CHAPTER 10

LEV VYGOTSKY'S SOCIOCULTURAL THEORY OF DEVELOPMENT

Where was I when you were born?

—3-year-old boy to his father

Thought is not merely expressed in words; it comes into existence through them.

—Lev Vygotsky

Many theories of development have had important influences on the way we view the growth of cognition in human beings. Piaget's stage-oriented approach may be the most popular (and some might say the most

influential) of these, but others are also important, perhaps for different reasons. Developmental psychologist Lev Vygotsky (1896–1934) is responsible for one such theory.

Vygotsky's view emphasizes the importance of the sociocultural matrix of which the individual is a part—that is, according to his theory, social interaction plays a fundamental role in the development of cognition. In addition to genetics and the environment, development is influenced by the mix of social forces that surround the individual. Ongoing qualitative changes in both the environment and the individual produce new developmental accomplishments and mark new developmental milestones. As Vygotsky (1978) puts it, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological)" (p. 57). For students of history, it should come as no surprise that Marxist social theory finds its way into Vygotsky's approach, given its emphasis first on the culture, and then on the individual.

Vygotsky believed that children construct their words through activity and interaction with culture and society.

One important distinction between Vygotsky and other cognitive theorists is the relatively direct application of Vygotsky's theory and writings to the process of educating children. As you will read later in this chapter, extensive field trials of educational programs have been based on Vygotsky's sociocultural approach.

THE BASIS OF VYGOTSKY'S THEORY

As with the work of many theorists, it is impossible to separate Vygotsky's thinking and writing from the world in which he lived. Lev Vygotsky was born in western Russia in 1896 (the same year Piaget was born). Although he graduated from Moscow University with a law degree (after trying medical school), he never practiced law; instead, he became a psychologist. His first major work was his doctoral dissertation, *The Psychology of Art,* published in 1925 (Vygotsky, 1925/1971). Vygotsky was under a great deal of pressure to adapt his emerging theories to Marxist ideology, the prevailing political ideology in Russia at the time he was writing—hence the frequent discussion of his work within a Marxist political framework. Some historians believe that it was the rapidly changing social environment in Russia that allowed Vygotsky's work to have the profound influence it had, especially on the Russian educational system. In his short life of only 38 years (he died of tuberculosis), Vygotsky made important and creative contributions to the field of human development.

Vygotsky's viewpoint on development was heavily influenced by the social and political aftermath of the Russian Revolution.

For most of the years that Vygotsky lectured, taught, and wrote as a psychologist, his ideas went unappreciated in the West. Today, however, Vygotsky's theory is experiencing a revival in the United States, with the recent publication of new translations of many of his works, increased exchanges between Russian and

Western scholars, and, perhaps most important, the direct application of his ideas to education.

Vygotsky's approach is known as a **sociocultural theory,** which means that it emphasizes the influence of social interaction and culture in development. According to Vygotsky, social interaction leads to changes in children's thinking (and then their behavior), and because behavior is rooted in the social context in which it occurs, both thought and behavior vary depending on the cultures in which they take place. Vygotsky suggests that the child's development depends on the child's interactions with other people and with the tools (such as language) that the culture provides to help form the child's view of the world. According to his theory, the fundamental process of learning takes place through the child's interaction with a more knowledgeable person, be that an adult (such as a parent or a teacher) or a peer. It is interesting to note that psychologists working within many different perspectives embrace this view.

Vygotsky's theory is sociocultural in nature; that is, it emphasizes the social context within which development takes place.

In sum, development always results from internal mental processes (sometimes called *instrumental*), which have their origins in external mental processes (sometimes called *intermental*). That is, for the development of the child's mind to take place, the child must be involved in culture-specific activities (such as education, family rituals, or community activities), which provide a structure within which cognitive and social development can take place.

Although the *sociocultural* label fits Vygotsky's theory well, it is also sometimes referred to as a *cultural-historical* theory or a sociohistorical theory—both labels that further emphasize the theory's view of the comprehensiveness of the relationship between the individual and his or her culture. It should also be noted that Vygotsky is by no means seen only as a cognitive psychologist; for example, learning theory–based developmental psychologists also endorse his views of the learning process.

Four major ideas underlie Vygotsky's theory. First, *children construct their own knowledge.* That is, children are active participants in their own development (this is a notion similar to that expressed by Sandra Scarr [1993], as discussed in Chapter 2). Children are participants not only in shaping their own wants and needs, but even in constructing the kind, type, and quality of knowledge they need to negotiate their everyday existence. For example, given the need to learn how to read, a child will (given the proper environment) seek out opportunities to learn how to read or to improve his or her reading skills.

