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The Concept of Age-Specific New Psychological Formations in Contemporary Developmental Psychology

ABSTRACT: This article describes the development of L.S. Vygotsky's views on the dynamics of mental development during the ages of childhood and submits to critical analysis the idea of using "leading activities" as criteria of psychological age. It is argued that new psychological formations that come with age express special features of consciousness and self-awareness during both lytic and critical ages. The leading activity of an age emerges and develops on the basis of new psychological formations of age. Changes in a child's communication are the reasons behind changes in his activity. Moreover, changes in self-awareness are associated with changes in the child's relationship with adults. New formations during lytic periods are associated with the fact that characteristics of self-awareness that emerge help the child

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construct new activity. New formations during crisis periods are associated with the emergence of new meanings in the child's selfawareness, meanings that help him to regard his own actions in new ways. It is proposed that a periodization of mental development based on leading new psychological formations could serve as the foundation for creating the developing system of continuous education.

The contemporary science of psychology is characterized by its fragmentation. The fact that references to more than twenty branches of psychology can be found in various documents has caused a situation to emerge in which both the subject of psychology and its apparatus of categories have become increasingly diffused. If we further consider that proponents of one branch often have a poor understanding of work by their colleagues in another branch, it becomes clear that the crisis in psychology that Vygotsky wrote about more than seventy years ago not only remains unresolved, but has intensified.

Developmental psychology is one branch of psychology. According to various textbooks and other academic literature, its subject is the conditions, laws, and mechanisms of mental and personality development. But if we analyze the content of contemporary developmental psychology, it can be clearly seen that it as actually been turned into child psychology. First, the particular features of development during adult ages, as a rule, are either completely ignored by this branch of psychology or are given short shrift. Second, even within childhood ontogeny, the first four ages are the most studied and well-established: infancy, early childhood, preschool age, and early school age. The other developmental periods are defined in different ways by different authors. There is still no established consensus on the question of when childhood ontogenesis is concluded. Some researchers say at eighteen years, while others insist that childhood ontogenesis is completed at the age of twenty-one. But none of these researchers defines the qualitative difference between childhood and adult ontogenesis (which is something that should be done within the framework of developmental psychology). Third, the content of this branch of psychology concerns the psychology of separate ages of ontogenesis. Discussion of the conditions, mechanisms, and laws of development resembles a periodization of mental development that does not take into account the difference between mental and personality development, which is also evidence that what is really being talked about is not the psychology of development, but child psychology.

One of the main concepts in contemporary child psychology is the concept of leading activity mentioned by L.S. Vygotsky in works about play and introduced into wide usage by A.N. Leontiev, as well as by D.B. Elkonin, who constructed a periodization of mental development based on it. In their opinion, leading activity is what defines the specific nature of a child's development at a given age. A child's transition from one chronological stage to another is marked by a change in leading activity, and the conditions of this activity's development are also the conditions for the child's full mental development at different ages.

Despite the obvious fruitfulness of such a methodological approach, which permits the collection of important empirical data about the specific nature of mental development at different ages and a theoretical interpretation of the logic of mental development during ontogenesis, a number of fundamental issues associated with it remain unresolved.

The first issue has to do with the characteristics of the leading activities themselves. Significant difficulty is presented by the criteria permitting the distinction between communication, objective activity, play, and so on, on the one hand, and noncommunication, nonobjective activity, and nonplay, on the other. From the very start, this refers to are the psychological criteria of these activities, and not their external manifestations. Another issue is that the concept of leading activity, which is a product of the activity approach, must comprise all of the characteristics inherent to any activity. But any attempt to define the motive of a particular leading activity, to determine the psychological component of the activity, encounters serious difficulties. For example, L.S. Slavina identifies "children's desire to play" as the motive for play. Meanwhile there is a convincing basis for believing that children's play is determined by other factors. An analogous situation applies to the motives for communication. M.I. Lisina has emphasized that the child associates with a peer in order to see himself in a mirror. However, research on children's communication with their peers shows that not only is child is not motivated by a desire to perceive himself, but often intensive interaction between the child and his peers does not change his "I" image in any way.

The second issue facing child psychology built around the concept of leading activity is understanding the mechanism by which one leading activity is replaced by another. For example, in solving the practical problem of children's psychological readiness for school, the transition from leading play activity to leading educational activity must be substantiated. The assertion by V.V. Davydov that educational activity replaces play when the latter has been exhausted is contradicted by the fact that in real life both young schoolage children and adolescents, not to mention adults, take pleasure in play. Therefore, there is no justification for talking about the disappearance of play. At the same time, educational activity, which becomes the leading activity during early school age, in Davydov's opinion, can initially take a collectively distributed form that very little resembles education and is much more reminiscent of play.

