

THEORETICAL CONCERNS

Vygotsky on Imagination Development.

Natalia Gajdamaschko

Lev Vygotsky was an educational theorist and psychologist of extraordinarily wide knowledge whose major writings deal with our entire learning-teaching-development experience. Despite a wide-ranging interest in Vygotskian theory, the issue of imagination remains outside of the main line of general inquiries into his work. Thus, there is a gap in the list of “Vygotskiana” topics that are studied in North America and Vygotsky’s writings on the imagination and its development have only recently become a topic of discussion. This article attempts to fill the gap.

To understand Lev Vygotsky’s (1986–1934) views on the development of imagination, it is necessary to recognize that he did not accept a narrow view of imagination as some sort of innate and relatively stable capacity of a child or adult—a capacity that does not change over time and is not necessarily connected to the intellectual development and/or cultural development of the individual. This interpretation of imagination is common among North American educators, many of whom consider imagination to be an unconscious, or semi-conscious, autistic, spontaneous capacity. For them, imagination plays out in childhood conflicts but is not influenced by teaching or learning processes in school. This idea of imagination is obviously closely tied to the specific notion of development itself, which is viewed as a set of gradual maturation processes separate from learning-teaching (*obuchenie*).

This concept of imagination separates the role of imagination development in children’s development from their cultural development or from their intellectual abilities, and it denies the link between the development of imagination and the processes of learning-teaching. At the same time, it has also reduced the choice of methods and instruments that educators can use to evaluate and assess the development of imagination and the types of interventions that are possible to help develop children’s imagination.

As we shall see, Vygotsky views the development of imagination as a part of the cultural development of the child’s personality. He claims that in school the imagination undergoes a revolutionary shift that profoundly impacts students’ cultural development, intellectual development, personality, behavior, and ways of understanding and making sense of world. According to Vygotsky, it is in this imaginary world of imaginary heroes, testing of boundaries, and imaginary intellectual games that the real battle for the development of personality, identity formation, and development of thinking is fought out during school years. Thus, we cannot overemphasize the importance of a detailed analysis of imagination development during the school years.

Vygotsky wrote a century ago

Somehow our society has formed a one-sided view of

the human personality, and for some reason everyone understood giftedness and talent only as it applied to the intellect. But it is possible not only to be talented in one’s thoughts but also to be talented in one’s feelings as well. The emotional part of the personality has no less value, than the other sides, and it also should be the object and concern of education, as well as intellect and will. Love can reach the same level of talent and even genius, as the discovery of differential calculus. Here and there human behavior has assumed exceptional and grandiose form. (Vygotsky, 1983, Russian edition. Vol. 3 p 57)

Our dealings with school children, especially adolescents, are tainted by contradictions in the narrow views we hold of this transitional period in their lives. On the one hand, we have a tendency to view adolescents purely in terms of their emotional functions. We even coined the phrase “crisis of adolescence” because it is commonly understood that the emotional lives of teenagers becomes much more complicated, and at times, they are simply difficult to deal with. On the other hand, in school, we view them as mature students who have finally arrived at the point in their intellectual development where we can now “feed” them real scientific and theoretical knowledge because they are now capable of thinking in abstract concepts and learning formal science. However, it is at this very moment that they seem to lose an interest in schooling altogether. We are also not so sure about their volitional abilities, especially at a time when they want to motivate themselves, and we start to doubt that they even possess self-regulatory skills at all. The biggest puzzle is: Why do they become so very “secretive”? We suspect that it is because “they have something to hide from us” (their sexual or aggressive drives, for example). We often observe them during moments of daydreaming and fantasizing.

Consequently, educators often find themselves somehow at a loss in dealing with all these contradictions, and even worse—simply do not know what to do with these children and teenagers. Instead of enriching their experience, we turn our attention to safer topics.

