Introduction

Anyone exploring a new and unfamiliar territory can benefit from having a guide: someone who can show the way and point out the important sights. For students exploring the field of psychology for the first time, this volume can be that guide. Psychology covers an immensely broad array of topics, from the firing of individual neurons in the brain through the experiences of individuals struggling with addiction to the problems of prejudice and discrimination. It is all fascinating (who isn’t fascinated by the complexities of our fellow humans?), but it can sometimes be difficult to sort out what is most important in reading the book and preparing for the tests. That is why we developed this study guide.

Inside you will find one section for each of the seven units in the course. In each unit there are 20 learning objectives, which are defined by the pages and section headings from the textbook. Under each objective is a list of questions. The answers to the questions are not given here; they can be found in the text, on the indicated pages. These questions are also linked with our test bank. If you are able to answer all these questions on your own (in your own words, without referring to the book or to notes), then you should do well on the tests.

There are many successful ways to use this study guide, but here is one system that can work effectively. This system follows the PQ4R system given in the preface to the textbook.

1. Begin studying the unit by reading the opening few paragraphs and then flipping through it, looking at the section headings and figures, to get a general idea of what will be covered. This preview stage will help you absorb the material, since you will already have a sense for what you will be learning.

2. After your preview, begin working through the unit one learning objective at a time. You will need to budget the time to work through all 20 objectives before you take the first test on the unit. Don’t try to do it all at once. If you find that your concentration wanders after you work through a few objectives, you need to take a break and work on something else for a while.

3. Before beginning on an objective, identify in the text where it begins and ends, and then read the questions for that objective in the study guide. This will give you a more specific idea about what you will be learning in this objective. This question stage will also serve to help focus your reading, because as you read you will be looking for the answers to each question.

4. Read the sections in the book for that one learning objective. Don’t try to read huge chunks of the book at one time, because it will be difficult to sustain your concentration for such a long time. By breaking your studying up into manageable pieces, you can keep your mind focused.

5. As you read, keep an eye out for the answers to the study guide questions. Each time you identify material that answers one of the questions, stop to think about it. Try to think of how you would explain that information to someone else who has not read the book. Think of examples of your own that relate to the topic. By reflecting on the material in this way as you read it, you will slow down the flow of information and will remember it better later.

6. Once you have figured out a good way to answer one of the study guide questions, stop and write down that answer. (It will be helpful at the next stage if you write the answers on a separate piece of paper from the questions.) Include your own examples and your own words as much as
possible. Look over what you have written and think about the question and its answer. Try to recite the answer without looking at what you have written. This will help your memory for the material form. If you find that you can’t figure out the answer to some of the questions, you can get help from your professor or one of the tutors in the Psychology Learning Center.

7. After you finish reading the sections for a learning objective, review what you have learned. Read the questions and think of the answers without looking at them. (This is why it is best if the answers are on separate pages from the questions. Just recognizing the answers when you see them won’t be enough; you have to remember them without looking.) Repeat this a few times until you are able to remember the answers without a problem.

8. Continue to review previous objectives each time you study. Start each session by going back over the questions and answers from previous objectives, testing yourself without looking at the answers. After you have read the entire unit, and have written out answers to all the questions, have a friend test you as you go through all the questions for the unit. Repeat this review several times, spread out over a few days, before you take the test.

This process may seem complex and time-consuming. Notice, though, that it only involves reading the textbook once. If you spend the effort up front, reading it carefully and thinking about the questions as you read, it will pay off in not having to read it over and over. You will instead spend the time and energy in reviewing your notes, which will give you the most benefit in terms of improved learning.

Remember, we are here to help you learn this material and be successful in this course. You can always see your professor or one of the tutors in the Psychology Learning Center for help.

Your PSY 101 professors
Six Principles of Scientific Thinking

There are six principles of scientific thinking encountered repeatedly throughout your textbook, and described in detail on pages 21 to 26 and on the special summary (pull-out) page found between pages 24-25. Questions about them may turn up on any unit test. Therefore we recommend that you study these six principles for every test.

Scientific Thinking Principle #1: Ruling out Rival Hypotheses (p. 22). What do we mean by “rival hypotheses”? Why is the ability to rule them out an important part of thinking scientifically?

Scientific Thinking Principle #2: Correlation Isn’t Causation (pp. 22-24). What is causation? What is a correlation? Why can’t we be sure about the direction of causality (and therefore can’t draw causal conclusions) when we have correlational findings?

Scientific Thinking Principle #3: Falsifiability (p. 24). What makes a scientific claim falsifiable? What is the problem if a claim is not falsifiable?

Scientific Thinking Principle #4: Replicability (p. 24). Why is replicability, or repeatability, so important in science? What does it tell us if other research has been unable to reproduce the findings of a study?

Scientific Thinking Principle #5: Extraordinary Claims Require Extraordinary Evidence (pp. 25-26). Suppose somebody proposes a claim that runs counter to many things we know already, such as perceptual abilities beyond our normal senses. Why would we require more convincing evidence before accepting this claim than we would for a less extraordinary claim?

Scientific Thinking Principle #6: Occam’s Razor (p. 26). What is the Principle of Parsimony? How would competing theories be evaluated if you were guided by Occam’s Razor?
Unit 1: Introduction and Research Methods (chapters 1-2)

Learning Objective 1 (pp. 4-9): What is Psychology — Science as a Safeguard Against Bias

1. How does the textbook define psychology?
2. Why are scientists skeptical of explanations for behavior that focus on a single factor?
3. What do we mean by individual differences in psychology?
4. What is naïve realism?
5. How do popular psychology and scientific psychology differ?
6. What makes some pursuit of knowledge a science?
7. What is a scientific theory?
8. What is a hypothesis?

Learning Objective 2 (pp. 9-11): Confirmation Bias — Recognizing That We Might Be Wrong

1. How does the confirmation bias influence our thinking?
2. How does belief perseverance influence a person’s view of evidence?
3. What is a metaphysical claim?

Learning Objective 3 (pp. 12-14): Psychological Pseudoscience — Why Are We Drawn to Pseudoscience

1. What are some of the weaknesses of claims made by the popular psychology industry?
2. What are some major differences between science and pseudoscience?
3. What is anecdotal evidence, and how is pseudoscience related to anecdotal evidence?

Learning Objective 4 (pp. 15-18): Why Do We Perceive Patterns Even When They Don’t Exist — Not me Fallacy

1. What does the human tendency to seek order have to do with pseudoscience?
2. How does patternicity contribute to belief in pseudoscience?
3. What is the terror of terror management theory, and what kind of beliefs does it lead us to?
4. What are logical fallacies?
5. Which emotions lead us to false beliefs, according to the emotion reasoning fallacy?
6. What exceptions do people make, according to the not-me fallacy?

Learning Objective 5 (pp. 21-26): Scientific Thinking: Distinguishing Fact from Fiction — Scientific Thinking Principle #6: Occam’s Razor

1. What is scientific skepticism, and what are the key attitudes that it relies on?
2. How is critical thinking related to scientific skepticism?
3. When should we be concerned about ruling out rival hypotheses?
4. What are the possible cause-and-effect relationships when we find a correlation between two variables?
5. Why is replicability important for scientific understanding?
6. What is the underlying idea of Occam’s razor?
Learning Objective 6 (pp. 29-32): The Great Theoretical Frameworks of Psychology — Psychoanalysis: The Depths of the Unconscious

1. What structures were at the heart of Titchener’s structuralism? What was a lasting influence on the study of consciousness coming from structuralism?
2. What did functionalists suggest that psychologists should study?
3. What is the focus of behaviorism? Who were John Watson and B.F. Skinner?
4. What is the focus of cognitivism? How is this framework a reaction against behaviorism?
5. What is psychoanalysis, and what is its focus? Who was Sigmund Freud?

Learning Objective 7 (pp. 32-33): Types of Psychologists: Fiction and Fact — Table 1.6: Types of Psychologists, What They Do, and What They Don’t Do

1. What is the focus of clinical psychologists?
2. What is the focus of experimental psychologists?
3. What is the focus of school psychologists?
4. What is the focus of biological psychologists?
5. What is the focus of forensic psychologists?
6. What is the focus of industrial-organizational psychologists?
7. What is the focus of developmental psychologists?

