Vygotsky's Theory

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Lev Semyonovich Vygotsky (1896–1934) was a Russian Jewish psychologist active in the 1920s and early 1930. His father headed a bank department in Gomel and led the local section of the Society for the Spreading of the Enlightenment Among the Jews of Russia. The public library created under the auspices of this organization was located on the first floor of the mansion where the family lived. From 1913 to 1917 Vygotsky studied law at Imperial Moscow University and humanities at Shanyavsky People's University. The 1917 October Revolution interrupted both studies and it is likely that Vygotsky did not formally graduate. His master's thesis for Shanyavsky People's University dealt with Shakespeare's *Hamlet*; the juridical thesis was probably never written. The study of law left no trace in Vygotsky's writings but the study of humanities proved fruitful. At Shanyavsky People's University, Vygotsky took courses in literature, linguistics, and psychology. Literature and theater were among his lifetime passions and Pavel P. Blonsky's courses quickened his interest in psychological issues.

Back in Gomel, Vygotsky pursued these interests further and quickly became, like his father, a visible public figure. From 1917 to 1924 he worked as a literary critic for local newspapers, taught various subjects at various schools, and worked for the local community as the official responsible for cultural life. In this role, he contracted theater companies and organized public meetings about poetry and topics of general interest. We may speculate that he deepened his knowledge of philosophy and psychology by reading the books and journals available in the library founded by his father. We know for a fact that at the local normal school, where he was a teacher, Vygotsky performed his first psychological investigations. One study was a crudely mechanistic attempt to explain the aesthetic effect of a literary text on its reader (i.e., by linking the reader's breathing pattern to the aesthetic experience). The presentation of several of these first investigations at a congress in 1924 led to an invitation to work at the Psychological Institute of Moscow University under the leadership of Konstantin N. Kornilov, who held similar views. Once in Moscow, Vygotsky quickly built a successful academic career: Until his untimely death in 1934, he held teaching positions at various institutes, led various research groups, worked as a clinical consultant, edited scientific journals, worked for publishing houses, supervised doctoral students, became a frequent speaker at conferences, and published a substantial number of textbooks, monographs, chapters, encyclopedia entries, and articles (Van der Veer & Valsiner, 1991).

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1 Theoretical Development

Although throughout his life Vygotsky remained a strictly local figure, who was completely unknown outside the Soviet Union, he himself was well aware of the work of the major international thinkers of his time. In fact, it was in reading and criticizing the work of such celebrities as Bühler, Durkheim, Freud, Koffka, Köhler, Lévy-Bruhl, Lewin, Piaget, and Watson, to mention but a few, that Vygotsky tried to develop his own ideas. This also explains certain discontinuities in his thinking: While trying to incorporate new ideas from foreign thinkers in his research, he often discarded his previous concepts. Nevertheless, we can distinguish two constant themes in his writings: the importance of language and the role of education in the development of human beings. In what follows, Vygotsky's view of the role of language and education will be outlined.

From Dialogue to Self-Regulation

Vygotsky argued that the original function of language is communication. In talking to infants, parents guide their behavior and attribute meaning to their babbling. During such dialogues, children fairly soon acquire their native tongue and, most importantly, learn to guide their own behavior with words. In learning a skill, children will first simply follow the parent's instructions. In a next stage, children will repeat these instructions to themselves aloud. And, finally, they will simply think these instructions. In other words, the individual child has now mastered a skill that was originally shared between two persons. In imitating the parent, the child has learned to use the conventional signs of language to guide his or her behavior. This example shows that language (or speech, as it was called by Vygotsky) restructures our ability to solve problems. Problem solving and speech merge into verbal thought, which makes it possible for human beings to solve problems in the semantic field, unlike animals, which are bound to the visual field.

Wertsch (1985) tried to corroborate Vygotsky's view that self-regulation develops in a dialogue by investigating joint mother–child problem solving. He also advanced the proposal to merge Vygotsky's ideas on dialogue and its relevance to self-regulation with those of the group of researchers around Voloshinov and Bakhtin. Other researchers have investigated parental scaffolding strategies and shown that careful monitoring of a child's actions and adjusting one's hints and prompts to his or her level enhances the child's ability to solve tasks independently. A successful tutorial strategy seems to be to guide the child's behavior at a more explicit level when the child makes an error and to use a less concrete level when all goes well. Thus, we may discern more and less successful strategies to guide children from other-regulation to self-regulation (Van der Veer, 2014).

