Question: Why do psychologists find it compelling to study how news is reported and received?

Complete the following:

"... research has recognized that thought and language are separate, but closely related, aspects of human behavior."

Question: What is a cognitive psychology?
Concept Formation: The Process of Forming Mental Groups

Complete the following:

"Concepts are the mental categories people use to …" (301)

Question: What is a prototype? (302-303)
Problem Solving: Confronting Situations That Require Solutions

Question: What's the meaning of the following statement?

"Human beings are wonderful at problem solving …"

Question: What is an algorithm?

[Example] Algorithm.

Question: What are heuristics?
Problem Solving: Confronting Situations That Require Solutions

(Continued)

Question: What is subgoal analysis?

[Example] Subgoal analysis.

Question: What is means-ends analysis?

Problem Solving: Confronting Situations That Require Solutions

(Continued)

Question: What is a **backward search**?

Barriers to Problem Solving

- **FUNCTIONAL FIXEDNESS: COGNITION WITH CONSTRAINTS.**

  Question: What is a **functional fixedness**?


  Question: What is a **mental set**?
Barriers to Problem Solving
(Continued)


Creative Problem Solving

Complete the following:

"Creativity is a feature of thought and problem solving that includes the tendency to …

"An original response to a problem is one that doesn't …

"A novel response is a response that is new or that has …

"An appropriate response is a response that is …

Question: What is convergent thinking?
Creative Problem Solving
(Continued)

Question: What is divergent thinking?

Question: What is brainstorming?

■ EXPERTISE IN PROBLEM SOLVING.

Question: What's the meaning of the following statement?

"There is a difference between people who are creative problem solvers and those who are termed expert problem solvers."

■ THE INVESTMENT THEORY OF CREATIVITY.

Question: What is the investment theory of creativity?
Reasoning and Decision Making

Complete the following:

"Reasoning is the purposeful process by which a person …" (308)

**Question:** What is logic?

Complete the following:

"Decision making means …

**[Example]** Decision making.

Uncertainty: Estimating Probabilities

"People make probability estimates about all types of events and behaviors."

**[Examples]** Estimating probabilities. (308-309)
Barriers to Sound Decision Making

- THE GAMBLER’S FALLACY.

- BELIEF IN SMALL NUMBERS.

- THE AVAILABILITY HEURISTIC.

- OVERCONFIDENCE.

- THE CONFIRMATION BIAS.
Culture and Reasoning

"... the intellectual traditions of the East and the West are quite different, and so are the reasoning and decision-making tendencies of their peoples."

[Example] Culture and reasoning. (310-311)

Evolution and Reasoning

Question: How do evolutionary theorists and researchers account for reasoning? (311)

Question: What's the meaning of the following statement?

"... evolutionary psychologists claim that cognitive psychology has ignored some of the most important problems (of reasoning)"
Artificial Intelligence

Question: What is artificial intelligence?

Example: Artificial intelligence.

Neural Networks

"The comparison of the brain to a computer is a compelling one …"

Question: What is a brain convergence zone?
Neural Networks

Question: What is brain blindsight? (314)

Question: What is the concept of *parallel distributed processing*? (314)

Question: What happens when a portion of a neural network is destroyed? (314-315)

Complete the following:

"Neural networks, such as the brain, learn and remember."

"A neural network learns by noting changes in the …" (315)

"The connections between various units within the network change because of …"

"Most neural network models suggest that those units that are frequently activated will become more …"

"This access is part of the retrieval process; easy access means …"
Question: What is the study of *pragmatics*?

Complete the following:

"A **language** is a system of symbols, usually words, that convey …

"Languages evolve and …

" … they reflect a person's …

" … they allow individuals to share …

"Thus, language is a social …

" … language is clearly rule governed—the rules we use are called …

" … language is a generative system—knowledge of a language's rules allows a user to …
Language and Gender Stereotypes

Question: What is known about the relationship of language to gender stereotypes?

Thought, Culture, and Language

"… language and thought interact."

Examples] Interaction of language and thought.

Linguistics

Question: What is linguistics?

Question: What is psycholinguistics?
"For most of us language is conveyed through spoken words and then later writing. But other means of communication also exist. For example, many deaf individuals communicate through American Sign Language, or ASL."

"Children are astonishingly adept at understanding and using the basic rules of spoken language."

(IL_317-318)
"The basic components of any language are its sounds, the meaning of sounds, and its overall organization."

**PHONOLOGY.**

**Question:** What is **phonology**?

---

**SEMANTICS.**

**Question:** What is the study of **semantics**?
SYNTAX.

Question: What is the study of syntax?

[Illustrations] Syntax.

The Biological and Evolutionary Basis of Language

Question: What has been the contribution of the linguist Noam Chomsky to the biological readiness of human beings to learn a language?
"That human beings acquire language is one of their defining characteristics."

Complete the following:

"... research shows that language and thought are sensitive to both ..."

"If language is based on evolution and biology, two things should be true:

(1) many aspects of language ability should be evident ...

(2) all children, regardless of their culture or language, should develop ...

"If environmental factors account for language acquisition, the role of ..."

**Learning Theories**

**Question:** What's the meaning of the following statement?

"The learning approach to language acquisition is quite simple."
Biological Theories

"... many researchers ... assert that human beings are biologically equipped with an innate, unique capacity to acquire and develop language."

[Biological theories of language. (323-324)]

- BRAIN STRUCTURE, LATERALIZATION, AND CONVERGENCE ZONES.

- LEARNING READINESS.
Language Studies with Chimpanzees

"… chimpanzees have been the species of choice when psychologists have studied language in animals."

- WASHOE. (325-326)

- SARAH.

- LANA.

- NIM.

- CHIMP LANGUAGE? (326-327)
And What About Dolphins?

Question: Do dolphins or whales have language?

Social Interaction Theories: A Little Bit of Each

"The debate over language acquisition is a wonderful example of how issues in psychology emerge, grow, and contribute to an understanding of human behavior."

[Illustrations] Debate over language acquisition.