Learning Objective 8 (pp. 34-37): The Great Debates of Psychology — Thinking Scientifically: It’s A Way of Life

1. What is the nature-nurture debate? Which perspective emphasizes the role of genetics?
2. What is the idea of the tabula rasa, or “blank slate”?
3. What is evolutionary psychology? How does Darwin’s theory of natural selection, and the idea of fitness apply to this perspective?
4. What is free will? What is determinism? What do behaviorists like B.F. Skinner say about our thoughts of free will, in light of the many influences on us that we are unaware of?
5. What is the key distinction between basic research and applied research?

Learning Objective 9 (pp. 46-47): How We Can be Fooled: Two Modes of Thinking

1. Compare intuitive thinking with analytical thinking.
2. How does a heuristic influence the ways we think about things?
3. How do research designs help prevent us from fooling ourselves?

Learning Objective 10 (pp. 48-50): The Scientific Method: Toolbox of Skills — Case Study Designs: Getting to Know You

1. What are hypotheses and how are they used in psychology?
2. What is naturalistic observation?
3. What is a case study, and what are its strengths and weaknesses?

Learning Objective 11 (pp. 50-54): Self-Report Measures and Surveys: Asking People about Themselves and Others — Rating Date: How Do They Rate?

1. What are the advantages and disadvantages of surveys?
2. What is random selection, and why is it necessary for good research?
3. What is a self-report measure?
4. What is reliability? What do we mean by inter-rater reliability?
5. What is validity? What does validity tell us about the quality of a measurement instrument?
6. What are the advantages and disadvantages of self-report measures?
7. How does the halo effect influence the way we might rate another person?

Learning Objective 12 (pp. 54-57): Correlational Designs — The Scatterplot

1. What does a correlational design measure?
2. What does it mean when two variables are correlated?
3. What does it mean when a correlation is positive?
4. What does it mean when a correlation is negative?
5. What does it mean when the correlation coefficient is near zero?
6. Describe the correlation coefficient, including its upper and lower limits, how to determine whether it describes a positive or a negative correlation, and how to determine the strength of the correlation.

Learning Objective 13 (pp. 57-59): Illusory Correlation — Correlation Versus Causation: Jumping The Gun

1. What is an illusory correlation? How are illusory correlations used to explain superstitions?
2. What is causation? What is the relationship between correlational findings and interpretations of cause and effect? What common mistakes do people make concerning this relationship?

Learning Objective 14 (pp. 59-61): Experimental Designs — Manipulation of an Independent Variable

1. How do experimental designs allow researchers to interpret cause and effect?
2. What is random assignment and why is it necessary for a proper experiment?
3. What is the main difference between the treatment of the experimental group and the treatment of the control group in an experiment?
4. What is an independent variable?
5. What is a dependent variable?
6. What is an operational definition?

Learning Objective 15 (pp. 61-66): Confounds: A Source of False Conclusions — Laboratory Research Doesn’t Apply to the Real World, Right?

1. What does a confounding variable do to one (but not all) of the groups in an experiment?
2. What is the placebo effect?
3. What is the nocebo effect?
4. What can experimenter expectancy do to the results of an experiment?
5. How does double-blind control reduce experimenter expectancy effects?
6. What is the problem of demand characteristics in psychological research?
7. What are some of the conclusions about whether laboratory findings generalize to the real world?

Learning Objective 16 (pp. 67-70): Ethical Issues in Research Design — Ethical Issues in Animal Research

1. What did the Tuskegee study have to do with research ethics?
2. Why is it important to obtain informed consent from research participants?
3. What is the purpose of an Institutional Review Board (IRB)?
4. What is a debriefing?
5. Why do psychologists use animals in experiments rather than humans? What are some of the ethical concerns about using animals in psychological research?
6. What is the APA stance on the use of deception in research?

1. What are descriptive statistics? What are measures of central tendency? Define mean, median, and mode.
2. What does the variability of a set of data refer to? What is a range of a data set?

Learning Objective 18 (p. 72): Inferential Statistics: Testing Hypotheses

1. What are inferential statistics? What kind of inference do they allow?
2. What does it mean when a finding is statistically significant?
3. What is the relationship between p-value and statistical significance?
4. What is the difference between statistical significance and practical significance?

Learning Objective 19 (pp. 75-76): Evaluating Psychological Research — Becoming a Peer Reviewer

1. Describe the peer review process.
2. Can you recognize the experimental flaws of missing control groups, not testing for placebo effects, and experimenter expectancy effects?

Learning Objective 20 (pp. 76-77): Most Reporters Aren’t Scientists: Evaluating Psychology in the Media

1. What are some of the reasons media reports of psychological research are often inaccurate?
2. What do we mean by “consider the source”? What is the difference between primary sources and secondary sources?
3. How do sharpening and leveling help to create a more interesting story than what might have been actually discovered in a study?
4. How does the news media’s desire for pseudosymmetry influence reports of research?
Unit 2: Biological Psychology and Perception (chapters 3-4)

Learning Objective 1 (pp. 86-89): Nerve Cells — Synapses

1. What are neurons? What do they do?
2. What is the cell body and what role does it play in the functioning of the neuron?
3. What are dendrites and what role do they play in neuronal communication?
4. What are axons and axon terminals? What roles do they play in neuronal communication?
5. What are synaptic vesicles?
6. What are neurotransmitters, and where are they stored?
7. When a neuron fires, what is the order of neuronal parts through which the impulse travels?
8. What are synapses? What role does the synaptic cleft play in the neuronal communication?

Learning Objective 2 (pp. 89-93): Glial Cells — Neurotransmitters and Psychoactive Drugs

1. What are glial cells and what do they do?
2. What is the role of a myelin sheath? What can occur if myelin sheaths are damaged?
3. When a neuron is at its resting potential, what does this mean? How is this related to negative and positive ions?
4. What is the absolute refractory period?
5. What is the all-or-none law?
6. What are receptor sites and what role do they play in neurotransmission?
7. Describe the process of reuptake.
8. What are neurotransmitters?

Learning Objective 3 (pp. 93-95): Neural Plasticity — Stem Cells

1. What do we mean by brain plasticity or neural plasticity?
2. Be able to recognize examples of plasticity in the central nervous system, including how the brain responds after brain injury and how everyday experiences affect it.
3. Be able to define neurogenesis.

Learning Objective 4 (pp. 95-97): The Brain-Behavior Network — The Cerebral Cortex

1. What are the two main subsystems of the nervous system?
2. What subdivision of the nervous system is made up of the brain and the spinal cord?
3. What is the peripheral nervous system, and what does it do? What two divisions does it consist of?
4. What is the forebrain (cerebrum)?
5. What is the cerebral cortex? What are the two halves of the cerebral cortex called?
6. What is the corpus callosum? What role does it play in the cerebral cortex?
7. What are the four lobes of the cerebral cortex?

Learning Objective 5 (pp. 98-99): Frontal Lobes — Parietal Lobes

1. Describe the location and main functions of the frontal lobe.
2. Where is the motor cortex, and what does it do?
3. Where is the prefrontal cortex, and what does it do?
4. What is Broca's Area? How does damage to this area affect speech?
5. Describe the function of the primary sensory cortex. What lobe is it in?
6. Where are the parietal lobes located?
Learning Objective 6 (pp.99-101): Temporal — Occipital Lobes

1. Describe the location and main functions of the temporal lobe.
2. What is Wernicke’s area? How does damage to this area affect speech?
3. Describe the location and main functions of the occipital lobe.
4. Where is the visual cortex and what does it do?

Learning Objective 7 (pp.101-103): Cortical Hierarchies — The Cerebellum

1. What are basal ganglia and where are they located?
2. What structures make up the limbic system, and what does the limbic system regulate?
3. What is the function of the thalamus?
4. What functions does the hypothalamus regulate?
5. What does the amygdala do?
6. What does the hippocampus do?
7. What does the cerebellum do?