From Egocentric to Inner Speech

The path from the infant's first acquisition of words to full-fledged verbal thought is a long one, according to Vygotsky (1934), and it is possible to distinguish certain stages. In this connection, he amply discussed the phenomenon of egocentric speech, first described by Piaget (1926). Piaget had noted that during play, young children often speak for themselves in a way that is not intelligible to others. He speculated that this is caused by the fact that children are at first unable to adopt other persons'

viewpoints. In Piaget's view, seeing the world from another, nonegocentric, perspective slowly develops under social pressure. Vygotsky did not believe that young children are originally egocentric and performed a series of experiments to show that they are inherently social. He observed that egocentric speech is reduced when a child is alone, which suggests that it is intended for others. He also noted that the incidence of egocentric speech rises when a child meets an obstacle, which suggests that it may serve problem solving. Finally, Vygotsky claimed that egocentric speech becomes less intelligible as a child grows older. Taken together, these results led him to hypothesize that egocentric speech (1) originates in social, communicative speech; (2) has a problem-solving function; and (3) gradually develops into fully unintelligible inner speech. Vygotsky (1934) went on to speculate about the properties of inner speech. Drawing on linguistic sources, notably Yakubinsky (1923/1986), Vygotsky suggested that inner speech's syntax has the following properties: It is abbreviated and tends toward predicativity (i.e., omitting the subject of the utterance), because speaker and listener, as it were, coincide. Moreover, inner speech has special semantic properties: Personal sense dominates over dictionary meaning. In sum, Vygotsky argued on empirical and theoretical grounds that social, communicative speech undergoes a series of transformations and eventually becomes inner speech.

Piaget (1959) argued that Vygotsky's experiments were of no use in refuting his view on childhood egocentrism, because he himself was talking about *intellectual* egocentrism. In Piaget's view, it may well be true that children intend to communicate with others, as Vygotsky showed, but children fail to see that others do not understand them because those others do not share their point of view. Vygotsky's claim that inner speech develops from egocentric speech has become the topic of much debate and research, but, given the intrinsic methodological problems of this type of research, it is difficult to reach definitive conclusions. Werani (2014), on the basis of an overview of the available research, concluded that inner speech is relevant to the stabilization of thoughts in words (i.e., the thought becomes more precise and communicable), self-regulation (e.g., speaking requires ordering and allows reflection), cooperation (i.e., inner speech is a link in the process that helps individuals to create a shared perception of the world), and self-ascertainment.

The Development of Word Meaning

Throughout his career Vygotsky argued that children use speech to guide their behavior, but at some point he realized that the words young children master do not always have the same meanings as the words of adults: Word meaning changes over time. Although children and adults may designate the same object and, thus, can communicate freely, the meanings they attach to objects may be quite different. For children, for example, the word "farmer" is connected with certain concrete properties: A farmer wears specific clothes, lives in a farmhouse, and has cattle or grows crop. Adults, on the other hand, may view farmers as a subset of entrepreneurs who try to maximize their profit. Vygotsky believed that the adult understanding of concepts is reached under the influence of school instruction in adolescence. The child's concrete concept of objects he termed *everyday concepts*, whereas the adult's more mature, academic concept he termed *scientific concepts*. In his view, the scientific concepts are superior in that they belong to a larger conceptual network (e.g., the concepts of "entrepreneur" and "profit"

are connected with such concepts as "market," "turnover," "demand," etc.) and express the true nature of things. Everyday concepts, which are acquired in informal settings, often focus on less relevant features and do not form a connected whole. Nevertheless, in teaching academic concepts we need to build on these everyday concepts. What is more, Vygotsky believed that scientific and everyday concepts would mutually enrich each other. The everyday concept will become enriched, because children now learn that farmers operate in an economic market and seek to make a profit. The abstract academic concept becomes enriched, because the economic concept of an entrepreneur dealing with cattle and crops is filled with concrete facts about the daily life of a farmer. In other words, Vygotsky believed that academic concepts presuppose everyday concepts and build on them, but that they at the same time fundamentally alter them once acquired. He speculated that the introduction of networks of interconnected academic concepts at school would alter the child's whole mode of thinking. In other words, in Vygotsky's view, education leads intellectual development. Instruction in school changes children's cognitive development in fundamental ways and we must expect to find different cognitive abilities depending on the child's degree or type of schooling. This is also why Vygotsky, unlike Piaget, expected to find cross-cultural differences in children's and adults' thinking, because the degree and type of schooling will vary across cultures. Following international research, Vygotsky also posited that certain psychiatric disorders, such as schizophrenia and Pick's disease, lead to a breakdown of conceptual thinking and, hence, in a way, reduce the patient's thinking to a more concrete level. Patients may become unable to understand metaphors and proverbs, such as "a bird in the hand is worth two in the bush," and get stuck on explanations that rely on the concrete words without capturing their metaphorical meaning.

