

## **MODULE 36 THINKING AND LANGUAGE**

### **LANGUAGE**

- LANGUAGE is our spoken, written, or signed words and the ways we combine them to communicate meaning. "Language is so fundamental to our experience, so deeply a part of being human, that it's hard to imagine life without it."

### **LANGUAGE STRUCTURE**

- PHONEMES are the smallest distinctive sound units in a language. B, a, and t are phonemes.
- MORPHEMES are the smallest units that carry meaning in a given language.
- GRAMMAR is the system of rules that enables us to communicate with one another. Sounds (semantics) and sentences (syntax).

### **LANGUAGE DEVELOPMENT**

- When do we learn language? Babies about 4 months of age, babies can recognize differences in speech sounds. Babies' receptive language, which is their ability to understand what is said to and about them
- The BABBLING STAGE, beginning around 4 months of age, the stage of speech development in which the infant spontaneously utters various sounds at first unrelated to the household language. Deaf infants who observe deaf parents begin to babble more with their hands.
- Around the first birthday, most children enter the ONE-WORD STAGE. This is the stage in speech development, from about age 1 to 2, during which a child speaks mostly in single words.
- At about 18 months, children's word learning explodes from about a word per week to a word per day. By their second birthday, most have entered the TWO-WORD STAGE. TELEGRAPHIC SPEECH early speech stage in which a child speaks like a telegram – "go car" – using mostly nouns and verbs.
- By about age 7, those who have not been exposed to either a spoken or a signed language gradually lose their ability to master any language.

# Language



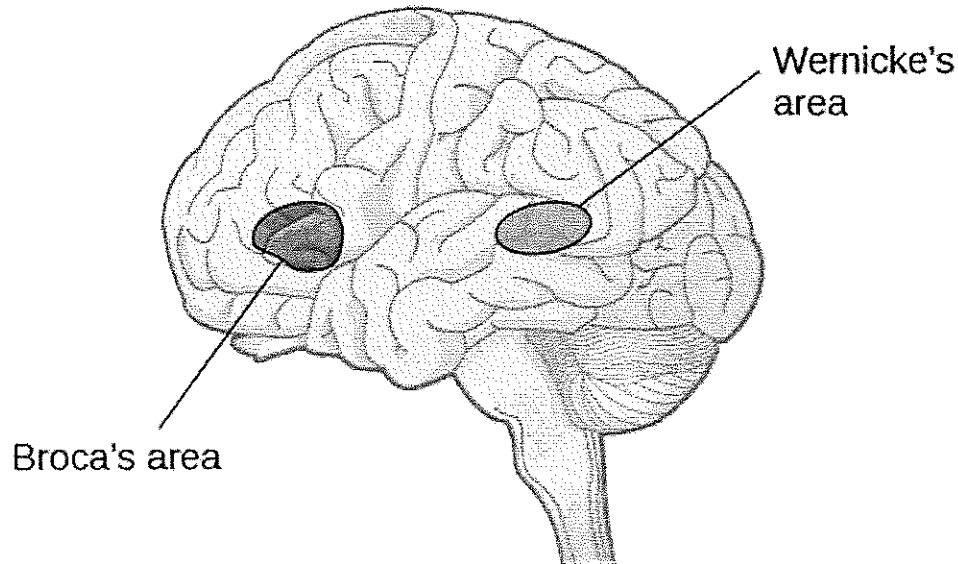
## Summary of Language Development

Month (approximate)	Stage
4	Babbles many speech sounds.
10	Babbling reveals households language.
12	One-word stage.
24	Two-word, telegraphic speech.
24+	Language develops rapidly into complete sentences.

- Noam Chomsky has nonetheless argued that all languages do share some basic elements, which he calls universal grammar. Childhood seems to represent a critical period for mastering certain aspects of language before the language-learning window closes.

## THE BRAIN AND LANGUAGE

- **APHASIA** is the impairment of language, usually caused by left-hemisphere damage either to Broca's area (impairing speaking) or to Wernicke's area (impairing understanding).
- Damage to the left frontal lobe, known as **BROCA'S AREA**, would result in the person struggling to speak words while still being able to sing familiar songs and comprehend speech.
- Carl Wernicke discovered that after damage to an area of the left temporal lobe, known as **WERNICKE'S AREA**, would result in people speaking only meaningless words.
- The brain operates by dividing its mental functions – speaking, perceiving, thinking, remembering – into subfunctions.



### LANGUAGE AND THOUGHT

- Benjamin Lee Whorf contended that language determines the way we think, known as **LINGUISTIC DETERMINISM**. Bilingual individuals may even reveal different personality profiles when taking the same test in their two languages.
- We often think in images and not always words (implicit memories). Just observing an action will help you to perform it using mirror neurons. If you want to perfect a sport, watch it. Mental rehearsal can help you achieve an academic goal as well. This is known as process stimulation. Thinking affects our language, which then affects our thought.

**BE ABLE TO ANSWER:** If children are not yet speaking, is there any reason to think they would benefit from parents and other caregivers reading to them?

To say that “words are the mother of ideas: assumes the truth of what concept?

**PRACTICE FRQ:** Name and define the three building blocks of spoken language.

**MODULE 37 MOTIVATIONAL CONCEPTS**

**MOTIVATION**

- MOTIVATION is a need or desire that energizes and directs behavior. There is instinct theory, Drive-reduction theory, Arousal theory, and Hierarchy of needs.

# Motivational Theories Strengths and Weaknesses

Motivational Theory	Strength	Weakness
<i>Instinct Theory and Evolutionary Psychology</i>	Evolutionary psychology helps explain behavioral similarities due to adaptations from our ancestral past.	Instinct theory explains animal behavior better than human behavior; humans have few true instincts.
<i>Drive-Reduction Theory</i>	Explains our motivation to reduce arousal by meeting basic needs, such as hunger or thirst.	Does not explain why some motivated behaviors increase arousal.
<i>Optimal Arousal Theory</i>	Explains that motivated behaviors may decrease or increase arousal.	Does not explain our motivation to address our more complex social needs.
<i>Maslow's Hierarchy of Needs</i>	Incorporates the idea that we have various levels of needs, including lower-level physiological and safety needs, and higher-level social, self-esteem, actualization, and meaning needs.	The order of needs may change in some circumstances. Evolutionary psychologists note the absence in the hierarchy of the universal human motives to find a mate and reproduce.



**INSTINCTS AND EVOLUTIONARY PSYCHOLOGY**

- To qualify as an **INSTINCT**, a complex behavior must have a fixed pattern throughout species and be unlearned. Although instinct theory failed to explain most human motives, evolutionary psychology's underlying assumption that genes predispose species-typical behavior remains as strong as ever.

**DRIVES AND INCENTIVES**

- When the original instinct theory of motivation collapsed, it was replaced by **DRIVE-REDUCTION THEORY** – the idea that a physiological need creates an aroused state that drives the organism to reduce the need by, say, eating or drinking.