Second, *development cannot be separated from it social context.* Simply stated, development and social context are one and the same. The process of development relies on maturation and environmental effects, and it always takes place in some social context. According to Vygotsky's view, if two identical children with identical sets of genes are raised in different social contexts, or cultures, their processes of development will be different. The relationship between culture and

Vygotsky asserts that development cannot be separated from the social context within which it occurs.

thought is crucial—culture influences what and how children think, and different cultures have different kinds of impacts.

Third, *learning can lead development.* As noted in Chapter 7, Robert Gagne (1968) defines development as the cumulative effects of learning. Vygotsky's assumption is somewhat similar. However, Vygotsky does not assert that learning is development (as Gagne and others who support a strict learning theory view of development would say); rather, his view is that learning sets the stage for development. Thus the teacher who sets the stage, or presents the first step—by presenting the child with a task that the child is capable of doing—is leading that child toward increasingly complex levels of development.

According to Vygotsky, learning can lead development.

Finally, *language plays a central role in mental development.* In Vygotsky's view, language is a cultural tool that allows the child's mind to stretch and grow. It provides labels for the new ideas to which the child is introduced and allows the child to expand already existing ideas into new realms.

The Zone of Proximal Development: What It Is and How It Works

Perhaps the most important and most recognized concept in Vygotsky's theory is the idea that the potential for cognitive development is limited to "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 55), an area referred to as the **zone of proximal development**, or ZPD. This concept forms a link between the psychological basis for development and the pedagogical basis for instruction (Hedegaard, 1996).

A critical element of Vygotsky's theory is the concept of the zone of proximal development, or ZPD, which is the distance between the child's potential level of development and what the child can currently do.

The ZPD is the "place" where the child and teacher go when it's time to stretch the child's cognitive skills. Working within the ZPD is not as safe as staying where the child knows everything, but it is not as scary or extreme as going to the place where the child knows nothing. In the ZPD the child should be able to maximize his or her development and learning, with tasks that are new enough that the child is not bored, but not so new or so challenging that the child becomes frustrated. The key point is that the concept of such a zone takes into account the dual processes of the child's developmental progress (a naturally occurring phenomenon, according to Vygotsky) and learning (an activity based on practice, with the content of this activity determined by the surrounding culture).

Within the ZPD, the child and the teacher work together on different types of (well-thought-out) tasks designed to help the child learn things that he or she could not have learned on his or her own; left to try to accomplish these tasks alone, the child would become increasingly frustrated. This help provided by the

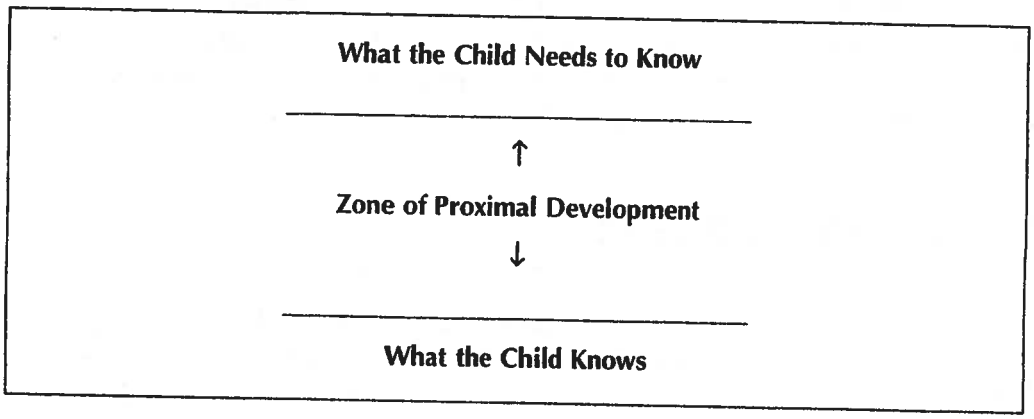

FIGURE 10.1 The Zone of Proximal Development

teacher represents part of the political ideology of the society within which Vygotsky developed his ideas—that is, one in which individuals were expected to look to the state for support and assistance.

The zone of proximal development (illustrated in Figure 10.1) may thus be thought of as the difference between the child's capacity to solve problems on his or her own and the child's capacity to solve problems with assistance (whether from an adult or a peer). The child's current developmental level consists of all the functions and activities that the child can perform on his or her own, without the help of anyone else. The ZPD includes all the functions and activities that the child can perform only with the assistance of someone else. The other person in this process provides structured but not intrusive intervention (this is called *scaffolding,* which I discuss further below); this person may be a schoolteacher, a parent, a peer, or anyone else who knows and understands the material being taught.

