

How do children learn language?

Language, and the way we learn language, is so complex that linguistic experts devote years to the study of grammar rules, patterns, and ways people communicate with one another (Owens 2012). At birth, infants begin their linguistic development as they listen, observe, and decipher the rules of language. By the age of 4, most children have a well-understood idea of how to decode and communicate with language—without being formally taught how to do so.

This article will reflect the work of three language theorists to address how children acquire language and how teachers and parents can best promote language learning.

Vygotsky

Lev Vygotsky, an early 20th century Soviet psychologist, believed that language plays an important role in a child's cognitive development. Only through language does a child have access to thought (Swim and Watson 2011). He hypothesized that because words become symbols in our minds and that speech expresses those symbols, we are not stuck in the present; speech allows us to make memories and plan for the future (Crain 2011).

Through this cognitive skill, children can make deliberate decisions based on more than what is presently at hand; they use background knowledge (memory) to explore, discover, and plan. Language gives us the ability to have an internal dialogue to help in problem solving and decision making. The internal dialogue follows three steps.

Engaging with others: Birth to approximately 3 years. The first step occurs between the child and a more experienced speaker (Crain 2011). For instance, when a child is doing a block puzzle and cannot fit a piece in, the teacher (expert speaker) might say, "Why don't you try turning the piece

around?" As the child turns the piece, it clicks into place, and the puzzle is complete. The teacher then claps for the child.

Self-directed speech: 3 years to approximately 8 years. Referencing the same puzzle example, the child no longer needs the teacher's prompts. In completing the puzzle, the child begins vocalizing her thoughts. "Turn the piece. Try it here." When the puzzle is done, the child will cheer for herself, "I did it!" The self-guiding speech is said aloud, which is why we hear children talking themselves through play or problems (Crain 2011).

Inner speech: Beginning around 8 years. In the third step, the child no longer speaks the thoughts aloud, though the guiding thoughts are still present. The self-directed speech has become inner speech. In my experience with children, I have seen this process come full circle.

My interactions with my first daughter provided



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the example of the puzzle completion. Once I had repeated the words and ideas enough, she used private-speech and eventually inner speech to guide herself. Once my second daughter was ready for puzzles, the firstborn became the expert and cheerleader, leading toward the same interchange and outcomes.

Because Vygotsky believed that children acquire language skills through conversations with others, he emphasized the importance of an expert speaker, which includes a parent, teacher, or more advanced peer, interacting with the child who is a less advanced speaker (Lamb, Bornstein, and Teti 2002). Adults and older children provide clues to the rules of spoken language.

Piaget

Jean Piaget, a 20th century Swiss psychologist, believed that children move through stages of cognitive development, an idea that has sparked more research than any other theorist. He suggested that children are active participants in their own development—and use their cognitive skills to construct knowledge about the world and the people in it. He believed that children move into maturation through four stages: sensorimotor, preoperational, concrete operational, and formal operational. The first two stages are the foundations during which children acquire language.

Sensorimotor: Birth to approximately 2 years. Infants are learning about their world through

observation. They rely first on their senses (taste, sight, smell, touch, and hearing) and their reflexes, and then, with experience and appropriate goals, move toward voluntary and deliberate behaviors.

Preoperational: 2 years to approximately 7 years. Children use symbols—language—to help them communicate. As children build flexibility with symbols of a particular language family, they might overgeneralize, using one situation to fit all situations (Swim and Watson 2011). In speech, this can include calling any four-legged animal a dog, because the child knows that his dog has four legs. Another common overgeneralization occurs when a child names any round object a ball.

Piaget believed that everyone uses organization and adaptation to make sense of the environment, and includes language learning as fundamental to the process of constructing knowledge. Organization is simply that: a child organizes words and concepts into separate systems (Owens 2012). For example, a toddler's idea or **schema** of *ball* may be limited to the 6-inch, red, smooth ball that a teacher rolls across the classroom. Over time and with experience, the same child adapts that schema to include textured balls, balls of different sizes and colors, solid and hollow balls, and balls that roll, bounce, or are thrown like a football.

Adaptation occurs through **assimilation**, using what the child knows to decipher outside stimuli and new information. **Accommodation** is used when assimilation does not work. (A football doesn't roll along the floor as a tennis ball does, but it's still called a ball.) Without prior knowledge, the child can choose to modify an existing category or create a new one. According to Piaget, assimilation and accommodation work in tandem, helping people make sense of their environments.

