Developmental Psychology

1.

STUDYING DEVELOPMENT

A. NATURE VERSUS NURTURE

- 1. Developmental psychology is the study of age-related changes in behavior and mental processes from conception to death.
- 2. Led by John Locke (1632–1704), early philosophers argued that at birth our minds were a *tabula rasa* or blank slate. Proponents of the nurturist position continue to argue that development occurs through learning and personal experience.
- 3. Proponents of the modern nature position emphasize the role of maturation, a sequence of genetically programmed processes of growth and development that occur over time. They also point to the importance of critical periods in maturation. A critical period is a specific time of great sensitivity to age-related learning that shapes the capacity for future cognitive developments.

B. CONTINUITY VERSUS DISCONTINUITY

- 1. Psychologists who take the continuity approach argue that development is a continuous process as new abilities, skills, and knowledge are added at a gradual pace.
- 2. In contrast, many psychologists argue that development occurs through a series of distinct stages. Stage theorists devote particular attention to critical periods.
- 3. Stage theories have played an influential role in developmental psychology. This chapter will devote particular

attention to Jean Piaget's theory of cognitive development, Erik Erikson's psychosocial theory of personality development, and Lawrence Kohlberg's theory of moral development.

C. RESEARCH METHODS

- 1. The longitudinal method
 - ▶ The longitudinal method measures a single individual or group of individuals over an extended period of time.
 - ▶ The longitudinal method provides in-depth information about age changes. However, it is expensive, time consuming, and typically uses small samples.

2. The cross-sectional method

- ► The cross-sectional method compares individuals of various ages at one point in time.
- ▶ The cross-sectional method measures age differences in a large sample of subjects. However, results can be influenced by the fact that the different age groups (known as cohorts) grew up in distinctive historical periods. As a result, it can be difficult to separate age effects from cohort effects.



PRENATAL DEVELOPMENT

A. THE PRENATAL PERIOD

- 1. The prenatal period begins with conception and ends nine months later with birth.
- 2. During the first ten days after conception, the fertilized egg or zygote becomes an embryo.
- 3. During the embryonic stage, cells begin to divide and differentiate into organ systems. After 8 weeks, the developing embryo becomes a fetus.
- 4. The fetal stage lasts until birth. During this time, neural cells are produced at the astounding rate of 250,000 per minute.

B. TERATOGENS

1. Teratogens are toxic substances that can harm the fetus if ingested or contracted by the mother.

- 2. Teratogens include drugs, alcohol, nicotine, and viruses, such as HIV and AIDS.
- 3. Fetal alcohol syndrome is a combination of birth defects, including organ deformities and mental, motor, and/or growth retardation, that result from maternal alcohol abuse.

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THE NEONATAL OR NEWBORN STAGE

A. SENSORY ABILITIES

- 1. The neonatal period extends from birth to one month of age.
- 2. Newborns can respond to sweet, salty, and bitter tastes. They can see close objects, such as their mother's face, but have poor distance vision. Newborns are attracted to female voices and begin to recognize their mother's voice.

B. REFLEXES

- 1. Newborns are equipped with a variety of behavioral reflexes that help them survive.
- 2. For example, the grasping reflex enables newborns to cling to their mother (or father); the postural reflex enables newborns to sit with support; and the rooting reflex enables newborns to turn toward the source of a touch and open their mouths.



DEVELOPMENT DURING INFANCY

A. BRAIN DEVELOPMENT

- 1. Infancy is characterized by rapid growth and development of the brain and nervous system.
- 2. By the age of 2, an infant's brain is about 75 percent of its adult weight and size.
- 3. People typically cannot remember events that occurred when they were infants because many brain circuits were not fully connected at the time.

B. MOTOR DEVELOPMENT

- 1. The development of motor skills provides a particularly good illustration of the maturation process.
- 2. In the typical development of motor skills, infants roll over at 3 months, sit alone at 5.5 months, stand alone at 11.5 months, walk alone at 12 months, and walk up steps at 17 months.

