# **Understanding Imaginative Thinking During Childhood: Sociocultural Conceptions of Creativity and Imaginative Thought**

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**Abstract** Understanding imagination as both a cognitive and affective endeavor is crucial in order for educators to promote creative and imaginative thinking in informal and formal learning environments. It is the primary aim of this paper to develop the theoretical discussion of Vygotsky's writings on young children's imaginative abilities launched by Gajdamaschko (Teach Educ 16(1):13-22, 2005) and Lindqvist (Res J 15(2&3):245-251, 2003). This paper illustrates Vygotsky's writings on the cognitive processes involved in children's imagination and creativity and concludes with a discussion focused on the components of an educational environment that can either support or stifle children's imaginative abilities. It is through this continuing discussion that, as researchers, we hope to extend and challenge current conceptions of the role of imaginative thinking in early education.

**Keywords** Imagination · Creativity · Visual arts · Early literacy

But what if the imagination is itself the very font of thought? What if the imagination is what permits thought to work by providing it with the images and metaphors that give it direction? What if the imagination is primarily not mere fancy or imitation, but is

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J. Urbach University of Northern Colorado, Greeley, CO, USA itself thought's direction? Presumably our educational foci would then be very different (Sutton-Smith 1988, p. 7).

What if? The question itself opens up numerous possibilities for educators. What if we viewed imaginative thought and creativity as fundamental to cognition? What if discussions of school reform focused on infusing imaginative thinking into the curriculum instead of "covering the content" and "teaching to the test"? In this paper, we assert that imagination is critical to education. In order to successfully point out the need for, and importance of, imagination in education, it is essential to integrate conceptions of imagination into existing knowledge of child development and cognition. It is a major tenet of this paper that the process of integrating imaginative and creative thinking into children's educational experiences allows for a focus on a prospective (educating for the future and problems not yet known) rather than a retrospective view of education (focus on mastering solutions to problems already known) (Kozulin 1993; Lindqvist 2003). In this view, imagination can and should be fostered as a key element in children's daily lives.

Imagination, as we conceive it, has an unsure place in today's educational climate. Runco and Johnson (2002) found that for the most part, teachers and parents in the United States view creative traits in children favorably. In fact, a recent poll conducted by Lake Research Partners (The Imagine Nation 2008) found that almost 9 in 10 respondents (89%) reported that using imaginative thinking is important to one's innovation and success in our global 21st century economy. One's implicit views of imagination and creativity are quite important because "(t)he development of creativity in children is dependent, at least in part, on the environment in which they participate" (Runco



and Johnson 2002). Favorable views of childhood creativity by adults are important because these adults help to create learning environments in which creativity can either be valued and encouraged or under-valued and discouraged. Understanding imagination as more than mere "fancy or imitation" (Sutton-Smith 1988, p. 7) is important as educators strive to cultivate learning environments that support imaginative thinking.

Imagination is a lifelong cognitive and affective endeavor that acts as the catalyst for all creative actions; thus, ultimately it becomes an essential dynamic in the evolution of both cultural and scientific lives (Vygotsky 1930/2004; Lindqvist 2003). The idea that creativity is related to cognition is integral to understanding Vygotsky's laws of imagination. Although Vygotsky's writings on the sociocultural nature of cognition and learning (Vygotsky 1962, 1978, 1997) abound in the learning sciences and educational research literature, interestingly, Vygotsky's writings on imagination and its connection to cognition are not at the forefront of this same literature base. It is the primary aim of this paper to develop the discussion of Vygotsky's writings on children's imagination and creativity launched by Gajdamaschko (2005) and Lindqvist (2003). It is through this continuing discussion that, as researchers, we hope to extend and challenge current conceptions of the role of imaginative thinking in early educational learning environments.

