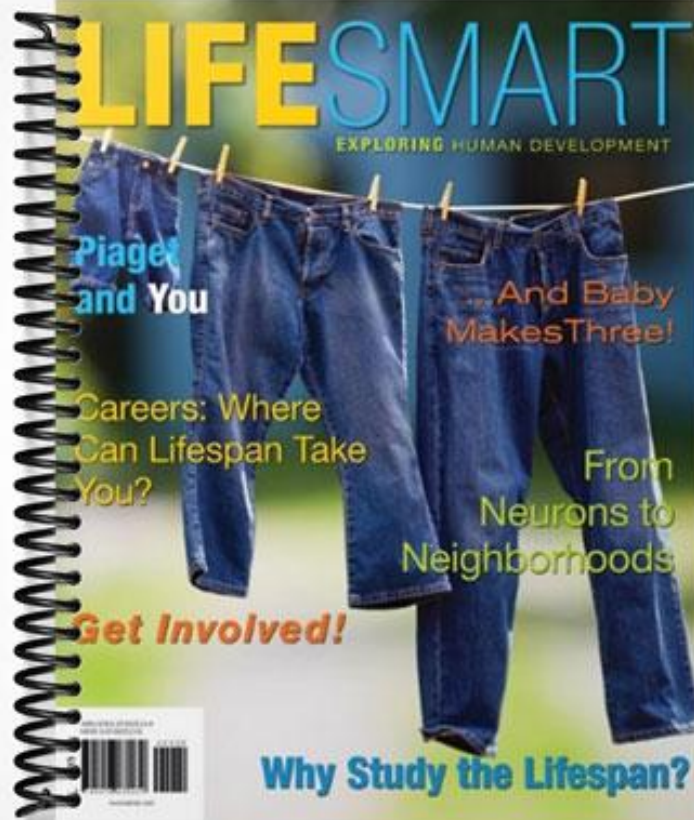


# SOLUTIONS MANUAL



2  
**THEORIES OF DEVELOPMENT:  
Interpreting the Lifespan**

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**Summary Outline**

- I. Why Study Theories?
  - A. Provides an organizational structure for vast amounts of information
  - B. Guides research
    - 1. Theoretical orientation guides hypotheses and directs method
    - 2. Provides a framework within which to interpret results
  - C. Helps in comparison and contrast of different belief systems
  - D. Furthers the science and application of developmental principles
  
- II. Psychoanalytic Theories
  - A. Freud's theory of the development of personality
    - 1. Emphasis on the role of the unconscious
    - 2. Stresses importance of early years
  - B. Freud's five stages of personality development
    - 1. Age specific
      - a. Oral
      - b. Anal
      - c. Phallic
      - d. Latency
      - e. Genital
    - 2. Defense mechanisms as coping strategies
  - C. Freud's structures of the mind and their purposes
    - 1. Fueled by psychic energy or libido
    - 2. Emerge sequentially
    - 3. Seek to strike balance
      - a. Id
      - b. Ego
      - c. Superego
  - D. Memory
    - 1. Unconscious vs. conscious
  
- III. Psychosocial Theory
  - A. Erikson's theory of development: epigenesis
    - 1. Emphasis on the impact of social experiences
    - 2. Each stage of growth characterized by a life crisis
    - 3. Extends through the lifespan
    - 4. Cross-cultural influences
  - B. Erikson's eight stages of psychosocial development
    - 1. Basic trust vs. mistrust
    - 2. Autonomy vs. shame and doubt

3. Initiative vs. guilt
4. Industry vs. inferiority
5. Identity and repudiation vs. identity confusion
6. Intimacy and solidarity vs. isolation
7. Generativity vs. stagnation
8. Integrity vs. despair