One final reason that we have neglected the detailed study of the development of imagination as a part of the cultural development of school children is due to theoretical beliefs. While there is a little doubt that the study of imagination is important, apparent contradictions exist in the way we approach this subject theoretically. In recent years, the urgency of reviewing the general theoretical framework in our approaches to imagination has been apparent.

What was Vygotsky's understanding of development?

Because traditional child psychology does not distinguish between biological and cultural lines of development, Vygotsky judged that it overlooks the main problem of child psychology—the problem of the development of the child's personality. He wrote

Only a decisive departure beyond the methodological limits of traditional child psychology can bring us to a study of the development of that same higher mental synthesis that, on a solid basis, must be called the personality of the child. The history of cultural development of the child brings us to the history of development of personality. (Vygotsky, 1997, Vol. 4, p. 26)

Vygotsky's research led him to conclude that the traditional psychology of development could not handle the task of researching cultural development properly. He argued,

Child psychology did not know the problem of higher mental functions or, what is the same, the problem of cultural development of the child. For this reason the central and greater problem of all psychology, the problem of personality and its development, still remains closed. (Vygotsky, 1997, Vol.4.p.26)

"Even now," Vygotsky continued, "many psychologists are inclined to consider the facts of cultural changes in our behavior from their natural aspect and think of them as facts of habit formation or as intellectual reactions directed toward a cultural content" (Vygotsky, 1997, Vol.4, p.92).

Vygotsky offers a critique of Piagetian theory. He wrote that for Piaget "the process of development appears to be a process that is governed by natural laws and happens as a maturational type of the process of development, and learning-teaching (*obuchenie*) is interpreted only as a pure "vneshnee" (*coming from outside*) utilization of possibilities that are appearing in the process of maturation" (Russian edition, Vol 2. p. 252) (English, similar translation in Vygotsky, 1987, Vol. 1, p. 194).

This understanding of development has its own methodology, which corresponds to its assumptions. For example, the study of psychological development is designed to minimize the influence of the concrete content of the testing tasks. The "typical expression of this kind of position," Vygotsky wrote, "is an attempt to very carefully divorce what is coming from development, and what is coming from learning-teaching (*obuchenie*), take the results of both processes in their pure and isolated form" (Vygotsky, Russian edition, Vol.2, p. 252) (Similar translation in English in Vygotsky, 1987, Vol. 1 p.194).

For Vygotsky such a position signifies a reduction that leads to the absence of certain critical elements of imagination such as the absence of culture and history in the child's development, and, ironically, the absence of the child and the personality of the child, in the process of development. He explained, "What is missing, then, in Piaget's perspective is reality and the child's relationship

to that reality. What is missing is the child's practical activity. This is fundamental. Even the socialization of the child's thinking is analyzed by Piaget outside the context of practice" (Vygotsky, 1987, Vol.1, p. 87).

Moreover, such a position doesn't take into account the mediated nature of cultural development, and thus it does not really explain development as Vygotsky views it. Vygotsky suggests that in the process of development, the child "arms and re-arms himself with widely varying tools" (Vygotsky, 1997a, Vol.3, p.92). This idea is central to Vygotsky's views on development in general and development of imagination in particular. Only the acquisition of cultural tools allows the transformation from lower natural functions to higher (cultural) functions. This transition is the one that might lead to the conclusion that Vygotsky viewed the development of children as a process of self-development with the help of psychological tools that the child internalizes and that change the inner make-up of the child's personality. He wrote

If we seriously consider the fact that with the knot tied for remembering, the man, in essence, constructs externally a process of remembering, the external object compels him to remember, that is, he reminds himself through an external object, and, in this way carries out a process of remembering as if externally, converting it to external activity, if we consider the essence of what occurs here, this one fact can disclose for us all the profound uniqueness of higher forms of behavior. (Vygotsky, 1997, vol. 4, p. 59)

And, he continues

The very essence of human memory consists of man actively remembering with the help of signs. In general, the following might be said about human behavior: in the first place, his individuality is due to the fact that man actively participates in his relationships with the environment and through the environment he himself changes his behavior, subjecting it to his control. (Vygotsky, 1997, Vol. 4, p. 59)

Warning against a mechanical understanding of the role of "psychological tools" in the child's activity, Vygotsky explained that not everything could be a tool. If something "did not have the capacity to influence behavior, it could not be a tool" (Vygotsky, 1997, Vol. 3, p. 87). In this sense, the only context that would matter would be one that changes something in a child's personality. Following the Hegelian idea that internalized cultural tools empower a child in her development, Vygotsky considered the mediated nature of psychological functions to be one of the most important mechanisms of development.

