**NOTE from Dr. Gentile:** This is a study guide for Exam 3 – it focuses exclusively on the book. I have provided summaries of the assigned modules, as well as core questions from each. I have sometimes noted where I am unlikely to test you, as there are modules that go into more details than you need for this level of class.

Note also that the test is weighted more toward what we discussed in class, so you should use the lecture notes packet as a study guide for the lectures.

# Learning

## Summary

Learning helps us adapt to our environment. Pavlov explored classical conditioning, in which we learn to anticipate events, such as being fed or experiencing pain. In his famous studies, Pavlov presented a neutral stimulus just before an unconditioned stimulus, which normally triggered an unconditioned response. After several repetitions, the neutral stimulus alone began triggering a conditioned response resembling the unconditioned response.

While in classical conditioning we learn to associate two stimuli, in operant conditioning we learn to associate a response and its consequence. Skinner showed that rats and pigeons could be shaped through reinforcement to display successively closer approximations of a desired behav- ior. Researchers have also studied the effects of positive and negative reinforcers, primary and conditioned reinforcers, and immediate and delayed reinforcers. Although Skinner’s emphasis on

external control also stimulated much debate regarding human freedom and the ethics of managing people, his operant principles are being applied in schools, sports, the workplace, in parenting, and for self-improvement.

The behaviorists’ optimism that learning principles would generalize from one response to another and from one species to another has been tempered. We now know that conditioning prin- ciples are biologically and cognitively constrained. Critics point to research on latent learning to support their claim that Skinner underestimated the importance of cognitive constraints.

Another type of learning that is important among higher animals is what Albert Bandura calls observational learning. Children tend to imitate what a model does and says, whether the behavior is prosocial or antisocial. Research suggests that violence on television leads to aggressive behav- ior by children and teenagers who watch the programs.

**Module 20: Basic Learning Concepts and Classical Conditioning**

20-1. Define *learning,* and identify some basic forms of learning.

20-2. Describe behaviorism’s view of learning.

20-3. Describe who Pavlov was, and identify the basic components of classical conditioning.

20-4. Summarize the processes of *acquisition, extinction, spontaneous recovery, generalization,* and *discrimination*

in classical conditioning.

20-5. Explain why Pavlov’s work remains so important.

20-6. Identify some applications of Pavlov’s work to human health and well-being, and describe how Watson applied

Pavlov’s principles to learned fears.

**Module 21: Operant Conditioning**

21-1. Define *operant conditioning.*

21-2. Describe who Skinner was, and explain how operant behavior is reinforced and shaped.

21-3. Discuss the differences between positive and negative reinforcement, and identify the basic types of reinforcers.

21-4. Explain how the different reinforcement schedules affect behavior.

21-5. Discuss how punishment and negative reinforcement differ, and explain how punishment affects behavior.

21-6. Discuss why Skinner’s ideas provoked controversy, and identify how his operant conditioning principles might be applied at school, in sports, at work, in parenting, and for self-improvement. (I’m unlikely to ask about this)

21-7. Describe how operant conditioning differs from classical conditioning.

**Module 22: Biology, Cognition, and Learning**

22-1. Explain how biological constraints affect classical and operant conditioning. (I won’t ask about this)

22-2. Explain how cognitive processes affect classical and operant conditioning. (I’m unlikely to ask about this)

22-3. Discuss how observational learning differs from associative learning, and explain how observational learning may be enabled by mirror neurons.

22-4. Discuss the impact of prosocial modeling and of antisocial modeling.

22-5. Discuss the violence-viewing effect.

# Language

## Summary

Language facilitates and expresses our thoughts. Spoken language is built from phonemes, morphemes, words, and the semantics and syntax that make up grammar. The ease with which children master language suggests that they are biologically prepared to learn words and use gram- mar. Language processing illustrates how the mind’s subsystems are localized in particular brain regions, yet the brain acts as a unified whole.

Thinking and language are difficult to separate. Although the linguistic determinism hypoth- esis states that language determines thought, we know that thinking can occur without language, and so we might better say that thinking affects our language, which then affects our thoughts.

Another debate concerns whether language is uniquely human; it has been fueled by studies

of animals, particularly chimpanzees, who have developed considerable vocabularies and who can string words together to express meaning. Skeptics point out important differences between apes’ and humans’ abilities in the verbal or signed expression of complex grammar.

**Module 27: Language and Thought**

27-1. Describe the structural components of a language.