C. LANGUAGE DEVELOPMENT

- 1. As discussed in Chapter 9, Noam Chomsky and other linguists believe that every child has the innate ability to learn language.
- 2. Parents in every culture use a distinctive style of speech called motherese or "baby talk" to encourage language development. Motherese uses the distinct pronunciation of simplified words such as "bye-bye" and "night-night."
- 3. Infants in every culture follow a patterned sequence of language development that begins with "cooing." Infants then begin to babble sounds in their native language at around 9 months of age. Somewhere near their first birthday, infants delight their parents by saying "mama," "dada," and other meaningful words.
- 4. After producing their first words, infants soon begin the process of combining them into two-word sentences such as "doggie here" and "dada go." Linguistic skills continue to develop rapidly. By the age of three, the typical child has a vocabulary of 3,000 words.

D. MARY AINSWORTH AND ATTACHMENT

- 1. Attachment is the strong bond of affection that forms between a child and a parent or other regular caregiver.
- 2. Developmental psychologists distinguish between secure and insecure attachments. A secure attachment forms when parents or caregivers consistently meet the infant's needs by being warm and responsive. In contrast, an insecure attachment forms when parents or caregivers fail to fully meet the infant's needs by being neglectful and inconsistent.

- 3. Developmental psychologist Mary Ainsworth devised a research procedure called the Strange Situation to measure attachment. In this procedure, Ainsworth placed an infant and his or her mother in an unfamiliar room filled with a variety of toys. A few minutes later, a strange person entered the room and, after a short time, the mother departed. The mother returned a few minutes later and then repeated the pattern of leaving and returning.
- 4. Ainsworth observed this sequence of repeated separations and reunions through a one-way window. Securely attached infants responded to the Strange Situation by using their mother as a "secure base" to explore the room. They displayed a positive reaction to their mother. In contrast, insecurely attached infants were less likely to explore the room and more likely to display negative reactions to their mother.
- 5. Current research indicates that the quality of attachment during infancy has a variety of long-term effects. Securely attached infants tend to be well adjusted, form successful social relationships, and perform better at school. Insecurely attached infants tend to form shallow relationships, appear withdrawn, and sometimes display an insatiable need for affection.

F. HARRY HARLOW AND CONTACT COMFORT

- 1. During the 1940s and 1950s, developmental psychologists believed that infants became attached to those who provided them with nourishment. This widely-held theory ignored the role of physical contact.
- In a famous series of experiments, Harry Harlow gave orphaned baby monkeys two artificial surrogate "mothers." A cloth "mother" provided no milk but offered a soft terry-cloth cover. A wire "mother" provided milk, but offered no contact comfort.
- Experimental results documented by particularly poignant pictures showed that in frightening situations the infant monkey clung to the cloth mother even when the wire mother had a nursing bottle.

4. Harlow concluded that the stimulation and reassurance derived from the physical touch of a parent or caregiver play a key role in developing healthy physical growth and normal socialization.



Harlow's famous experiments are vivid and easy to remember. In contrast, Mary Ainsworth's Strange Situation experiments are easy to skim over or ignore. Don't make this mistake. Ainsworth's attachment research was featured in a 2008 free-response question and in recent multiple-choice questions. Be sure you can explain Ainsworth's research procedure as well as the differences between secure and insecure attachments.



PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

A. IMPORTANCE

- 1. Jean Piaget (1896–1980) was a Swiss psychologist whose theories of cognitive development have had a profound impact upon our understanding of how the mind develops. One noted developmental psychologist underscored Piaget's importance when he declared, "Assessing the impact of Piaget on developmental psychology is like assessing the impact of Shakespeare on English literature . . ."
- 2. Prior to Piaget's research, many assumed that a child's mind was simply a small-scale replica of an adult's mind. Piaget's life-long observations convinced him that children are not less intelligent than adults. They simply think differently.
- 3. Piaget's stage theory describes how infants, children, and adolescents use distinctively different cognitive abilities to understand the world. Piaget identified four distinct stages of cognitive development. Each stage marks a fundamental change in how a child thinks and understands the world.

B. KEY CONCEPTS

1. Schema

- ▶ A schema is a concept or framework that organizes and interprets information.
- ▶ For example, young children develop a schema for Santa Claus that includes a jolly old man with a white beard who wears distinctive red clothes. Santa rewards good children with gifts and presents on Christmas.

2. Assimilation

- ▶ In Piaget's theory, assimilation is the process of absorbing new information into an existing schema.
- ▶ For example, as they become older, children see Santa on television and in the mall. Children assimilate these Santas into their existing schema by identifying them as "Santa's helpers."