At the same time, this idea of mediated development leads directly to the conclusion that context is intimately involved in this process, thus schooling and teaching in general should play a major role in imagination development:

One of the most fundamental ideas in the area of the development of thinking and speech is that there can be no fixed

formula that determines the relationship between thinking and speech and that is suitable for all stages of development and all forms of loss. In each stage of development and each stage of loss, we see a unique and changing set of relations. (Vygotsky, 1997, Vol. 3, p. 92)

Similarly, in describing the development of the imagination, Vygotsky stresses that imagination does not develop all at once, but very slowly and gradually. It evolves from more elementary and simpler forms into more complex ones. At each stage of development, it has its own expression; that is, each stage of childhood has its own characteristic form of creation. Furthermore, it does not occupy a separate place in human behavior, but depends directly on other forms of human activity, especially the accrual of experience. Vygotsky highlights the importance of the connection between imagination and conceptual thought:

What is substantially new in the development of fantasy during the transitional age is contained precisely in the fact that the imagination of an adolescent enters a close connection with thinking in concepts; it is intellectualized and included in the system of intellectual activity and begins to fulfill a completely new function in the new structure of the adolescent's personality. (Vygotsky, 1998, Vol. 5, p. 154)

What all these examples suggest is that to study the development of psychological functions, we have to account for a number of things simultaneously. Psychological functions (including imagination) develop throughout childhood not only by the acquisition of the cultural (psychological) tools created by society, which become the content of a child's psychological activities, and not only by restructuring the psychological functions themselves as they form a cultural line of development. They also develop by forming new interfunctional connections in the new psychological systems. And Vygotsky adds that it is a mistake to view the process of development only as a structural change of a single psychological function:

In the process of development, it is not so much the functions that change (these we mistakenly studied before). Their structure and the system of their development remain the same. What is changed and modified are rather the relationships, the links between the functions. (Vygotsky, 1997, Vol. 3, p. 92)

Before I move on to discuss his notion of the development of imagination, let me summarize Vygotsky's views on development. Vygotsky's dialectical approach to development contrasts with traditional, more or less linear approaches, such as Piaget's, that analyze development but do not explain the origins of the new cultural psychological structures. When we discuss context, we must not forget that Vygotsky discussed it within the framework of his own unique developmental theory. Vygotsky wrote that "if one holds the point of view [that] the process of intellectual changes that occur at adolescence can be reduced to a simple quantitative accumulation of characteristics already laid down in the thinking of a three-year

old . . . the word development does not apply" (Vygotsky, 1998, Vol. 5, p. 29).

Instead Vygotsky formulated the first law of the development and structure of higher mental functions, which can be called "the law of the transition from direct, innate, natural forms and methods of behavior to mediated, artificial mental functions that develop in the process of cultural development" (Vygotsky, 1998, Vol. 5, pp. 167–168). In Chapter 4 of *Mind in Society*, entitled "Internalization of higher psychological functions," Vygotsky points out that every function in the child's cultural development appears twice: first on the social level and, later, on the individual level. This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relations between human individuals "(Vygotsky & Cole, 1978).

The controversy between Piaget and Vygotsky about the nature of imagination.

It should be very clear by now that the main theoretical controversy over the development of imagination is between those who, like Freud and Piaget, stress the unconscious, or semi-conscious, autistic, spontaneous characteristics of imagination that play out in childhood conflicts, and those, following Vygotsky, who consider imagination to be an active, conscious process of meaning-making, an attribute of normal thought, and primarily, a cultural psychological function.