#### IV. Cognitive Theories

- A. Piaget's Cognitive Developmental Theory
  1. Emphasis on the influence of thought processes
  2. Progressive formation of sophisticated cognitive structures
    - a. Actively construct meaning within the environment
    - b. Understanding object permanence
  3. Piaget's Stages
    - a. Sensorimotor
    - b. Preoperations
    - c. Concrete operations
    - d. Formal operations
  4. Functional invariants
    - a. Adaptation to the environment
      - i. Assimilation—how cognitive structures incorporate data
      - ii. Accommodation—how cognitive structures change
      - iii. Equilibrium—the balance between assimilation and accommodation
    - b. Organization
  5. Schemes—Piaget
    - a. Organized patterns of thought and action
    - b. Basic building blocks of thought

#### V. Sociocultural Theory

- A. Lev Vygotsky's sociocultural theory
- B. Three fundamental themes
  1. Unique manner of identification and use of theory of development
  2. Social origin of the mind
    - a. Intrapsychological: elementary, biological processes
    - b. Interpsychological: processes shaped by social and cultural processes
    - c. Internalization
  3. Importance of speech in development
- C. Zone of proximal development
  1. Influence of social interaction on cognitive development

#### VI. The Behavioral Approach

- A. Pavlov's and Watson's classical conditioning
    - 1. Experiment with dogs and ringing bell
    - 2. Involuntary process elicited through a learning process
  - B. Skinner's operant conditioning
    - 1. Use of consequences to shape behavior
    - 2. Importance of reinforcement, punishment
    - 3. Development is continuous (vs. marked stages)
    - 4. Environment key to understanding behavior
    - 5. Behavior is a causal chain of three links
      - a. Stimulus
      - b. Response
      - c. Consequences
        - i. Reinforcement
        - ii. Punishment
        - iii. Extinction = no attendant consequence
    - 6. Two kinds of reinforcement
      - a. Positive reinforcement
      - b. Negative reinforcement
  - C. Bandura's social cognitive learning
    - 1. Observational learning
    - 2. Results of observing others as well as direct experience of consequences
      - a. Importance and impact of modeling
        - i. Strengthen or weaken existing responses
        - ii. Cause the reappearance of forgotten responses
        - iii. Elicit new behaviors
      - b. Can contribute to self-efficacy
        - i. Goal-setting
        - ii. Persistence
    - 3. Social (cognition) learning theory
- VII. A Bioecological Model
- A. Reciprocal interactions are bidirectional
    - 1. Results in change
  - B. Componential model
    - 1. Proximal processes
    - 2. Person and the individual's contribution
    - 3. Context and the environment
    - 4. Time
  - C. Bronfenbrenner's Interactional (nested) System
    - 1. Microsystem
    - 2. Mesosystem
    - 3. Exosystem
    - 4. Macrosystem
    - 5. Chronosystem—added element of time

- VIII. Developmental Theory: Current status and future directions
    - A. Need multidimensional research
    - B. Focus on change that occurs over the lifespan
      - 1. Interaction among levels of development
      - 2. Developmental systems theory
        - a. Popularized by Lerner, Gottlieb, etc.
        - b. Constant, reciprocal interactions in heredity and environment
        - c. Construct our own changing view of the world in context of several influences
          - i. Individual characteristics
          - ii. Context or environment
          - iii. Relationship between individual characteristics and context
          - iv. Time
      - 3. No single, primary determinant or causal influence on behavior, development
- 
- IX. Unique theories of development
  - A. Life course theory by Elder
    - 1. Focus on changes in aging over the lifespan
  - B. Evolutionary developmental psychology
    - 1. Darwin's principle of natural selection
      - a. Importance of gene action in development
  - C. Maslow's hierarchy of needs
    - 1. Importance of growing/developing to achieve potential
    - 2. Five types of needs
      - a. Physiological (hunger and sleep)
      - b. Safety (security, protection, stability, free from anxiety, fear)
      - c. Love and belonging (need for family and friends)
      - d. Esteem (positive opinion of self and also by others)
      - e. Self-actualization (achieving potential)
    - 3. Only 2% of population achieves all five levels
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- X. *From Neurons to Neighborhoods:*  
The Science of Early Childhood Development
  - A. Study by National Research Council Institute of Medicine (2000)
    - 1. Synthesis of many years of early childhood development studies
    - 2. Goal is to improve policies aimed at raising/educating children
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- XI. Conclusion & Summary

