

УДК 159.922.7

## Development Pedagogy and the Theory of Recapitulation

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Received 04.11.2011, received in revised form 11.11.2011, accepted 23.11.2012

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*The given article outlines the main features of the theory of recapitulation and discusses the importance of its provisions for the modern development pedagogy. It also discusses the regularities of the ontogenetic process and historical forms of consciousness. This article analyzes the works of foreign and domestic philosophers and psychologists about the heuristic meaning of the reduced frequency problem and the need for its theoretical disclosure. It is emphasized that renunciation of the appropriate well-known theories is often combined with the new attempts of foreign and domestic scientists to explain the actual generality of logic of consciousness development in the children and in the history of society.*

*Keywords: theory of recapitulation, biogenetic law, development psychology, ontogenesis, phylogenesis, heredity, historical forms of consciousness, activity, development, reproducing activity.*

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In our report at the 3<sup>rd</sup> Conference on development pedagogy in 1996 there was detection of the inner and important connection between such pedagogy with the theory of repetition (recapitulation). Here we will try to give the detailed description of the content of recapitulation, its history and show that without constant reliance on it, it is not possible to develop the modern problems of development pedagogy.

The theory of recapitulation (Lat. “recapitulation” – a concise review), that is created in philosophy, psychology and pedagogy, examines the regularities of reduced reproduction (or duplication) of the historical development of human consciousness in the ontogenesis of his consciousness. The idea of such a recurrence occurred in ancient philosophy (Plato, etc.), it was

presented in the philosophy of the Middle Ages and was formulated in details at the beginning of the 19<sup>th</sup> century by Hegel in his “Phenomenology of Spirit”. “A single individual – he wrote – must pass the stages of the universal spirit formation, but as the forms that are already left by spirit, as the stages of the path that is already developed and smooth” (Гегель. Соч., т.IV. М., 1959, с.15) According to Hegel, in the historical process the content of the universal spirit is transformed into its forms, that thus become the external heritage for the individual in the form of «inorganic nature». «Absorbing» it, the individual thus captures it for himself (ibid.). This provision was positively evaluated by F.Engels, who spoke about the whole «Phenomenology of Spirit» as the reflection of «individual consciousness

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at different stages of its development, that are considered as the reduced reproduction of the stages that have historically passed by the human consciousness...» (К.Маркс и Ф.Энгельс. Соч., т.21, с.278). G.V. Plekhanov, supporting this evaluation, thought that «the mental development of every person is the summary of the development history of his ancestors» (Г.В.Плеханов. Соч., т. 8, М.: Пр., 1923, с. 48).

The problem of recurrence in the consciousness development was raised and discussed by major domestic philosopher B.M. Kedrov. He considered the provision that the development of individual consciousness to a certain extent, «repeats some of the characteristics and features ... of all its history in general» as the right one (Б.М.Кедров. О повторяемости в процессе развития. М., 1964, с.93). However B.M. Kedrov noted that such a natural repetition applied to the spiritual life and common path of the intellectual development of mankind, rather than to the stages of its socio-economical development. B.M. Kedrov connected the problem of recurrence with the question about the correlation of the logical and historical in dialectics. The logical, as you know is the abstract that is free from the fortuities and reflection of the historical development of the object. The logical in general and in its pure form expresses an internal need for the development of historical processes. In the logical there is reiteration of the historical stages of development.

There is reason to believe that the logical or universal, expression of the substantial history of human consciousness is the forms of culture. Culture is inseparably linked with the sphere of the ideal that records models of people's skills to reproduce instruments, items, and their communication, that is, captures the historically developed methods of social activity, confronting the individual with his mind and will in the form of special reality. In these models (or methods) as

forms of culture there are necessary moments in the history of conscious human activity. Then the assignment of forms of culture by the individual acts as the reduced reproduction in its development of history of human activity and consciousness in their essential points. Therefore, the problem of history of activity and consciousness and their ontogenesis is internally connected with the problem of the historical formation of culture and its appropriation by the individual. The connection between these problems emerges when culture and the ideal are understood as the logical and universal expression of the history of the conscious human activity.

