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On the psychological mechanism of ontogenetic development in the context of developmental and educational psychology

Nikolay N. Nechaev*

**Lomonosov Moscow State University, Mokhovaya st. 11/9, Moscow, 125009, Russia*

Abstract

The article offers the author's view of the psychological mechanism for the development of a child. It is regarded as the process of ripening and resolving of fundamental contradictions between the child's system of relations and modes of activity acquired by him. Underlined by the author is the objective nature of ontogenetic development as well as the role of child's motivation as a driver of necessary transformations of the child's activity leading to his psychological growth. The similarities and differences between the author's approach and that of D. B. Elkonin are precisely traced. The author's arguments are supported by a lot of evidence from the theory and practice of developmental and educational psychology with special focus on the role of social institutions.

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1. Introduction

The identification of a psychological mechanism for a human being's ontogenetic development is undoubtedly one of the most fundamental problems for developmental and educational psychology. It could hardly be considered fully investigated as yet thus demanding some further argumentation. The author's approach is based on the works of two outstanding Russian psychologists: L.S. Vygotsky [1], [2] who laid the foundation of the developmental and educational psychology in this country in the first third of the 20th century and D. B. Elkonin [3], [4], one of Vygotsky's most faithful disciples and followers who made the most serious attempt to discover psychological laws of development in the 60s-80s.

* Nechaev N.N. Tel. +7- 903-710-54-54
e-mail: nnnechaev@gmail.com

Commenting on the idea of development as the leading one “for all fields of reality and for all spheres of scientific knowledge” Vygotsky [1] mentioned some barriers blocking the way to its true comprehension: they include “not only certain metaphysical theories rejecting the idea of development itself, but also theories pursuing some false ideas of development”. Unfortunately, many of them still continue their existence as unconscious axioms even nowadays. In this article the author criticizes some of these methodologically untenable ideas concerning the theory and practice of developmental and educational psychology.

2. The role of social institutes

Vygotsky’s critique made from the position of his cultural historical theory was mostly aimed at the nativistic view of child development typical for “old psychology” according to which the search for a psychological mechanism for development is focused on an individual organism’s specific features rather than on a joint activity in which a child is involved (Vygotsky) [1]. Indeed, any researcher has a chance to observe in real life a variety of individual trajectories of ontogenetic development caused primarily by the diversity of human activity forms.

Unfortunately, the nativistic notion of ontogenetic development seems to be inseparable from treating a person as an isolated individual. In opposing this idea Vygotsky obviously shared the position of K. Marx who held [5] that: “An individual is a social being. Therefore, any manifestation of his life even if it does not appear in the immediate form of the collective, jointly performed manifestation of life, is still a manifestation and assertion of social life”.

2.1 Family

From this perspective, Elkonin’s concept of development should be represented in a more detailed way. One of the concerns of his concept is the nature of relations between a child and his environment. It is expressed through the notion of the social situation of development (SSD) introduced by Vygotsky and elaborated by Elkonin. According to Vygotsky [1], SSD is “quite a peculiar, specific for the given age, exclusive, unique and inimitable relationship between a child and the reality surrounding him, first of all, the social one.

In his later studies of childhood social history Elkonin attempted to trace the historical transformation of the “child-society” relationship indicating that in the course of time these relations had been transformed from being immediate to mediated by nurturing and teaching but afterwards this function passed to the family. So “children-in-society” system of relations appears to be veiled by “child-family” and within a family – “child-individual adult” system of relations” (Elkonin) [3]. Nevertheless, a child being a member of society is a concrete subject of the overall society productive powers and production relations, while he tries on certain social roles and acquires certain social statuses fixed by the law: an inheritor, an assignee, etc. It should be noted, however, that even nowadays the status of a child as a subject of law is not fully recognized: parents too often look upon their child as something belonging to them.

This could probably account for the fact that contemporary developmental and educational psychology still tend to represent a child’s relations with others only on an interpersonal level. In this case the real social relations or “the impersonal relations” the child is de-facto involved in almost never appear in the foreground [6]. Moreover, they are often ignored although it is these social relations that set up the parameters of the SSD for a child, determining the nature of his interpersonal relations with others. How are these relations formed?

The system of a child’s relations with the world can hardly appear out of nowhere. A human being who comes into life as an organism with a number of specific organic needs finds himself within a system of objective, historically concrete social relations. Their system is from the very first moment created by his activity which being social in its nature becomes more and more individualized in accordance with the circumstances of his life. For objective relations to transform themselves into the child’s **own** relations the child should master his **own** modes of activity appropriate to the present system of his relations. To this end the child’s organic needs are to be “objectified” or, in other words, transformed into human requirements aimed at

mastering the appropriate modes of activity including those necessary for building relations, for instance, communicative ones.