## **Learning Objectives**

After reading this chapter, the student should be able to address the following:

1. How does psychoanalytic theory explain development across the lifespan?
2. Identify and describe the developmental stages in Freud's theory.
3. Compare and contrast:
  - Freud's psychoanalytic theory vs. Erikson's psychosocial theory.
  - Piaget's cognitive developmental theory vs. Vygotsky's cognitive structural theory.
4. Describe defense mechanisms. Give an example of one.
5. What are Erikson's eight stages of human development? What is a life crisis?
6. Identify and explain key concepts of Piaget's theory of cognitive development.
7. What is the behavioral perspective on development?
8. What are the key points of reinforcement in Skinner's operant conditioning theory?
9. What did Bronfenbrenner believe to be the cornerstone of childhood development?
10. What is the status of current developmental theory?
11. Describe how the process of change—assimilation and accommodation—refines one's concepts.
12. Describe the role of culture in development.
13. Examine the role of social processes in Vygotsky's theory of cognitive development.
14. Explain the role of reinforcement, punishment, and extinction in Skinner's behavioral theory.
15. Briefly discuss life course theory and evolutionary developmental psychology.
16. What is the status of current developmental theory?

## Key Terms

- accommodation
- adaptation
- assimilation
- bioecological model
- classical conditioning
- cognitive structures
- defense mechanisms
- developmental systems theory
- ego
- equilibration
- evolutionary developmental psychology
- exosystem
- extinction
- id
- identity crisis
- information-processing theory
- life course theory
- life crisis
- macrosystem
- mesosystem
- microsystem
- modeling
- negative reinforcement
- object permanence
- observational learning
- operant conditioning
- organization
- positive reinforcement
- psychoanalytic theory
- psychosocial theory
- punishment
- reciprocal interactions
- reinforcement
- self-efficacy
- social (cognitive) learning theory
- superego
- theory
- zone of proximal development (ZPD)

## Lecture Suggestions

### 1. **Truth or Consequences: Why We Study Theories**

Theories are not to be proven true or false. Rather, their usefulness lies in their ability to generate questions. Take, for example, the studies conducted by D. O. Hebb. Hebb was a psychologist and theorist who made significant contributions to the advancement of neuropsychology. He wanted to investigate how neurons in the brain contributed to the process of learning. He spent many years studying brain surgery and human behavior. In 1949, he wrote *The Organization of Behavior*. In the book, Hebb was able to fuse for the first time the biology of the brain together with the workings of the mind. Hebb's research fueled further investigations into the biological functioning of the brain and the workings of neurons. Later work in the field of neurology discovered a chemical process that prompts the firing of neurons in the brain. But Hebb's initial theory remained as a cornerstone to help prompt further investigation into the next theory of human development.

Hebb's theory was not true, but it was useful to get us to the next step of research. Engage students in a discussion emphasizing the importance of theories and how and why they evolve. Explore the meaning of "finding the truth" versus "theorizing" in human development.

### 2. **Similarities and Differences Between Freud and Erikson**

Psychoanalytic theory describes developmental changes in a personality and one's sense of self. Freud's and Erikson's theories of personality development are both grounded in psychoanalytic theory, but each theory has significant contextual differences.

#### Both Freud and Erikson agree:

- a person's success in moving through various stages of development shapes his or her personality (stage theorists),
- personality is a result of the interaction of internal needs and response to those needs from significant people in the environment and
- unconscious and conscious motives determine behavior.



### Differences between Freud and Erikson:

- Freud's drive theory focuses on the importance of meeting instinctual drives, the sexual drive, the life-preserving drive, and the aggressive drive.
- Freud argued that stage changes were caused by maturational changes in the nervous system that change the focus in body sensitivity, thus changing one's internal drives.
- Erikson believed that behavior is best understood by focusing on the drive for identity, a cognitive process that is a result of changes in one's social environment and individual maturation.
- Erikson theorized that cognitive skills develop independently and are not simply a function of basic gratification. Erikson also argued that psychosocial stage changes stem from the individual's interactions with his/her social context.