3. Accommodation

- ▶ In Piaget's theory, accommodation is the process of adjusting old schemas or developing new ones to incorporate new information.
- ▶ For example, when children become older, they realize that Santa Claus doesn't really exist. Children are forced to develop a new schema that identifies Santa as a fictional character (played by their parents) who nonetheless continues to bring them presents on Christmas.

C. THE SENSORIMOTOR STAGE

- The sensorimotor stage begins at birth and lasts until "significant" language acquisition begins at about age 2.
 During this stage, infants use their senses and motor activities to explore their environment and develop new schemas.
- 2. At the beginning of this stage, infants lack object permanence—the understanding that objects and people continue to exist even when they cannot be seen, heard, or touched. For example, if a ball rolls under a bed, it is literally out of the infant's sight and thus out of the infant's mind.

3. During their second year, children develop the ability to form internal images or mental representations of objects. Popularly called the "mind's eye," this new ability enables the child to develop object permanence.

D. THE PREOPERATIONAL STAGE

1. In Piaget's theory, the preoperational stage usually lasts from age 2 to age 7. It is important to understand that Piaget uses the word "operations" to refer to logical mental activities. So the "preoperational" stage is really another way of saying the pre-logical stage.

2. Symbolic thought

- As children expand their vocabulary they begin to develop the ability to engage in symbolic thought. Symbolic thought refers to the ability to use words, images, and symbols to represent the world.
- ▶ For example, a preschool child uses a toy steering wheel to pretend she is driving a car. This type of make-believe play illustrates how children use symbolic thought to imitate their parents.

3. Egocentrism

- Preoperational children often display egocentric thinking. In Piaget's theory, egocentrism does not mean being selfish or conceited. Instead, egocentrism is the inability to consider another person's point of view.
- Because of egocentrism, preoperational children assume that others see, hear, and think exactly as they do. For example, a young girl genuinely believes that a set of Zhu Zhu Pets, complete with a hamster funhouse, would make an ideal birthday present for her grandfather. After all, that is exactly what she wants for her birthday.

4. Animistic thinking

- ▶ Children in the preoperational stage believe that inanimate objects, such as the sun, flowers, and clouds, have feelings.
- ► For example, a preschool child demonstrates animistic thinking when he says, "The sun is happy today," or "The flowers are sad because they need water."

5. Irreversibility

- Irreversibility is the child's inability to mentally reverse a sequence of events or logical operations.
- ▶ For example, Jack and Olivia are each given identical cookies. Olivia breaks her cookie into a number of pieces and boasts, "Now I have more to eat than you!" Preoperational Jack is jealous because he cannot mentally reverse the process and think, "If Olivia puts her pieces back together, her cookie would be the same as mine."

6. Centration

Why can't Jack understand that Olivia's divided cookie is the same as his whole cookie? According to Piaget's theory, preoperational Jack can only focus, or center, on just one aspect of a situation. Because of centration, Jack ignores the equal volume of the cookies, and instead focuses on the number of pieces.

E. THE CONCRETE OPERATIONAL STAGE

1. The concrete operational stage lasts from roughly age 7 to age 11. During this stage, children can apply logical thought to concrete objects and events.

2. Conservation

- ▶ In the preoperational stage, children cannot reverse mental steps. However, in the concrete operational stage, children can grasp the concept of reversibility.
- ▶ Concrete operational children understand the principle of conservation. In Piaget's theory, conservation is the understanding that two equal quantities remain equal even though their form or appearance is rearranged. Concrete operational Jack would now understand that the broken pieces of Olivia's cookie are, in fact, equal to his whole cookie.

F. THE FORMAL OPERATIONAL STAGE

1. The formal operational stage is the fourth and final stage of Piaget's theory of cognitive development. It begins in adolescence and continues through adulthood.

- 2. The capacity to think logically about abstract concepts and hypothetical situations is the hallmark of formal operational thinking.
- 3. For example, an 8-year-old will explain the concept of dishonesty in concrete personal terms by saying, "Dishonesty is when I don't tell daddy the truth." In contrast, the formal operational adolescent can explain dishonesty by using abstract concepts such as dishonor, disgrace, and integrity.



