

# Chapter Eight

## LANGUAGE AND THOUGHT

### Review of Key Ideas

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#### THE COGNITIVE REVOLUTION IN PSYCHOLOGY

##### 1. Describe the “cognitive revolution” in psychology.

1-1. Answer the following questions regarding the cognitive revolution in psychology.

- (a) In what decade did this revolution get underway?
  
- (b) Why were earlier cognitive approaches abandoned?
  
- (c) What theoretical school openly opposed the cognitive approach?

**Answers: 1-1.** (a) The 1950s (b) They were too subjective (as opposed to being empirical or objective).  
(c) Behaviorism.

#### LANGUAGE: TURNING THOUGHTS INTO WORDS

##### 2. Outline the key properties of language.

2-1. Language is characterized by four properties: it is symbolic, semantic, generative, and structured. Identify each of these properties in the following statements.

- (a) Applying rules to arrange words into phrases and sentences illustrates the \_\_\_\_\_ property of language.
  
- (b) Using words or geometric forms to represent objects, actions or events illustrates the \_\_\_\_\_ property of language.

- (c) Making different words out of the same letters, such as NOW and WON, illustrates the \_\_\_\_\_ property of language.
- (d) Giving the same meaning to different words, such as chat, katz, and cat, illustrates the \_\_\_\_\_ aspect of language.

**2-2.** Identify the following parts (units) of language.

- (a) With around 40 of these basic sounds you can say all of the words in the English language.  
\_\_\_\_\_
- (b) Phonemes are combined into these smallest units of meaning in a language, which may include root words as well as prefixes and suffixes. \_\_\_\_\_
- (c) The component of language concerned with understanding the meaning of words and word combinations is called \_\_\_\_\_.
- (d) These rules specify how words can be combined into phrases and sentences. \_\_\_\_\_

**Answers:** 2-1. (a) structured (b) symbolic (c) generative (d) semantic 2-2. (a) phonemes (b) morphemes (c) semantics (d) syntax.

### **3. Outline the development of human language during the first year.**

**3-1.** Answer the following questions regarding the development of language during the first year of life.

- (a) What are a child's three major vocalizations during the first six months of life?
  
  
  
  
  
  
  
  
  
  
- (b) What is the range in months for the babbling stage of language development?
  
  
  
  
  
  
  
  
  
  
- (c) What gradually occurs as the babbling stage progresses?

**Answers:** 3-1. (a) crying, laughing, and cooing (b) 6 to 18 months (c) The babbling increasingly resembles spoken language.

### **4. Describe children's early use of single words and word combinations.**

**4-1.** What does the text mean when it states that the receptive vocabulary of toddlers is much larger than their productive vocabulary?

- 4-2. Identify the following phenomenon observed in children's early use of language.
- What phenomenon is illustrated when a child calls all four-legged creatures "doggie"? \_\_\_\_\_
  - What phenomenon is illustrated when a child correctly communicates her desire to know where the family dog is simply by asking, "doggie"? \_\_\_\_\_
  - What phenomenon is illustrated when a child complains to her mother, "doggie eat cookie"? \_\_\_\_\_
  - What phenomenon is illustrated when a child says, "doggie runned away"? \_\_\_\_\_
  - What phenomenon is illustrated when a child puns, "I love your I's"? \_\_\_\_\_
  - Solve the following anagram which best describes how children acquire language skills.  
FWSYLIFT \_\_\_\_\_

Answers: 4-1. They can understand more spoken words than they can reproduce themselves. 4-2. (a) overextensions (b) holophrases (c) telegraphic speech (d) overregularization (e) metalinguistic awareness (f) SWIFTLY.

**5. Summarize the effect of bilingualism on language and cognitive development and the factors that influence the learning of a second language.**

5-1. What does research comparing monolingual and bilingual children show with respect to their language and cognitive development?

5-2. What two factors positively influence the learning of a second language?

Answers: 5-1. They are largely similar in their rate of development (in both areas). 5-2. starting at an early age and becoming acculturated.

**6. Summarize evidence on language acquisition in animals.**

6-1. Indicate whether each of the following is true or false.