Learning Objective 8 (pp. 103-104): The Brain Stem — The Spinal Cord

1. What is the reticular activating system (RAS) and what does it do?
2. Where is the brain stem located and what structures does it include?
3. What does the medulla do?
4. What does the spinal cord do?
5. Explain the role of sensory and motor nerves.
6. What are interneurons?
7. What is a reflex? Explain the role of the spinal cord, interneurons, sensory neurons, and motor neurons in generating a reflexive response.

Learning Objective 9 (pp.104-106): The Peripheral Nervous System — The Autonomic Nervous System

1. What are the two divisions of the peripheral nervous system?
2. What does the somatic nervous system do?
3. What is the autonomic nervous system, and what kinds of functions is it responsible for?
4. What are the two divisions of the autonomic nervous system?
5. What does the sympathetic nervous system do? What is the fight-or-flight reaction?
6. What does the parasympathetic nervous system do?

Learning Objective 10 (pp. 106-108): The Endocrine System — Sexual Reproductive Glands and Sex Hormones

1. What is the endocrine system?
2. What are hormones?
3. What is the role of the pituitary gland?
4. What are the functions of the pituitary hormone oxytocin?
5. What do the hormones of the adrenal glands do?
6. What are the sexual reproductive glands and what hormones do they release?
Learning Objective 11 (pp. 108-112): Mapping the Mind — How to Interpret and Misinterpret Brain Scans

1. What does an electroencephalograph (EEG) measure?
2. What is the biggest problem with functional brain scans?
3. What is a CT scan and what does it tell us about the brain?
4. What is an MRI and what are its strengths over the CT scan?
5. How does a PET scan work? What can a PET scan tell us about brain functioning, and what are its limitations?
6. What is fMRI, and what information does it provide?
7. What is the TMS and how does it work?

Learning Objective 12 (pp. 112-115): How Much of Our Brain do We Use? — Are some People Left-Brained and Others Right-Brained?

1. Be familiar with the myths regarding how much of the brain we use.
2. Be familiar with the advantages and disadvantages of relying on neuroimaging tests.
3. Explain the term localization of function.
4. What is lateralization and how was it discovered?
5. What is split-brain surgery, and why is it performed?
6. What functions are mainly controlled by the right hemisphere?
7. What functions are mainly controlled by the left hemisphere?
8. Explain the myth regarding right brain vs left brain people.

Learning Objective 13 (pp.116-118): How We Come to Be Who We Are — Human Brain Evolution

1. What are chromosomes? Where are they found? How many do humans have?
2. What is a genotype?
3. What is a phenotype?
4. Explain the difference between dominant and recessive genes.
5. What is fitness and what role does it play in adaptation?
6. Why do humans have such big brains relative to our body size?

Learning Objective 14 (pp. 118-121): Behavioral Genetics: How We Study Heritability — Adoption Studies

1. Define heritability.
2. How do adoption studies help us study the heritability of a trait?
3. How do twin studies help us study the heritability of a trait? What are the two kinds of twins?
4. What is selective placement and how is it a potential confound in adoption studies that look at heritability of traits?
5. What is meant by a trait’s reaction range?

Learning Objective 15 (pp. 128-131): Two Sides of the Coin: Sensation and Perception — Sensory Systems Stick to One Sense - or Do They?

1. What is a sensation?
2. What is perception?
3. What is an illusion?
4. What is transduction?
5. What is a sense receptor and what role does it play on transduction?
6. What is sensory adaptation?
7. What is the absolute threshold?
8. What is the just noticeable difference (JND)?
9. Explain what is meant by signal-to-noise ratio.
10. What is synesthesia?

Learning Objective 16 (pp. 131-133): The Role of Attention — The Binding Problem: Putting the Pieces Together

1. What is selective attention?
2. What is inattentional blindness? What role does selective attention play in this phenomenon?
3. What is the binding problem? Explain the role of the binding problem in perception.

Learning Objective 17 (pp. 134-137): When Our Senses Meet Our Brains — Gestalt Principles

1. What is bottom-up processing?
2. What is top-down processing?
3. What is a perceptual set? How does it related to top-down processing?
4. Explain perceptual constancy. Be familiar with the different kinds of perceptual constancies (shape, size, and color).
5. What are Gestalt principles, and how do they explain how we perceive information?
6. What is the Gestalt principle of figure-ground?

Learning Objective 18 (pp. 137-141): How We Perceive Faces — When Perception Deceives Us

1. What is the phi phenomenon?
2. What are monocular depth cues? Be familiar with linear perspective, interposition, light and shadow, texture gradient, and relative size.
3. What is the binocular depth cue of binocular disparity?
4. What are binaural cues? What do they help us perceive?
5. Be familiar with these visual perceptual illusions: the Ames room, the moon illusion, the Muller-Lyer illusion, the Ebbinghaus-Titchener illusion, the Ponzo illusion, and the horizontal-vertical illusion.

Learning Objective 19 (pp. 141-142): Subliminal and Extrasensory Perception — Subliminal Perception and Persuasion

1. What is subliminal perception?
2. What are subliminal stimuli?
3. What is subliminal persuasion and how effective is this method?

Learning Objective 20 (pp. 143-146): Extrasensory Perception (ESP): Fact or Fiction? — Psychic Predictions

1. What is extrasensory perception (ESP)?
2. Be familiar with the three types of ESP (precognition, telepathy, and clairvoyance).
3. What have scientific studies on ESP found?
4. How do the scientific thinking principles of falsifiability, replicability, and Occam’s razor pertain to ESP?
5. What is cold reading? What is the psychic trick known as multiple end points?
Unit 3: Learning and Consciousness (chapters 5-6)

Learning Objective 1 (pp. 152-155): Learning — Classical Conditioning

1. What is learning?
2. What is habituation? What situations lead to habituation?
3. In Pavlov’s initial studies on associations in learning, what were the stimuli that were paired to create an association in the dog?
4. What is classical conditioning? What are reflexes and what role do they play in classical conditioning?
5. What is an unconditioned stimulus? What is meant by “unconditioned”?
6. What is a conditioned stimulus? What is meant by “conditioned”?
7. How does the conditioned stimulus come to be associated with an unconditioned stimulus in classical conditioning?
8. What is the difference between a conditioned response and an unconditioned response?

Learning Objective 2 (pp. 155-156): Principles of Classical Conditioning Part 1 — Renewal Effect

1. What is acquisition in classical conditioning?
2. What is extinction? In classical conditioning, what leads to extinction?
3. What is spontaneous recovery? What conditions lead to spontaneous recovery in classical conditioning? How does it show that an extinguished response is not really gone?
4. What is the renewal effect? How does it show that an extinguished response is not really gone?

Learning Objective 3 (pp. 156-157): Stimulus Generalization — Stimulus Discrimination

1. What is stimulus generalization? What influences the strength of a generalized response?
2. What is stimulus discrimination? When might discrimination training be necessary?

Learning Objective 4 (pp. 157-160): Applications of Classical Conditioning to Daily Life

1. How do advertisers use classical conditioning to sell products?
2. How did Watson and Rayner use classical conditioning to create a fear response in the Little Albert study? What was the CS? What was the UCS?
3. What was the significance of Watson and Rayner’s Little Albert study concerning the origin of fears?
4. How can classical conditioning be used to treat phobias?

Learning Objective 5 (pp. 161-163): Operant Conditioning — B.F. Skinner and Reinforcement

1. What is operant conditioning? What was E. L. Thorndike’s role in establishing operant conditioning?
2. How does operant conditioning differ from classical conditioning?
3. What are consequences of behavior? What role do the consequences of an action play in operant conditioning? How does this differ from classical conditioning?
4. What is an operant behavior? How is it different from a conditioned response? Why is the term “operant” applied to this behavior?
5. What is the law of effect?
Learning Objective 6 (pp. 164-165): Terminology of Operant Conditioning: Reinforcement and Punishment

1. What kind of a consequence is a reinforcer? What does a reinforcer do to the likelihood of the behavior in the future?
2. What is a positive reinforcer? How can it be applied?
3. What is a negative reinforcer?
4. How would a negative reinforcer be applied following a behavior? (Careful: What has to be going on in order to apply a negative reinforcer after a behavior occurs?) What happens to the likelihood of the behavior after this experience?
5. What kind of consequence is punishment? What does punishment do to the likelihood of the behavior in the future?
6. How is punishment different from negative reinforcement?

