Chapter 9

Middle Childhood:
Physical and Cognitive Development

INTRODUCTION

Chapter 9 presents an overview of the advances in cognitive and moral development that occur during middle childhood. These changes are discussed within the context of the developing child during his or her elementary school years—ages 7 to 12. Several topics are covered, including:

- **Physical development.** We look at growth and body changes, motor and brain development, and health and fitness. Issues of bulimia, anorexia, giftedness, play, and the role of exercise are all examined.

- **Cognitive development.** This is a discussion of children’s emerging cognitive capabilities, which permit them to organize and process environmental stimuli. Piaget’s stage of concrete operations is presented as characterizing the elementary school child. An analysis of how children acquire socialization skills is also presented. Suggestions for recognizing and fostering creativity in children are highlighted.

- **Language development.** We further explore the mechanics of language as well as bilingual education in schools. Forms of bilingual education include English as a second language, bilingualism, and immersion.

- **Learning disabilities.** Learning disabilities are covered, including ADHD, and educational responses are presented.

- **Moral development.** The text presents the major theories used to understand children’s moral development: psychoanalytic, cognitive learning, and cognitive-developmental theories. Also included is a review of the inconsistency of children’s moral behavior, as well as the various personal and situational factors most closely associated with moral behavior.

- **Prosocial behavior.** The chapter concludes with an overview of the ways in which children acquire prosocial behaviors.
LEARNING OBJECTIVES

After completing Chapter 9, you should be able to:

1. State and briefly explain the typical health and fitness issues of middle childhood.

2. Describe how children’s cognitive abilities begin to advance when they are around 6 and 7 years old, and define *metacognition* and *executive strategies*.

3. Summarize what is known about creativity and discuss the following:
   - relationship between intelligence and creativity
   - role of formal education
   - Institute of Personality Assessment and Research studies
   - Vera John-Steiner’s findings
   - Dr. Luria’s suggestions
4. Define what Piaget meant by the *period of concrete operations* when referring to middle childhood, and contrast some advances with those of the earlier preoperational-stage abilities.

5. Compare concrete operational thought with preoperational thought by explaining several important concepts.

   - conservation
   - decentering
   - transformations
   - horizontal décalage

6. Summarize cross-cultural research on conservation ability, and draw a conclusion about the administration of cognitive tests to children from various cultures.

7. Identify the changes that occur in children’s person-perception abilities, and tell how we activate stereotyping.
8. Describe the qualitative, age-related differences in regard to children’s descriptive statements about other people, and developmental changes in the ways children see and describe people.

9. Discuss the issue of bilingual education the United States and define:
   - English as a second language (ESL) approach
   - bilingualism
   - biliteracy
   - total immersion

10. Explain the term learning disabilities (LDs).

11. Explain an Individual Education Plan (IEP) and the concept of inclusion.

12. Explain important aspects of effective schools.
13. Describe the concept of *morality* and its significance for society, and define *moral development*.

14. Describe the following concepts and studies in cognitive/social learning theory:
   - imitation
   - study results on temptation and models
   - dishonest or deviant behavior

15. Summarize the major premise on *moral development* by cognitive-developmental theorists.

16. Explain Jean Piaget’s theory of *moral development* and its stages.
   - active participation
   - heteronomous morality (morality of constraint)
   - autonomous morality (morality of cooperation)
   - acquiring a sense of justice

17. Explain Lawrence Kohlberg’s theory of development of values and moral judgments.
   - moral judgment
ethical dilemma

Stages:
Preconventional
   Level 1, Stage 1
   Level 1, Stage 2

Conventional
   Level 2, Stage 3
   Level 2, Stage 4

Postconventional
   Level 3, Stage 5
   Level 3, Stage 6

universal morality

Carol Gilligan’s criticism of Kohlberg’s theory

18. Describe how the following factors may have an association with moral behavior:

   intelligence

   age

   sex

   group norms

   motivation
19. Explain the following concepts related to *prosocial behavior*.