Piaget, for example, had worked under the assumption that imaginative thinking is the opposite of realistic thinking (in this he agrees with Freud) and that childish thought, undirected and egocentric, is gradually supposed to be replaced by adult logical, realistic thought. Here, imaginative abilities and realistic thinking are viewed as opposite and even antagonistic characteristics of consciousness.

This theoretical view about the nature of imagination, however, has led us to the conclusion that imagination is a primary, natural process, something that a child is already born with, and that exists regardless of prior school experience or any educational influence. If this is the case, then we, as educators, have no direct ways or means of influencing the process of its development. This divorce between imagination and logical thinking in Piagetian theory is particularly regrettable for one more reason: in a theory where imagination and conceptual thinking are treated as separate (and opposite) entities, there is nothing but a non-communicable and nonverbal, autistic form of egocentric thought connected to the imaginary world of a child.

Reality is far removed from the fantasy of the child. Unlike conceptual thinking, Piaget claims that symbolic imagination is ruled not by "gnostic" but by "pathic" attitudes. This attitude can be described as egocentric and vague. It evokes temporary reason for immediate satisfaction and pleasure. And it is "further and further removed from a real situation" (Piaget, 1962, p.164).

In the first place, just as practical intelligence seeks success before truth, egocentric thought, to the extent that

it is assimilation to the self, leads to satisfaction and not to objectivity. The extreme form of this assimilation to personal desires and interests is symbolic or imaginative play in which reality is transformed by the needs of the self to the point where the meanings of thought may remain strictly individual and incommunicable. (Piaget, 1962, p. 164)

Thus studies of imagination based on these presumptions often turn into efforts to measure its distance from reality. The more the distant imaginative behavior is from reality, the more *original* and *creative* it is deemed to be.

I believe that in classroom practice this theoretical position creates more problems than it solves. In particular, it does not show educators a way they can have real impact on the development of children's imagination.

Vygotsky disagreed very strongly with Piaget's theoretical stance. He considered imagination to be a process directly connected with meaning making—a higher psychological function that has connections not only with emotions but also with intellectual functions. In Vygotsky's view,

This false interpretation of fantasy is due to it being viewed one-sidedly, as a function which is linked to emotional life, the life of drives and attitudes; but its other side, which is linked to intellectual life, remains in the shadow. Moreover, according to the valid observation of Pushkin, imagination is as necessary in geometry as it is in poetry. Everything that requires artistic transformation of reality, everything that is connected with interpretation and construction of something new, requires the indispensable participation of imagination. (Vygotsky, 1998, p. 153)

In his work on imagination and creativity in childhood, he underlines the importance of imagination as the basis of all creative activity:

It is precisely human creative activity that makes the human being a creature oriented toward the future, creating the future and thus altering his own present. This creative activity, based on the ability of our brain to combine elements, is called imagination or fantasy in psychology. Typically, people use the terms imagination or fantasy to refer to something quite different than what they mean in science. In everyday life, fantasy or imagination refer to what is not actually true, what does not correspond to reality, and what, thus, could not have any serious practical significance. But in actuality, imagination, as the basis of all creative activity, is an important component of absolutely all aspects of cultural life, enabling artistic, scientific, and technical creation alike. In this sense, absolutely everything around us that was created by the hand of man, the entire world of human culture, as distinct from the world of nature, all this is the product of human imagination and of creation based on this imagination. (Vygotsky, 2003, p. 9–10)

Vygotsky considered imagination and thinking processes as forming a special unity that helps the child to make sense about the world: "In the process of their development, imagination and thinking are opposites whose unity is inherent in the very first generalization, in the very first concept the people form" (Vygotsky, 1987, p. 78). Moreover, because of this unity, we cannot place imagination at the beginning of the development of the child. Imagination develops as thought develops, and its development is included in the process of development of the child's thinking and conscious meaning-making.

