Chapter 4: Physical Development in Infancy and Toddlerhood

After reading this chapter, you should be able to:

4.1 Describe major changes in body growth over the first 2 years of life, including the cephalocaudal and proximodistal trends. (pp. 120-121)
4.2 Describe brain development during infancy and toddlerhood. (pp. 121-122)
4.3 Describe the development of the cerebral cortex, and explain the concepts of brain lateralization and brain plasticity and their significance. (pp. 124-126)
4.4 Describe how both heredity and early experience contribute to brain organization. (pp. 125, 127-128)
4.5 Discuss changes in the organization of sleep and wakefulness between birth and 2 years of age. (p. 128)
4.6 Discuss cultural variations in infant sleeping arrangements and the practice of co-sleeping. (p. 129)
4.7 Cite evidence that heredity, affection, and stimulation contribute to early physical growth. (p. 130)
4.8 Discuss the nutritional needs of infants and toddlers and the advantages of breastfeeding. (pp. 130-131)
4.9 Note the percentage of the world’s children that suffers from malnutrition; discuss the impact of severe malnutrition on the development of infants and toddlers, and cite two dietary diseases associated with this condition. (p. 132)
4.10 Describe the growth disorder known as nonorganic failure to thrive, noting common symptoms and family circumstances surrounding the disorder. (p. 132-133)
4.11 Distinguish between classical conditioning and operant conditioning and explain their roles in infant learning. (pp. 133-134)
4.12 Define habituation and recovery, and explain their use in studying infant perception and cognition. (pp. 134-135)
4.13 Discuss imitation in infants and the role of mirror neurons complex social abilities. (pp. 135-136)
4.14 Describe the general course of motor development during the first 2 years, along with factors that influence it. (pp. 137-138)
4.15 Explain the dynamic systems theory of motor development, and discuss support for this approach stemming from cross-cultural research. (pp. 138-140)
4.16 Summarize the development of hearing and vision, including depth and pattern perception, and intermodal perception during infancy. (pp. 141-147)
Note: Answers to practice tests are at the end of this document.

Practice Test 4:

1. Alicia was 20 inches long and weighed 7 pounds at birth. Assuming normal growth, what can we estimate her measurements will be on her first birthday?
   a. 25 inches and 14 pounds
   b. 30 inches and 14 pounds
   c. 25 inches and 21 pounds
   d. 30 inches and 21 pounds

2. Toddlers advanced in language development show greater ____ than do their more slowly developing agemates.
   a. plasticity in the frontal lobes of the cerebral cortex
   b. right-hemispheric reaction to speech sounds
   c. left-hemispheric specialization for language
   d. myelinization of neural fibers

3. One reason many parents have trouble getting their newborns to sleep through the night is that not until the middle of the first year
   a. is the brain sufficiently lateralized to promote control over sleep rhythms
   b. is the secretion of melatonin much greater at night than during the day
   c. is the production of neurons in the cerebral cortex complete
   d. does REM sleep emerge

4. One explanation for the high frequency of bedtime struggles in American homes is that
   a. American children are more dependent on their parents than are children from other cultures
   b. young children often feel stress when they are required to fall asleep alone
   c. American children often eat an abundance of sugary foods in the evening
   d. American parents are often lax in enforcing bedtime rules and rituals

5. Which of the following is supported by research on breast- versus bottle-feeding?
   a. Breast-fed infants are more likely than bottle-fed infants to have tooth decay.
   b. Bottle-fed infants accept new solid foods more easily than do breast-fed infants.
   c. Breast-fed infants are more likely than bottle-fed infants to become constipated or have diarrhea.
   d. Breast-fed infants have fewer illnesses and allergic reactions than do bottle-fed infants.

6. Research indicates that about ____ percent of the world’s children do not get enough to eat.
   a. 5
   b. 10
   c. 22
   d. 30

7. When infants are taught that sucking on a special pacifier triggers various sounds, they will suck faster to hear interesting sounds. This is an example of
   a. classical conditioning
   b. operant conditioning
   c. habituation
   d. extinction
8. Baby Marcella was able to drag herself around by using just her arms before she was able to use her legs to move herself forward with her belly off the floor. This is an example demonstrates the
   a. cephalocaudal trend  
   b. proximodistal trend  
   c. stepping reflex  
   d. Moro reflex

   a. 3  
   b. 6  
   c. 12  
   d. 18

10. Babies perceive input from different sensory systems in a unified way by detecting
    a. amodal sensory properties  
    b. contrast and boundaries  
    c. kinetic depth cues  
    d. optical flow