27-2. Describe how we acquire language, and define *universal grammar.*

27-3. Describe the milestones in language development, and identify the critical period for acquiring language.

27-4. Identify the brain areas involved in language processing and speech. (I won’t ask about this)

27-5. Describe what we know about other species’ capacity for language.

27-6. Describe the relationship between language and thinking, and discuss the value of thinking in images. (I am unlikely to ask about this)

# Nature, Nurture, and Human Diversity

## Summary

Members of the human family share common behavioral tendencies but are also strikingly diverse. To what extent are we shaped by our heredity and to what degree by our life history? The conclu- sions—that both nature and nurture are crucially important—are central to today’s psychology.

Genes provide the blueprints that design both our universal human attributes and our individu- al traits. Behavior geneticists explore individual differences. By using twin, adoption, and temper- ament studies, they assess the heritability of various traits and disorders. Their research indicates that we are products of interactions between our genetic predispositions and our surrounding envi- ronments. Molecular geneticists search for genes that put people at risk for genetically influenced disorders, which has potential benefits as well as risks.

Evolutionary psychologists focus on what makes us alike as humans. They study how natural selection favored behavioral tendencies that contributed to the survival and spread of our genes. For example, in explaining gender differences in sexual behavior, they argue that women most often send their genes into the future by pairing wisely, men by pairing widely. Critics maintain that evolutionary psychologists make too many hindsight explanations.

Although genetic influences are pervasive, so are environmental influences. Nurture begins in the womb as embryos receive differing nutrition and varying levels of exposure to toxic agents. Sculpted by experience, neural connections multiply rapidly after birth. Parental influence is more important when it comes to education, discipline, responsibility, orderliness, charitableness, and interacting with authority figures. Peers are important in learning cooperation, for finding the

road to popularity, and for inventing styles of interaction among people of the same age. Cultural groups evolve norms or rules that govern members’ behaviors. They vary in their child-raising practices. Individualist and collectivist cultures have different effects on personal identity. Yet, despite our many cultural differences, we humans are more alike than different.

Differing sex chromosomes and differing concentrations of sex hormones lead to significant physiological sex differences. Yet, gender differences vary widely depending on culture. Cultural variations in gender roles demonstrate our capacity for learning and adapting. Both social and cul- tural factors contribute to gender identity and gender typing.

The biopsychosocial approach to development recognizes that we are products of both nature and nurture, of genes and environment. We are also architects of our future.

**Module 10: Behavior Genetics: Predicting Individual Differences**

10-1. Define *chromosomes, DNA, genes,* and the human *genome,* and describe how behavior geneticists explain our individual differences.

10-2. Discuss how twin and adoption studies help us understand the effects and interactions of nature and nurture.

10-3. Describe what psychologists have learned about temperament.

10-4. Define heritability, and discuss how it relates to individuals and groups.

10-5. Discuss how molecular genetics research is changing our understanding of the effects of nature and nurture. (Unlikely to ask about this)

**Module 11: Evolutionary Psychology: Understanding Human Nature**

11-1. Describe how evolutionary psychologists use natural selection to explain behavior tendencies.

11-2. Discuss how an evolutionary psychologist might explain male-female differences in sexuality and mating preferences.

11-3. Summarize the key criticisms of evolutionary explanations of human sexuality, and describe how evolutionary psychologists respond. (Unlikely to ask about this)

**Module 12: Culture, Gender, and Other Environmental Influences**

12-1. Describe how early experiences modify the brain.

12-2. Describe the ways in which parents and peers shape children’s development.

# Developing Through the Life Span

## Summary

Developmental psychologists study the life cycle, from conception to death, examining how we develop physically, cognitively, and socially. Three issues pervade this study: (1) the relative impact of genes and experience on behavior, (2) whether development is best described as grad- ual and continuous or as a sequence of predetermined stages, and (3) whether the individual’s personality remains stable or changes over the life span. Researchers who emphasize experi- ence and learning tend to see development as a slow continuous process. Those who emphasize biological maturation tend to see development as a series of genetically predisposed stages. Although the stage theories of Piaget, Kohlberg, and Erikson have been modified in the light of later research, each theory usefully alerts us to differences among people of different ages and helps us to keep the life-span perspective in view. Researchers who have followed lives through time have found evidence for both stability and change.

