

Language & Cognition

Linguistics & Development

Phoneme	Smallest units of sound in a language
Morpheme	Smallest meaningful units of language
Phonological rules	How to combine sounds; violations → accent
Syntactical rules / syntax	How to combine words & phrases into sentences
Universal grammar	All languages share some features (nouns, verbs, tense, etc.) same brain mechanisms for processing
Language Acquisition Device (LAD)	Innate system - human capacity for language
Critical period	Language exposure needed before this point; ~age 7
Babbling Stage	~age 4 months; phonemes identifiable ~10 months
One-word Stage	~age 1 year; often nouns
Two-word Stage / Telegraphic Speech	~age 18 months; most important words for communication; indicates some grammar knowledge
The Wug Test	Tests application of grammatical rules to new words
Overgeneralization / Overregularization	Over-apply grammatical rules e.g. "hitted" "runned"

Brain Areas for Language

Aphasia	Language impairment; often due to brain damage
Broca's Area	Left frontal lobe: coordinates muscle movements for speech;

Broca's Aphasia	damage → difficulty producing speech
Wernicke's Area	Left temporal lobe; related to language comprehension;
Wernicke's Aphasia	damage → fluent but incomprehensible speech

Language & Thought

Concept / Category	Cognitive grouping
Schema	Sets of related cognitions
Prototype	Most-typical or "best" example for a concept
Linguistic Determinism / Whorf-Sapir Hypothesis	Language determines ways of thinking about the world (extreme); some influence - <i>linguistic relativity</i>

Problem-Solving

Convergent thinking	Find single correct solution
Divergent thinking	Generate multiple solutions
Insight	Sudden awareness of solution (not trial & error); may need prior experience
Mental set	Rely on previously-successful approaches to solving a problem
Intuition	Quick thoughts / feelings not conscious reasoning
Functional Fixedness	Focus on common uses for tools / objects
Overconfidence	Tendency to think our views & beliefs are accurate
Illusory Superiority / Wobegon Effect	Most people consider themselves above average
Belief perseverance	Beliefs resist change even w/ contradictory evidence

Decision-Making

Algorithm	Step-by-step procedure; guarantees solution
Heuristic	Mental shortcut; sacrifice accuracy for speed
Availability heuristic	Estimate frequency by how easily examples come to mind (how available)
Representativeness Heuristic	Tendency to rely on <i>prototypes</i> and ignore base rates
Framing Effect	Framing of options can influence choices
Sunk-Cost Fallacy	Previous investments or losses influence present decisions when they shouldn't

Key Figures & Research

Noam Chomsky	Critique (1959) of Skinner's <i>Verbal Behavior</i> (1957); LAD, Universal Grammar
Paul Broca	French physician - connected speech problems to brain damage - 1865; famous patient <i>Tan</i>
Carl Wernicke	German physician - connected word understanding to left temporal lobe - 1874
Wolfgang Köhler	<i>Insight</i> learning in chimps <i>The Mentality of Apes</i> (1917)
Daniel Kahneman & Amos Tversky	Investigation of heuristics; founders of <i>behavioral economics</i>