The third issue, which I would like to examine in this article, concerns the interconnection between leading activities and the conditions for mental and personality development in ontogenesis. On the one hand, virtually all researchers who have worked or are working in child psychology note that the formation and development of a leading activity are connected with the child's communication with adults and peers. On the other hand, even while it is recognized that communication is the main source of mental development in ontogenesis, it must be understood how communication during the formation of play activity is different from communication that the child needs when he is developing educational or objective activity. This can be illustrated using Vygotsky's thesis that mental functions first exist in the form of children's actual relationships, in the practice of education.

Currently popular in certain Western countries is a type of pedagogy that is, in the opinion of its authors, founded on this idea of Vygotsky. The distinguishing feature of this pedagogy is the complete abolition of the instructor and a lesson that amounts to no more than communication among the pupils. The authors of such experiments are meanwhile often surprised by the poor results of such instruction, even when communication among the children has proceeded well.

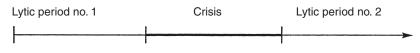
Without addressing the misunderstanding of the context of Vygotsky's idea, we will note that contemporary child psychology comes nowhere close to developing answers to questions concerning the distinction between developing communication and just plain communication or the organization of communication within a group of children.

The solution to this and a number of other fundamental problems involves the transformation of child psychology into a developmental psychology based on the concept of age-specific new psychological formations. This concept was introduced into developmental psychology by Vygotsky, and since then has been little studied and little applied in comparison with other concepts. Vygotsky identifies age-specific new psychological formations as the most essential formation of age, a concentrated expression of an age's specific character. In other words, a proposal to return to or to construct a genuine developmental psychology requires, first and foremost, an understanding of the characteristics of age through the prism of age-specific new psychological formations.

It might initially appear that replacing the concept of leading activity with the concept of age-specific new psychological formations will not change much in the theory and practice of psychology. Nonetheless, identifying the psychological features of age with the help of age-specific new psychological formations will permit answers to questions concerning the conditions, mechanisms and laws of mental development.

Vygotsky emphasized that two types of age-specific new psychological formations can be identified—formations that emerge during the critical period and those that emerge during the lytic period, and in the latter he particularly noted the role of central age-specific new psychological formation. Furthermore, Vygotsky





believed that while new formations during the lytic period developed and continued to play an important role in the child's development, even after they were replaced with other formations, formations emerging during critical periods eventually cease to play a role in mental development.

Theoretical and experimental research on lytic and critical periods through the prism of central new psychological formations permits us to identify their structure and laws of development in childhood ontogenesis.

The beginning of a stable period is associated with the end of the crisis period that precedes it. The most important thing that occurs during critical ages, Vygotsky emphasized, is expressed in the crisis's new formation. Furthermore, there is an experimental basis for saying that crisis formation is associated with the emergence of *new self-awareness*. This assertion can be bolstered by Vygotsky's indication, for example, of a crisis formation at one year, which he associated with *consciousness*, with the "greater we" (Figure 1).

So, at the end of a critical period (or, using Vygotsky's terminology, during the post-critical period), the child acquires new selfawareness that is primarily expressed in his characteristics of self-perception and attitude toward himself. Development during the post-critical period is associated with a change in this new self-awareness.

For example, according to our data, the formation that emerges from the crisis at age three can be called "the intellectualization of perception," analogous to the formation that emerges from the crisis at age seven, identified by Vygotsky and designated by him as the "intellectualization of affect." In the first case, the child learns to reassess his own perception and becomes gradually independent from the situation as it appears at the moment, and in the second case, he endows emotions with a different meaning and gains the ability to manage them. The formation that emerges from the three-year crisis and the formation that emerges from the seven-year crisis, coming at a post-critical period, are fully realized by the child in daily life. Primarily through speech, the child builds situations that are cardinally different from the situation appearing before his eyes, or manipulates his emotions, saying to his mother, for example, "I am going to be mad at you for a long time," adding, after a brief silence, "A whole two weeks." In both cases, it as if he is taking pleasure in the sense of himself as the master of his own perception (in the first case), and of his own emotions (in the second). It is particularly noteworthy that the realization of these formations occurs primarily through communication between child and adult.

In realizing a critical-age formation through communication, the child is nevertheless not capable of using communication to change his vital activity. This is the task of the adult, who, in one case, using an imagined situation, conceives the child's activity, and in the other, demonstrates the change in meaning of the situation depending on what is central to it and what is merely background.

For example, a small child is banging a building block against a chair. His mother enters the room and says to him, "Good for you! You're hammering in a nail just like Daddy!" If the child has already realized the critical-age formation in communication and if he understands the words "hammering in a nail just like Daddy," then he will soon not just be banging against the chair, but from the start will be "hammering in a nail." While the child, as a rule, is not yet capable of taking on the role of being like his father, through this action he is learning to relate the meaning expressed in words and his own objective activity.