- helping
- altruism
- egocentrism
- parenting style
- parental guidelines
- empathy
WEB SITES

The following Web sites deal with some of the major concepts and issues presented in Chapter 9. Additional resources can be found on the text’s Web site at http://www.mhhe.com/crandell8.

Office of English Language Acquisition
http://www.ed.gov/about/offices/list/oela/index.html?src=mr

ESL for Teachers
http://www.esl4teachers.com/

National Center for Learning Disabilities
http://www.ncld.org/

Recording for the Blind and Dyslexic
http://www.rfbd.org/

National Association for Gifted Children (NAGC)
http://www.nagc.org/

National Board for Professional Teaching Standards
http://www.nbpts.org/standards/nbcert.cfm

U.S. Office of English Language Acquisition
http://www.ed.gov/about/offices/list/oela/index.html
SELF-TESTS

Matching

Match the key terms with their definitions:

a. autonomous morality
b. bilingualism
c. cognitive styles
d. conservation
e. dyslexia
f. ELL (English language learners)
g. empathy
h. ESL approach
i. executive strategies
j. heteronomous morality
k. horizontal décalage
l. inclusion
m. individualized education plan
n. learning disabilities
o. limited English proficiency
p. mental retardation
q. moral development
r. obesity
s. period of concrete operations
t. prosocial behaviors
u. stereotypes
v. total immersion

1. _____ when a child develops the ability to apply logical thought to concrete problems
2. _____ a legal document which ensures that the child with special learning needs will be provided with the needed educational support services in the least restrictive environment
3. _____ certain exaggerated cultural understandings that influence the mutual set of expectations that will govern the social exchange
4. _____ differences in how individuals organize and process information
5. _____ difficulty with school-related material, despite the fact that students appear to have normal intelligence and lack a demonstrable physical, emotional, or social impairment
6. _____ extreme difficulty in learning to read in an otherwise normally intelligent, healthy child or adult
7. _____ implies that repetition takes place within a single period of development such as the period of concrete operations
8. _____ provides instruction in both first languages by teachers proficient in both
9. _____ the ability to integrate and orchestrate lower-level cognitive skills
10. _____ the concept that the quantity or amount of something stays the same regardless of changes in its shape or position
11. _____ the excess accumulation of body fat, considered an increase of 20 pounds over typical weight for height
12. _____ the feelings of emotional arousal that lead an individual to take another perspective and to experience an event as the other person experiences it
13. _____ the instructional approach of placing children with limited English proficiency in regular classrooms (with or without support in their first language) and using English for all instruction
14. _____ the integration of students with special needs within the regular classroom programs of the school
15. _____ the legal term for students who were not born in the United States or whose native language is not English and who cannot participate effectively in the regular school curriculum because they have difficulty speaking, understanding, reading, and writing English
16. _____ the process by which children adopt
principles that lead them to evaluate given behaviors as “right” and others as “wrong” and to govern their own actions in terms of these principles

17. ____ ways of responding to other people through sympathetic, cooperative, helpful, rescuing, comforting, and giving acts

18. ____ an egalitarian morality based on respect and cooperation

19. ____ students who cannot participate effectively due to language restrictions

20. ____ teaching children English as quickly and efficiently as possible

21. ____ morality based on absolute moral rules

22. ____ disability in individuals having lower than average mental functions and adaptive skills

Multiple Choice

Circle the letter of the response that best completes or answers each of the following statements and questions.

Factual Questions

1. A disorder in which one has difficulty in reading, but has no other cognitive difficulties, is called
   a. hyperlexia
   b. dyslexia
   c. ADHD
   d. paralexia

2. According to Jean Piaget, children in the concrete operational stage are able to recognize that an original state can be regained. They recognize that water poured from one container into another can be poured back into the original container. This is called
   a. decentering
   b. transformations
   c. reversibility
   d. horizontal décalage

3. During the period of concrete operations, children acquire and develop specific skills in a sequential manner. This type of development, with each skill dependent on the acquisition of earlier skills, is called
   a. conservation
   b. transformations
   c. executive development
   d. horizontal décalage