The life cycle begins when one sperm unites with a mature egg to form a zygote. Attached

to the uterine wall, the developing embryo begins to form body organs and by 9 weeks, the fetus becomes recognizably human. With the aid of new methods of studying babies, researchers have discovered that newborns are surprisingly competent. Infants develop skills of sitting, standing, and walking in a predictable sequence; their timing is a function of individual maturation rate.

Jean Piaget theorized that the mind develops by forming schemas that help us assimilate our experiences and that must occasionally be altered to accommodate new information. In this way, children progress from the simplicity of the sensorimotor stage through the increasingly com- plex preoperational and concrete operational stages to abstract formal operational thought. Lev Vygotsky emphasized the role of the social environment in the child’s development.

Infants become attached to their parents largely because they are comfortable, familiar, and responsive. Denied such care, children may become withdrawn and anxious, and may eventu- ally become abusive. Self-concept develops gradually, but by school age, children’s self-images are quite stable and are linked with their independence, confidence, optimism, and sociability. Children with the highest self-esteem tend to have been raised by authoritative parents.

Adolescence typically begins at puberty with the onset of rapid growth and sexual matu- rity. Jean Piaget theorized that adolescents develop the capacity to reason abstractly. Following Piaget’s lead, Lawrence Kohlberg contended that moral thinking likewise proceeds through stages, from a morality of self-interest to a morality of universal ethical principles. Erik Erikson theorized that a chief task of adolescence is to form one’s identity. This struggle may continue into the adult years as new relationships emerge and new roles are assumed. The time from 18 to the mid-twenties is an increasingly not-yet-settled phase of life called emerging adulthood.

The barely perceptible physical declines of early adulthood begin to accelerate during

middle adulthood. For women, a significant change is menopause. After 65, declining perceptual acuity, strength, and stamina are evident, but short-term ailments are fewer.

Research suggests that people are not as predictable as some stage theorists have argued. Life events and even chance occurrences influence adult life in unanticipated ways. Two basic aspects of our lives—love and work—dominate adulthood. Most people retain a sense of well- being throughout life.

The normal range of reactions to a loved one’s death, or to our own impending death, is wider than most suppose. Those who face death with a sense of integrity, according to Erikson, feel that their lives have been meaningful and worthwhile.

**Module 13: Developmental Issues, Prenatal Development, and the Newborn**

13-1. Identify three issues that have engaged developmental psychologists.

13-2. Describe the course of prenatal development, and explain how *teratogens* affect that development.

13-3. Describe some abilities of the newborn, noting how researchers explore infants’ mental abilities.

**Module 14: Infancy and Childhood**

14-1. Describe how the brain and motor skills develop during infancy and childhood.

14-2. Describe how a child’s mind develops from the perspectives of Piaget, Vygotsky, and today’s researchers. (The test will focus primarily on Piaget)

14-3. Describe autism spectrum disorder. (Unlikely to ask about this)

14-4. Describe how parent-infant attachment bonds form.

14-5. Describe how psychologists study attachment differences, and discuss what they have learned.

14-6. Describe how childhood neglect or abuse affects children’s attachments.

14-7. Trace the development of children’s self-concepts.

14-8. Describe the four main parenting styles.

14-9. Identify the outcomes associated with each parenting style.

**Module 15: Adolescence**

15-1. Define *adolescence,* and describe how physical changes affect developing teens.

15-2. Describe adolescent cognitive and moral development, according to Piaget, Kohlberg, and later researchers.

15-3. Describe the social tasks and challenges of adolescence.

15-4. Discuss how parents and peers influence adolescents.

15-5. Define *emerging adulthood.*

# Social Psychology

## Summary

Social psychology is the scientific study of how people think about, influence, and relate to one another.

In thinking about others’ behavior and its possible causes, we tend to underestimate the influ- ence of the situation, thus committing the fundamental attribution error. Attitudes affect behavior when external influences are minimal, especially when the attitude is stable, specific to the behavior, and easily recalled. Our actions can also modify our attitudes, especially when we feel responsible for those actions.

Research on social influence indicates that behavior is contagious. When we are unsure about our judgments, we are likely to adjust them toward the group standard. Sometimes, social influ- ences are even strong enough to make people conform to falsehoods or capitulate to cruelty.

The presence of others can arouse individuals, boosting their performance on easy tasks but hindering it on difficult ones. When people pool their efforts toward a group goal, individuals may free ride on others’ efforts. Sometimes, group experiences arouse people and make them anony- mous, and thus less self-aware and self-restrained. In person or online, attitudes can grow stronger when discussed with like-minded people. Within groups, discussions can enhance members’ pre- vailing attitudes and produce groupthink. A minority committed to a position can, however, influ- ence a majority.

