CHAPTER 7

Thinking, Language, and Intelligence

LEARNING OBJECTIVES

When your students finish studying this chapter, they should be able to:

Introduction: Thinking, Language, and Intelligence

1. Define cognition and thinking, and describe how mental images and concepts are involved in thought processes.

Solving Problems and Making Decisions

4. Identify and describe three major problem-solving strategies, and discuss the advantages and disadvantages of each.

5. Describe insight and intuition, and explain the two-stage model of intuition.

6. Explain how functional fixedness and mental set can interfere with problem solving.

7. Describe three cognitive strategies used in making decisions.

8. Explain how people use the availability heuristic and the representativeness heuristic to estimate the probability of events.

9. (Critical Thinking) List and provide examples of four obstacles to logical thinking that can help account for why people persist in pseudoscientific beliefs despite contradictory evidence.

Language and Thought

11. (Culture and Human Behavior) Describe the ideas of linguist Benjamin Whorf, define the linguistic relativity hypothesis, and discuss the results of cross-cultural research on the influence of language on thinking and perception.

Measuring Intelligence

14. Define intelligence, and discuss the history of the development of intelligence testing, noting the contributions and differing beliefs of Binet, Wechsler, and Terman.

15. (In Focus) Discuss the results and implications of Lewis Terman’s study tracking the lives of 1,500 intellectually gifted children.

16. Describe the purposes of aptitude and achievement tests, and explain the importance of standardization, reliability, validity, and the normal curve in intelligence testing.

The Nature of Intelligence

17. Describe the key issues in the debate on the nature of intelligence, and compare and contrast the intelligence theories of Spearman, Thurstone, Gardner, and Sternberg.

18. (In Focus) Explain what is meant by autism spectrum disorder, autism, Asperger’s syndrome, mental retardation, and neurodiversity, and discuss the results of the research that used two different intelligence tests with autistic and nonautistic participants.

19. Discuss the interaction of genetics and environment in intelligence, and explain how twin studies have been used to measure the relative influence of heredity and environmental factors.

20. Define heritability, and explain why heritability estimates cannot be used to explain group differences in IQ or other characteristics.

21. (Culture and Human Behavior) Discuss the idea of stereotype threat, and explain how it has been shown to affect performance on tests of intelligence and other abilities.

22. Discuss the results of cross-cultural studies on the effect of social discrimination on IQ, and list some of the ways in which culture might affect intelligence test results.

Psych for Your Life: A Workshop on Creativity

23. Define creativity, and discuss several strategies that can be used to encourage creative thinking.