4. Cross-cultural research on the acquisition of conservation skills indicates that
   a. these skills may not occur in the invariant sequence postulated by Piaget
   b. non-Western children are ahead of their Western counterparts in developing conservation skills
   c. conservation skills develop only in children who achieve formal mental operations
   d. Western children are more likely than children from nonindustrialized cultures to attribute magical action to the experimenter
5. What percent of children ages 6 to 11 are overweight?
   a. 16
   b. 28
   c. 31
   d. 40

6. Children under 8 years of age tend to describe other people in
   a. terms of external, readily observable attributes
   b. terms of unchanging qualities and inner dispositions
   c. specific, precise, and concrete ways
   d. a straightforward, nonstereotypical way

7. The 1983 federal law that ensures children with disabilities the right to a free, appropriate public
   education is called
   a. Bilingual Education Act
   b. Individuals with Disabilities Education Act
   c. Education for All Handicapped Children Act
   d. Limited English Proficiency Act

8. Which of the following is not a method of teaching English to non-English speakers in school?
   a. bilingualism
   b. English as a second language
   c. total immersion
   d. English language acquisition device

9. A person’s preferred way of perceiving, remembering, and using information is referred to as
   a. a portfolio assessment
   b. a learning abilizer
   c. a cognitive style
   d. emotional intelligence

10. Between 1977 and 1995 the percentage of children with specific learning disabilities as a percentage
    of total public school K–12 enrollment
    a. rose from 6 percent to 15 percent
    b. dropped from 15 percent to 6 percent
    c. rose from 2 percent to 6 percent
    d. dropped from 6 percent to 2 percent

11. Which of the following statements concerning ADHD is true?
    a. There is little consensus on what causes ADHD.
    b. There is one route to the development of ADHD in childhood.
    c. The most recent variation of ADHD involves no symptoms.
    d. ADHD is probably the least common behavioral disorder among children today.

12. Which of the following is usually not included in the creation of an Individual Education Plan (IEP)?
    a. parents
    b. child
    c. psychologist
    d. teachers
13. Jean Piaget indicated that heteronomous morality is characterized by which of the following?
   a. mutual respect
   b. morality of cooperation
   c. an egalitarian attitude
   d. conception of moral rules as absolute

14. At which level of Kohlberg’s theory of moral development are individuals capable of stating that Heinz is a lawbreaker?
   a. conventional level
   b. postconventional level
   c. heteronomous morality level
   d. autonomous morality level

15. Gilligan’s research on Kohlberg’s moral dilemmas suggests that women have a morality of ________ whereas men have a morality of ________.
   a. justice; care
   b. equality; loyalty
   c. care; justice
   d. loyalty; equality

16. The average 8-year-old will probably still have difficulty
   a. riding a bike
   b. jumping rope
   c. judging speed
   d. aiming a ball

17. The most common childhood illness during the ages 7 to 12 is
   a. AIDS
   b. mononucleosis
   c. upper respiratory infection
   d. lower intestinal infection

18. Executive strategies are used to
   a. revise behavior
   b. evaluate behavior
   c. monitor behavior
   d. all to these

19. Concrete operations includes all of the following except
   a. decentering
   b. transformations
   c. reversibility
   d. abstraction

20. Effective schools exhibit all of the following except
   a. high achievement expectation
   b. homework is considered important
   c. students have as much autonomy as teachers
   d. students are encouraged to use the library
21. Research undertaken by Hugh Hartshorne and Mark A. May involving the moral behavior of some 11,000 children revealed that children’s moral behavior was
   a. linked to gender
   b. linked to group social norms
   c. linked to parenting style
   d. linked to subject matter

22. Research reveals that age, sex, and IQ variables are ________ correlated with moral behavior.
   a. very highly
   b. highly
   c. moderately
   d. minimally

23. Behavior that is carried out to benefit the other person without the expectation of an external reward is termed
   a. altruism
   b. prosocial behavior
   c. empathy
   d. autonomous morality