- \_\_\_\_\_ (a) Researchers have been able to teach chimpanzees to use symbols to communicate.
- \_\_\_\_\_ (b) Kanzi the chimp appears to comprehend both words and their relations to one another as specified by the structure.
- \_\_\_\_\_ (c) Language acquisition in chimpanzees appears to be very similar to language acquisition in children.

Answers: 6-1. (a) true (b) true (c) false.

**7. Discuss the possible evolutionary basis of language.**

- 7-1. What evolutionary advantage might language have given human populations when compared to the Neanderthals (whom many believe lacked the language capabilities found in human beings)?

Answers: 7-1. The Neanderthals became extinct (and we're still here).

**8. Compare and contrast the behaviorist, nativist, and interactionist perspectives on the acquisition of language.**

- 8-1. Identify the following perspectives on the acquisition of language.

- (a) This perspective places great emphasis on the role of reinforcement and imitation. \_\_\_\_\_
- (b) This perspective assumes that children make use of a language acquisition device (LAD) to acquire transformational rules which enable them to easily translate between surface structure and deep structure. \_\_\_\_\_
- (c) This interactionist perspective argues that language development is tied to progress in thinking and general cognitive development. \_\_\_\_\_
- (d) This interactionist perspective argues that language development is directed to some extent by the social benefits children derive from interaction with mature language users. \_\_\_\_\_
- (e) This interactionist theory proposes that the neural circuits supporting language emerge gradually in response to language learning experiences. \_\_\_\_\_

- 8-2. Which perspective places greatest emphasis on:

- (a) nurture \_\_\_\_\_
- (b) nature \_\_\_\_\_
- (c) nature interacting with nurture \_\_\_\_\_

Answers: 8-1. (a) behaviorist (b) nativist (c) cognitive theories (d) social communication theories (e) emergentist theories 8-2. (a) behaviorist (b) nativist (c) interactionist.

**9. Discuss culture and language and the status of the linguistic relativity hypothesis.**

- 9-1. What is the major idea behind Benjamin Whorf's linguistic relativity hypothesis?
- 9-2. What did Eleanor Rosch's experiment show when she compared the color recognition ability of English-speaking people and Dani people, who have only two words for color?
- 9-3. While language does not appear to invariably determine thought, it might exert some influence over the way we approach an idea. In other words, one's language may make it either \_\_\_\_\_ or more \_\_\_\_\_ to think along certain lines.

Answers: 9-1. Language determines thought. 9-2. She found no difference in the ability to deal with colors. 9-3. easier, difficult.

## PROBLEM SOLVING: IN SEARCH OF SOLUTIONS

### 10. List and describe the three types of problems proposed by Greeno.

**10-1.** Greeno has proposed three types of problems (arrangement, inducing structure, and transformation). Identify each of these types from descriptions given below.

- (a) This type of problem requires the problem solver to discover the relations among the parts of the problem.
  
  
  
  
  
  
  
  
  
  
- (b) This type of problem requires the problem solver to place the parts in a way that satisfies some specific criterion.
  
  
  
  
  
  
  
  
  
  
- (c) This type of problem requires the problem solver to carry out a sequence of changes or rearrangements in order to reach a specific goal.

**10-2.** Which types of Greeno's problems are represented in the following situations?

- (a) Which two three-letter English words can be made from the letters TBU?
  
  
  
  
  
  
  
  
  
  
- (b) Fill in the missing word in, "Grass is to green as snow is to \_\_\_\_\_".
  
  
  
  
  
  
  
  
  
  
- (c) You need to take your child to a pediatrician, your dog to the veterinarian, and your mother to the hairdresser, all within a limited time period. You think to yourself, "I'll take the kid and the dog and pick up Mom. Mom can stay with the kid at the doctor's office while I take the dog to the vet. Then I'll..."

**10-3.** Which type of problems are often solved in a sudden burst of insight?

Answers: 10-1. (a) arrangement (b) inducing structure (c) transformation 10-2. (a) inducing structure (b) arrangement (c) transformation 10-3. arrangement.

**11. Explain how irrelevant information and functional fixedness can hinder problem solving.**

**11-1.** Which of the barriers to effective problem solving, irrelevant information or functional fixedness, are you overcoming when you:

(a) make a financial decision without first consulting your horoscope?