Prejudice can be both overt and subtle. As overt prejudice wanes, subtle prejudice lingers. Social barriers and biases are often unconscious. Some groups are more often targets of prejudice. Prejudice arises from social inequalities, social divisions, and emotional scapegoating. Prejudice also has cognitive roots.

Aggression is a product of nature and nurture. In addition to genetic, neural, and biochemi- cal influences, aversive events heighten people’s hostilities. Aggressive behavior is also learned through rewards and by observing role models and media violence.

Altruism is the unselfish regard for the welfare of others. The presence of others at an emer- gency can inhibit helping. The bystander effect is most apparent in situations where the presence

of others inhibits one’s noticing an event, interpreting it as an emergency, or assuming responsibil- ity for offering help. Many factors influence our willingness to help someone in distress, including cost-benefit analysis and social norms or expectations.

**Module 43: Antisocial Relations**

43-4. Explain how psychology’s definition of *aggression* differs from everyday usage, and identity the biological factors that make us more prone to hurt one another.

43-5. Outline psychological and social-cultural factors that may trigger aggressive behavior.

**Module 44: Prosocial Relations**

44-1. Explain why we befriend or fall in love with some people but not others.

44-2. Describe how romantic love typically changes as time passes.

44-3. Define *altruism,* and identify the times when people are most—and least—likely to help.

44-4. Discuss how social exchange theory and social norms explain helping behavior.

44-5. Explain how social traps and mirror-image perceptions fuel social conflict.

44-6. Discuss what we can do to promote peace.

# Therapy

## Summary

Mental health therapies include psychological therapies and biomedical therapies. Therapists using an eclectic approach draw from a variety of techniques. In fact, many psychotherapists describe themselves as taking an eclectic approach.

Psychoanalysts use free association and the interpretation of dreams, resistances, and transfer- ence to help their patients gain insight into the unconscious origins of their disorders and to work through the accompanying feelings. Psychodynamic therapists focus more on trying to help people understand their current symptoms. They emphasize themes across important relationships.

Humanistic therapy focuses on clients’ conscious feelings and on their taking responsibility for their own growth. Client-centered therapists use active listening to express acceptance, genu- ineness, and empathy.

Behavior therapists emphasize the direct modification of problem behaviors. They use expo- sure therapies, such as systematic desensitization, and aversive conditioning, and they may also apply operant conditioning principles with techniques such as token economies.

Cognitive therapies aim to change self-defeating thinking by training people to view them- selves in new, more positive ways. Cognitive-behavioral therapists aim to change the way people act as well as alter the way they think.

Except for traditional psychoanalysis, these various types of therapies may also occur in therapist-led small groups. One special type of group therapy, family therapy, assumes that no person is an island.

Research on the effectiveness of therapy indicates that people who receive therapy are more likely to improve than the untreated. No one therapy is generally more effective, but some are bet- ter than others for treating certain problems.

The biopsychosocial approach acknowledges that effective treatment of psychological dis- orders must consider biological, psychological, and social-cultural factors.

**Module 53: Introduction to Therapy and the Psychological Therapies**

53-1. Discuss how *psychotherapy* and the *biomedical therapies* differ.

53-2. Describe the goals and techniques of psychoanalysis, and discuss how they have been adapted in psychodynamic therapy.

53-3. Identify the basic themes of humanistic therapy, and describe the specific goals and techniques of

Rogers’ client-centered approach.

53-4. Explain how the basic assumption of behavior therapy differs from the assumptions of psychody- namic and humanistic therapies, and describe the techniques used in exposure therapies and aver- sive conditioning.

53-5. State the main premise of therapy based on operant conditioning principles, and describe the views of its proponents and critics.

53-6. Discuss the goals and techniques of cognitive therapy and of cognitive-behavioral therapy.

53-7. Discuss the aims and benefits of group and family therapies.

**Module 54: Evaluating Psychotherapies**

54-1. Discuss whether psychotherapy works, and explain how we can know.

54-2. Discuss whether some psychotherapies are more effective than others for specific disorders.

54-6. Identify what a person should look for when selecting a therapist.

**Module 55: Biomedical Therapies and Preventing Psychological Disorders**

55-2. Identify and describe the drug therapies, and explain how double-blind studies help researchers evaluate a drug’s effectiveness.