The job of the teacher, or "helper," defined broadly, is to move the child away from what he or she already knows and toward what he or she needs to know. The ZPD, is the optimal place for learning to occur, because motivation is maximized in this zone. The child is curious enough to seek out new ideas and is sufficiently grounded in old ones.

The ZPD and the Development of Speech and Language

An example of the process through which a child might learn speech and language will help to illustrate how the concept of the ZPD has direct application to children's development. Tharp and Gallimore (1988) discuss the acquisition of language as a four-stage sequence. The child begins at the level of his or her basic capacity and then progresses through Stage 2, where that capacity is

further developed. At Stage 3, the child internalizes his or her understanding of the information, which eventually leads to Stage 4, in which, after the child gains some degree of mastery over the new information, the process begins again with new challenges. At this point, the child relies on help to move forward once again.

THE SEQUENCE OF DEVELOPMENT

Like other developmental psychologists, Vygotsky breaks down the process of development (especially the development of speech and language) into four qualitatively distinct stages: the primitive stage, naive psychology, egocentric speech, and ingrowth.

Like many other developmental psychologists, Vygotsky believed that development occurs in a stagelike fashion. In Vygotsky's theory, the child's transition from external influences to internal thought is broken down into four stages, each of which is characterized by a dialectical relationship—that is, a give-and-take between the qualities of the activity and the qualities of the child's internal thoughts. The results of this interaction are growth and change. Many of the examples Vygotsky gives in his writings about his theoretical perspective concern the development of language, and that is the conceptual framework within which I discuss these stages below. Note the similarities between Vygotsky's four stages and Piaget's (see Chapter 9).

In the first of Vygotsky's stages, the **natural** or **primitive stage** (from birth to about 2 years), the child uses speech for almost purely social reasons; speech at this stage has no significance for the child's intellectual development. Cooing, babbling, social smiles, and easily conditioned behaviors make up the child's social and intellectual repertoire for most of this time. (There are, of course, some 18-month-old children who speak in sentences, if not full paragraphs, but they would be considered to be toward one end of the normal distribution, just as children who don't develop even the most basic language facility would be considered to be at the other end.)

In the second stage (roughly ages 2 to 7 years), the child displays **naive psychology**. In this stage, grammar and syntax become integral parts of the child's speech. Most important, however, is that language at this stage is not a part of the child's thinking process, because it is still symbolic in nature, representing things, not necessarily ideas, and the child is certainly not able to manipulate ideas. The child uses language to communicate needs and ideas, but the way the child thinks is not influenced by language, and the child's thinking does not modify his or her language.

At the third stage of this developmental sequence (which lasts for most of the child's school years, approximately ages 7 to 12), the child uses **egocentric speech**; this is also known as the stage of **external signs**. In this stage, the close interaction between thought and language emerges as a consistently occurring phenomenon. That is, the child constantly talks to him- or herself, maintaining a kind of running dialogue or stream of consciousness. It's as if whatever comes to

— On the Web —

The development of language is an important part of Vygotsky's theory because it is through communication that we get to know the world and the world, in turn, shapes us. Caroline Bowen, a speech and language pathologist, maintains a Web site with links to more than 200 other sites providing information about language and related topics, at http: //members.tripod.com/Caroline_Bowen /home.html. This site is a great place to start if you want to learn more about this almost uniquely human behavior.

the child's mind also comes out of the child's mouth. According to Vygotsky, it is at this stage that language actually begins to influence the child's thinking and, in turn, the child's thinking begins to influence language.

During the fourth stage in this sequence (approximately age 12 and beyond), called **ingrowth**, language takes on its full-blown significance as a mature way for the individual to use symbols in thinking about the world. At this stage, inner speech (thinking about things) influences outer speech (communicating those things to others), and the reverse occurs as well.

EDUCATIONAL APPLICATIONS OF VYGOTSKY'S APPROACH

Given the time in which Vygotsky worked, during which there was a great deal of emphasis on reeducating the Russian people following the revolution, it is no surprise that his primary concern was education. Several fundamental educational practices have grown out of Vygotsky's theoretical viewpoint on child development and learning, some of which are described below.

