

COGNITION

Concepts

Metacognition—wow!
Organization:
Hierarchies
Prototypes

Problem solving

Barriers:
Fixations:
 Functional fixedness
 Mental set
Confirmation bias
Overconfidence
Approaches:
 Trial and error
 Insight
 Algorithm
 Heuristics
 Representativeness heuristic
 Based on prototypes
 Availability heuristic
 Based on vivid experience
Issues:
 Framing (wording)
 Belief bias
 Belief perseverance
 Illusory correlation
 Memory reconstruction
 Self-serving bias

Intuition

Factors:
Blindsight
Right-brain thinking
Moral thinking (Haidt's theory)
Automatic processing/implicit memory
Creativity
Thin slices
Subliminal stimulation
Microexpressions
Dual attitude system
 Unconscious/conscious
 Implicit/explicit
Gut-level/rational

About Language

Structure
Phonemes
Morphemes
Grammar
 Semantics
 Syntax
Appearance
Babbling (approx. 4 months)
One-word stage (1 year)
Two-word stage (telegraphic speech)
 At 1 1/2 years
No 3 word stage

Theories of language development

Skinner—nurture
 Behaviorist explanation
 Follows usual learning pattern
 (Reinforcement/punishment)
Chomsky—nature
 Language acquisition device (innate)
Evidence:
 * Overregularization of language
 (or overgeneralization)
 Ex: "I goed to the store."
 * Common elements
 Surface structure (syntax)
 Deep structure (semantics)
 * Critical period
 Age 7 for language acquisition
 Cochlear implants
 Best results 2-4 year olds

Language & Thinking

Whorf's linguistic determinism theory
(or linguistic relativity theory)
- language shapes thinking
Evidence: bilingual advantage
Thinking in images (process simulation)
Animal thinking
 * Concept formation
 * Theory of mind—similar to 2 yr. old
 * Language: honeybees, ape language