Chapter 5: Cognitive Development in Infancy and Toddlerhood

After reading this chapter, you should be able to:

5.1 Describe how schemes change over the course of development. (p. 152)
5.2 Identify Piaget’s six sensorimotor substages, and describe the major cognitive achievements in each. (pp. 153-155)
5.3 Discuss the implications of recent research on sensorimotor development for the accuracy of Piaget’s sensorimotor stage. (pp. 155-160)
5.4 Describe the general structure of the information-processing system. (p. 160-161)
5.5 Cite changes in attention, memory, and categorization during the first 2 years. (pp. 162-165)
5.6 Describe the emphasis of Vygotsky’s sociocultural theory and explain how the concept of the zone of proximal development expands our understanding of early cognitive development. (pp. 165-166)
5.7 Describe the mental testing approach, the meaning of intelligence test scores, and the extent to which infant tests predict later performance. (pp. 166-169)
5.8 Discuss environmental influences on early mental development, including home, child care, and early intervention for at-risk infants and toddlers; specifically, describe the Carolina Abecedarian Project and its findings. (pp. 169-172)
5.9 Summarize three theories of language development, and indicate the emphasis each places on innate abilities and environmental influences. (pp. 172-174)
5.10 Describe major milestones of language development in the first 2 years, including ages for cooing, babbling, first words, and two-word utterances. (pp. 174-176)
5.11 Note individual and cultural differences in language development, and discuss ways in which adults can support infants’ and toddlers’ emerging capacities. (pp. 177-179)
Practice Test 5

1. According to Piaget, during ____ children interpret experiences in terms of existing schemes, whereas in ____ old schemes are adjusted and new ones created to make sense of the environment.
   a. equilibration; disequilibrium  
   b. accommodation; assimilation  
   c. assimilation; accommodation  
   d. adaptation; organization

2. When baby Radsheda reached for her pacifier, she accidentally pushed it under her pillow. Rather than searching for her pacifier under the pillow, Radsheda cried. This suggests that she has not yet developed
   a. dual representation  
   b. object permanence  
   c. conservation  
   d. animism

3. Follow-up research on the sensorimotor period indicates that
   a. the first signs of object permanence occur earlier than Piaget believed  
   b. representational capacities emerge before the end of the sensorimotor stage  
   c. the cognitive attainments of infancy do not develop in the precise, stepwise manner that Piaget assumed  
   d. all of the above

4. In the information processing system, input
   a. is channeled through the various memory stores using mental strategies  
   b. simply flows on its own through the various memory stores  
   c. is automatically transferred into long-term memory  
   d. is held in the sensory registers until it is attended to

5. Information processing research shows that by 12 months infants can categorize
   a. objects into groups, such as food, animals, furniture, etc.  
   b. people and their voices by age and gender  
   c. neither a nor b  
   d. both a and b

6. Which of the following is within a child’s zone of proximal development?
   a. a task that a child cannot handle alone but can accomplish with the help of an adult  
   b. a task that a child figures out how to accomplish through independent activity  
   c. a task that a child cannot accomplish alone or with the help of an adult  
   d. a task that a child has recently mastered

7. Which of the following measures of infant performance best predicts childhood intelligence?
   a. habituation and recovery to visual stimuli  
   b. infant perceptual and motor responses  
   c. infant problem solving  
   d. infant memory
8. Findings from the Carolina Abecedarian Project suggest that ____ is/are key for fostering the mental development of children born into extreme poverty.
   a. intervention during the middle- and high-school years
   b. beginning enrichment programs during infancy
   c. nutrition and health services
   d. psychological testing

9. Babbling:
   a. is found only in infants in individualistic cultures
   b. occurs only in infants with normal hearing
   c. precedes cooing
   d. is universal

10. When young children first learn words, they sometimes apply them too narrowly, an error known as ____; at other times they apply a word to a wider collection of objects or events than is appropriate, an error known as ____.
    a. an A-B language error; a telegraphic error
    b. a telegraphic error; an A-B language error
    c. overextension; underextension
    d. underextension; overextension

Chapter 6: Emotional and Social Development in Infancy and Toddlerhood

6.1 Discuss the first two stages of Erikson’s psychological theory, noting the conflict at each stage, and how each conflict can be positively resolved. (pp. 184-185)

6.2 Describe changes in the expression of happiness, anger, sadness, and fear across infancy. (pp. 185-186)

6.3 Summarize changes in infants’ ability to understand and respond to the emotions of others, with particular attention to the emergence of social referencing. (p. 188)