(b) use a page of newspaper as a wedge to keep a door open?

**Answers: 11-1.** (a) irrelevant information (b) functional fixedness.

**12. Explain how mental set and unnecessary constraints can hinder problem solving.**

**12-1.** Which of the barriers to effective problem solving, mental set or unnecessary constraints, are you overcoming when you:

(a) color outside the lines to create a more interesting picture?

(b) teach an old dog a new trick?

**Answers: 12-1.** (a) unnecessary constraints (b) mental set.

**13. Describe a variety of general problem-solving strategies.**

**13-1.** The text describes a variety of different problem-solving techniques, or \_\_\_\_\_. Which of these heuristics (means/ends analysis, forming subgoals, working backward, searching for analogies, or changing the representation of the problem) would be most applicable in solving the following problems?

(a) While opening your car door you drop the keys. The keys hit your foot and bounce underneath the car, too far to reach. It has stopped raining, so you close your umbrella and ponder how to get your keys.

(b) You have accepted the responsibility for chairing the homecoming celebration at your school.

(c) Alone at night in the office, you observe that the ribbon is missing from a printer you want to use. After obtaining a new ribbon you can't figure out how to install it correctly. Glancing around, you see a similar printer with the ribbon installed.

(d) As an entering freshman in college, you have already chosen a field of study and a specific graduate school you wish to attend. Now all you have to do is accomplish this goal.

(e) You have agreed to become the campaign chairwoman for a friend who wants to run for student body president. Obviously, your goal is to make your friend look like a good choice to students, but which heuristic do politicians often employ here?

**Answers: 13-1.** heuristics (a) search for analogies (the umbrella can be used as a rake) (b) form subgoals (c) work backwards (see how the ribbon comes out) (d) means/ends analysis (e) change the representation of the problem (make the opponents look like a bad choice).

#### 14. Discuss the distinction between field independence and dependence.

**14-1.** Answer the following true-false questions regarding the distinctions between field dependent and field independent persons.

\_\_\_\_\_ (a) Field dependent persons are more likely to use internal cues to orient themselves in space.

\_\_\_\_\_ (b) Field independent persons are more likely to recognize the component parts of a problem rather than just seeing it as a whole.

**Answers: 14-1.** (a) false (b) true.

#### 15. Discuss cultural variations in cognitive style as they relate to problem solving.

**15-1.** Answer the following true-false questions regarding cultural variations in cognitive style.

\_\_\_\_\_ (a) Persons living in cultures that depend on hunting and gathering for their subsistence are generally more field dependent than persons living in more sedentary agricultural societies.

\_\_\_\_\_ (b) Persons raised in cultures with lenient child-rearing practices and an emphasis on personal autonomy tend to be more field independent.

**15-2.** Nisbett and others have proposed that East Asian cultures focus on context and relationships among elements in a field, which they call a \_\_\_\_\_ cognitive style, whereas people from Western cultures focus on objects and their properties, rather than context, which they call an \_\_\_\_\_ cognitive style. They conclude that these cultural disparities in cognitive style are (substantial/minimal).

**Answers: 15-1.** (a) false (b) true **15-2.** holistic, analytical, substantial.

## DECISION MAKING: CHOICES AND CHANCES

### 16. Compare the additive and elimination by aspects approaches to selecting an alternative.

16-1. Indicate which of these two approaches to decision making would be best when:

- (a) The task is complex and there are numerous alternatives to choose from.
  
- (b) You want to allow attractive attributes to compensate for unattractive attributes.

Answers: 16-1. (a) elimination by aspects (b) additive.

### 17. Describe additional findings on factors that influence decisions about preferences.

17-1. When forced to choose between various options, people fluctuate (less/more) than assumed by most models of decision making. One reason for these fluctuations appears to be incidental \_\_\_\_\_ fluctuations.

17-2. It has also been found that comparative and separate approaches to the evaluation of options yield (similar/different) results. While people often make decisions based on comparative evaluations, the chosen event or product is actually experienced in a \_\_\_\_\_, or isolated, evaluation.