Although Piaget's theory of cognitive development is a landmark in developmental psychology, it has only played a minor role in free-response questions. AP Psychology test writers prefer to use multiple-choice questions to test such basic Piagetian concepts as accommodation, assimilation, and object permanence. Don't spend valuable study time trying to memorize the definitions of these concepts. Instead, concentrate on being able to recognize illustrative examples of the concepts and stages in Piaget's theory.

G. CRITICISMS OF PIAGET'S THEORY

- Although contemporary developmental psychologists accept Piaget's basic premise that infants, children, and adolescents have different cognitive abilities, they have challenged and refined aspects of his theory.
- 2. Researcher Renée Baillargeon used visual tasks to demonstrate that infants as young as 2½ months of age are capable of displaying object permanence.
- 3. Russian psychologist Lev Vygotsky (1896–1934) placed greater emphasis upon the role of social and cultural factors in influencing cognitive development. For example, a researcher tested the formal operational skills of a Liberian farmer with this logical question: "All Kpelle men are rice farmers. Mr. Smith is not a rice farmer. Is he a Kpelle man?" The Kpelle farmer responded by saying, "I don't know the man. I have not laid eyes on the man myself." The Kpelle farmer relied upon his cultural training instead of formal operational rules of logic. This supports Vygotsky's view that cognitive development takes place within a social and cultural context.



VI SOCIAL AND EMOTIONAL DEVELOPMENT

A. TEMPERAMENT

- 1. Temperament is an individual's characteristic manner of behavior. Researchers believe that temperament has a strong genetic base.
- 2. Jerome Kagan (b. 1929) has identified a number of temperamental patterns. For example, "bold" babies are less easily frightened and more socially responsive than "shy" babies.
- 3. It is important to note that parenting styles and social interaction can modify a child's temperament. In addition, no one temperament is ideally suited for all social situations. Kagan cautioned his readers to "remember that, in a complex society like ours, each temperamental type can find its adaptive niche."

B. PARENTING STYLES

1. Diana Baumrind (b. 1927) identified three distinct parenting styles.

2. Permissive

- Permissive parents set few rules, make minimal demands, and allow their children to reach their own decisions.
- ▶ For example, Connor is a 17-year-old senior in high school. His parents left on a weekend trip and left instructions to "take care of the house while we're gone." When Connor's parents returned, they discovered that he had hosted a party and left the house a mess. Connor's parents responded by saying, "You could have made a better decision. We were young once too. We understand that these things happen. Let's clean up the mess and move on."
- Children of permissive parents tend to be impulsive, immature, and often fail to respect others.

3. Authoritative

▶ Authoritative parents set firm rules, make reasonable demands, and listen to their child's viewpoint, while still insisting on responsible behavior.

- ▶ For example, Lily is a 17-year-old senior in high school. Before leaving on a weekend trip, her parents discussed the "house rules" that Lily would follow. Lily would be permitted to entertain a few of her girlfriends until midnight. When Lily's parents returned, they were shocked to discover that Lily's friends had brought their friends, and a quiet evening quickly turned into a late night party. Lily's parents listened to her explanation, but concluded by insisting "you must be held accountable for breaking the house rules." Lily's parents then grounded her for two weeks and moved up her curfew to 11:00 p.m. until further notice.
- ▶ Children of authoritative parents tend to be welladjusted, goal oriented, and socially competent.

4. Authoritarian

- ▶ Authoritarian parents set rigid rules, enforce strict punishments, and rarely listen to their child's viewpoint.
- ▶ For example, Landon is a 17-year-old high school senior. Before leaving on a weekend trip, his parents sternly listed a series of fixed rules. They concluded by warning, "Just do it our way, or else!" The rules included a strict prohibition against parties, or even visits by friends. When Landon's parents returned, they learned from a neighbor that he had invited several friends over for a loud party. Landon's furious parents yelled at him and forbade any "backtalk." They then grounded Landon for three months and confiscated his video games.
- ► Children of authoritarian parents tend to be moody, aggressive, and often lack good communication skills.