Discuss the similarities and differences between Freud's and Erikson's theories with the class. In the class discussion, have students isolate the most important differences and present the historic break between Freud and Erickson.

### **3. How Do Children Learn?**

Piaget and Skinner are both behavioral theorists with different key areas of focus. Point out the different questions each theorist asks and how these questions relate to their theories. For example, Piaget and Skinner ask, "How do children learn?" but the question means different things to each theorist.

Piaget's Focus:

- Cognitive structure
- Structure of the thinking process
- Asks why children think the way they do

Skinner's Focus:

- Environment and how it controls the learning process
- Cannot look into the "black box" of the mind

Think about the following questions:

1. *Can the child tell him why the moon appears to follow him when he walks down the country lane?*

2. *Can the child provide reasons for the difference in the water levels as the liquid is poured from the tall, thin vessel into the short, wide vessel?*

How would Piaget address these questions?

Piaget wants to understand how a child mentally conceptualizes his or her environment. To Piaget, the question means: How does the mind organize information as the child interacts with the environment?

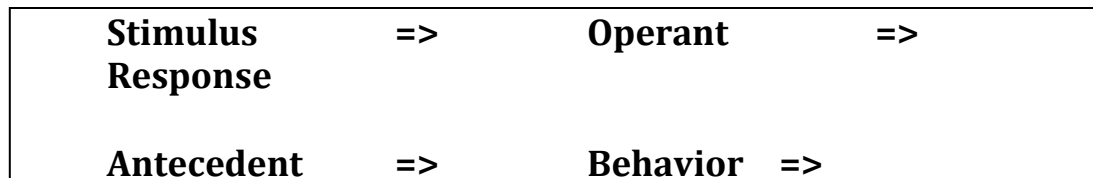
How would Skinner address these questions?

Skinner wants to understand how the environment can be modified to reinforce the child's behavior. To Skinner, the question means: How can the child be reinforced so that he or she consistently and correctly states that the moon appears to follow the person down the lane because of the influence of the great distance between the moon and the child? How can I change the environment so as to demonstrate for the child that the volume of water does not change when the shape of the container changes?

The structure of the mind interests Piaget, whereas the observed behavior that it produces interests Skinner. This basic difference may be at the heart of the differences in the approaches, questions, and methods of each theorist in examining the question "How do children learn?"

#### 4. **The A,B,Cs of Behaviorism**

Behaviorism is the foundation for Skinner's operant conditioning and Bandura's social learning theory. This theory states that behavior is controlled by that which reinforces or punishes, whether directly experienced or observed, respectively. To assist students in the remembrance of basic principles, present the operant sequence as "**A,B,Cs of behaviorism.**"



The sequence helps to focus on the consequences and the increase or decrease in target behavior defining reinforcement and punishment, respectively. For example, students take an exam and get a grade; when an adolescent cuts classes, he/she has to stay after school; when an employee completes his/her time on a job, the worker gets paid, but when he/she does not work (without an acceptable reason) he or she gets fired.

## 5. Basic Operant Conditioning Principles

In operant conditioning, behavior is controlled by its consequences. When a student prepares well and performs well on an exam, he/she gets a good grade; when an adolescent cuts classes, she has to stay after school; when a driver parks illegally, he gets fined; when a cardholder returns overdue library books, she gets fined; and when we speed, we get a ticket. The probability of behavior occurring again depends on the consequences that follow that behavior.

Rewards, or reinforcers, follow some behaviors. Reinforcement results in an increase in a particular behavior. When a student prepares well in advance for an exam and receives a good grade, the good grade reinforces his studying behavior, and he is likely to continue this behavior in the future. If a woman responds with donations to a community request for help with a clothing drive for the homeless, she may receive praise for being part of that effort, and that praise will reinforce her helping behavior; she is likely to help with a future clothing drive.

Punishment follows some behaviors, and punishments can result in a decrease in those behaviors. If a driver carelessly parks her car in an illegal lane and receives a \$25 fine, she may be less likely to park in that spot in the future.