Learning Objective 7 (pp. 165-166): Disadvantages of Punishment

1. Does punishment actually get rid of behaviors?
2. What are the negative side effects of using punishment listed in the text?
3. How can punishment be used effectively on children?

Learning Objective 8 (pp. 166-167): Discriminative Stimulus — Stimulus Generalization

1. What is a discriminative stimulus? What does the discriminative stimulus signal?
2. What is extinction in operant conditioning? How might extinction be achieved?
3. What is stimulus generalization? What happens when stimulus generalization occurs?

Learning Objective 9 (pp. 167-168): Schedules of Reinforcement

1. What is a schedule of reinforcement?
2. What is continuous reinforcement?
3. What is partial reinforcement? Why is this concept counterintuitive?
4. Which type of reinforcement is most resistant to extinction?
5. Reinforcement schedules vary across which two dimensions?
6. What is the difference between a fixed and a variable schedule of reinforcement?

Learning Objective 10 (pp. 169-171): Applications of Operant Conditioning

1. How has operant conditioning been used in animal training?
2. What is shaping? How is shaping used to train complex behaviors?
3. How has operant conditioning been used to overcome procrastination?
4. How does operant conditioning explain how we acquire superstitions?

Learning Objective 11 (pp. 171-173): Therapeutic Applications of Operant Conditioning —Putting Classical and Operant Conditioning Together

1. What is a token economy? How might a point system be used as a token economy?
2. What is a primary reinforcer?
3. What is a secondary reinforcer? How can something become a secondary reinforcer?
4. What is Applied Behavior Analysis (ABA)?
5. How do classical and operant conditioning interact?
6. What is the two-process theory in conditioning? How might two-process theory apply to a phobia?
Learning Objective 12 (pp. 173-175): Cognitive Models of Learning — Latent Learning

1. How do expectations of the consequences of our actions affect learning?
2. What does the “O” in S-O-R theory stand for?
3. What is latent learning? How did the original research with rats show latent learning?
4. What is mentally represented in a cognitive map?
5. How does the research on latent learning and cognitive maps support the idea that some learning takes place without reinforcement?

Learning Objective 13 (pp. 175-179): Observational learning — Insight Learning

1. What is observational learning? What is a “model” in observational learning?
2. What role can observational learning play in learning aggression?
3. What did Bandura’s “Bobo doll” study demonstrate?
4. Why is the relationship between media violence and aggression complex?
5. What do we need to consider when interpreting the evidence regarding the impact of media violence?
6. What overall conclusion can we draw about the relationship between media violence and aggression?
7. What role do mirror neurons play in observational learning?
8. What is insight? What cognitive experience is shown by an “aha” reaction?

Learning Objective 14 (pp. 179-182): Biological Influences on Learning

1. What is a conditioned taste aversion?
2. How do taste aversions compare to other classically conditioned responses?
3. What is preparedness? How does preparedness fit with evolutionary theory?
4. How does conditioned taste aversion demonstrate preparedness?
5. What is the relationship between preparedness and phobias?
6. What is instinctive drift? How does it interfere with learning?

Learning Objective 15 (pp. 182-185): Learning Fads

1. Why might sleep-assisted learning have seemed to work?
2. Which principles of scientific thinking are most applicable when evaluating learning fads?
3. What is a rival hypothesis to explain claims about accelerated learning techniques?
4. What is discovery learning? How effective is it compared to direct instruction?
5. What is a learning style?
6. What conclusions can be drawn about teaching to specific learning styles?

Learning Objective 16 (pp. 192-197): The Biology of Sleep

1. What is the circadian rhythm?
2. What does melatonin have to do with the circadian rhythm?
3. What are consequences of sleep deprivation?
4. What is jet lag?
5. What does REM stand for? What are the characteristics and function of REM sleep?
6. What does a typical night’s sleep cycle look like?
7. What device is used to monitor a person’s brain waves during sleep?
8. What is lucid dreaming?
Learning Objective 17 (pp. 197-200): Disorders of Sleep

1. What is insomnia?
2. What is narcolepsy?
3. What is sleep apnea, and what might cause it?
4. What are night terrors, and who tend to suffer from them most?
5. What is sleepwalking?

Learning Objective 18 (pp. 200-204.): Dream Theories: Freud — Neurocognitive Perspectives on Dreaming

1. What wishes are disguised, according to Freud’s wish-fulfillment theory of dreaming?
2. What is the difference between manifest and latent content of dreams?
3. Why is falsifiability a key scientific principle related to Freud’s claims about dreams?
4. What does the activation-synthesis theory of dreams claim about dream content?
5. Which brain regions are associated with dreaming?
6. How does the neurocognitive theory of dreaming compare to the activation-synthesis theory?

Learning Objective 19 (pp. 204-209): Other Alterations of Consciousness — Mystical Experiences

1. What are hallucinations?
2. How does the brain react while a person is hallucinating?
3. What is an out-of-body experience?
4. What is a near-death experience?
5. What is a déjà vu experience?
6. How do the key principles of scientific thinking apply to claims of unusual experiences like out-of-body and near-death experiences?
7. How might mystical experiences be stimulated in laboratory studies?

Learning Objective 20 (pp. 209-213): Hypnosis

1. What is hypnosis? What is suggestibility?
2. How does hypnosis differ from a sleep state?
3. How do rival hypotheses apply to some of the claims about the value of hypnosis?
4. What is the sociocognitive perspective on hypnosis?
5. What conclusions have researchers reached on age regression and past-life regression therapies?
6. What is dissociation theory and how does it relate to hypnosis?
Unit 4: Memory, Thinking, and Language (chapters 7-8)

Learning Objective 1 (pp. 220-223): How Memory Operates — The Reconstructive Nature of Memory

1. What is memory?
2. What is meant by the phrase “The paradox of memory”?
3. What is a memory illusion?
4. How are memory illusions a byproduct of a natural tendency of the brain?
5. Why is it accurate to say we actively reconstruct events from memory rather than passively reproduce events?

Learning Objective 2 (pp. 223-224): The Three Systems of Memory — Sensory Memory

1. Describe the progression of information through the three memory systems. What happens to information as it passes through the systems?
2. What is meant by memory system span and duration?
3. What is the function and duration of sensory memory?
4. What is the function and duration of short-term memory?
5. What is the function and duration of long-term memory?
6. How does sensory memory help us to experience a stable, consistent flow of sensory information?
7. What are echoic and iconic memories?

Learning Objective 3 (pp. 225-227): Short-Term Memory — Chunking

1. Without rehearsal, how long is information held in short-term memory?
2. How is decay different from interference? How do both affect short-term memory?
3. What is meant by “The Magic Number” for short-term memory?
4. What is the process of chunking? How does chunking increase the capacity of short-term memory?

Learning Objective 4 (pp. 227-228): Rehearsal — Depth of Processing

1. What is rehearsal? Why is it effective?
2. What is the difference between maintenance rehearsal and elaborative rehearsal? How do these types of rehearsal relate to the level of processing in memory?
3. What are the differences between visual, semantic, and phonological processing for verbal information, and what is the depth (and success) of each?

Learning Objective 5 (pp. 228-230): Long-Term Memory — Primacy and Recency Effects

1. Describe the major differences between the long-term and short-term memory systems.
2. Why is remembering what you did 40 minutes ago dependent on long-term memory?
3. What is meant by permastore? How does it relate to long-term memory?
4. How do the primacy and recency effects influence remembering?

Learning Objective 6 (pp. 230-231): Types of Long-term Memory

1. Describe the difference between semantic and episodic memories, and recognize examples of each.
2. Why are semantic and episodic memories each an explicit memory?
3. What is procedural memory? What types of daily activities involve procedural memory?
4. Explain how procedural memory is a form of implicit memory.
5. Describe priming and how it may affect our recall of information. Explain how priming is an aspect of implicit memory.