ERIK ERIKSON'S THEORY OF PSYCHOSOCIAL DEVELOPMENT

A. INTRODUCTION

- 1. Like Piaget, Erik Erikson (1902–1994) created an influential theory of development.
- 2. According to Erikson, as we progress from infancy to old age, we enter eight psychosocial stages of development. Each stage corresponds to a physical change. Furthermore, each

- stage occurs in a distinctive social setting. This combination of physiological change within a new social environment creates a psychosocial crisis that can be resolved with either a positive or negative response.
- 3. As maturing individuals work out solutions to these crises, they gradually develop a stable identity. An identity is a person's definition or description of himself or herself.

B. STAGE 1, TRUST VERSUS MISTRUST (BIRTH TO AGE 1)

- 1. Prior to birth, an infant's physiological needs are automatically taken care of within its mother's womb. After birth, infants are dependent upon adult care for their survival.
- 2. Erikson emphasized the crucial role played by the mother within the family social setting. Inconsistent, inadequate, and rejecting care can result in a basic mistrust. Consistent, warm, and accepting care will result in what Erikson calls an "inner certainty" or sense of trust that the world is predictable and reliable.
- 3. For example, an orphaned child who is transferred from foster home to foster home would develop feelings of mistrust, and might avoid becoming emotionally involved with others.
- 4. It is important to note that if we learn to mistrust adults in our infancy, we may change when we enter school and meet teachers whose behavior encourages trust. Or, if we develop a sense of trust during infancy, we may later become mistrustful if, for example, our parents undergo a bitter divorce.

C. STAGE 2, AUTONOMY VERSUS DOUBT (AGES 1-3)

- During the second and third years of life, children develop new physical and mental skills. They can walk, climb, grasp objects, push and pull, and, of course, talk. Children are proud of these accomplishments and insist on doing everything themselves.
- 2. The crisis that now arises stems from a child's growing desire for autonomy. Parents who accept their child's need to control his or her body, impulses, and immediate environment foster a sense of autonomy, preparing the child for independence later in life.

3. However, if parents insist on being overly controlling or harshly critical, they foster a growing sense of doubt and lack of confidence.

D. STAGE 3, INITIATIVE VERSUS GUILT (AGES 3-6)

- 1. Between the ages of three and six, a child's physical capacities develop to the point where he or she can initiate play activities rather than merely following other children. Young children often engage in play-acting, imagining themselves in a variety of adult roles. They also begin to ask many questions, a sign of intellectual initiative.
- 2. If parents respect and encourage these efforts, they will enhance their child's sense of initiative. If, however, children are made to feel that their activities are "bad," their playacting absurd, and their questions a nuisance, they will develop a sense of guilt about self-initiated activities that will be detrimental in later life.

E. STAGE 4, INDUSTRY VERSUS INFERIORITY (AGES 6–12)

- 1. Between the ages of six and twelve, the social setting expands from the family to school, where children are, for the first time, exposed to formal and impersonal rules.
- 2. During this time, young children demonstrate industry as they build model planes, construct tree houses, furnish doll houses, and complete school projects.
- 3. A child's sense of industry will be reinforced if parents and teachers praise his or her creative projects. However, if parents scold a child for "making a mess" and teachers assign a child low grades, they can instill a lasting sense of inferiority.

F. STAGE 5, IDENTITY VERSUS ROLE CONFUSION (ADOLESCENCE)

- 1. During the teenage years, adolescents mature physically as they enter puberty. At the same time, adolescents become capable of abstract thought. The teenage peer group now provides an important social setting.
- 2. According to Erikson, this stage of life produces a psychosocial crisis that he calls "identity versus role

- confusion." No longer young children, but not yet adults, adolescents struggle to interpret their past, present, and future and combine them into a meaningful sense of identity.
- 3. Erikson emphasizes the role which culture plays in influencing an adolescent's selection of identity. Role confusion can result from failure to resolve life's earlier crises or from major cultural conflicts, such as war, economic instability, and domestic turmoil.

G. STAGE 6, INTIMACY VERSUS ISOLATION (EARLY ADULTHOOD)

- 1. According to Erikson, young adults search for a partner to care about and share their lives with. A happy, newly-married couple illustrates the goal of intimacy.
- Young adults who feel threatened by an intimate relationship will avoid intimacy with another person rather than risk being "swallowed up." A person who is unable to maintain a meaningful relationship with others can become lonely and isolated.