The role of language in the development of imagination.

Vygotsky also disagreed with Piaget on one more, very significant point: the role of language in the development of imagination. For Vygotsky, language is one of the most powerful cultural tools, and it plays a central role in his theory of the development of imagination. However, unlike Vygotsky, Piaget did not see a connection between language development and imagination development. Vygotsky noticed this difference, when he wrote, "From the perspectives of Freud and Piaget, an essential characteristic of primal child fantasy is the fact that this is a nonverbal and consequently non-communicable form of thought." (Vygotsky, 1987, p. 345).

Vygotsky disagreed with Piaget. He argued that, "The verbal character of thought is inherent to both imagination and realistic thinking" (Vygotsky, 1987, p. 349). He also argued that speech plays an important role in the development of children's imagination. In this regard both imagination and realistic thinking are social and verbal.

Continuing this line of argument, Vygotsky outlined how the development of speech is linked to imagination development as a cultural function. He wrote that

The development of imagination is linked to the development of speech, to the development of the child's social interactions with those around him, and to the basic forms of the collective social activity of the child's consciousness. (Vygotsky, 1987, p. 346)

With good reason, Vygotsky considered the development of speech an important part of the development of imagination. He observed, "Speech frees the child from the immediate impression of an object. It gives the child the power to represent and think about an object that he has not seen" (Vygotsky, 1987, p. 346).

Piaget emphasized the undirected and unconscious, passive, and spontaneous nature of imagination. He saw almost no connection between language development and the development of imagination, and offered no explanation of its development beyond the general mechanism of disequilibrium between assimilation and accommodation, and the general maturation of global symbolic function. In contrast, Vygotsky believed that imagination is always a conscious, active process, intimately connected to the child's language development. The existence of imaginative ability allows

a child to build a world independent of the optical field.

Vygotsky perceived imagination to be a higher psychological or cultural function that enables a child to master his own behavior. As a cultural function, imagination is active and it is a part of the child's cultural experience. Vygotsky invites us to

...consider the domain of artistic creativity in this connection. This domain of activity is accessible to the child at a young age. If we consider the products of this creativity in drawing or story telling, it quickly becomes apparent that this imagination has a directed nature. It is not a subconscious activity. (Vygotsky, 1987, p. 346)

He further invites us to

.... consider the child's constructive imagination, the creative activity of consciousness associated with technical-constructive of building activity, we see consistently that real inventive imagination is among the basic functions underlying this activity. In this type of activity, fantasy is highly directed. From beginning to the end, it is directed towards a goal that individual is pursuing. (Vygotsky, 1987, p. 347)

As we see from the quotes above, Vygotsky considered developed imagination as necessary for the technical-scientific creativity of children, as it is for the arts or any other form of cultural activity. In his opinion, the arts and sciences are not so different, and both demand the cultivation of imagination in our school curriculum.

As the process of imagination becomes more and more intimately connected with the thinking process, it becomes increasingly a part of a child's cultural experience. This cultural experience is an active experience, and as the system of imaginative activities that a child uses for making sense becomes more complex, the child is able to solve more complex problems. At the same time, the child learns about some of the rules for dealing with imaginary and real worlds, and about some common and socially appropriate practices that can be guided by imagination.

Mastering imagination, mastering culture.

Vygotsky argues that imagination "does not develop all at once, but very slowly and gradually evolves from more elementary and simpler forms into more complex ones" (Vygotsky, 2003, p. 12). At each stage of development it has its own expression, and at each stage of childhood it has its own characteristic form of creation. Furthermore, it "does not occupy a separate place in human behavior, but "depends directly on other forms of human activity, especially accrual of experience" (Vygotsky, 2003, p. 13).