Learning Objective 7 (pp. 232-236): Three Processes of Memory — Music

1. List the three basic processes in memory and describe how information passes through these three processes.
2. What is encoding?
3. What role does attention play in the encoding process?
4. What is a mnemonic? Why do mnemonics help with encoding information?
5. In what types of situations are mnemonics most helpful?

Learning Objective 8 (pp. 236-237): Storage: Filing Away Our Memories — Schemas and Memory Mistakes

1. What is memory storage?
2. What is a schema? What kind of a schema is a script?
3. How can schemas influence our perception of experiences? What do schemas and scripts do for our ability to interact with, and remember, the world?
4. How are schemas part of the paradox of memory?

Learning Objective 9 (pp. 238-241): Retrieval: Heading for the “Stacks” — State Dependent Learning

1. What is retrieval? What are retrieval cues?
2. Describe the difference between recall and recognition. Which of the two is more difficult and why?
3. What is relearning, and how has relearning been used in research on forgetting?
4. What does the forgetting curve (Fig. 7.12) tell us about the pattern of forgetting?
5. What is the difference between distributed and massed practice? Which is a more effective learning approach?
6. What is the tip-of-the-tongue phenomenon? Why is it a type of incomplete knowledge?
7. What is context-dependent memory? Where might it influence scores on your PSY 101 tests?
8. What is state-dependent memory? When might a person be affected by it?
9. How do context and state dependence relate to encoding specificity?

Learning Objective 10 (pp. 241-245): The Biology of Memory — Easing Painful Memories

1. Why is the engram considered elusive? What is the current perspective on where memories are physically stored?
2. What is anterograde amnesia?
3. What is retrograde amnesia?
4. What did the research on Clive Wearing and H.M. reveal about the role of the hippocampus in memory formation?
5. Explain how the amygdala and the hippocampus play distinctive roles in the formation of memory.
Learning Objective 11 (pp. 249-253): False Memories: When Good Memory Goes Bad — Memories of Impossible or Implausible Events

1. How accurate are our long-term memories?
2. What are flashbulb memories? How accurate are they?
3. How does the recollection of a flashbulb memory change over time?
4. What is source monitoring and how does it work? Is source monitoring always accurate?
5. What is the misinformation effect? How is it related to false memories?
6. How does event plausibility influence the success of implanting false memories?

Learning Objective 12 (pp. 253-256): Generalizing From the Lab to the Real World — End of the chapter

1. What is known about the accuracy of eyewitness testimony? What are the consequences of eyewitness misidentifications?
2. Under what types of conditions is eyewitness testimony most accurate?
3. What are the effects on children of suggestion and schemas when testifying?
4. What is a recovered memory? What is the controversy concerning recovered memories?

Learning Objective 13 (pp. 264-265): Thinking and Reasoning — Cognitive Economy

1. What is thinking?
2. What is meant by cognitive economy?
3. What is a heuristic? How are heuristics connected to cognitive economy?
4. How is the use of heuristics a double-edged sword (meaning their use is both beneficial and detrimental to our thinking)?
5. What is intuition, and how accurate is intuition when drawing conclusions about people we meet?

Learning Objective 14 (pp. 265-268): Heuristics and Biases: Double Edged Swords — Top-Down Processing

1. What is the representativeness heuristic?
2. How does the representativeness heuristic relate to stereotypes?
3. How can the representativeness heuristic mislead us in our estimation of the likelihood of events? How is this cognitive bias related to base rates?
4. What is the availability heuristic? How might a recent news story cause an impression based on availability?
5. What is hindsight bias? What is confirmation bias? When have you used these?
6. How does top-down processing integrate concepts and schemas in our thinking?

Learning Objective 15 (pp. 274-276): How Does Language Work? — Language Dialects

1. What is language? What are the distinguishing characteristics of language? What is language’s purpose?
2. What are phonemes? What are some examples of phonemes in the English language?
3. What are morphemes? How are individual morphemes connected to semantics?
4. What is syntax? How does syntax help to create effective communication?
5. What is extralinguistic information? Describe some examples of extralinguistic communication. Explain how this information is essential to effective communication.
Learning Objective 16 (pp. 277-280): How Do Children Learn Language? — Critical Periods for Language Learning

1. What language preferences do newborn infants exhibit?
2. What is babbling? What is babbling’s role in language development? How does babbling change over the first ten months of development?
3. Which language ability develops at a faster pace: comprehension or production?
4. When do infants/toddlers produce their first words? How do toddlers communicate during the one-word stage?
5. What is a critical period for language development? How have researchers studied critical periods in language development? How has research on acquiring a second language modified the critical period hypothesis?

Learning Objective 17 (pp. 280-282): Special Cases of Language Learning — Bilingualism

1. What is sign language?
2. What evidence is there to support the claim that sign language is similar to spoken language?
3. What is bilingualism? What is the pattern of language development for a child raised in a bilingual environment?
4. What is the best predictor of successfully learning a second language? Why?
5. How is the acquisition of a second language related to metalinguistic awareness?

Learning Objective 18 (pp. 282-283): Theoretical Accounts of Language Acquisition — Teaching Human Language to Nonhuman Animals

1. Describe Noam Chomsky’s nativist account for language development. What is meant by the language acquisition device? How does the concept of generativity provide support for this theory?
2. What are some of the criticisms of the nativist perspective?
3. What is the social pragmatics account of language acquisition? What are some of the criticisms of this perspective of language development?
4. What is the general cognitive processing account of language acquisition? What are some of the criticisms of this perspective of language development?
5. According to research on non-human communication, what circumstances produce the most communication among animals?
6. What can we conclude about attempts at teaching language to nonhuman animals?


1. What is linguistic determinism? What evidence supports linguistic determinism?
2. Why is it difficult to test linguistic determinism?
3. What is linguistic relativity? How is this hypothesis a modification of linguistic determinism?

Learning Objective 20 (pp. 287-288): Reading: Recognizing the Written Word

1. What does the Stroop Test demonstrate about reading?
2. What is whole word recognition? When are you most likely using this process?
3. What is phonetic decomposition? When is a person most likely using this process?
4. As an experienced reader, which approach to reading are you primarily using when you read a book?
UNIT 5: Social Psychology and Personality (chapters 9-10)

Learning Objective 1 (pp. 298-303): What is Social psychology? — Humans as a Social Species

1. What is social psychology? What kinds of research questions do social psychologists study?
2. What is the need-to-belong theory?
3. How does social comparison theory explain knowledge about oneself?
4. What is mass hysteria? How is it an example of social contagion?
5. What conditions give rise to social facilitation?
6. What conditions give rise to social disruption?

Learning Objective 2 (pp. 303-304): The Fundamental Attribution Error: The Great Lesson of Social Psychology

1. What are attributions?
2. What are dispositional influences on behavior?
3. What are situational influences on behavior?
4. What tendency is described by the fundamental attribution error?
5. What are some explanations for why we commit the fundamental attribution error?
6. How do cultural factors influence the likelihood of making the fundamental attribution error?


1. What is conformity?
2. How did Solomon Asch’s research demonstrate conformity?
3. How do cultural factors influence conformity in Solomon Asch’s design?
4. How does gender relate to likelihood of conformity in research?

Learning Objective 4 (pp. 307-309): Deindividuation: Losing Our Typical Identities

1. What is deindividuation?
2. What factors tend to contribute to deindividuation?
3. How did Philip Zimbardo’s Stanford Prison Study demonstrate deindividuation?
4. What does the Stanford Prison Study say about the causes of recent events, including prisoner abuse in the Abu Ghraib prison?

Learning Objective 5 (pp. 309-312): Groupthink

1. What is groupthink?
2. What real-world events have been explained using the idea of groupthink?
3. What conditions increase the likelihood of groupthink? And what conditions or techniques can decrease it?
4. What is group polarization?
5. How is groupthink potentially related to cults?
6. What is the inoculation effect? How can it be used to reduce the persuasive influence of cults?