H. STAGE 7, GENERATIVITY VERSUS SELF-ABSORPTION (MIDDLE ADULTHOOD)

- 1. In this stage, the individual enters middle age. Family and work become the dominant social settings.
- 2. Erikson defined generativity as "the concern in establishing and guiding the next generation." If this fails, an individual can stagnate and become absorbed with material possessions and personal problems.

I. STAGE 8, INTEGRITY VERSUS DESPAIR (LATE ADULTHOOD)

- 1. During the last stage of life, a person must come to terms with dying. As a result, Erikson sees this stage as a time of reflection and evaluation.
- 2. People who can look back and feel that their lives were successful will feel a sense of self-acceptance that Erikson calls integrity.
- 3. However, people who see their lives as a series of missed opportunities and "might have beens" will probably give in to despair.



LAWRENCE KOHLBERG'S THEORY OF MORAL DEVELOPMENT

A. INTRODUCTION

- 1. As we have seen, infants are born with an array of behavioral reflexes. However, an infant is not born with a concept of morality. Moral reasoning or ideas of right and wrong must be learned.
- 2. Lawrence Kohlberg (1927–1987) was an American psychologist who specialized in research on moral reasoning. His influential theory of stages of moral development is a milestone in developmental psychology.

B. RESEARCH METHODOLOGY

- 1. Hypothetical moral dilemmas
 - Kohlberg first created a series of 10 hypothetical moral dilemmas.
 - ▶ For example, here is the well-known "Heinz Dilemma." In Europe, a woman was near death from a special kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging 10 times what the drug cost him to make. He paid \$200 for the radium and charged \$2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only raise about \$1,000, half of what the drug cost. He told the druggist that his wife was dying and asked him to sell it to him cheaper or let him pay later. But the druggist said, "No. I discovered the drug and I'm going to make money from it." Heinz got so desperate, he broke into the druggist's store to steal the drug for his wife. Should the husband have done this?

2. Interviews

▶ In his original study, Kohlberg presented his moral dilemmas to 72 boys from Chicago-area suburbs. The boys were 10, 13, and 16 years old.

- ▶ Kohlberg and his associates then interviewed each boy. During the 45-minute recorded interviews, Kohlberg asked participants a series of open-ended questions about the dilemmas. Note that Kohlberg focused on the form of moral reasoning used by each participant.
- Kohlberg concluded that his participants' responses could be categorized into three levels of moral development.

C. PRECONVENTIONAL MORALITY

- 1. The preconventional level of moral reasoning is typical of young children. This age group makes moral judgments based upon avoiding punishment. Their egocentric moral reasoning is limited to how their choice will affect themselves.
- 2. For example, preconventional children typically responded that Heinz should not have stolen the medicine because he would be put in prison and branded a bad person.

D. CONVENTIONAL MORALITY

- 1. The conventional level of moral reasoning is typical of adolescents and young adults. People at this level make moral judgments based on compliance with society's rules and values. These conventional standards of what is right and wrong are learned from parents, teachers, peers, and media.
- 2. For example, conventional respondents typically explained that Heinz should not have taken the medicine because stealing would mean breaking the law.

E. POSTCONVENTIONAL MORALITY

- 1. The postconventional level of moral reasoning is typically expressed by adults. People at this level develop personal standards of right and wrong. They define morality in terms of abstract principles of justice.
- 2. For example, postconventional respondents argued that Heniz should have stolen the medicine because his wife's right to life superseded the druggist's right to private property.

F. CAROL GILLIGAN'S CRITICISM OF KOHLBERG'S THEORY

- 1. Researcher Carol Gilligan (b. 1936) criticized Kohlberg for failing to include women in his research design.
- 2. Gilligan's criticism is based upon her argument that Kohlberg's theory fails to sufficiently account for differences in experience and outlook between males and females. Gilligan contends that the moral concerns of men emphasize justice, while the moral concerns of women focus on caring and compassion.



Kohlberg's theory of moral reasoning can be complex. Do not spend valuable study time trying to memorize each part of his theory. AP Psychology test writers do not ask questions that require you to reproduce or outline detailed stage theories. Instead, know that children progress from a morality based on punishment and reward to one ultimately defined by abstract ethical principles. Also, do not neglect Carol Gilligan's criticism of Kohlberg's theory. Test writers have actually asked as many multiple-choice questions about Gilligan's criticism as about Kohlberg's theory.