Vygotsky's writings on the theoretical conceptions of imagination allow us to explore young children's creative experiences when situated in formal and informal learning environments. Through investigations of imaginative thinking in early learning environments, we can begin to develop an understanding of the classroom practices that address the creative needs of students by making supportive curricular choices during these early school years. Basic principles underlying a Vygotskian framework include understanding that development cannot be sepafrom its social context, learning leads development, and learning is mediated though interactions with cultural tools and symbol systems (Vygotsky 1978). These very principles lie at the heart of sociocultural conceptions of imagination presented by Vygotsky (1930/ 2004). We argue that it is precisely these principles that contribute to a view of imagination as both a cognitive and affective endeavor, which is an essential component of young children's daily lives.

# **Description of Studies Included in this Writing**

We have chosen to illuminate Vygotsky's theoretical conceptions of imagination in childhood with examples from our own research in early literacy and arts education. These subject areas have been included in previous

explorations of imaginative thinking (see Greene 1995; Harris 2000; Eisner 2002; Egan 2006; Bailin 2007; Madoc-Jones 2007) and provide a rich ground for exploring sociocultural conceptions of imaginative thinking. We will begin our discussion of the link between cognition and imagination by focusing on isolated moments within a firstgrade community of oral storytellers that are used to elucidate Vygotsky's four laws of imagination. Following that discussion, we present an arts-based vignette to explore how one child's imaginative thinking unfolds within a visual arts learning experience. Although neither of the studies cited in this writing initially sought to explore children's imaginative thinking, data analyses for both the literacy and visual arts studies revealed the powerful role of imagination in children's thinking. This article is the result of our need, as researchers and educators, to better understand imaginative thinking from a sociocultural perspective: therefore, the examples drawn from each research study were chosen for inclusion in this manuscript because they illuminated Vygotsky's theoretical conceptions. Since it is not the purpose of this paper to provide a thorough description of the research projects, but to illuminate Vygotsky's theoretical conceptions of imagination and cognition, only a brief description of the projects is provided here. For more information on the analyses please see (Eckhoff 2006) and (Urbach 2006).

The first study (Urbach 2006), the literacy study, featured in this article began with the initial purpose of expanding the definition of what counts as literacy by examining how students used and understood oral stories. This qualitative study, conducted over a period of four months, examined the oral storytelling practices in a first-grade urban classroom. Participants in this storytelling community included both adult and student storytellers. Data from the entire storytelling community was systematically analyzed for major themes and patterns through a process called Domain Analysis (Spradley 1980). This paper draws upon the themes and patterns found through Domain Analysis, the field notes from the storytelling sessions of students and adult storytellers, as well as interviews with students.

The second study (Eckhoff 2006), the arts-focused research study, undertook the examination of integrated, arts-viewing and art-making experiences for young children. The study examined four museum-based art education classes for children ages 4–11 at the Denver Art Museum (DAM). Observational methods of research were employed to examine this dynamic learning environment; this allowed for the development of an understanding of the role of experience and personal interest during the imaginative process. The related research reported in this writing draws upon three main sources of data: field notes, transcriptions of audio-taped sessions from each class, and



student-created artwork. In the finer-grained analyses for this project, individual case studies focusing on specific instances of imaginative thought were developed. The vignette included in this writing is an example of such a case study and is intended to illustrate the powerful relationship between a child's experiences in an art learning environment and the development of complex imaginative thought.

### Theoretical Discussion

Vygotsky (1930/2004) described two types of cognitive behaviors: first, those that are merely reproductive of our past experiences, which lack a creative quality, and second, those that he called imaginative. This imaginative behavior is based on the brain's ability to draw upon and combine elements from our previous experiences. Vygotsky (1930/2004) wrote:

The brain is not only the organ that stores and retrieves our previous experience, it is also the organ that combines and creatively reworks elements of this past experience and uses them to generate new propositions and new behavior. ... This creative activity, based on the ability of our brain to combine elements, is called imagination or fantasy in psychology. (p. 9)

This creative activity is the basis for all progressive thinking endeavors in all areas of life. Imagination is not isolated from our daily experiences; it involves our daily activities and is a complex process that depends on experience. While it may be true that many people do not fully make use of their imaginative abilities as they grow, if imagination is encouraged and nurtured we all have the capability of becoming more creative than we were as children. This is due to the intertwined and complex relationship between reality and imagination. This complex relationship is the cornerstone of Vygotsky's four laws of imagination. The sections that follow outline each of Vygotsky's laws and connect each law to our classroom-based research in early childhood education.