24. A feeling of emotional arousal that leads an individual to take another perspective and to experience an event as the other person experiences it is referred to as
   a. prosocial behavior
   b. internalization
   c. empathy
   d. repression

25. Which language instruction approach has students and teachers speaking two languages in the classroom?
   a. bilingualism
   b. total immersion
   c. ESL
   d. two-way bilingual program

**Conceptual Questions**

1. Robert’s teacher was discussing the various parts of a river system with his class. Robert immediately drew a picture to represent his teacher’s oral lesson because he has realized that he learns things more quickly this way. Psychologists refer to Robert’s understanding of his own mental processes as
   a. conservation
   b. executive strategy
   c. decentering
   d. metacognition
2. Margaret watches her mother pour water from a short, wide container into a long, narrow flower vase. She realizes that the initial state of the water can be regained by pouring it back into the original container. Piaget would say Margaret has attained which of the following?
   a. reversibility  
   b. transformation  
   c. decentration  
   d. internal locus of control

3. Kara observes that her son has developed the various conservation skills in a sequential manner. According to Piaget, this type of successive skill development is referred to as
   a. locus of control  
   b. conventional development  
   c. horizontal décalage  
   d. decenteration

4. You are a third-grade teacher preparing your lesson plans for the second half of the year. If you have just taught the lesson on conservation of area, which conservation skill is next?
   a. substance  
   b. length  
   c. weight  
   d. volume

5. A 5-year-old child suffers a stroke; how could you expect language development to progress?
   a. normally, because of the existence of “backups” in the brain  
   b. normally, because of faster neurological response time  
   c. abnormally, due to loss of oxygen to the brain  
   d. abnormally, due to slower neurological response time

6. Suzanne, a fifth-grade teacher, wants to instill in her students a sense of originality and the willingness to think creatively. Psychologists would offer all of the following as tips to foster creativity in children except
   a. using provocative and thought-producing questions  
   b. discouraging children from questioning the rules established for their own safety  
   c. giving youngsters an opportunity to communicate what they have learned and accomplished  
   d. encouraging children’s awareness and sensitivity regarding environmental stimuli

7. Muriel’s father, Vincent, has noticed that his daughter uses very simplistic words such as “good” and “nice” when describing the characters in her stories. According to researchers, Muriel’s tendency to categorize people in such a moralistic manner shows that she is how old?
   a. 7 years old  
   b. 8 years old  
   c. 9 years old  
   d. 10 years old

8. After her parents were divorced, 10-year-old Jennifer remarked, “Even though Mom and Dad act like they like each other, I don’t really think they do.” This statement indicates
   a. the use of simple moralistic social categories  
   b. insightful person-perception ability  
   c. an inability to activate social stereotypes  
   d. that Jennifer has internalized moral prohibitions
9. Which of the following is most likely to be the cause of death in middle childhood?
   a. cancer
   b. a car accident
   c. a snake bite
   d. drowning

10. Francine is an average 8-year-old girl. She spends approximately 23 hours a week _______.
    Knowing how she spends her time, you ask her to give a report on the value of ________.
    a. doing homework; education
    b. shopping; consumerism
    c. playing with imaginary friends; creativity
    d. watching television; distance learning through media

11. Larry is a child in your classroom who is having trouble learning math. Which approach should work best in helping him learn the subject?
    a. examples using induction
    b. examples using deduction
    c. examples using décalage
    d. examples using conservation

12. While waiting for her dinner at the restaurant, Lauren tries to get her father’s attention by making various animal sounds. Lauren’s father reprimands her and tells her that such behavior is inappropriate in public. Lauren is at first angry, but then she behaves nicely and tells her little brother not to “make funny noises in public.” Lauren’s internalization of her father’s social standard in this situation most clearly exemplifies which approach toward moral development?
    a. cognitive-developmental theory
    b. psychoanalytic theory
    c. cognitive learning theory
    d. behaviorism
13. You moved to the United States from a foreign country and do not speak English. You find yourself in a classroom where the teachers are speaking to you in English and your first language. This approach to learning English is called
   a. English as a second language
   b. bilingualism
   c. total immersion
   d. code switching