Learning Objective 6 (pp. 312-316): Obedience: The Psychology of Following Orders

1. What is obedience? Where does the influence originate in the case of obedience?
2. How is obedience related to events such as the Holocaust or the My Lai massacre?
3. How did Stanley Milgram demonstrate extreme obedience in his research?
4. What did experts predict about Milgram's research before it was conducted?
5. In Milgram's research on obedience, what factors tended to increase obedience? What factors tended to reduce obedience?

Learning Objective 7 (pp. 316-318): Helping and Harming Others: Prosocial Behavior and Aggression — Safety in Numbers or Danger in Numbers? Bystander Nonintervention

1. What is prosocial behavior?
2. What is bystander nonintervention?
3. What is pluralistic ignorance? How does it contribute to bystander nonintervention?
4. What is diffusion of responsibility? How does it contribute to bystander nonintervention?
5. What did Darley and Latané’s research demonstrate about the bystander effect?


1. What is social loafing? What are its consequences?
2. What is brainstorming? How effective is it as a way to generate creative ideas?
3. What is altruism?
4. What is the enlightenment effect? How is it related to altruism?

Learning Objective 9 (pp. 321-322): Aggression: Why We Hurt Others — Situational Influences on Aggression

1. What is aggression?
2. How has the amount of human aggression changed in recent history?
3. How is interpersonal provocation related to aggression?
4. How is frustration related to aggression?
5. How are media influences related to aggression?
6. What are aggressive cues? How are they related to aggression?
7. How is autonomic arousal related to aggression?
8. How is alcohol consumption related to aggression?
9. How is temperature related to aggression?

Learning Objective 10 (pp. 323-324): Aggression: Individual, Gender, and Cultural Differences

1. Which personality traits are most strongly associated with aggression?
2. How is gender related to the amount and type of aggression an individual commits? What explanations attempt to account for this relationship?
3. What is a culture of honor, and how is it related to aggression?
Learning Objective 11 (pp. 324-326): Attitudes and Persuasion: Changing Minds — Origins of Attitudes

1. What is a belief?
2. What is an attitude? How is an attitude different from a belief?
3. What factors tend to strengthen the relationship between attitudes and behavior?
4. What is self-monitoring? How are different levels of self-monitoring related to attitudes and behavior?
5. How does the recognition heuristic explain some of our beliefs?

Learning Objective 12 (pp. 326-327): Attitude Change: Wait, Wait, I Just Changed My Mind

1. What is cognitive dissonance? How can our discomfort with cognitive dissonance explain attitude change?
2. What is self-perception theory? How does this theory explain attitude change?

Learning Objective 13 (pp. 327-331): Persuasion: Humans as Salespeople

1. In the dual process model of persuasion, what are the two routes of attitude change?
2. What is the focus of the central route to persuasion?
3. What is the focus of the peripheral route to persuasion?
4. How does the foot-in-the-door persuasion technique work?
5. How does the door-in-the-face persuasion technique work?
6. How does the low-ball persuasion technique work?

Learning Objective 14 (pp. 331-334): Prejudice and Discrimination — Discrimination

1. What is prejudice?
2. What are stereotypes? How are stereotypes formed?
3. What is the ultimate attribution error? How is it related to prejudice?
4. What are in-groups and out-groups?
5. What is the out-group homogeneity bias? How is it related to prejudice?
6. What is discrimination? How does it differ from prejudice?

Learning Objective 15 (pp. 335-337): Roots of Prejudice: A Tangled Web — Combating Prejudice: Some Remedies

1. What is the scapegoat hypothesis? What are we doing if we treat someone as a scapegoat?
2. What is the just-world hypothesis? How does belief in a just world contribute to prejudice?
3. What is the difference between extrinsic and intrinsic religiosity? How are they related to prejudice?
4. What is the difference between explicit and implicit prejudice?
5. What is the Implicit Associations Test (IAT)? How is it related to prejudice?
6. What did the Robber's Cave research by Muzafer Sherif teach us about reducing prejudice?
7. What has research on jigsaw classrooms taught us about reducing prejudice?

Learning Objective 16 (pp. 344-349): Personality: What Is It and How Can We Study It?

1. What is personality?
2. What are shared environmental factors? What are nonshared environmental factors? How are they each related to personality?
3. What are molecular genetic studies? What do they attempt to discover about personality?
Learning Objective 17 (pp. 350-357): Psychoanalytic Theory: The Controversial Legacy of Sigmund Freud and his Followers

1. What is the core assumption of unconscious motivation in psychoanalytic theory?
2. According to psychoanalytic theory, what is the role of the id?
3. According to psychoanalytic theory, what is the role of the ego?
4. According to psychoanalytic theory, what is the role of the superego?
5. What are some limitations of psychoanalytic theory when evaluated scientifically?

Learning Objective 18 (pp. 360-363): Behavioral & Social Learning Theories of Personality

1. What is the focus of behavioral and social learning theories of personality?
2. What kind of influences create determinism in the behavioral view of personality?
3. How does social learning theory differ from strict behaviorism?
4. Why do social learning theorists refer to determinism as reciprocal determinism?
5. What is a locus of control? How is an internal locus of control different from an external locus of control? How is locus of control associated with psychological distress?
6. What are some criticisms of B. F. Skinner's radical behavioral approach to understanding personality?

Learning Objective 19 (pp. 363-365): Humanistic Models of Personality: The Third Force

1. What is the humanistic model of personality? Why is it a "third force" in personality psychology?
2. How are free will and determinism viewed in the humanistic model of personality?
3. What are the three components of Carl Rogers’s view of personality?
4. What are conditions of worth? Why do we suffer from conditions of worth?
5. What is incongruence? What are the effects of incongruence?
6. Describe Abraham Maslow's view of self-actualization. How is it related to peak experiences?
7. What are some criticisms of the humanistic model of personality?

Learning Objective 20 (pp. 365-371): Trait Models of Personality: Consistencies in Our Behavior

1. What are personality traits?
2. What is factor analysis? How does factor analysis help to discover personality traits?
3. What are the Big Five personality traits? Be able to recognize examples of each.
4. How do cultural differences of individualism and collectivism relate to personality traits?
5. What does Walter Mischel suggest is missing from trait theory?
6. Why does Hans Eysenck refer to sensitivity of the reticular activating system (RAS) in reference to extraversion? How does RAS activity relate to extraversion and introversion?
Unit 6: Psychopathology and Psychotherapy (chapters 11-12)

Learning Objective 1 (pp. 381-382): Conceptions of Mental Illness — Biological Dysfunction

1. What is psychopathology?
2. What criteria are used to describe mental disorder?
3. What does statistical rarity mean?
4. What is subjective distress? What role does distress play in identifying abnormality?
5. What is impairment? What are some examples of impairment?
6. What is meant by societal disapproval? How is it related to mental disorder?
7. What was Thomas Szasz’s main criticism of mental illness?

Learning Objective 2 (pp. 382-385): Historical Conceptions of Mental Illness — Cultural Universality

1. How was mental illness explained in the Middle Ages? How was mental illness treated during this time?
2. How was mental illness explained during the Renaissance? How was mental illness treated during this time?
3. What was the role of asylums? What were the positive and negative influences of asylums?
4. What are positive and negative effects of deinstitutionalization in the modern era?
5. What does culture-bound syndrome mean? What are some examples from your book?
6. What does cultural universality mean?

Learning Objective 3 (pp. 387-392): Special Considerations in Psychiatric Classification and Diagnosis — Involuntary Commitment

1. What is the DSM-5? How is it used to diagnose mental disorders?
2. What does it mean to “think organic”?
3. What is prevalence of mental disorders? Where would you find this information?
4. What is the biopsychosocial approach to mental disorders?
5. What are some criticisms of the DSM-5 mentioned in the book?
6. What does insanity mean? Where is this term used? How often is the concept of insanity applied?
7. What is involuntary commitment? In what situations might someone be subject to involuntary or civil commitment?