This approach to the consideration of the given issues has become possible due to the works of outstanding domestic philosopher E.V. Ilyenkov where he formulated the dialectical and materialistic conception of the ideal, its connection with the conscious human activity and their culture. It allows us to relate the concept of the ideal and culture and the concept of the logical and universal (see: Э.В. Ильенков. Философия и культура. М., 1991).

Hegel not only revealed the recurrence in the development of individual and socio-historical consciousness (universal spirit), but also suggested general methods of its interpretation. According to his views, something that in the history was the essence of the case for the spirit, is transformed for the individual into the «trace» or «shade». The individual «runs» the past of the spirit in its content that has already become forms or stages of the developed path. Concerning the processes of cognition, Hegel demonstrates that provision as follows: «... Something that in earlier times has occupied spirit of men is reduced to knowledge, exercises and even games of boyish age, and in the educational results we see the history of education of the whole world that is somehow sketched in a concise essay» (Гегель, Соч., т. IV, М., 1959, с. 15). This statement makes great

sense for all pedagogical sciences, and especially for development pedagogy, because it highlights their important social role: they are designed to turn historical and substantial human knowledge in such forms of culture, where complex and long process of real knowledge are performed by the children in the form of various «exercises» and even «games.» In the current «pedagogical success» you can see in a condensed form the whole history of education and development of individuals.

Assignment of forms of culture by the individual is already developed way of the development of his conscious activity. The humanities are designed to determine how the content of spiritual development of mankind is becoming the content of the development of his conscious activity.

The idea of parallelism between the development of the child and the development of generation in psychology in the 19<sup>th</sup> century was used by Herbart and his followers, who demanded that the stages of education should correspond to the stages of history of culture. During the last century in the field of biology a similar recurrence was formulated by German scientists Muller and Hegel in the form of the biogenetic law according to which the development of embryos briefly recapitulates the formation of all this species (ontogenesis recapitulates phylogenesis). This law has been moved into the psychology and extended to epy extra-uterine childhood and mental development of children. The idea of recurrence quickly became central in a number of systems of genetic psychology (S.Holl, Baldwin, Chamberlain, Kirkpatrick, etc.) This idea was formulated by analogy with the biogenetic law as the repetition of the child in his mental development of the main stages of the cultural and historical development of mankind that led to the gathering of the great volume of factual data from the child's life, covering such repetition (atavism,

evolutional and cultural and historical parallels). There was the development of the appropriate theories and «formulas of repetition». Thus, the Stern «formula» distinguishes, according to this law, six phases in the childhood that correspond to the six epochs in human history: during the first six months of life, the child stands on the stage of lower mammals (predominance of reflexes and the lower functions), during the second six months the child reaches the stage of the development of higher mammals – monkeys (prehension, imitation), since the second year of life he actually enters the era of human history (vertical gait, speech), which he runs up on the steps of primitive culture (next 5 years are the age of games and fairy tales), antiquity (the first school years ), Christianity (middle school years) and modern times (puberty).

L.S. Vygotsky in his article «Biogenetic law in psychology and pedagogy», that was published in the first edition of the Great Soviet Encyclopedia (т. 6, М., 1930), outlined the main psychological theories of recurrence, developed in the late 19<sup>th</sup> century and in the first quarter of the 20<sup>th</sup> century and gave them his own assessment. Among a lot of attempts to create a scientific theory connected with the use of biogenetic law in determination of the stages of mental development of children, L.S. Vygotsky marked out four main areas:

1) The theory of recapitulation (S.Holl and his school) uses a direct analogy with the biogenetic law of Hegel and considers the development of a child as a process conditioned by hereditary causes, the flow of which is determined by the main line of evolutionary development.

2) The theory of selection (Thorndike) explains the existence of analogies between the development of the individual and generation by the activity of the same reasons that determine both processes. In phylogenesis there are two main factors – the random variation and selection of the useful that determines acquisition of

property, in the ontogenesis the appearance of this property at any given time is again regulated by the same factors – variation and selection.

3) The theory of correspondence (Claparede, Koffka, Blonsky) explains the parallelism of ontogenesis and phylogenesis by the similarity of both series that are based on the same process of organic development, so in both series in advance we can expect detection of the similarities that are common for both and are inherent by every process of development where there is a regular sequence of steps – from the primitive and generalized forms to the complex and differentiated forms: correspondence of two series is determined, therefore, by immanent logic of the development process.