The incorporation of a critical-age formation into actual situations leads to an emergence in the child of another formation, which becomes the lytic-period formation. In the examples we have introduced, this is, on the one hand, imagination arising from intellectualized perception, and on the other, voluntary attention that starts to form on the basis of the intellectualization of affect.

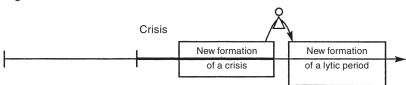


Figure 2. New Formations Within Periods

Correspondingly, it turns out that the formation of the lytic period assimilates crisis formation.

With the emergence of the lytic-period formation, which has assimilated the crisis formation, a stable period begins (Figure 2).

The beginning of the stable period, like the beginning of the critical period, is distinguished by the fact that the child realizes his new formation in his communication with others, primarily with adults. The young preschool-age child, for example, responds with great pleasure to imagined situations proposed to him and even constructs them himself. But he is not yet able to actively realize them. A young school-age child who has only just developed voluntary attention—the ability to voluntarily separate figure from background—creates classifications (based on various characteristics), and realizes the position of the teacher (for whom figure and background have exchanged places, in comparison with the pupil's position), but is not yet capable of constructing his activity based on this logic.

The incorporation of a new lytic-period formation into real life leads to the emergence of new activity, which has acquired the status of "leading activity." Furthermore, the new lytic-period formation becomes the main and most important criterion of this activity.

The incorporation of imagination into the daily life of the preschool child leads to the emergence of imaginative play. The expansion of voluntary attention from the sphere of communication into the vital activities of the elementary pupil results in educational activity built on the logic of the young school-age formation.

In both crisis formations and formations emerging during a stable period, the child first realizes this formation in communication with those around him, and then, with the help of an adult, learns to use it in daily life. Admittedly, in the first case, incorporation of the new formation does not presume any change in the child's activity. The adult helps the child endow familiar actions with a new meaning. The lytic-age formation emerges as a result of this help.

In another case, the adult teaches the child to construct his activity in a particular way. The result of this interaction is associated with the emergence and development of new activity, which is all the more closely tied to the mental development of the child because it is constructed on the basis of a central new psychological formation.

In short, during a stable age there is a period when a child realizes a central new psychological formation in communication with those around him. This period is replaced by another, which is associated with the leading activity of the given age.

While the scope of this article does not permit us to fully examine the logic of the development of leading activities, we will note that by the end of the stable period, a child becomes the subject of his own leading activity. This means that he has mastered all its components and can externalize it individually, that he is able to voluntarily realize this activity under any conditions, and that he reflects its process. A special criterion of the fact that a child has become the subject of his own leading activity is that he be capable of *verbalizing* it.

A child's ability to construct and perform a leading activity independently leads to a change in the relationship between the child and the adult. While during earlier lytic-period stages the adult constantly helps the child to embody and develop the leading activity, now that the child has learned to realize it independently, his relationship with the adult changes qualitatively. It is as if the child has outgrown his old relationship with the adult.

Changes in the relationship with the adult foreshadow the child's entry into the crisis of mental development of his precritical phase (Vygotsky). Furthermore, on the one hand, his new relationships with the adult are built on the basis of the lytic-period formation, and on the other, they already contain features of the formation of the new critical period.

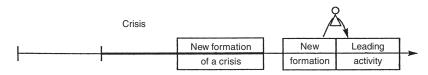


Figure 3. New Formations and Leading Activity

For example, the child's entry into the crisis at age seven is associated with the emergence of his voluntary-contextual communication with the adult. On the one hand, this communication is the result of the development of the child's imagination, which is immediately tied to an orientation on context. But at the same time, communication that has a voluntary character and is subject to certain norms, laws, and rules, helps the child to relate to his own emotions and manage them in ways that differ from when he was a preschooler.

While first taking shape in the child's communication with the adult, the critical-age formation goes on to influence the sphere of interaction with peers (the actual critical phase), during which the child has auspicious conditions for the further development of this formation. The main result of the crisis will be the emergence of the new self-awareness in the child that characterizes the postcritical phase.

It turns out, therefore, that the leading activity is built on the basis of the new formation (Figure 3).

Our analysis suggests that changes in activity emerge after changes in the sphere of communication. On the one hand, this is entirely consistent with D.B. Elkonin's idea that the semantic aspect (being oriented toward another person) always precedes the operational-technical aspect. On the other hand, however, changes in the child's communication with the adult that emerge on the basis of a crisis formation and are associated with the realization of a child's new self-awareness in vital activity are preceded not by operational-technical aspects of activity, but by the emergence of a lytic-period formation. In other words, the child's new communication with the adult during the post-critical period, realized as everyday actions, are endowed with new meaning, leading to the appearance of new attitudes toward reality (the lytic-period formation) on the part of the subject.