Developmentally, Vygotsky says, it would be strange if we regarded the development of imagination and development of thinking to be fixed. This is one of Vygotsky's most fundamental ideas, the idea that there can be no fixed formula that would determine the relationship between psychological functions that could be suitable for all stages of development. In each consequent

stage of development, the relationship of imagination to speech and imagination to thinking is changing. He wrote

One of the most fundamental ideas in the area of the development of thinking and speech is that there can be no fixed formula which determines the relationship between thinking and speech and which is suitable for all stages of development and all forms of loss. In each stage of development and each stage of loss we see a unique and changing set of relations. (Vygotsky L.S, 1997a, p. 92)

There are a few ways, according to Vygotsky, for the imagination of a child to develop. Through childhood the imagination is undergoing development by incorporating new mediating means and thus changing the entire structure and functioning of the imagination. Vygotsky discussed not only some new mechanisms of imagination and new connections that the imagination forms with other psychological functions during its development, but also how we, as teachers, can influence the development of imagination by providing children with cultural tools that become the content of children's imaginative activities.

At the earliest stage in the development of the child's imagination, the child "is able to imagine much less than the adult, but he trusts the products of his imagination more and has less control over them" (Vygotsky, 2003, p. 34). Thus, according to Vygotsky, the ability to control imagination comes with maturation and development. Furthermore, the emotional development of a child is related to the development of imagination. One of the most interesting units of analysis that Vygotsky introduced into psychology is "perezhivanie," the unity of affect and intellect. In analyzing the development of imagination, the need to take into consideration the ability to develop emotional control of the products of imagination is very important. Vygotsky said, "every construct of the imagination has an effect on our feelings, and if this construct does not in itself correspond to reality, nonetheless the feelings it evokes are real feelings, feelings a person truly experiences" (Vygotsky, 2003, p. 19).

Some researchers, following Piaget's influence, consider children more imaginative than adults because they are mistaken in their interpretation of the unit of analysis of a child's imagination: they think that children are more imaginative because they control their emotions less. They only see one side of imagination, the one connected to emotions. The other side—intellectual—must also be taken into account. Vygotsky's idea that imagination has to be meaningful and connected to intellectual development, should not be overlooked.

Another important ability develops concurrently with imagination, the ability to transfer a function from one object onto the other that did not previously have such a function. According to Vygotsky, this ability is very closely connected to the development of the symbolic function in a child. At first, imagination in play shows the child how to divorce the meaning of the object (and its function) from the object itself in order to enable the transfer of the

“pure function” into another object. It does so by the “law of pivot” which is, according to Vygotsky,

.... a divergence between the field of meaning and vision (that) first occurs at preschool age. In play, thought is separated from objects and action arises from ideas rather than from things: a piece of wood begins to be a doll and a stick becomes a horse...the child does not do it at once because it is terribly difficult for a child to sever thought (the meaning of the word) from object. Play provides a transitional stage in this direction whenever an object (for example, a stick) becomes a pivot for severing the meaning of a horse from a real horse.” (Vygotsky, 1978, p. 97)

Vygotsky stressed that this ability enables the child to learn how to mediate a situation by the use of symbols—a skill that will become very important later as the child learns to read and write.

Another very important capacity of the imagination is developed in play. According to Vygotsky, it is in play when a child’s “greatest self-control occurs” (Vygotsky 1978, p. 99). Development of self-control is related, in part, to the ability to create and sustain an imaginative field or scenario. This ability is based on the image of the whole situation, created according to a preliminary plot with certain rules. Again, it is places difficult demands on the child who must create and sustain the imaginary situation (El'koninova, 2002). Nevertheless, this is an essential skill that is perfected in childhood play.

Vygotsky points out that play has a key role in child development. It leads to the development of imagination by enabling a child to create and sustain imaginary situations: “From the point of view of development, creating an imaginary situation can be regarded as a means of developing abstract thought” (Vygotsky, 1978, p. 103).

As I have tried to illustrate here, these theoretical differences between Piaget and Vygotsky are not merely trivial technicalities. The differences go directly to the core of our philosophical beliefs about education and have implications not only for understanding of the nature of imagination, but also for our pedagogical practices.