What if Experience Expands Imagination? The Examination of Law 1

Tiesha: ...He stuck the whole thing in his mouth {audience laughing} and became fatter and fatter. {audience laughing} He ate macaroni and cheese, turkey, potato salad, and tuna fish. {audience: ugh} That's not nasty, I eat it a lot.

The excerpt above highlights Vygotsky's first law of imagination. The first law states that the creative products

of imagination are always based on one's life experiences. The imaginative creation does not simply reproduce reality, but draws upon and combines different elements of prior experiences. In this excerpt, Tiesha drew on a variety of foods she was familiar with and, as it turns out, ones that she often eats. She took these foods and combined them together to emphasize the overindulgence of the main character in her story.

Tiesha was not alone in her use of elements of reality. Stories drawing upon reality were common in Tiesha's first-grade classroom. For instance, of the seven categories of characters used in the storytelling sessions, the category "characters named after people in their lives" was used more than any other category. In addition, Domain Analysis revealed that story material came from a variety of sources such as others' stories, pop-culture, and real life. Everyday events were infused in the story. Holidays were also introduced into stories. In late November and early December, several stories centered on Thanksgiving feasts. Even though these events and characters are often thought of as common or unremarkable, they played an important role in the imaginative process. Each of these real life experiences added to the repertoire of items that students could draw upon; ultimately serving as a platform for our creative endeavors.

What if Imaginative Acts Expanded Our Own Reality? The Examination of Law 2

Adult Storyteller: ...we didn't have a bathroom when I was a kid. We washed in a great big tub like this [gestures]. And you had to pour the water in it and then you had to you know, I had to wash. Sometimes guess what I had to do? My sister being the girl, you know, she got to take the bath first. And then guess what happened after that? I had to take a bath in her water.

Students: Oooh.

The above exchange happened as the adult storyteller was preparing to tell students a story. This exchange not only prepared the students for the story, but also allowed students to experience what life was like before modern conveniences. Second-hand experiences derived from the stories of others can be closely tied to Vygotsky's second law. While the first law focuses on personal experiences as the catalyst for imagination, Vygotsky's second law again connects imagination with reality, but in a very different, and more complex, way. The second law highlights one's ability to make use of the social experiences of other people in imaginative activities. Just as the first law stated that imagination is based upon one's own experiences, the second law states that experience is actually based on imagination. Vygotsky (1930/2004) stated, "(i)t becomes the means by which a person's experience is broadened, because he can



imagine what he has not seen, can conceptualize something from another person's narration and description of what he himself has never directly experienced" (p. 17). Thus, we are not only limited to our own experiences, we are able to "imagine" outside of our own experiential boundaries. Imaginative thought actually allows one to expand his/her experiences by means of someone else's experiences. These social experiences can be derived from interactions with books, artworks, personal narratives, or even oral stories.

What if Teachers Recognized the Importance of Emotion in Learning? The Examination of Law 3

Shawn: Once upon a time on this dark, creepy night three girls went out trick or treating...they heard footsteps coming closer and closer and closer.

As this quote from Shawn's story on trick or treating suggests, imagination and emotions are inextricably linked. The third law of imagination highlights the emotional link between imagination and reality. Vygotsky conceived of a mutual dependence between emotional reality and imagination. Emotions are a part of reality and can influence one's imagination. Vygotsky noted that every emotion is associated with certain images. Every child who is scared during the night knows that a dark night sets the scene for a frightening tale. Images that are associated with an emotion are often combined together to create an emotive image. Likewise, what one can imagine can have a real effect on one's emotions: we can laugh, cry, or our pulse can race from anxiety. As the excerpt suggests, this student, Shawn, knew that he could arouse emotion through their words and his imagination. Shawn knew what emotions he wanted to arouse and thus drew upon images that previously scared him. Through deft description Shawn's use of a dark, creepy night set the scene for a frightening tale. Likewise, hearing footsteps rather than seeing the person creates a feeling of susceptibility. The repetition of the words "closer and closer" demonstrated his keen awareness of how these words emphasize one's vulnerability. These words created images in his audience's imaginations and—as demonstrated by the audience reactions of hugging each other or leaning in to hear more—allowed them to feel an emotional reaction.