17-3. Another factor in decision making is the need to avoid \_\_\_\_\_ about making a bad decision. Research shows that people tend to (over-/under-) estimate how much regret they will experience as a result of poor decisions.

Answers: 17-1. more, emotional 17-2. different, separate 17-3. regret, over-estimate.

### 18. Explain the factors that individuals typically consider in risky decision-making.

18-1. What differentiates risky decision-making from other kinds of decision making?

18-2. What is the most you can know when making a risky decision?

18-3. What two things must be known in order to calculate the expected value of making a risky decision when gambling with money?

18-4. How does the concept of subjective utility explain why some persons still engage in risky decision-making when the expected value predicts a loss?

Answers: 18-1. The outcome is uncertain. 18-2. the probability of a particular outcome 18-3. the average amount of money you could expect to win or lose with each play and the probability of a win or loss 18-4. The personal worth of the outcome may outweigh the probability of losing.



**19. Describe the availability and representativeness heuristics.**

- 19-1.** Estimating the probability of an event on the basis of how often one recalls it has been experienced in the past is what Tversky and Kahneman call a(an) \_\_\_\_\_ heuristic.
- 19-2.** When most people are asked if there are more words that begin with N or words that have N as the third letter, they apply the availability heuristic and guess incorrectly. Explain why they do this.
- 19-3.** Estimating the probability of an event on the basis of how similar it is to a particular model or stereotype of that event is what Tversky and Kahneman call a \_\_\_\_\_ heuristic.
- 19-4.** “Steve is very shy. He has a high need for structure and likes detail. Is Steve more likely to be a salesperson or a librarian?” When persons are given this problem, they usually guess that he is a librarian, even though there are many more salespersons than there are librarians. Explain why they do this.

**Answers:** 19-1. availability 19-2. Because they can immediately recall many more words that begin with N than words having N as the third letter. 19-3. representativeness 19-4. Because they employ the representativeness heuristic and Steve fits the stereotype of a librarian.

**20. Describe base rate neglect and the conjunction fallacy and their causes.**

- 20-1.** Identify which example of flawed reasoning, base rate neglect, or the conjunction fallacy, is being described below.
- (a) Estimating that the odds of two uncertain events happening together are greater than the odds of either event happening alone.
- (b) Guessing that “Steve” is a librarian and not a salesperson.
- (c) Which one of these two errors in judgment is a misapplication of the representativeness heuristic?

**Answers:** 20-1. (a) the conjunction fallacy (b) base rate neglect (c) base rate neglect.

**21. Summarize the research on the alternative outcomes effect.**

- 21-1.** Answer the following questions regarding the Featured Study.
- (a) Was the objective probability of obtaining the focal outcome easy or difficult to calculate in these two studies?

(b) What happened when the objective probability of the focal outcome remained the same, but the distribution of alternative outcomes was narrowed (e.g., 2/9 versus 2/1-1-1-1-1-1)?

(c) What does this research tell us about the notion of objective probabilities?

Answers: 21-1. (a) easy (b) Subjective estimates of its likelihood decline. (c) They are ultimately very subjective.

**22. Explain evolutionary theorists' evaluation of cognitive research on flaws in human decision strategies.**

22-1. According to evolutionary theorists, is the human mind better wired to deal with:

(a) base rates and probabilities or raw frequencies?

(b) whole actions or parts of actions?

22-2. What happens when problems are reformulated in ways that resemble problems ancient humans had to face?

Answers: 22-1. raw frequencies (b) whole actions 22-2. the irrationality decreases.

**23. Describe the nature of the fast and frugal heuristics.**

23-1. In going about our daily lives we are generally forced to make quick decisions (with/without) the relevant information. According to Gigerenzer, in these situations we usually employ \_\_\_\_\_ and \_\_\_\_\_ heuristics based on our own general knowledge. Research shows that these fast and frugal heuristics (are/are not) very effective.

Answers: 23-1. without, fast, frugal, are.

**REFLECTING ON THE CHAPTER'S THEMES**

**24. Explain how this chapter highlighted four of the text's themes.**

24-1. Indicate which one of the four unifying themes (the interaction of heredity and the environment, behavior is shaped by cultural heritage, the empirical nature of psychology, and the subjectivity of experience) are best represented by the following statements.