Cognitive tools for imagination: Vygotskian perspectives

Vygotsky believed that imaginative activities are “crystallized in culture.” “All objects of common life,” he asserted, “appear ... as crystallization of the imagination.” Thus, he concludes, “absolutely everything around us that was created by the hand of man, the entire world of human culture, as distinct from the world of nature, all this is the product of human imagination and of creation based on this imagination” (Vygotsky 2003, p. 7). Imaginative activities develop through the interiorization of correspondent cultural forms that serve as psychological tools. Imagination, which in early childhood appears as a function of play, is gradually developed and appropriates new cultural tools through learning activities. As it changes, it gradually turns into the imagination of the adolescent and then into the productive imagination of the adult.

In order to understand imagination, we need to analyze those cognitive, psychological tools that mediate imaginative activities. In this section I will briefly explore why it is important to understand more about how culture is mediated by cognitive tools, and how this changes our entire understanding about imagination. Vygotsky lists some examples of cognitive tools:

The following may serve as examples of psychological tools and their complex systems: language, different forms of numeration and counting, mnemotechnic techniques, algebraic symbolism, works of art, writing, schemes, diagrams, maps, blueprints, all sorts of conventional signs, etc.” (Vygotsky, 1997a, p. 85).

He warns against a mechanical understanding of the role of “cognitive” or “psychological tools” in the child’s activity, and urges that not everything can be considered “a tool”: if something does not possess “the capacity to influence behavior, it could not be a tool” (Vygotsky, 1997a, p. 87).

In the process of the development of imagination, the child “arms and re-arms himself with widely varying tools.” So the imaginative capabilities of a child depends on her ability to appropriate and to interiorize existing cultural tools that engage imagination. Through the processes of interiorization and appropriation of cultural tools that mediate social (interpersonal) activity, a child is constructing psychological tools of her own inner activity.

Once internalization of cognitive tools occurs the entire nature of imagination is changed: “Cultural devices of behavior do not appear simply as external habit; they comprise an inalienable part of the personality itself, rooted in its new relations and creating their completely new system” (Vygotsky, 1997b, p. 92).

Imaginative activities, like any other cultural or higher psychological function, develop as a complex system. Imagination does not exist in isolation; it creates a unity with verbal thinking, logical memory, and/or perception. At different ages, those connections take different forms. Remember that “secretive” world of teenagers? It is a world that is almost always closed to the eyes of adults. What is hidden is the imaginative world that originated in child’s play. It resembles child’s play, and it is a successor of child’s play, but it does not manifest itself on the “outside.”

It is not in the classroom, nor on the playground, where we infer the development of imagination at this stage, but in the hidden “theater stage” of the child’s personal imaginary world. As Elkonin has noted, “in full-blown, mature play children don’t play anymore—they only negotiate (in words) how to play if they would play” (quoted from Kravtsova, 1996, p. 95). In other words, the imaginary plane is moving from practical reality into the world of symbolic, language realities. In consequence, the make-believe play of pre-school children becomes the imaginary life of school-age students. It is also during this time that imagination becomes consciously regulated through speech and begins to collaborate with verbal thinking, more than with memory.

The principal moment in the development of imagination and other cognitive abilities occurs when well developed imaginative

activity not only leads the child to more successful ways of dealing with intellectual and educational tasks but also leads to changes in the structure of psychological functions, making them conscious and volitional. *Gradually the child becomes a master of his own imagination.* It is at this point that the revolutionary shift in school children's imaginations occurs.

Mastery of the processes of imagination has the following outcomes, which have important implications for education:

- ❖ The individual gains greater control of the emotions.
- ❖ The individual gains mastery of new practical skills such as the ability to transfer symbols from one object to another and the capacity for dealing with quantities of which the child has no direct experience.
- ❖ The individual gains expertise in the use of different cognitive tools.
- ❖ The individual gains more control over the imagination.
- ❖ A more complex relationship is established with other psychological functions. This occurs not only with perception but with thinking, and as thinking develops, imagination also develops.