What if Teachers Acknowledged the Importance of Imagination in Creating Products? The Examination of Law 4

Interviewer: How did you think of that story-about having a rocket with nobody to play with?

Andre: I just saw all the details.

While it was hard for Andre to explain how he used his imagination to form a product, the oral story, it is not hard to

see how this excerpt connects to Vygotsky's fourth law of imagination. Vygotsky's fourth law examines how imagination becomes reality. This law views imagination as the building block of a new, external product, or an invention. Vygotsky posited that the invention of these products follows a curricular path before coming to fruition. It begins with elements of reality that are drawn upon and combined to form a product of imagination; this product then becomes a real object, imaginative thought embodied in reality. The imaginative thought embodied in this material form now has the potential to alter reality, thus completing the circular path of the creative imagination as conceived by Vygotsky. For Andre, a student who had difficulty making close friends, his story drew upon reality and transforms this element of his reality into a product of imagination by using talking rockets as the characters. As Andre formed the story he was creating a product of imagination and, when he ultimately told the story aloud, he was able to create a real product—an oral story.

Vygotsky's four laws of imagination are presented here in distinct sections to allow the reader to fully absorb the meaning and role of each law. However, these four laws are inextricably intertwined in real life. In order to show the interrelationship between these laws, we delve into a deeper discussion of imagination in action in the following section.

### **Imaginative Thinking in Action**

The view of imagination presented by Vygotsky goes beyond popular conceptions of imaginative thinking as mere fantasy play. Vygotsky (1930/2004) presented a conception of imagination as "...an extremely complex process" (p. 25). According to Vygotsky's writings, each act of creative imagination begins with both internal and external perceptions. The child's daily life and experiences are the fuel for the beginning of creative imagination. The child must take information gleaned from personal experience or social interactions and begin the process of active re-construction, which involves the necessary conditions of both disassociation and association. The process of disassociation is the breaking of a whole into smaller components. Disassociation is a necessary condition to develop creative, imaginative thought. During the disassociation process a child can begin to modify or change elements of perception/reality. The process of disassociation is then followed by association, a process that brings together elements that have not previously been associated together. It is this novel association between non-naturally occurring elements that allows an individual to develop a new creative thought and, if the full circle is completed, the individual can take a creative thought and further develop it into an external product or reality. We present the following



vignette from the arts education study to demonstrate how rich experiences can provide contexts that encourage imaginative thinking to flourish. The vignette included in this paper illustrates the powerful relationship between a child's experiences in an art learning environment and the development of complex imaginative thought.

### Imagination and the Arts

The arts have strong connections to sociocultural understandings of creative thinking. Eisner (2002) described cognitive functions of the arts as including "the most sophisticated forms of problem-solving imaginable through the loftiest flights of the imagination" (p. 9). The role of mental processes during art-viewing and art-making experiences goes beyond merely allowing us to see a work of art. We also have the capacity to create understandings and interpretations of works of art. This following vignette, Abstract landscape, is an example of the connections between art-viewing experiences and art-making experiences. The relation between these two experiences is evident in how Mark, a student in the Watercolor Landscapes class, created and discussed his own artwork.

## Abstract Landscape

Mark is visiting The Denver Art Museum's *Places Gallery* with his class of 9- to 11-year-old students for the first time. Mark's teacher is introducing the class to the fundamental art concepts of foreground, background, middle ground, and horizon line using several paintings, each of which can be considered a traditional outdoor landscape, to illustrate each concept. The class then turns to a new set of paintings, a set that uses the concepts in more subtle forms. Mark's teacher turns to *Le Bassin des Nympheas -The Water Lily Pond* (1904) by Claude Monet and says, "Here's the Monet right here. Where's his horizon line?"