Students often misunderstand the difference between negative reinforcement and punishment. A negative reinforcement *removes* an aversive stimulus, which results in the probability that the behavior will occur again, whereas a punishment *produces* an aversive stimulus, thus resulting in a decrease in the behavior.

Students should be able to recognize the difficulty of controlling behavior. It is often difficult to grasp why individuals continue certain behaviors. Discussion of antecedents, behaviors, and consequences of those behaviors for selected populations (such as juvenile delinquents) and treatments (such as token economies) may help students understand the laws of learning principles.

## 6. Ripples in the Water

In Bronfenbrenner's bioecological model, reciprocal interaction between a person and his/her environment takes center stage. How is that like the Developmental Systems Theory? How does it differ?

When a student prepares by studying and performs well in school, how might that have an influence on his/her classes, teacher, school, etc.?

What might each of these theories say about the infinite possibility of influence?

Compare an individual's influence on his/her environment to the ripples made by a single stone cast into a lake. How then does the lake influence the stone? What other factors might play a role?

## 7. **Future Theorists: "Where Do We Go from Here?"**

The quest for understanding human development encompasses many theories. A frequent criticism of previous developmental theorists like Freud and Piaget suggests their theories were too "one-sided." That is, examining just one or two aspects of the biopsychosocial model cannot unravel human development. Rather, new studies suggest that we must factor in other genetic, neural, behavioral, and environmental conditions to grasp a better understanding of development. Lerner, for example, takes his developmental systems theory beyond the biopsychosocial model. Lerner theorizes that we construct our view of the world by reciprocal actions of biopsychosocial characteristics with the environment.

Discuss Lerner's theory of development with students. Have students create their own theories on human development. Incorporate information from other theorists. Explore the influences of variables like interactions between individuals and the environment, the effect of change, time and levels. Spend some class time brainstorming and experimenting with new ideas. Create a unique theory of development.

## **Classroom or Student Activities**

### 1. **Schedules of Reinforcement**

In the real world, behaviors are not reinforced every time they occur. Rather than being reinforced continuously, most behaviors are reinforced on a partial, or intermittent, schedule.

*Schedules of reinforcement* refers to when behavior is to be reinforced. Schedules of reinforcement have two dimensions. One dimension focuses on whether reinforcement is delivered after a specified number of responses or a specific amount of time (called a *fixed schedule*) or by an *average* number of responses or amount of time (called a *variable schedule*). An individual also can be reinforced on the number of responses (a ratio schedule) or on the amount of time that elapses (an interval schedule). The intermittent reinforcement schedule is based on an irregular schedule of reward, so that the behavior (operant) never knows

when to expect the payoff. Intermittent reinforcement schedules are the most persistent in increasing behavior and prolonging its demonstration.

Students can more easily understand the impact of different schedules of reinforcement if they identify aspects of their own lives that fit each of the four schedules. For example, if a course grade is determined by students' scores on 10 "pop" quizzes given throughout the semester, the grade is given in terms of a variable interval schedule. Ask students how this type of schedule influences studying patterns. (Typically, one learns to study a "little" regularly to maximize results.) Students are on a fixed interval schedule if another instructor gives a test every ninth class period. Ask students how this pattern influences studying patterns (typically, more studying occurs in the few days right before a test and little immediately after a test). Ask students to think of ways in which they are on a ratio schedule. Ask students what they can do to reinforce themselves to avoid disadvantages of the schedule used by the course grading system.

It also is helpful to discuss schedules of reinforcement in terms of other life experiences (e.g., dieting, leisure activities, gardening, and dating). Ask students whether behavior is likely to persist or become extinguished after a particular schedule of reinforcement. Discuss the importance of schedules in maintaining desirable behaviors.

## **2. Biopsychosocial Theory and Model**

Think about the biopsychosocial theory model of a great tennis player. For instance, Anna is a 21-year-old college student in Florida. She was awarded a full scholarship to the University to play on the tennis team. Since being on the team, Anna has been seeded as one of the top players in her division. Listed are some of her biological, psychological, and sociological influences and how they contribute to her success as a tennis player.