(a) Psychologists developed objective measures for higher mental processes thus bringing about the cognitive revolution.

- (b) The manner in which questions are framed can influence cognitive appraisal of the questions.
- (c) Neither pure nativist theories nor pure nurture theories appear to adequately explain the development of language.
- (d) The ecological demands of one's environment appear to somewhat affect one's cognitive style.

**Answers: 24-1.** (a) the empirical nature of psychology (b) the subjectivity of experience (c) the interaction of heredity and the environment (d) Behavior is shaped by cultural heritage.

### UNDERSTANDING PITFALLS IN DECISION MAKING

#### 25. Explain what is meant by the gambler's fallacy.

- 25-1.** A man walks into a gambling casino with a notepad and begins noting which numbers are coming up on a roulette wheel. After several hours, he notes that number 26 has never come up during this period. He then begins placing bets on 26. This man is falling for the \_\_\_\_\_.

**Answers: 25-1.** (a) the gambler's fallacy.

#### 26. Describe the propensity to overestimate the improbable and seek confirming evidence.

- 26-1.** What flaw in reasoning often results from intense media coverage of dramatic, vivid, but infrequent events?
- 26-2.** What omission leads to the confirmation bias when making decisions?
- 26-3.** How is the confirmation bias related to belief perseverance?

**Answers: 26-1.** the propensity to overestimate the improbable **26-2.** failure to seek out disconfirming evidence **26-3.** Disconfirming evidence is subjected to little or skeptical evaluation.

**27. Discuss the overconfidence effect and the effects of framing on decisions.**

**27-1.** Answer the following true/false questions regarding the overconfidence effect.

- \_\_\_\_\_ (a) We are much less subject to this effect when making decisions about ourselves as opposed to more worldly matters.
- \_\_\_\_\_ (b) Scientists are not generally prone to this effect when making decisions about information in their own fields.
- \_\_\_\_\_ (c) In the study of college students cited by the text, it was observed that the gap between personal confidence and actual accuracy of decisions increased as the confidence level increased.

**27-2.** Asking persons if they would prefer their glass of wine to be half-full or half-empty illustrates the general idea behind the \_\_\_\_\_ of questions.

**27-3.** Are persons more likely to take risky options when the problem is framed so as to obtain gains, or when it is framed so as to cut losses?

**Answers:** 27-1. (a) false (b) false (c) true 27-2. framing 27-3. when it is framed so as to cut losses.

**28. Describe some language manipulation strategies that people use to shape others' thoughts.**

**28-1.** State which language manipulation strategy is being used in each of the following situations.

- (a) A politician says that his opponent "has an IQ somewhat below room temperature."
- (b) Pet owners have their pets "put to sleep" when they become terminally ill.
- (c) Only someone unbelievably stupid would be against more gun control legislation.
- (d) Insurance companies sell "life insurance" policies rather than "death benefits" policies.

**28-2.** Research examining semantic slanting shows that an organization is best advised to slant its objectives so as to be (for/against) something when attempting to accomplish its goal.

**Answers:** 28-1. (a) name calling (b) semantic slanting (c) anticipatory name calling (d) semantic slanting 28-2. for.

# Review of Key Terms

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Acculturation  
 Algorithm  
 Alternative outcomes effect  
 Availability heuristic  
 Bilingualism  
 Cognition  
 Confirmation bias  
 Conjunction fallacy  
 Decision making  
 Fast mapping  
 Field dependence-independence  
 Framing

Functional fixedness  
 Gambler's fallacy  
 Heuristic  
 Insight  
 Language  
 Language acquisition device (LAD)  
 Linguistic relativity  
 Mean length of utterance (MLU)  
 Mental set  
 Metalinguistic awareness  
 Morphemes  
 Overextension

Overregularization  
 Phonemes  
 Problem solving  
 Problem space  
 Representativeness heuristic  
 Risky decision making  
 Semantics  
 Syntax  
 Telegraphic speech  
 Theory of bounded rationality  
 Trial and error  
 Underextension