Mark looks at the painting for a short time and replies, "Uh, I don't see one." The teacher nods along as if to say that she understands. She says to Mark, "He doesn't have one. This is what Monet was painting. People who are so used to paintings like this one over here or those over there (pointing to a series of traditional landscapes) look at this and say, that ain't art. Possibly some place up in here (pointing to the lower half of the Monet painting)? I mean, it's just not dropping off the end of the earth." Mark and the rest of the students listen quietly, their gazes following the trajectory of her hand as she points to other paintings that have clear horizon lines.

The class, after this discussion, continues to search non-traditional landscapes for the fundamental elements of today's lesson. Attention is turned to *Blue Water* (1968) by Philip Guston. In this painting the natural elements of trees

and foliage are noticeably absent. The teacher watching the children crowd around the painting says with a smile, "Now, we have to step back for this one. Now we're into, is this a landscape?" Several students in the front reply emphatically, "No." "If it's not a landscape tell me why," says the teacher. She gets no responses with the first question, so she slightly rephrases the question, "Okay why isn't it a landscape?" Mark jumps into the conversation exclaiming, "Sculpture. It can be anything. There is a horizon line right there beneath the little sculpture thing." "Oh," the teacher replies with a slight nod of the head, "Okay, so we have sky up here. We have ground down here. In a way this is buildings. Is that buildings over there? This over here, are those buildings?" Mark's head bobs up and down with enthusiasm. "Yeah," he says.

With the gallery trip now completed, the students immediately return to their classroom. Their art-making task for the afternoon is to create their own landscape painting using watercolors. Mark immediately begins to work on his landscape (see Fig. 1, Abstract Landscape). When asked about his work mid-way through the session Mark says, "I like abstracts, like Picasso, I really like his stuff." He goes on to label his painting by saying, "It's Picasso-like, purple mouth and eyes in red and blue thing." As he is talking to me about his work, another student drawing at the table next to Mark says, "Then the tree is the nose." and points to the tree Mark has just painted. Mark pauses, looks, and replies, "What? Oh yeah, I didn't even think of that. I just put a tree in it to make an abstract landscape."

What is significant about this vignette is that Mark was able to take a definition of a traditional landscape and create an association with his previous experience of abstract paintings by Pablo Picasso to imagine a different style of a landscape painting. Mark was able to draw upon both the camp experience with traditional landscapes and



Fig. 1 Abstract landscape



his previous experiences with abstract paintings and arrive at a unique interpretation of an 'abstract landscape.' The vignette makes clear how important Mark's previous and current exposure to the work of other artists was to his development and interpretation of the concepts of abstract and landscape.

As shown through the vignette, Mark drew upon his personal experiences with art and entered into the creation of a unique imaginative product, the abstract landscape. The processes of disassociation and association are apparent throughout the vignette in Mark's own words and artwork. Mark broke down the traditional or accepted understandings of a landscape painting and abstract artwork and included his interpretations of these artistic genres in his creation. In his painting, Mark included elements of landscape paintings, a tree, and elements of abstract artworks, non-representational subject matter. By bringing these two non-naturally occurring elements together in his artwork, Mark was able to develop a unique, creative image.

# Implications for Education—Creating a Supportive Imaginative Environment

What is most important and perhaps unusual to note about the above vignette, is that the educational setting cultivated an environment that encouraged Mark to engage in imaginative thinking. One can easily imagine an art classroom where Mark would have been required to create a traditional watercolor landscape rather than to engage his imagination. We argue that, because of the deep connection between imagination and cognition, it is extremely important for educators to make curricular choices that incorporate opportunities for imagination in the classroom.

We echo the sentiments of Greene (1995) who stated:

Imagination is as important in the lives of teachers as it is in the lives of students, in part because teachers incapable of thinking imaginatively or of releasing students to encounter works of literature and other forms of art are probably also unable to communicate to the young what the use of imagination signifies (p. 36).