This structure of the critical and lytic periods allows us to attempt to define the concept of age-specific new psychological formations. Based on the logic presented here, age-specific new psychological formations reflect the consciousness and self-awareness of the subject. In one instance, self-awareness is associated with new meaning, one that helps the child to begin to regard his own actions in a new way (critical-period formation), and in the other it helps the child to construct new activity and be its subject (lyticperiod formation). Such a division of self-awareness is fully consistent with the distinction made in contemporary psychology of general (personality) and particular (activity-oriented) self-assessments. It therefore turns out that during the course of one age period, changes in self-awareness occur twice. Here, crisis formation is associated with the personality development of the child. This is what he is able to realize independently. The lytic-period formation, however, in becoming the basis for leading activity, is directly tied to the child's mental development. The adult's assistance, essential to realizing the formations of both the crisis and lytic periods, in the first instance consists in endowing familiar actions with a new meaning, and in the second, in forming and developing new activity. It is important to note that over the course of one period, the child's attitude toward the adult undergoes two qualitative changes. The first change in attitude is associated with the appearance of a new attitude toward himself as a result of crisis. Within the framework of this new attitude, the child becomes capable of building relationships with adults in a new way. In the second case, the changes in his attitude are associated with the ability to independently realize leading activity and to be aware of himself as its subject. This destroys his old relationships with adults, but his inability to conceive himself in his new capacity leads to a crisis in mental development, expressed primarily in the appearance of a negative attitude toward the adult and his demands.

It is important to note that the formation associated with the child's personality development must absolutely be integrated into the lytic-period formation. Otherwise, the child is faced with a number of potential problems. For example, if the formation of the seven-year crisis—the intellectualization of a ffect—is not integrated, this can lead to the emasculation of a child's emotional sphere. Children who develop trouble with the ability to rethink their own emotions, first of all, become emotionally handicapped (indifferent, cruel, lacking empathy and sympathy, etc.), and second, are centered on themselves, which leads to significant difficulties in learning. There is an analogous problem with children who have not assimilated the formation stemming from the agethree crisis—the intellectualization of perception. Like children with hyperdeveloped seven-year-crisis formations, they have difficulty with a variety of types of learning. Furthermore, as a rule, they do not play, but at the same time they are immersed in an imaginary world.

So, age-specific new psychological formations express the special features of a subject's consciousness and self-awareness. At the same time, personality self-awareness prepares a child for the emergence and development of new activity that is responsible for mental development. But the new formation, which reflects the child's mental development, mediates the central mental function of the age period and makes it voluntary. For example, emotions, which are a central mental function of preschool age, change from being immediate and uncontrolled (young preschool age) to being "anticipatory" (using A.V. Zaporozhets's term) and managed (older preschool age). The mechanism for such a transformation is associated with the incorporation of imagination in the subject–emotions dyad.

This is exactly what is observed in the central mental function of early age—perception. At an early age, perception begins being mediated by a formation of that period—speech. Speech allows the child to first communicate his own perception, and then to make sense of it.

The analysis performed reveals that age-specific new psychological formations not only characterize what is special about a particular period but also provide solutions to many fundamental problems of the science of psychology. In the approach presented here, the question of criteria for leading activities can be solved with help from the formation of the lytic period on the basis of which it emerges and develops. At the same time, it becomes evident how the transition from one leading activity to another takes place.

The relationships and interconnections between new formations and leading activities suggest that leading activity cannot be reduced to an activity structure. It thus becomes clear how complicated it is to define the motive for such an activity.

The close connection of new formations with one another permits a solution to the problem of succession, which is theoretical and practical in nature. The special features of a child's communication with an adult, which affect both separate periods of development and the specific nature of relations during critical (post-critical) and lytic ages, provide a basis for developments in education. Furthermore, the features of formations of the critical and lytic periods help to distinguish mental and personality development.¹ Research into formations of separate developmental periods has shown that they are closely tied to one another and have features that distinguish them from all other components of mental and personality development.

Introduction of the concept of age-specific new psychological formations into contemporary psychology is a step toward the full-fledged developmental psychology that L.S. Vygotsky proposed, which he believed, should become the methodology for the entire science of psychology.

Note

1. For more on this subject, see E.E. Kravtsova, "Kul'turno-istoricheskie osnovy zony blizhaishego razvitiia," *Psikhologicheskii zhurnal*, 2001, no. 4.

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