An alternative approach to curriculum and instruction development

Vygotsky's theory offers a unique perspective on imagination that can help educators achieve their aims. He offers an alternative approach to curriculum and instruction in the middle school—one that involves a greater use of the imaginative capabilities of students. His approach aims both to facilitate development of imagination and to help children *master* their imagination.

In terms of the school curriculum, Vygotsky's ideas also have implications for the development of educational materials and activities.

The curriculum, therefore should aim to develop the child's cognitive tools. The following list sets out the general requirements for something to be regarded as a cognitive tool for education:

- ❖ Activities should be "crystallized in culture."
- ❖ They should involve the of unity of imagination and thinking, and imagination and the emotions.
- ❖ They should influence the child's behavior (otherwise they would not be considered to be cognitive tools).
- ❖ They should be actively accepted by the child (adolescent) as part of her cultural development.

Egan suggests that the story form is congruent with Vygotsky's requirements for cognitive tools:

What is a story? A compact answer is to say that it is a narrative unit that can fix the affective meaning of the elements that compose it. That is, a story is a unit of some

particular kind; it has a beginning that sets up a conflict or expectation, a middle that complicates it, and an end that resolves it. The defining feature of stories, as distinct from other kinds of narratives—like arguments, histories, and scientific reports—is that they orient our feelings about their contents. ...Stories are "crystallized" in culture and therefore they could be used as mediators, tools for engaging that imagination of children. " (Egan, 1992)

Once we agree with Egan's Vygotskian perspective that stories may serve as tools for engaging imagination, the only question that remains (and it is not an easy one to answer) is which kinds of stories should we use in the education of our school children?

REFERENCES

- Egan, K. (1992). *Imagination in teaching and learning*. Chicago: University of Chicago;
- Egan, K. (1997). *The educated mind: How cognitive tools shape our understanding*. Chicago: University of Chicago Press
- El'koninova, L. I. (2001). The object orientation of children's play in the context of understanding imaginary space-time in play and stories. *Journal of Russian and East European Psychology*. Vol. 39, # 2.
- Gajdamaschko, N. (1999). *Lev Semenovich Vygotsky*. Encyclopedia of Creativity. Academic Press.
- Kravtsova, E. E. (1996). *Razbudi v rebenke volshebniika* (russ.) Moscow: Prosveschnie.
- Richmond, S. (1993). Art, Imagination and Teaching: Researching the High School Classroom. *Canadian Journal of Education*. Vol. 18, # 4.
- Piaget, J. (1962). *Play Dreams and Imitation in Childhood*. New York: W.W. Norton.
- Vygotsky, L. S. (1997a). *The collected works of L.S. Vygotsky*, vol. 1 (R.W. Rieber & J. Wollock, eds.). New York: Plenum Press.
- Vygotsky, L. S. (1997b). *The collected works of L.S. Vygotsky*, vol. 2 (R.W. Rieber & J. Wollock, eds.). New York: Plenum Press.
- Vygotsky, L. S. (1997c). *The collected works of L.S. Vygotsky*, vol. 3 (R.W. Rieber & J. Wollock, eds.). New York: Plenum Press.
- Vygotsky, L. S. (1997d). *The collected works of L.S. Vygotsky*, vol. 4 (R.W. Rieber, ed.). New York: Plenum Press.
- Vygotsky, L. S. (1998). *The collected works of L.S. Vygotsky*, vol. 5. (R.W. Rieber, ed.). New York: Plenum Press.
- Vygotsky, L. S. (1999). *The collected works of L.S. Vygotsky*, vol. 6. (R.W. Rieber, ed.). New York: Kluwer Academic/Plenum Publishers.
- Vygotsky, L. S. (2004) Imagination and Creativity in Childhood. *Journal of Russian and East European Psychology*, vol. 42, no. 1, January-February 2004, pp. 7-97.
- Vygotsky, L. S. (1978). *Mind in society. The development of higher psychological processes*. Cambridge, MA: Harvard University Press.