Our research in visual arts education and early literacy involved teachers who supported and fostered environments where children were encouraged to think creatively as a regular part of the curriculum. Unfortunately, our experiences in the learning environments featured above do not reflect the everyday reality of today's educational climate where less time is devoted to these types of learning experiences. The literacy examples and art vignette presented in this writing are, unfortunately, not regular

occurrences in early learning environments where educators often forgo these types of supportive, imaginative experiences in favor of a skills-based approach to early education. As Egan (2005) stated, "The value of the story of teaching is precisely its power to engage the students' emotions-and also, connectedly, their imaginations-in the material of the curriculum" (p. 12). The teachers that created the learning environments we studied took great care in developing curricular choices connected to students' creative and emotive experiences. Bodrova and Leong (2006) described imagination as a generative mental activity that allows children to create new ways of thinking. Viewing imagination as a generative event is important if we seek to provide learning experiences that engage the minds of all children in our classrooms. It is imperative that educators look for, and encourage, these experiences throughout the early school years and beyond.

# **Developmental Considerations**

Vygotsky (1930/2004) discussed the evolving nature of imagination as it occurs throughout the lifespan. The imaginative examples from the visual arts and literacy discussed here are not meant to be interpreted as mature creative imagination. We study young children and, thus it follows, that young children's imaginative abilities are not the same as the imaginative abilities of an adult because of vastly different amounts of life experiences and differences in the development of cognitive tools. Lindstrom (2007) wrote on Vygotsky's views, "... ingenuity is not enough; in order to be creative you need to have a rich experience of life and an ability to combine elements in your mind in ways that a child appropriates only step by step" (p. 1197). Imaginative thought should be conceived of as developing throughout childhood and continuing on into adulthood. Early educators have the important job of designing and implementing the educational environment in such a way that children are encouraged to think imaginatively and learn to have faith and confidence in their creative imaginations.

# **Environmental Considerations**

It is precisely this faith in imaginative thought that we believe should be fostered in a child's educational environment. "The best stimulus of creativity in children is to organize their life and environment so that it leads to the need and ability to create" (Vygotsky 1930/2004, p. 66). We believe that this is an essential task of education—to create a stimulating environment in which creative thought is encouraged. It speaks to the importance of providing young children with opportunities to experience new things, draw upon the experiences of others, and to be



allowed many opportunities to create materials that embody their imaginative thoughts. By nurturing students' imaginative thought, early educators are preparing students to become creative thinkers and problem-solvers who have the capabilities to explore difficult problems and issues in new and innovative ways. Vygotsky stated, "The development of a creative individual, one that strives for the future, is enabled by creative imagination embodied in the present" (Vygotsky, 1930/2004, p. 88). Educating for the future—a prospective view of education—emphasizes students' abilities to engage in creative problem-solving but it requires educators who are willing to create nurturing environments that stress the value of imaginative thought.

# **Concluding Thoughts**

Early childhood educators have important roles in the development of student thinking. We believe that it is important for educators to build classroom practices based on understandings of child development in an effort to meet the needs of the diverse learners in every classroom. Just as early educators attend to the cognitive and social needs of the child, it is equally important to nurture the child's creative needs. Inattention to the development of imaginative thinking is, in effect, not attending to the needs of the whole child. Through careful attention to children's imaginative endeavors, educators will empower children to develop an invaluable tool that can be a contributing part of their repertoire for understanding and contributing to their worlds.

At the onset of this paper, we presented Sutton-Smith's line of questioning, "What if the imagination is primarily not mere fancy or imitation, but is itself thought's direction? Presumably our educational foci would then be very different" (1988, p. 7). This idea—that the focus of early education would differ if imaginative thinking were truly appreciated—can become a powerful catalyst for change. What if educators opened themselves to the imaginative capabilities of their students and imaginative thinking was truly appreciated? It is wonderful to imagine what might happen.

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