4) The theory of social genesis (Zalkind, Kornilov, Pinkevich) comes from the social conditionality of human biology, sees it as the main determining factor in the development of the child, denies its automatic connection with the past of mankind, and, consequently, the applicability of the biogenetic law to psychology. It points to the factual groundlessness of this application, tension and artificial explanations of such kind. While not denying the well-known correspondence between the development of the child and humanity and some of the factual material accumulated by the supporters of this law, the theory of social genesis assumes the fundamental difference between the changes of species as the basis that are measured in hundreds and tens of thousands of years and therefore commonly cut into the body and are repeated in embryonic development, and changes of the race that are measured in thousands of years, decades and even centuries, and therefore are not elaborated in the extra-uterine development of the child. In all these scientific fields, as L.S. Vygotsky considered, the most reasonable by the factual material and the most consistent with the general laws of psychology are theories

No. 3 and 4. But, as L.S. Vygotsky continued, it would be mistake and unreasonable scientific one-sidedness to assign the universal value to biogenetic parallelism, as well as ignore it.

The main tendencies, as described above, are arranged in a certain order, according to the development of scientific views on this issue, namely in the order of gradually decreasing meaning of the basic analogy with the biogenetic law and increasing critical limitation of this analogy, the awareness of its true location and size, or which is the same, increasing evaluation of the leading role of social factor. In this sense biogenetic law in psychology is revealed as a preliminary hypothesis that has not explanatory and practical, but mainly heuristic value, requiring a thorough collection of material and theoretical explanation.

The question of the applicability of this law in psychology is relevant to the theory and practice of education. Scientists tried to use this law to give the possibility to the child to overcome animistic, religious and other phases of development, archaic forms of thinking and instincts. Thus, according to Hall, in games the child must overcome the lower instincts as the remainders of the animal and prehistoric state that resumes of long-passed stages of human development in the ontogenesis. Gross pointed out the inconsistency of this view in relation to the game, in his research of the games of animals and people he came to the conclusion that the biological significance of the game is not the overcoming of the distant past, doomed to destruction, but the preparation and practicing of functions for the future, that is, the game can be understood not in its connection with the past, but in connection with the future.

Regarding pedagogical conclusions, listed above theories of application of the biogenetic law to psychology are placed in the order of decreasing and narrowing its value evaluation. In the field of practical application of the biogenetic

law to education, as L.S. Vygotsky wrote, we meet with the same divergence of opinions, like in the field of theory.

Thus, in his article L.S. Vygotsky outlined the essence of the main theories of recurrence connected with the biogenetic law, while showing significant differences of opinions of their authors, as well as their differently directed practical conclusions. But he also carefully evaluates the scientific importance of the biogenetic law for psychology and pedagogy: this law, he believed, should neither be ignored nor be given a universal role. Conducted comparison of these theories has shown that one of them (it has been created by Soviet psychologists) has very “critical constraint” of appropriate analogy and highlights “the leading role” of social factor in the mental development of the child.

In his own cultural and historical theory L.S. Vygotsky, as we know, does not use the biogenetic law as even the slightest grounds during the consideration of the regularities of human mental development – a fundamental and decisive role in this process is given to the “social partnership”, communication between the children and adults. However, during the detection of the genesis of certain mental functions of the child (e.g., attention, memory, etc.) L.S. Vygotsky used some of materials of their historical sociogenesis. In fact, he drew a parallel between ontogenesis and history, but he did not turned this sporadic analogy into detailed theory, the basis of which might be an idea of recurrence given by Hegel. But with the whole course of his thoughts L.S. Vygotsky was very close to this idea and theory.