The essential feature of this situation is that concrete relations into which the child is involved by the very fact of his birth are preset for him as the relations of people who deal with him. The task they are faced up with is to form his desirable psychological capabilities in the process of raising and teaching the child. Therefore, the developmental activity of the child can be presented as his joint activity with adults in a defined system of relations in which he makes use of his capabilities, his “productive powers”. The fact that the child is able to do something that he was unable to do earlier leads to the transformation of his relations with adults. In case they fail to rebuild this system in accordance with the child’s transformed psychological capabilities the emergence of a conflict coming to a crisis is quite probable.

Since the so-called age crises have been well described in developmental psychology let’s take, for example, one of them: the well-known crisis concluding the early age period. In Russian psychology it is described as “the crisis of 3 years”. The essence of this crisis which is characterized by a child’s stubbornness, willfulness, etc. could be described through the child’s motive to change the existing system of relations towards greater autonomy. According to the author’s observations, in Great Britain this kind of behavior is characteristic already for two-year-olds, toddlers, who though not having mastered fully the skills of moving and communication with adults nevertheless seem to get a greater degree of freedom in their activity and respect for their independence than their Russian peers [7], [8].

2.2 School

It appears that the system of children-society relations which, in Elkonin’s opinion, “is veiled by that of child-family relations, is similarly veiled by one of child-school relations” at the next stage of development [3]. In this situation teaching is too often looked upon as the origin of development. According to some traditions of Russian psychology the development process is treated as one of social experience internalization. It is presupposed that the older generation, bearers of social experience, “hand” it down to the younger generation so that it is to be internalized through teaching. Thus teaching is viewed upon as a process that takes place only at school and aims at forming some desirable features and abilities in a child.

From this point of view, development is nothing but a product of society’s purposeful educational activity associated with reaching of pre-claimed positive results of education. The evidence for that is interchangeable use of both concepts in various contexts thus leading to “pedagogicalized” treatment of development. In this case the teaching goals and the results of development or, in other words, pedagogical versus psychological approaches would be mixed up.

In the author’s opinion, teaching is a specially organized form of social communication with an internal logic of its own and aimed at establishing proper conditions for development. As for development the author strongly believes that it is an objective process with an internal logic of its own. Unfortunately, development sometimes is treated as ever progressive and positively directed process with the trend only toward perfection [9]. This may be illustrated by development assessment practice. In the author’s opinion, the answer to the question whether development should be assessed as “asymmetrical”, “deviant” and so on will be positive in case of its orientation only to the existing norms. But the answer is negative if one realizes that development as an objective process can be variable. The recognition of this fundamental statement is supported by the fact that some time ago it was decided to get rid of defectological terminology in relation to children with special needs.

Without understanding the internal logic of development as an objective process always taking place in a determined specific social situation, it is rather difficult to predict which trajectory of development would prove to be a success.

3. Activity as the Basis of Development.

3.1 *Motives and Modes of Activity*

It is the mode of activity mastered by a child that is “a cell” of development because it is always “twofold”: its realization is simultaneously the realization of the relations system.

Let's take, for example, an infant's animation complex which is obviously an expression of the infant's need for communication with other people. Psychologically, this means that an initial system of the child's “conscious” relations is in the making. The fact that the system of relations is getting broader leads to a situation when a child's modes of activity cease to correspond to them anymore and thus there emerges a new motive which leads to the transformation of the existing modes of activity. So other people appear in his life as “partners” within the system of his new relations induced by the joint activity in which he is involved and in the course of which new relevant modes of activity are formed.

The development of such infant movement skills as sitting, lying down, crawling could serve as another example. The fact that these skills are formed means that the child is mastering new topical modes of activity in response to the newly built system of relations. So the rise and differentiation of a child's needs coming into life as his motives are aimed at forming the necessary activity modes which in their turn will challenge the existing system of relations and mark the beginning or completion of yet another cycle (period) of development.

Accordingly, two types of a person's motivation should be defined: the motivation of building or transforming a person's relations and the motivation of building or transforming his activity modes. Indeed, in the process of activity there is always a basis for creating both types of motivation. As an example of the first type, we could mention a role playing activity which is motivationally a significant form of the child's discovery of the values and meanings of various modes of activity while he is joining some new community (group): a school class, a peer group, etc. The second type of motivation associated with the mastery of these activity modes is developed in the context of subject-manipulative games, learning activity in elementary or secondary school, sport activity and so on. There is always “splitting” of motives that constitute a child's system of motivation: some of them “look back” to the past, the others to the future sometimes making the child act inadequately.

The nature of the child's motivation can be traced through a psychological analysis of his activity. However, in real life it is often substituted by the pedagogical approach aimed at raising the child's motivation up to the level of requirements and expectations of definite social institutions. As Elkonin [4] observed, motivational readiness for a new “serious, socially significant and socially evaluated activity” characteristic of a senior preschooler should not be identified with motivation for educational activity. Obviously, he meant that a senior preschooler's motivation was the evidence of his readiness not for school itself but for changing his position in the relations system in order to reach the new and more topical social status of a schoolchild to which he had been psychologically getting ready in the process of preschool role playing. As for school itself as a social institution it is just a historically concrete form for a child to materialise his transformed motivation.