14. A sixth-grade student displays a willingness to cooperate with his fellow classmates. Piaget would state that this child’s egalitarian relationship with his peers will lead to which type of moral development?
   a. autonomous morality
   b. heteronomous morality
   c. conventional level
   d. preconventional level

15. According to Kohlberg, which of the following children is demonstrating the highest level of moral development?
   a. Billy, who treats his sister nicely when Mom and Dad are around so that he won’t get yelled at.
   b. Jimmy, who tells his mother that he got good grades because he knows his mother will like hearing this.
   c. Don, who cleans the blackboards for his teacher so he might get a better grade.
   d. Mary, who refuses to dissect a frog in biology class even though her grade will suffer.

16. Donny tells his older brother, “I won’t tell Mom that you were kissing your girlfriend in the living room if you don’t tell her I was eating cheese and crackers in the bedroom.” Donny is displaying
   a. autonomous morality
   b. concrete operational reasoning
   c. conventional morality
   d. preconventional morality

17. Missy is a 14-year-old girl who has grown up in an inner-city environment. She’s been a gang member for two years now, and last night she helped “initiate” another girl into the gang by assisting in “beating up” the new girl. Missy does not feel guilty over her actions—as a matter of fact, she’s proud of what she’s done. How does the text explain Missy’s thinking and actions?
   a. Missy is a delinquent who has never learned right from wrong.
   b. Missy has internalized her standards of improper behavior in accordance with the standards of the group.
   c. Missy felt she had to do these terrible things to another person or else she would lose face in front of her peers and get kicked out of the gang.
   d. Missy would be classified as a “sociopath”—someone who cares only for herself and her own needs.
18. Sam is an Eagle Scout and has been praised for his honesty and trustworthiness. However, yesterday Sam got caught stealing a pen from the store. On the basis of research, the most logical conclusion one can reach is that
   a. Sam’s stealing is motivated by a universal ethical orientation
   b. Sam’s honesty is specific to particular situations and not a trait of his character
   c. Sam is morally immature because his moral attitudes are inconsistent with his behavior
   d. If Sam were more intelligent, he would have avoided being caught

19. After shoveling his own driveway, 11-year-old Alex decided to shovel the driveway of his elderly neighbor, Mr. Hogan. As Alex was leaving to go home, Mr. Hogan said he wanted to pay him for his work. Alex refused the offer and said, “I didn’t do it for the money, I just wanted to help you out.” Alex’s behavior clearly represents
   a. coping
   b. empathy
   c. altruism
   d. autonomy

20. According to research, parents who wish to foster helping and altruistic behaviors in their children should do all of the following except
   a. make the child feel guilty if he or she does something wrong
   b. convey a certain intensity about their own concern for living things
   c. describe to the child how the other person feels if the child hurts someone else
   d. provide guidelines and set limits on what youngsters can get away with

**Essay Questions**

1. Discuss the different approaches to moral development and link prosocial behavior to moral cognition.

2. Make an argument for both inclusion and noninclusion of learning disabled children in public schools.

3. Give an argument for or against a proposal in your school district that all children, not just disabled children, should be given an Individualized Education Plan (IEP).
ANSWERS FOR SELF-TESTS

Matching

1. s 9. i 17. t
2. m 10. d 18. a
3. u 11. r 19. f
4. c 12. g 20. h
5. n 13. v 21. j
6. e 14. l 22. p
7. k 15. o
8. b 16. q

Multiple Choice

Factual

1. b 10. c 19. d
2. c 11. a 20. c
3. d 12. b 21. b
4. a 13. d 22. d
5. a 14. a 23. a
6. a 15. c 24. c
7. b 16. c 25. d
8. d 17. c
9. c 18. d

Conceptual

1. d 18. b
2. a 19. c
3. c 20. a
4. c
5. a
6. b
7. a
8. b
9. b
10. d
11. a
12. c
13. b
14. a
15. d
16. d
17. b