Sciences of the RSFSR Press, Moscow, 1960, pp. 197-98.