3.2. *Psychological mechanisms of development*

Here comes the difference between our position and that of Elkonin represented in his conception of development. In his opinion the system of human activity includes two subsystems with different types of relations which determine one another: a “human to human” type of relations belongs to a motivational-needs-satisfaction sphere of activity, while a “human to thing” type of relations stands for an operational-technical sphere. In his periodization of development from birth to 18 years which is well-known in Russia and is built on his concept Elkonin stated that the development of a child is expressed in periodic change in the orientation of his activity from one sphere to another. In his periodization he indicated that there are 3 epochs, namely: early childhood, childhood and adolescence, each containing two stages. According to Elkonin, [3] the primary orientation to the motivational sphere of activity takes place at the first stages of each epoch, namely: infancy, preschool age and junior adolescence each followed by the orientation to the operational-technical sphere at the second stages, namely: early childhood, preschool age and senior adolescence. Thus each epoch is characterized by the alternating predominant development of either the

motivational-needs-satisfaction sphere of activity in the first period or the operational-technical sphere in the second period.

In the author's opinion, one can trace "double identification" in Elkonin's concept. Unfortunately, the transformations in the child's motivational sphere are identified with those in the child's system of relations and likewise the transformations in his operational-technical sphere are identified with his relation to the modes of his activity. As a result, the contradictions ripening within a child's motivational sphere were practically disregarded. Besides, the development of the child's relations system appeared to be separated from that of his activity modes.

At the end of his life Elkonin [4] came to the recognition that he had failed to trace the psychological mechanism for development. Here is a line from his diary: «My periodization though precisely catching the dynamics of development does not reveal the internal mechanism of this dynamics». Indicating that this mechanism must be based on some internal contradiction in the structure of activity, he assumed that it was the contradiction between the motivational and operational-technical spheres.

Sharing Elkonin's position on some contradiction being at the core of the psychological mechanism for development the author, however, believes that the contradiction being sought should be different. Namely, it is a contradiction between the child's former motivation which is losing its psychological significance for him and the developing motivation conditioned by the child's entry into a new system of relations or by his wish to transform the modes of activity which do not meet the requirements of the relations system. Furthermore, this contradiction is just an outer expression of the inner contradiction either between the level of activity modes development achieved and the objective requirements of the relations system or between the already formed system of relations and the developing modes of activity to which the child is becoming motivationally sensitive at the given age. This contradiction is constantly generated and resolved in the process of any child objective reproduction of the forms of human activity in the given social and cultural environment. As a result, the child makes another step in his development doing it as a member of his community, his "clan", his "tribe". It is this contradiction that becomes the objective basis of a person's ontogenetic development or, in other words – the desired psychological mechanism for development.

4. Conclusion

Therefore, the process of development can be represented as a spiral dynamic structure of rising and descending trends contradicting one another and thus providing a mechanism for the emergence of psychological growth at a certain age period. In some cases they are perceived as leading to progress and, correspondingly, assessed as development, yet in other cases as regress and, consequently, as deviation or even degradation of activity. However, development is an objective process, and acting meaningfully in the course of teaching and nurturing practice we must understand that every "plus" achieved is fraught with a "minus".

References

- [1] Vygotsky L. S. The problem of child development in Arnold Gezell's research // *Gezell A. Pedology of early age. Preface.* Moscow-Leningrad: Uchgiz; 1932. [In Russian].
- [2] Vygotsky L. S. The problem of age. // *Collection of works.* In 6 v. V. 4: Child psychology. Moscow: Pedagogika; 1984: 244–268 [In Russian].
- [3] El'konin D. B. Excerpts from scientific diaries // *Questions of psychology* 2004; 1: 9-22 [In Russian].
- [4] El'konin D. B. *The best works on psychology.* Moscow: Pedagogika; 1989. [In Russian].
- [5] Marx K., Engels F. *Works.* 2nd ed. Moscow: Izd-vo polit. literatury; 1968. [In Russian].
- [6] Andreeva G. M. *Social psychology.* Moscow: Aspect Press; 1996. [In Russian].
- [7] Fraser B. Getting through the Terrible Twos // *The successful parent.* January 2013. [An electronic resource]. Access mode: <http://www.thesuccessfulparent.com>.
- [8] Nechaev, N.N., Reznitskaya G.I. Some specific features of a child development within the frames of Russian and British family rearing practices: a new look on the development patterns // *Vestnik of Moscow State Linguistic University* 2013; 16 (676): 9 – 39. [In Russian].

[9] Kravtsov, G. G.. The principle of affect and intellect unity as a basis for a person-oriented approach to teaching children // *Questions of psychology* 1996; 6: 53 – 64. [In Russian].