There is the following evidence: his closest student and companion A.N. Leontiev, relying on the main provisions of the concept of L.S. Vygotsky, during the creation of his own theoretical approach to the human mental development is almost directly uses the given Hegelian idea

(some of his other students have also been close to it). When in the early 60s A.N. Leontiev revealed some features of the child’s development during the process of social experience appropriation, he wrote: “This is a process that has resulted in reproduction of historically formed human characteristics, abilities and methods of behavior by the individual “ (А.Н. Леонтьев. Проблемы развития психики. Изд. 4, М., 1981, с. 544). Such reproduction of abilities, activities with tools and knowledge suggests that «the child should make to them such practical and cognitive activity that is adequate (although, of course, not identical) to the human activity» (А.Н. Леонтьев. Избранные психологические произведения, т.1, М., 1983, с. 113). Due to this formulation of the problem there is a need for special consideration of connection and correlation of historical regularities of the development of practical and cognitive human activities with the children’s activity that is adequate to it. This activity reproduces historically formed capacities (in particular, the special task consists in disclosure of the meaning of «adequacy» in its contrast to the «identity»). Although A.N. Leontiev did not specifically studied this issue, but he introduced the concept of reproducing activity into the Soviet psychology and pedagogy. In his theory the child, on the one hand, gains and forms the special reproducing activity (e.g., playing, studying, etc.), and on the other hand, on this base he gains or reproduces different socio-developed skills.

Since 1930s in psychology and pedagogy interest in the biogenetic law was failing. This was due to the fact that there was clear detection of the groundlessness of such variants of the theory of recurrence where the sources of mental development of children were seen in the direct evolutionary line connected with heredity, and the stages of child development themselves were compared with the specific and randomly allocated stages of social development. At the

same time more significance was gained by the theories of Piaget, L.S. Vygotsky, A.Vallona, and others, who had other starting points, rather than focusing on the biogenetic law. Therefore, the problem of correspondence of the development of human consciousness in the social history and in the process of the child's ontogenesis has simply started to be ignored. However, L.S. Vygotsky was right, when he wrote in the article mentioned above about the heuristic meaning of this problem and the need for its theoretical disclosure – the refusal of the already well-known theories was often combined with the appearance of new attempts made by foreign and domestic scientists to explain the factual generality of logic of the consciousness development in the child and in the social history (E. Claparede, L.I. Bondarenko, I.G. Belyavskiy, V.A. Shkuratov etc.)

At present the problem of recurrence is gaining the specific scientific sounding, but not in the context of the biogenetic law, but in connection with the general rise of cultural studies (M. Bartovskiy, C. Geertz, V.S. Bibler, etc.) and in connection with attempts to use their results in the study of the ontogenetic human development (J. Bruner, J. Engeshtrem, M. Cole, and others). Now there is increase of the interest in the philosophical and pedagogical ideas of

Hegel, Herbart, and others, according to whom the development of individual consciousness reproduces its historical development in the reduced form, and stages of personal education should correspond to the stages of cultural development (the provisions made by V.S. Bibler, and others about the need for the organization of the «school of the dialogue of cultures»). When relying on the inner meaning of the ideas there is current increase of the possibility to develop a modern version of the multidisciplinary theory of recapitulation, namely multidisciplinary one.

The potential of modern philosophy, logic, culture studies, psychology, pedagogy and other social sciences during the formation of the theory of recapitulation can use the system of the following initial concepts: activity, the ideal, the consciousness, the historical content of culture, “folding” of such content, forms of culture, the unity of the logical and historical, appropriation, reproducing activity, stages of the consciousness development in the history, stages of the development of individual consciousness, etc. The same concepts should be used, in our opinion, during the development of the main problems of the development pedagogy.

## **Педагогика развития и теория рекапитуляции**

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*Излагаются основные характеристики теории рекапитуляции и обсуждается значение ее положений для современной педагогики развития. Обсуждаются закономерности онтогенетического процесса и исторических форм сознания. Анализируются работы зарубежных и отечественных философов и психологов об эвристическом значении проблемы сокращенной повторяемости и необходимости ее теоретического раскрытия. Подчеркивается, что отказ от соответствующих уже хорошо известных теорий нередко сочетался с появлением новых попыток зарубежных и отечественных ученых так или иначе объяснить фактическую общность логики развития сознания у ребенка и в истории общества.*

*Ключевые слова: теория рекапитуляции, биогенетический закон, психология развития, онтогенез, филогенез, наследственность, исторические формы сознания, деятельность, развитие, воспроизводящая деятельность.*

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