Vygotsky's concept of word meaning and his view of the intellectual interplay between everyday and scientific concepts in education have received much attention. A first critical account can be found in Wertsch (1985), and Van der Veer and Valsiner (1991) have analyzed how Vygotsky's method of diagnosing children's conceptual development was adapted by Westerns scholars to diagnose various mental disorders (e.g., schizophrenia, aphasia). Subsequent research has shown that Vygotsky's view of the relationship between school instruction and development may need correction. First, the mutual enrichment between everyday and scientific concepts may not readily occur; that is, the abstract rational type of thinking does not seem to easily spread to other contexts. For example, it is frequently found that people do not use the algorithms learned at school in everyday life. To calculate prices in shops, they often resort to rules of thumb or informal heuristics (Lave, 1988). Second, there seems no need to view everyday thinking as inherently inferior to scientific thinking: All forms of thinking develop in specific cultural practices and are adapted to them. Third, in many societies, important knowledge and essential skills are not primarily taught in school but learned through observation and guided participation in shared cultural practices. Rogoff (1990) has argued that such guided participation may not involve explicit instruction or even conversation but may rely on modeling and tacit learning. Taken together, these research findings show that Vygotsky's emphasis on the importance of literacy and schooling for cognitive development needs to be rethought. In themselves, however, these findings are in complete accordance with Vygotsky's fundamental position that cognitive development is largely a process of mastering cultural tools guided by social others (Van der Veer, 2014).

The Zone of Proximal Development

Toward the end of his life, Vygotsky (1935) gave a number of lectures about the diagnosis of children's intellectual development. In essence, he now applied his fundamental idea that individual cognitive skills are originally shared between two persons to the domain of intelligence testing. Vygotsky's idea was that we should measure a child's performance twice: first, with the help of a more able partner and, second, independently. The first measurement shows us how many problems the child can solve while profiting from hints. This is important, because the child can only profit from hints and suggestions that are almost within reach; with the help of the hints, the child is able to do what lies in the zone of his or her nearest intellectual development. This is of diagnostic value, because, as said, children cannot understand and imitate things that are beyond their capacities. Hence, the difference between children's independent performance and their aided performance tells us something about their intellectual potential. A group of children may all have the same scores when tested independently, but those children who are able to profit more from the adult's hints show the richest developmental potential. To measure what children can do independently, to measure their IQ in the traditional fashion, is to measure what the children can do already. To measure what children can do with the help of others is to measure what they will be able to do in the near future. This is what Vygotsky called the *zone of proximal development*: created in a joint performance with a more able partner, it will soon become the child's individual capacity.

The concept of the zone of proximal development has generated an immense number of publications, which can be divided into two groups (Van der Veer, 2014). The first group of publications deals with the influence of education on children's cognitive development. Researchers have analyzed how classroom discussions with more able peers may promote children's zone of proximal development and what kind of teaching promotes children's use of speech for self-regulation. Feuerstein developed test batteries that are administered in a sort of sympathetic clinical interview (Feuerstein, Falik, Rand, & Feuerstein, 2006). The psychologist supports and encourages the child during problem solving and tries to find the hints and prompts the particular child needs. The assumption is that children can learn all sorts of metacognitive skills; that is, the emphasis in this type of research is on cognitive modifiability (Van der Veer, 2014). The goal is to assess the potential for a radical change in problem-solving strategies and the child's readiness to enter a new developmental stage. Moll (1990) provided a first overview of this kind of research.

The second group of publications deals with the assessment of learning potential using Vygotsky's idea of repeated testing of intellectual performance. The child does not receive instruction in order to improve his or her cognitive skills, as in the publications sketched above, but in order to establish a diagnosis of his or her learning potential—that is, the ability to benefit from cues, models, and other forms of mediation. In studies that use this method of assessment, Vygotsky's idea of comparing aided and unaided performance on an IQ test is operationalized to investigate whether this procedure yields more prognostic information than the classic approach of just measuring children's unaided performance. In an overview, Kozulin (2014) distinguishes between these two research trends and argues that any study of human mental processes should be done in a Vygotskian fashion—that is, in a situation of interaction and change rather than passive observation and acceptance of given conditions.

2 Conclusion

Although Vygotsky was completely unknown in the West until the 1960s, he now belongs to the better-known psychologists of the 20th century (Haggbloom et al., 2002) and for a psychologist whose research was performed in the 1920s and 1930s his writings enjoy surprising popularity. However, some cautionary remarks are appropriate. First, because Vygotsky's work was done so long ago, we need considerable historical knowledge to judge its originality and its social context. Second, a considerable part of his work has not yet been translated into English, which makes it difficult to come to a global assessment of his work. Third, the existing translations are often based on Soviet censored texts with suppressed names, references, and so on. Finally, Vygotsky's work is in itself somewhat uneven and unfinished: He often discarded his previous ideas and he died before he had arrived at a stable theoretical framework. Perhaps as a result of these factors, we now see a bewildering number of interpretations of Vygotsky's theories that have little in common. In fact, it often seems as if authors took inspiration from Vygotsky and then advanced their own completely novel theory under the umbrella of Vygotskian research. An entertaining and critical discussion of such "Vygotskian" theories can be found in Miller (2011). In sum, what we need is an authoritative translation of Vygotsky's complete work that may serve as the starting point for a new generation of scholars. It is to be hoped that such a translation will lead us to a novel interpretation of the genuine value of his work and allow us to integrate his lasting ideas into the body of contemporary knowledge.

SEE ALSO: Categorization in the Preschool Period; Category Formation by Infants; Ecological Psychology and Development; Piaget's Theory; Social and Cultural Influences on Academic Achievement; Speech Development; Verbal Behavior

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