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1. The component of language concerned with understanding the meaning of words and word combinations.
2. A collection of symbols, and rules for combining those symbols, that can be used to create an infinite variety of messages.
3. The smallest units of sound in a spoken language.
4. The smallest units of meaning in a language.
5. The rules that specify how words can be combined into phrases and sentences.
6. Using a word incorrectly to describe a wider set of objects or actions than it is meant to.
7. Using a word to describe a narrower set of objects than it is meant to.
8. Single-word utterances that represent the meaning of several words.
9. The ability to reflect on the use of language.
10. Consists of the acquisition of two languages that employ different speech sounds, vocabulary, and grammatical rules.
11. The degree to which a person is socially and psychologically integrated into a new culture.
12. Basing the estimated probability of an event on the ease with which relevant instances come to mind.
13. Basing the estimated probability of an event on how similar it is to the typical prototype of that event.
14. The mental processes involved in acquiring knowledge.
15. The tendency to perceive an item only in terms of its most common use.
16. The sudden discovery of a correct solution to a problem following incorrect attempts.
17. A strategy for solving problems.
18. The process by which children map a word on an underlying concept after only one exposure to the word.
19. The average of youngsters' spoken statements (measured in morphemes).
20. Generalizing grammatical rules to irregular cases where they do not apply.
21. Making decisions under conditions of uncertainty.

- \_\_\_\_\_ 22. A hypothetical innate mechanism or process that facilitates the learning of language.
- \_\_\_\_\_ 23. Persisting in using problem-solving strategies that have worked in the past.
- \_\_\_\_\_ 24. The theory that one's language determines one's thoughts.
- \_\_\_\_\_ 25. The active efforts to discover what must be done to achieve a goal that is not readily attainable.
- \_\_\_\_\_ 26. Trying possible solutions sequentially and discarding those that are in error until one works.
- \_\_\_\_\_ 27. Evaluating alternatives and making choices among them.
- \_\_\_\_\_ 28. How issues are posed or how choices are structured.
- \_\_\_\_\_ 29. Occurs when peoples' belief about whether an outcome will occur changes depending on how alternative outcomes are distributed, even though the summed probability of the alternative outcomes is held constant.
- \_\_\_\_\_ 30. A methodical, step-by-step procedure for trying all possible alternatives in searching for a solution to a problem.
- \_\_\_\_\_ 31. The tendency to seek information that supports one's decisions and beliefs while ignoring disconfirming evidence.
- \_\_\_\_\_ 32. Occurs when people estimate that the odds of two uncertain events happening are greater than the odds of either event happening alone.
- \_\_\_\_\_ 33. Refers to individuals' tendency to rely primarily on either external or internal frames of reference when orienting themselves in space.
- \_\_\_\_\_ 34. The belief that the odds of a chance event increase if the event hasn't occurred recently.
- \_\_\_\_\_ 35. Refers to the set of possible pathways to a solution considered by the problem solver.
- \_\_\_\_\_ 36. Asserts that people tend to use simple strategies in decision making that focus only on a few facets of available options and often result in "irrational" decisions that are less than optimal.

**Answers:** 1. semantics 2. language 3. phonemes 4. morphemes 5. syntax 6. overextensions 7. underextensions 8. telegraphic speech 9. metalinguistic awareness 10. bilingualism 11. acculturation 12. availability heuristic 13. representativeness heuristic 14. cognition 15. functional fixedness 16. insight 17. heuristic 18. fast mapping 19. mean length of utterances (MLU) 20. overregularization 21. risky decision-making 22. language acquisition device (LAD) 23. mental set 24. linguistic relativity 25. problem solving 26. trial and error 27. decision making 28. framing 29. alternative outcomes effect 30. algorithm 31. confirmation bias 32. conjunction fallacy 33. field dependence-independence 34. gambler's fallacy 35. problem space 36. theory of bounded rationality.

## Review of Key People

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Noam Chomsky  
Leda Cosmides & John Tooby  
Gerd Gigerenzer

Daniel Kahneman  
Steven Pinker  
Sue Savage-Rumbaugh

Herbert Simon  
B. F. Skinner  
Amos Tversky

- \_\_\_\_\_ 1. Won the Nobel Prize for his research on decision making and artificial intelligence.