Learning Objective 4 (pp. 392-396): Anxiety-Related Disorders — Obsessive-Compulsive and Related Disorders

1. What is generalized anxiety disorder? What are the typical symptoms of generalized anxiety disorder?
2. What are the symptoms of panic attacks?
3. What is panic disorder?
4. What is a phobic disorder? What are the different types of phobias mentioned in the book?
5. What is posttraumatic stress disorder? What are symptoms associated with posttraumatic stress disorder?
6. What is obsessive-compulsive disorder?
7. How do obsessions differ from compulsions?
Learning Objective 5 (pp. 396-399): The Roots of Pathological Anxiety, Fear, and Repetitive Thoughts and Behaviors — Anxiety: Biological Influences

1. How do learning models explain the development of anxiety disorders?
2. What is catastrophizing?
3. How might genes relate to a person’s anxiety?

Learning Objective 6 (pp. 399-403): Mood Disorders and Suicide — Depression: The Role of Biology

1. What is major depressive disorder? What are symptoms of major depressive disorder?
2. What are the gender differences in depression?
3. How does the interpersonal model explain major depression?
4. How does the behavioral model explain major depression?
5. How does the cognitive model explain depression?
6. What is depressive realism?
7. What is learned helplessness and how does it help explain depression?
8. What biological factors might be contributing to affective disorders?

Learning Objective 7 (pp. 403-405): Bipolar Disorder: When Mood Goes to Extremes — Suicide: Facts and Fictions

1. What is a manic episode?
2. What is bipolar disorder?
3. How prevalent is suicide?
4. How is gender related to suicide?
5. What is the best predictor of suicide?
6. What makes suicide intervention difficult?

Learning Objective 8 (pp. 406-408): Personality Disorders — Causes of Psychopathic Personality

1. What are personality disorders?
2. What is borderline personality disorder?
3. How does Marsha Linehan’s sociobiological model explain borderline personality disorder?
4. What are the traits associated with psychopathic personality?

Learning Objective 9 (pp. 411-413): The Enigma of Schizophrenia — Grossly Disorganized Behavior and Catatonia

1. What is schizophrenia? Why has it been called the most severe psychological disorder?
2. What are delusions?
3. What are hallucinations? What are the most common types of hallucinations in schizophrenia?
4. What are catatonic symptoms in schizophrenia?

Learning Objective 10 (pp. 413-416): Explanations for Schizophrenia: The Roots of a Shattered Mind — Vulnerability to Schizophrenia: Diathesis-Stress Models

1. What is expressed emotion? How is it related to schizophrenia?
2. What abnormalities in brain structure are associated with schizophrenia?
3. What is the relationship between dopamine and schizophrenia?
4. What is the difference between positive symptoms and negative symptoms of schizophrenia? What are the
typical positive symptoms of schizophrenia? What are the typical negative symptoms?
5. How has research shown a genetic influence on schizophrenia?
6. How do diathesis-stress models account for schizophrenia?

Learning Objective 11 (pp. 416-419): Childhood Disorders: Recent Controversies — The Controversy Over Early-Onset Bipolar Disorder

1. What are symptoms of autism spectrum disorders?
2. What are symptoms of Asperger’s disorder?
3. How might changes in diagnostic practices account for the autism “epidemic”?
4. What are symptoms of attention-deficit/hyperactivity disorder?
5. Describe the controversy about early-onset bipolar disorder and ADHD diagnoses.
6. Is there any real relationship between vaccinations and autism spectrum disorders?

Learning Objective 12 (pp. 424-429): Psychological and Biological Treatments — What Does It Take To Be An Effective Psychotherapist

1. What is psychotherapy?
2. Who is likely to seek psychological treatment?
3. Describe the importance of matching the client’s and therapist’s gender or ethnicity.
4. Who is likely to benefit most from psychological treatment?
5. What are the educational degrees held by psychiatrists and clinical psychologists?
6. What is the difference between a professional and a paraprofessional? What are the pros and cons of receiving treatment from a professional or a paraprofessional?
7. What are the characteristics of an effective psychotherapist?

Learning Objective 13 (pp. 429-432): Insight Therapies: Acquiring Understanding — Psychodynamic Therapies Evaluated Scientifically

1. What is the goal of insight therapies?
2. What beliefs are central to psychodynamic therapies?
3. What is free association?
4. What is the difference between manifest content and latent content of dreams?
5. What is transference?
6. What is different about Neo-Freudians’ goals of treatment compared to Freud’s goal?
7. What is interpersonal therapy?
8. What are some of the scientific concerns with psychodynamic therapies?

Learning Objective 14 (pp. 432-434): Humanistic Psychotherapy: Achieving Our Potential — Humanistic Therapies Evaluated Scientifically

1. What are the goals of humanistic therapies?
2. What do humanistic psychologists emphasize in treatment?
3. Describe Carl Rogers’s person-centered therapy.
4. What three conditions must a humanistic psychotherapist satisfy?
5. What is unconditional positive regard and what is its role in treatment?
6. What is the goal of Gestalt Therapy?

1. What are the most notable features of behavioral treatment?
2. What is systematic desensitization therapy? What is an anxiety hierarchy, and how is it used in systematic desensitization therapy?
3. How does dismantling contribute to scientific critique of systematic desensitization?
4. What does it mean when a treatment (e.g., systematic desensitization) is done in vivo?
5. How does flooding work? What is response prevention, and why is it a crucial component of flooding therapy?
6. What is virtual reality treatment? When might a therapist use one or the other?
7. What are Thought Field Therapy (TFT) and EMDR, and what have we learned from research reviews about these treatments?

Learning Objective 16 (pp. 440-441): Modeling in Therapy: Learning by Watching — Operant and Classical Conditioning Procedures

1. How is participant modeling used in behavioral treatment?
2. What are the goals of assertion training?
3. What is behavioral rehearsal?
4. What is a token economy? What type of conditioning is used in a token economy?
5. How do aversion therapies work?

Learning Objective 17 (pp. 441-444): Cognitive-Behavioral and Third Wave Therapies: Learning to Think and Act Differently — CBT and Third Wave Approaches Evaluated Scientifically

1. What are the core assumptions of cognitive-behavioral therapies?
2. What are the key assumptions of Albert Ellis’s rational emotive behavior therapy (REBT)? What does Ellis mean by “awfulizing”?
3. What are the key emphases of Aaron Beck’s cognitive therapy?
4. Why are some recent therapies (e.g., acceptance and commitment therapy and dialectical behavior therapy) called third wave therapies?
5. What is an eclectic approach?

Learning Objective 18 (pp. 445-449): Is Psychotherapy Effective? — Empirically Supported Treatments

1. What is a meta-analysis?
2. What have we learned from research on the effectiveness of psychotherapies (especially compared to lack of treatment)?
3. Which treatments have shown the most effectiveness for anxiety disorders?
4. What are the common factors found in various therapies?
5. Why might ineffective therapies appear to be helpful?
6. What does it mean if a treatment is empirically supported?
Learning Objective 19 (pp. 451-455): Biological Treatments: Medication, Electrical Stimulation, and Surgery — Evaluating Psychopharmacotherapy

1. Which type of biological therapy is most commonly used today?
2. What disorders do antipsychotic drugs treat? What is tardive dyskinesia?
3. What concerns are associated with prescribing SSRI antidepressants to adolescents?
4. What concerns are associated with prescribing medication for children’s ADHD?
5. How effective are antidepressant medications compared to CBT?

Learning Objective 20 (pp. 455-463): Electrical Stimulation: Conceptions and Misconceptions — Psychosurgery: An Absolute Last Resort

1. What are the examples of biomedical treatments included in the book?
2. What is electroconvulsive shock therapy (ECT)? When is this therapy used?
3. What are potential side effects of ECT?
4. What are the improvement rates for people who undergo ECT?
5. What is psychosurgery?
Unit 7: Developmental Psychology and Intelligence (chapters 13-14)

Learning Objective 1 (467-470): Special Considerations in Human Development — Gene Expression

1. What is developmental psychology? What kinds of research questions do developmental psychologists study?
2. What do nature and nurture refer to, with respect to influencing human development? What kinds of influences are based on nature? What kinds of influences are based on nurture?
3. What is the role of the environment in gene expression?