Chomsky

Noam Chomsky, a contemporary American linguist and renowned MIT professor, believes children everywhere have the inborn ability to learn language in what is called the **nativist** approach (Craig and Dunn 2010). Chomsky describes the **language acquisition device (LAD)** as the hard wiring that permits children to understand, learn, and employ the unique structure and grammar of a specific language.

When children hear people talk, their brains process language in much the same way throughout the

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world. Chomsky suggests that language develops through genetic predisposition rather than through interactions alone. Chomsky hypothesizes that children have the ability to understand and use language despite the inconsistencies in the environment because the language center of the brain holds all the rules we need for learning language.

Guidance for teachers

Vygotsky's work on language development follows from his ideas on social-constructivism—we build knowledge through interactions with other people. When teachers provide a language-rich environment and expose children to many different speakers—both adult and child—they are supporting the development of essential communication skills (Swim and Watson 2011). Through social interactions children are introduced to the commonalities of language (rather than to a single speaker's grammar, dialect, or accent). Verbal interactions with a variety of adults and other children enable the child to practice, use, and play with language.

VARY YOUR VOICE AND CONVERSATIONS WITH CHILDREN.

Piaget's theory of cognitive stages suggests that teachers observe sensitively, reflect on what they see and hear, and plan accordingly. As children move from the stage of sensorimotor play and concrete objects to their interests and activities with symbols and abstract thought, teachers can change language responses accordingly. Ideally teachers model the language of wonder and investigation rather than offering direction and instruction. "I wonder what would happen if... or let's see if ..." instead of "I could have told you it would spill."

Chomsky's LAD theory applies to offering support to both children and their parents. According to Swim and Watson (2011), the human brain is physically well-developed by the end of the first trimester of pregnancy. Because a woman's health has direct impact on fetal brain development, it's important to offer information on nutrition, healthy habits, and

potential detrimental impacts that substance overuse or abuse might have on both the woman and the developing fetus.

After birth, the neonate's brain begins forming the neurological connections, including those related to communication and language. That's why it's important to begin speaking to the child immediately and consistently. As the child grows, the brain prunes rarely used connections to make room for new ones. Consequently, parents and caregivers need to continually talk to the child and repeat words and sentences to strengthen the connections between neurons.

Tips for helping children learn language

Use the guidance of Piaget, Chomsky, and Vygotsky in your developmentally appropriate interactions with all children.

- Reinforce infant communication through responsive and enthusiastic interactions. Encourage toddlers to use new vocabulary and appreciate their approximations.
- Use infant-directed speech characterized by short, simple sentences spoken in a pitch that is higher than what you would use with older children.
- Repeat words often, point to objects, and focus on nouns and verbs. For example, Ms. Hendrix holds 6-month-old Hannah at the window and points, "Oh look, Hannah. There's a truck. It's so big. It's red. I wonder where the truck is going."
- Give infants opportunities to explore and reflect on their discoveries: "Gloria, you've found the red ball!"
- Be aware of both verbal and nonverbal communication cues. Respond promptly to infant and toddler needs, use language to identify and label emotions, and remember to speak *with* instead of *at* or *to* the child. Remember, you're setting the stage for future communications.
- Model clear, adult-like speech with preschool children—using longer, more complex sentences; telling stories; identifying and labeling activities; and listening, clarifying, and repeating.
- Encourage children's private speech (self-talk) as a tool for self-regulation and thought. Children try out ideas and act as their own sounding boards with private speech like, "Where can I put this puzzle piece?" "Will Tommy want to be my buddy today?" or "Calm down."
- Vary your voice and conversations with children.

Play on the child's cues in what you talk about as well as the speed at which you talk and your voice tone and pitch (modulation).

- Limit children's exposure to screen media. While small amounts of media exposure is not likely to harm children, a constant diet limits more meaningful (and instructive) communications with people who can respond reflectively and promptly.
- Read aloud. Whether with infants or school-agers, share new words, adventures, and discoveries that good literature—and common environmental print—offer.

Build the foundation

Theorists have long researched language development. Language is complex, with many rules and exceptions. Whether children learn language through their environment, an expert speaker, nature, or a combination of these possibilities, it is evident that children must be exposed to language if they are to build skills and fluency.

Caregivers and parents need to provide language-rich environments through print and spoken words. Read, speak, and listen to children. By starting early and working efficiently, children will build a firm foundation upon which to enrich and expand language throughout their lives.

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