

CH. 9

NAME: _____

As you read...

Cognitive Psychology: An Overview

1. Define Cognitive Psychology.

Concept Formation: the Process of Forming Mental Groups

1. Define Concepts.
2. What is an exemplar?
3. What is the study of concept formation?
4. The process of organizing things into categories is _____.
5. Describe the basic design of laboratory studies in concept formation.
6. What are positive and negative instances?
7. Define prototype.

Problem Solving: Confronting Situations that Require Solutions

1. Define problem solving.
2. What is an algorithm?
3. What is a heuristic?
4. Describe the 3 main heuristic approaches.

9-1 Barriers to Problem Solving

5. Describe functional fixedness.
6. Define mental set.
7. When one experiences the inability to see another use for a familiar object, they are experiencing _____.
8. List and describe the 6 tips to make you a better critical thinker.
9. Are you using any of the strategies already?

9-2 Creative Problem Solving

10. Describe creativity.
11. What are original, novel and appropriate responses?
12. Compare and contrast convergent and divergent thinking.
13. In order to _____ all possible solutions must be considered without any initial judgments of worth.
14. What are Sternberg's 6 interactive resources of problem solving?
15. What is the investment theory of creativity?

Reasoning and Decision Making

16. Define reasoning.

16. _____ is a system of reasoning used to make inferences and reach valid conclusions.

17. Describe decision making.

9-3 Uncertainty: Estimating Probabilities

18. What is an educated guess?

19. Define probability.

20. _____ and _____ are especially useful for teaching students scientific concepts.

9-4 Barriers to Sound Decision Making

21. What is the gambler's fallacy?

22. How does belief in small numbers contribute to poor decision making?

23. Define availability heuristic.

24. Describe overconfidence and confirmation bias and how they lead to poor decisions.

9-5 Culture and Reasoning

25. How do Chinese and European Americans differ in finding solutions to contradictory statements?

26. How are these differences affected by the different traditions of these cultures?

9-6 Evolution and Reasoning

27. How do the evolutionary psychologists view cognition?
28. What type of logic problems are easier?
29. Why do evolutionary psychologists think cognitive psychology has ignored important research areas?

Artificial Intelligence

9-7 The Computer as Information Processor

30. Define artificial intelligence.
31. Why do researchers use the game of chess to study artificial intelligence?
32. How do computers operate differently than humans?

9-8 Neural Networks

33. Define convergence zone.
34. What is blindsight?
35. Define parallel distributed processing.
36. What are artificial neural network?

Language

1. Define language.

2. What does human language allow us to do that no animals can?

9-9 Language and Gender Stereotypes

3. How are men and woman normally described differently?
4. Research has shown that differences exist in men's and women's _____.
5. Define androgyny.

9-10 Thought, Culture, and Language

6. Language may _____ thought but language does not _____ thought.
7. How does culture and language affect a person's responses to questions?
8. Give 3 functions and the brain areas PET and fMRI research have shown to be active during those functions.
9. What is the sylvian fissure thought to be responsible for?
10. Is the brain hardwired for cognitive activities?

9-11 Linguistics

11. Define linguistics.
12. What is psycholinguistics?
13. What is ASL?

14. What are linguistic structures?

9-12 Language Structure

15. List and describe the 3 major areas of psycholinguistic study.

16. _____ are the basic units of sound that make up words.

17. Different from the basic units of sound, _____ are the basic units of meaning in a language.

18. What are semantics?

19. Define telegraphese.

20. The way groups of words come together to form language is called _____.

21. The function of a language is called _____.

22. Match the following terms with the appropriate definition.

<i>psycholinguistics</i>	<i>syntax</i>
<i>grammar</i>	<i>phonemes</i>
<i>phonology</i>	<i>morpheme</i>
<i>semantics</i>	

- A) _____ The study of the basic units of sound found in a language.
- B) _____ The basic unit of meaning in a language; a word or meaningful part of a word.
- C) _____ The basic units of sound in a language.
- D) _____ The study of how language is acquired, perceived, understood, and produced.
- E) _____ The linguistic description of how a language functions.

- F) _____ The relation between groups of words and how those words are arranged in phrases and sentences.
- G) _____ The study of meanings of words and sentences, and the analysis of how thought is generated by the placement of words in a particular context.

9-13 The Biological and Evolutionary Basis of Language

23. What did Noam Chomsky suggest about language?
24. What research supports this idea?

Language Acquisition

1. Describe Brown's research.
2. What is naturalistic observation?
3. What conclusions about language can be drawn from Brown's research?

9-14 Learning Theories

4. Describe the learning approach to language acquisition.
5. What is a cochlear implant?
6. Why is there controversy about cochlear implants?

9-15 Biological Theories

7. What is LAD?

8. List and describe the 3 types of evidence that support the nature side of nature vs nurture in language.

9. Define lateralization.

9-16 Language Studies with Chimpanzees

10. Describe the language of Washoe, Sarah, Lana and Nim.

11. How is language different with chimpanzees than with humans?

9-17 And What About Dolphins?

12. What did Janik's research show about dolphins?

13. What does Miller and Bain's research indicate about whales and language?

14. Do dolphins and whales have language?

9-18 Social Interaction Theories: A Little Bit of Each

15. How is language both innate and reinforced?

16. How does context affect language?

17. What are the keys to understanding language acquisition?