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2. Proposed that children learn language through the established principles of learning.
  3. Proposed that children learn language through a biologically built-in language acquisition device.
  4. One of the co-researchers who showed that people base probability estimates on heuristics that do not always yield reasonable estimates of success.
  5. Along with her colleagues, she taught the chimp, Kanzi, to communicate in a way that made use of all the basic properties of language.
  6. Argues that human language ability is a species-specific trait that is the product of natural selection.
  7. Argue that the human mind has evolved to solve specific adaptive problems.
  8. Conducted research that shows people often employ fast and frugal heuristics that can yield surprisingly effective results.

**Answers:** 1. Simon 2. Skinner 3. Chomsky 4. Kahneman & Tversky 5. Savage-Rumbaugh 6. Pinker 7. Cosmides & Tooby 8. Gigerenzer.

## Self-Quiz

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1. Which of the following explanations best explains the success of the cognitive revolution in psychology?
  - a. the refining of introspection as a research method
  - b. the development of empirical methods
  - c. the use of psychotherapy to explore the unconscious
  - d. the success in teaching chimps to use language
2. Which of the following is not one of the basic properties of language?
  - a. generative
  - b. symbolic
  - c. structured
  - d. alphabetical
3. The word SLOWLY would be an example of a:
  - a. metalinguistic
  - b. phoneme
  - c. syntactical unit
  - d. morpheme
4. When a child says that TUB and BUT are constructed of the same three letters, she is showing an awareness of
  - a. morphemes
  - b. phonemes
  - c. metalinguistics
  - d. syntax
5. Which of the following statements is incorrect?
  - a. A chimp has learned to sign (ASL) more than 150 words.
  - b. Children and chimps appear to learn language in a similar manner.
  - c. A chimp has shown comprehension for both words and their relation to one another.
  - d. The ability to use language may not be unique to humans.

6. The fact that children appear to learn rules, rather than specific word combinations, when acquiring language skills argues most strongly against which theory of language development?
  - a. cognitive
  - b. behaviorist
  - c. nativist
  - d. social communication
  
7. Which one of Greeno's problems is exemplified by the anagram?
  - a. arrangement
  - b. inducing structure
  - c. transformation
  - d. chunking
  
8. Which barrier to problem solving are you overcoming when you use a piece of paperclip as a temporary replacement for the screw that fell out of your glasses?
  - a. irrelevant information
  - b. functional fixedness
  - c. mental set
  - d. unnecessary constraints
  
9. Which of the following heuristics would you probably employ if assigned the task of carrying out a school election?
  - a. work backwards
  - b. representativeness
  - c. search for analogies
  - d. form subgoals
  
10. Field independent persons are most likely to come from cultures that:
  - a. encourage strict child-rearing practices
  - b. have a stable agricultural base
  - c. encourage lenient child-rearing practices
  - d. stress conformity
  
11. When faced with having to choose among numerous alternatives, most persons will opt for
  - a. an elimination by aspects approach
  - b. an additive approach
  - c. a means/end analysis
  - d. a subjective-utility model
  
12. Most persons mistakenly believe that more people die from tornadoes than from asthma. This is because they mistakenly apply:
  - a. the means/end analysis
  - b. the compensatory decision model
  - c. the availability heuristic
  - d. the representativeness heuristic
  
13. Failure to actively seek out contrary evidence may lead to:
  - a. overestimating the improbable
  - b. the conjunction fallacy
  - c. the gambler's fallacy
  - d. the confirmation bias



14. People generally prefer a choice that provides an 80 percent chance of success over one that provides a 19 percent chance of failure. This illustrates the effect of:
- a. the availability heuristic
  - b. the representativeness heuristic
  - c. framing
  - d. mental set
15. Owners of automobile junkyards prefer to use the term automobile recycling centers. This is an example of the use of:
- a. framing
  - b. semantic slanting
  - c. anticipatory name calling
  - d. subjective utility

Answers: 1. b 2. d 3. d 4. c 5. b 6. b 7. a 8. b 9. d 10. c 11. a 12. c 13. d 14. c 15. b.

## InfoTrac Keywords

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Bilingualism

Mental Set

Risky Decision Making