Learning Objective 2 (471-472): Conception and Prenatal Development: From Zygote to Baby — Premature Birth

1. What is a zygote? What event creates a zygote?
2. What are the three stages of prenatal development?
3. How does a blastocyst differ from a zygote?
4. What developmental changes take place during the embryonic stage?
5. What developmental changes take place during the fetal stage?
6. What is happening to the brain during the embryonic and much of the fetal stage?
7. What are teratogens? What are the most common teratogens? When are teratogens especially damaging?
8. In contrast to teratogen-induced disorders, how do genetic disorders originate?


1. What are reflexes, and what reflexes are present in newborn infants?
2. What is the developmental sequence of motor skills?
3. How do we explain the sequence and timing of motor skill development?

Learning Objective 4 (474-477): Growth and Physical Development throughout Childhood — Physical Development in Adulthood

1. What are growth spurts? What is the pattern of growth with respect to periods of spurts and periods without spurts?
2. What is puberty? What physical changes lead up to puberty?
3. What are primary sex characteristics? What are secondary sex characteristics?
4. What does menarche indicate? What does spermarche indicate?
5. What is menopause?
6. What happens to testosterone levels as men age?

Learning Objective 5 (478-479): Theories of Cognitive Development — Accommodation

1. Why is Jean Piaget’s theory of cognitive development called a stage theory?
2. In Piaget’s theory of cognitive development, what is assimilation? What are some examples?
3. What is accommodation? What are some examples?
Learning Objective 6 (479-481): Piaget’s Stages of Development — Pros and Cons of Piaget’s Theory

1. What are the stages in Jean Piaget’s theory of cognitive development, and approximately when does each begin?
2. How does a child experience the world during the sensorimotor stage?
3. What is object permanence? How is object permanence related to the sensorimotor stage?
4. How does egocentrism limit children’s mental abilities in the preoperational stage?
5. What is conservation? In which of Piaget’s stages do children begin to solve conservation problems?
6. What key mental abilities does Piaget claim children have at the concrete operational stage, and what key mental abilities are they lacking?
7. In which stage of Piaget’s theory do adolescents begin to engage in abstract and hypothetical thinking?

Learning Objective 7 (481-482): Vygotsky’s Theory: Social and Cultural Influences on Learning

1. According to Lev Vygotsky, how does a child’s culture and social environment influence cognitive development?
2. What is parental scaffolding?
3. How does the zone of proximal development relate to scaffolding?

Learning Objective 8 (482-486): Cognitive Landmarks of Early Development — Self-concept and the Concept of the “Other”

1. How have researchers shown object permanence in children as young as five months?
2. What is the so-called “Mozart Effect”? What scientific weaknesses are associated with the Mozart Effect?
3. What does a baby’s preference for video images of another baby’s face tell us about self-awareness?
4. What is a theory of mind? What does a child come to understand once they develop a theory of mind?


1. How might brain development during adolescence help explain impulsive and risky behavior choices at this age? What is the “teen brain?” Which lobe of the brain is still maturing? What is a rival hypothesis to this explanation of impulsive and risky tendencies?
2. What happens to cognitive processing speed as we age?
3. Which aspects of cognitive function remain stable or improve with aging?
4. What is crystallized intelligence?

Learning Objective 10 (489-494): The Developing Personality: Social and Moral Development — Attachment Styles: The Strange Situation

1. What is temperament? What are different ways of characterizing temperamental styles?
2. What is attachment?
3. What is imprinting? What do imprinting studies suggest about human sensitivity for developing bonds of attachment?
4. Based on Harry Harlow’s experiment with newborn monkeys, how do reinforcement (by feeding) and physical comfort relate to attachment?
5. What is the Strange Situation, and for what is it used?
6. Describe the four different attachment patterns that infants typically display in the Strange Situation (Secure, Insecure-avoidant, Insecure-anxious, and Disorganized).
Learning Objective 11 (494-497): Influence of Parenting on Development — Self-Control: Learning to Inhibit Impulses

1. How do authoritarian parents interact with their children?
2. What are the characteristics of permissive parents?
3. How do authoritative parents interact with their children?
4. What are the characteristics of uninvolved parents?
5. How does authoritarian parenting influence children in cultures besides our own?
6. What are some of the behavioral differences shown by children living with a single father compared to children living with a single mother?
7. What are some of the difficulties in explaining the negative outcomes seen in children from single-parent families?
8. What is self-control?

Learning Objective 12 (498-500): The Development of Gender Identity — Emerging Adulthood

1. What is gender identity?
2. What are gender roles?
3. What evidence suggests that gender preferences (for example, for toys) are biologically influenced? When do these gender-based preferences begin to emerge in children?
4. How does prenatal exposure to testosterone affect the behavior of girls?
5. What is an identity crisis? What risks are associated with unresolved crises, according to Erik Erikson?
6. What are the main characteristics of emerging adulthood?

Learning Objective 13 (500-502): Moral Development: Knowing Right from Wrong — Criticisms of Kohlberg’s Work

1. According to Jean Piaget, what is the relationship between cognitive and moral development?
2. How did Lawrence Kohlberg study children’s moral development?
3. Describe the moral reasoning typical of someone at Kohlberg’s preconventional level.
4. Describe the moral reasoning typical of someone at the conventional level.
5. Describe the moral reasoning typical of someone at the postconventional level.
6. What is the difference between moral behavior and moral reasoning? Why does this difference matter to Kohlberg’s critics?

Learning Objective 14 (502-505): Life Transitions in Adulthood — Social Transitions in Later Years

1. What are some of the effects on marital satisfaction when couples become parents?
2. Is there a midlife crisis?
3. What is the so-called “empty-nest syndrome,” and what circumstances make this transition less painful?
4. What are the differences between what we call biological age, psychological age, functional age, and social age?

Learning Objective 15 (512-515): What is Intelligence? Definitional Confusion — Intelligence as General versus Specific Abilities

1. Why was intelligence testing originally developed?
2. What do modern intelligence tests attempt to measure?
3. What is g (generalized intelligence), and what correlations does g try to explain?
4. What are the factors in intelligence?

Learning Objective 16 (515-518): Fluid and Crystallized Intelligence — The Triarchic Model

1. What are fluid and crystallized intelligences? How do they differ?
2. What is the association between crystallized intelligence and openness to experience?
3. How does Howard Gardner’s idea of multiple intelligences differ from g?
4. What are some problems associated with applying the idea of multiple intelligences to the classroom?
5. Why do scientific psychologists doubt the validity of Gardner’s claim of multiple intelligences?
6. What are the three components of Robert Sternberg’s triarchic model of intelligence?

Learning Objective 17 (518-520): Biological Bases of Intelligence — Pulling it all Together

1. How are brain size and intelligence related?
2. What is the association between the prefrontal cortex and intelligence?
3. What is the association between intelligence and working memory?
4. What is the association between the efficiency of mental processing and intelligence?

Learning Objective 18 (521-523): Exploring Genetic Influences on IQ — Adoption Studies

1. How can we study whether there are genetic influences on IQ? What is the main shortcoming of analyzing IQ scores within intact families?
2. How are twin studies on the genetic influence on IQ conducted, and what findings have come from twin studies?
3. What happens to heritability estimates of IQ when looking at children raised in poverty?
4. What have adoption studies found about the genetic influence on IQ?

Learning Objective 19 (523-527): Exploring Environmental Influences on IQ — Getting Smarter all the Time

1. How does Carol Dweck explain the importance of beliefs about intelligence flexibility or fixedness?
2. What does Robert Zajonc’s claim about birth order and IQ predict? What has research on it found?
3. What does the self-fulfilling prophecy do to expectations about a child’s IQ? What happens as a result?
4. What is the possible role of nutrition in the relationship between poverty and IQ?
5. What is the Flynn effect, and what are the likely explanations for it?

Learning Objective 20 (527-531): Group Differences in IQ: The Science and the Politics — Reconciling Racial Differences

1. How do women and men compare on IQ measures? Which mental abilities do women excel at? Which mental abilities do men excel at?
2. How might the sex differences in specific mental abilities be explained? What is some of the evidence for biological explanations? What is some of the evidence for environmental explanations? What does the environmental explanation suggest?
3. How do environmental differences between groups of people potentially contribute to IQ differences between those groups?