- Biological—strength, muscle fibers, joint flexibility, hand-eye coordination.
- Psychological—is "daddy's little girl," constant praise, highly admired.
- Sociological—family has economic means to pay for tennis lessons, club membership, equipment, etc.

All three factors combine to help Anna be the best possible tennis player she can be. Her background suggests an ideal model for biopsychosocial theory. Many of the theorists discussed in this chapter only address two out of the three factors.

Have students compose their own biopsychosocial theory of sympathy. What are the biology, psychology, and sociology of a sympathetic person? How is this theory different from the psychosocial theory and from the cognitive developmental theory?

### **3. Search the Literature**

Based on the information on psychoanalytic theory described in the text in this chapter and the information on research design in Chapter 1, ask students if they can think of any studies that would indicate that Freud was right about defense mechanisms. Ask students to conduct a literature search using appropriate software to locate articles examining Freud's theory of defense mechanisms. What are the findings? Compare findings from different studies.

### **4. Finding Contexts in Development**

Provide a review of Gottlieb's levels of interaction that influence development (e.g., genetic, neural, behavioral, and environmental). Remind students that these levels are bidirectional, with each level dependent on the next and influenced by the next level for the production of a behavior or trait. Then review Lerner's concept of developmental contextualism, with the four major forces in development (i.e., physical settings, social influences, personal characteristics, and influence of time).

Each group of students should pick a developmental event (e.g., walking, learning to read). Half of the groups should analyze their topic using Gottlieb's levels and determine how those processes would produce a behavior or trait. The remaining groups should use Lerner's forces. After taking time to reorganize their thoughts, the students may present their conclusions and, in a class setting, contrast and compare these approaches. They may then evaluate the models for completeness in describing the developmental process. Their evaluations should include comparisons with a strict biological or environmental explanation. This activity allows students to internalize the richness and accuracy of interactions rather than adherence to a unidirectional dichotomy of nature versus nurture alone.

## **Questions for Review and Discussion**

1. What is the purpose of organizational framework of theories?
2. How do theories guide research?
3. Where would you look for the theoretical foundation of a study in a research report (e.g., empirical article)?

4. Identify Freud's three structures of the psyche and explain the role of each. How does each structure relate to the other two?
5. Examine the defense mechanisms and give an example.
6. What are Freud's stages of personality development and the possible outcomes for each?
7. Where are you in Erikson's stages of development? Does his concept of crisis for that stage "fit" you? Please explain why it does or does not seem realistic.
8. What are examples of egocentrism in our behavior? Describe the behavior, and explain how it matches Piaget's definition of egocentrism.
9. Explore how assimilation and accommodation work as a child tries to understand the world.
10. Consider your own theory of cognitive development. What are some of the assumptions you make about ways in which other people's behavior is affected by their beliefs, emotions, or ideas? How do your assumptions fit into a cultural contextual model of cognitive development?
11. Provide examples of positive and negative reinforcement that parents can use to encourage healthy development in their children.
12. How does the future of research embrace both aspects of individual growth: biological predispositions of heredity and the psychosocial aspects of the environment?
13. Where did Systems Theory begin? How does this and bioecological interaction better explain individual development? Or does it?

### **Website Resources**

Child Development Resources	<a href="http://www.cdr.org/">http://www.cdr.org/</a>
Child Development	<a href="http://www.srcd.org/">http://www.srcd.org/</a>
Developmental Psychology	<a href="http://www.apa.org/journals/dev/">http://www.apa.org/journals/dev/</a>
Society for Research in Adolescence	<a href="http://www.s-r-a.org/">http://www.s-r-a.org/</a>
Society for Research on Adult Development	<a href="http://www.adultdevelopment.org/">http://www.adultdevelopment.org/</a>
Additional Reading: Lifespan Development Guide for Thought	<a href="http://www.jsu.edu/depart/library/graphic/handouts/lifespan.pdf">http://www.jsu.edu/depart/library/graphic/handouts/lifespan.pdf</a>

## Papers

Urie Bronfenbrenner: Ecological  
Theory

<http://www.des.emory.edu/mfp/302/302bron.PDF>