6.4 Explain the nature of self-conscious emotions, noting why they emerge during the second year and indicating their role in development. (pp. 188-189)

6.5 Discuss emotional self-regulation during the first two years. (pp. 189-190)

6.6 Define temperament and identify the three temperamental styles elaborated by Thomas and Chess; note why many infants don’t fit any of these categories. (pp. 190-191)

6.7 Explain how temperament is measured, and discuss the stability of temperament over time. (pp. 191-193)

6.8 Summarize genetic and environmental influences on temperament, and describe the goodness-of-fit model. (pp. 193-195)

6.9 Describe Bowlby’s ethological theory of attachment, and trace the development of attachment over the first two years. (pp. 196-198)
6.10 Describe the Strange Situation and Attachment Q-sort procedures for measuring attachment; discuss the four patterns of attachment. (pp. 198-199)

6.11 Discuss the factors that affect attachment security, including opportunity for attachment, quality of caregiving, infant characteristics, family circumstances, and parents’ working models. (pp. 200-202)

6.12 Discuss fathers’ attachment relationships with their infants. (pp. 202, 204)

6.13 Discuss research findings on child care in infancy and attachment security. (p. 203)

6.14 Describe the link between early attachment and later cognitive, emotional, and social development, and explain how continuity of caregiving affects this link. (pp. 205-206)

6.15 Trace the emergence of self-awareness, and explain how it influences early emotional and social development, categorization of the self, and the development of self-control. (pp. 206-209)

Chapter 6 Practice Test

1. In Erikson’s theory, an infant’s second task, after developing a sense of basic trust, is to resolve the crisis of
   a. autonomy vs. shame and doubt       c. industry vs. inferiority
   b. identity vs. role confusion       d. initiative vs. guilt

2. _____ is evoked by the human face and first appears between ____ of age.
   a. The social smile; 6 and 10 weeks       c. Laughter; 6 and 10 weeks
   b. The social smile; 4 and 5 months       d. Laughter; 4 and 5 months

3. Social referencing is
   a. relying on another person’s emotional reaction to appraise an uncertain situation
   b. thinking about the self as subject (I-self) and object (me-self) in relation to others
   c. the process of monitoring progress toward a goal, checking outcomes, and redirecting unsuccessful efforts
   d. the use of a familiar caregiver as a secure base from which an infant confidently explores the environment

   a. late in the first year       c. during the latter half of the second year
   b. early in the second year     d. toward the beginning of the third year

5. Which of the following is supported by research on temperament?
   a. Boys and girls tend to be equally active and daring throughout childhood.
   b. There are no identifiable differences in infant temperament across ethnic groups.
   c. Studies using heritability estimates indicate that only 5 to 10 percent of individual differences in temperament are due to heredity.
   d. Identical twins are more similar than fraternal twins across a wide range of temperamental traits.
6. The ____ explains how temperament and environment can together produce either favorable or unfavorable outcomes in children’s psychosocial development.
   a. interactional synchrony hypothesis  c. goodness-of-fit model
   b. ethological theory of attachment  d. functionalist approach

7. The ethological theory offers which of the following explanations of human mother-infant attachment?
   a. Mothers and infants become instinctively attached to each other at birth.
   b. Infants become attached to their mothers because mothers are associated with the reduction of primary drives, such as hunger and thirst.
   c. Behaviors such as smiling, babbling, and crying are innate social signals that encourage mothers to interact with their infants.
   d. Mothers’ behaviors such as smiling, hugging, and vocalizing reinforce infants’ social engagement.

8. Research on parental behavior and attachment suggests that ____ is the primary factor in leading infants to develop a secure attachment.
   a. child-centered caregiving  c. sensitive caregiving
   b. authoritative parenting  d. social referencing

9. Research suggests that a child who is insecurely attached to a parent in infancy may fare well later on as long as
   a. there are strong affectional ties outside the immediate family
   b. the child has no siblings to compete with for attention
   c. the child is neglected in school but not rejected
   d. the family income is high enough for comfort

10. Two-year-old Isabella has a red dot on her nose. When she looks into a mirror, she tries to rub the dot off of her nose rather than off of the mirror. This behavior indicates that she has developed
    a. self-control  c. self-recognition
    b. self-realization  d. a categorical self
Ch. 4:  1. d  2. c  3. b  4. b  5. d  6. d  7. b  8. a  9. b  10. a
Ch. 5:  1. c  2. b  3. d  4. a  5. d  6. a  7. a  8. b  9. d  10. d
Ch. 6:  1. a  2. a  3. a  4. c  5. d  6. c  7. c  8. c  9. a  10. c