Scaffolding

The term **scaffolding** refers to techniques an educator uses to build bridges between what the child knows and what the child needs to know (or what the child is being taught), as shown in Figure 10.2. Scaffolding (much like the scaffolding used by builders and renovators working on buildings) serves as a supportive structure that connects the knowing child to the all-knowing child (at least within the realm of what is to be known). The educator (whether a

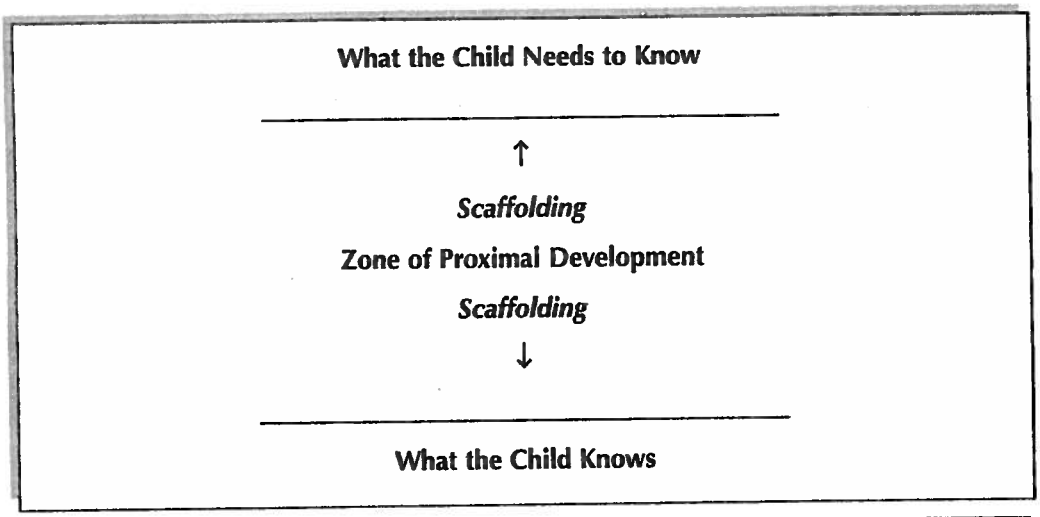

FIGURE 10.2 The Role of Scaffolding in the Zone of Proximal Development

Scaffolding consists of the activities provided by the educator to surround and support the child as he or she is led through the zone of proximal development.

schoolteacher, a parent, or a knowledgeable peer) provides the scaffolding, and then, as the child demonstrates mastery of the material, removes it, leaving the child on his or her own to continue learning. The educator constructs new scaffolding with each new set of tasks presented to the child, again helping to bridge the gap between what the child knows and what he or she needs to knows.

Throughout this process, the educator needs to be sure that the child's zone of proximal development and the scaffolding the educator provides are always congruent with one another. In addition, the educator should think of scaffolding not as a structure, but as a form of support for a structure the child is building, a set of techniques that he or she can use to encourage and reward the child for going beyond his or her current state of experience and reaching out to new ideas and ways of thinking.

Peer Collaboration

We know that interactions with peers have tremendous impacts on children's development. Although we usually think of the influence of peers in relation to the social sphere, peer interactions are no less important in the cognitive arena. One method of instruction based in Vygotsky's theory is that of peer collaboration, in which educators encourage "not-knowing" and "about-to-know" children to work cooperatively with "knowing" peers. Knowing peers can be educators—they can maintain the scaffolding needed until their about-to-know peers learn what they need to learn.

— On the Web —

If you're planning on being a teacher (either formal or informal), or you already are one, you should know about how Vygotsky's concept of scaffolding can be applied in the classroom. In their paper "Scaffolding Children's Thinking: Doing Vygotsky in the Classroom With National Curriculum Assessment," at http://www.leeds.ac.uk/educol/documents/000000383.htm, David Leat and Adam Nichol provide a practical example.

Reciprocal Teaching

According to Vygotsky, the child's teachers, peers, and parents provide the child with the cultural and social stimulation that enables development to occur.

The idea of reciprocal teaching (the concept that learning goes both ways, from teacher to student and vice versa) is based in the Vygotsky model's emphasis on the importance of social roles when it comes to learning. Constructive and meaningful dialogue between teacher and learner (or learners) is valuable for learners of any age. The teacher (whether a formal teacher, a parent, or a peer) offers a model that the learner imitates (if the conditions are right, as discussed in Chapter 8), and then the learner is reinforced for this behavior through his or her accomplishment (and possibly also through material reinforcers).

VYGOTSKY IN THE REAL WORLD

Below are brief descriptions of a few ways in which Vygotsky's theory has been applied in some real-world educational settings, particularly settings that focus on language and mathematics achievement.

Tools of the Mind

Tools of the Mind is a program for teaching reading and writing that is funded by Best Practices in Education, a nonprofit organization devoted to familiarizing teachers in the United States with educational practices that originated in Europe. The important feature of Tools of the Mind is that the program uses a set of teaching techniques that are designed to encourage children to become self-regulating, self-directed learners. When taught by teachers using these techniques, children stay on task longer and learn to learn on their own, which means the teachers can spend less time on classroom management and have more time for teaching. Among other techniques, the Tools of the Mind program employs scaffolding (described above), learning goals, and classroomwide learning plans or menus.