Chapter 1
Introducing Psychology

1. **Define psychology**. Psychology is the scientific study of behavior and mental processes. It emphasizes the empirical approach and the value of critical thinking. Psychology is not the same as common sense, “pop psychology,” or pseudopsychology. 

2. **Identify psychology’s four main goals**. Psychology’s goals are to describe, explain, predict, and change behavior and mental processes.

3. **Summarize psychology’s major career options**. Clinical psychology and counseling psychology are the largest specialty areas, but psychologists also work as researchers, teachers, or consultants in academic, business, and government settings.

Origins of Psychology

1. **Describe the different perspectives offered by early psychologists**. The structuralists sought to identify the basic building blocks of mental life and how those elements combine to form the structure of the mind. Functionalists studied how the mind functions to enable humans and nonhuman animals to adapt to their environment. The psychoanalytic school focused on the unconscious, believing that thoughts, memories, and desires that lie outside of personal awareness still exert great influence.

2. **Identify the seven major perspectives of modern psychology**. The psychodynamic, behavioral, humanistic, cognitive, biological, evolutionary, and sociocultural perspectives are the seven key approaches in contemporary psychology.

3. **Explain the central idea of the biopsychosocial model**. The biopsychosocial model unifies and interacts with the seven major perspectives. It views biological, psychological, and social processes as interrelated and inseparable influences.

The Science of Psychology

1. **Compare the fundamental goals of basic and applied research**. Basic research seeks to expand scientific knowledge. Applied research works to solve practical problems. Basic research generally meets the first three goals of psychology (description, explanation, and prediction), whereas applied research most often meets the fourth goal (change).

2. **Describe the scientific method**. The scientific method is cyclical and cumulative, meaning that progress comes from repeatedly challenging and revising existing theories and building new ones. It generally consists of six carefully planned steps: (1) question and literature review, (2) testable hypothesis, (3) research design, (4) data collection and analysis, (5) publication, and (6) theory development.

3. **Identify how psychologists protect the rights of human and nonhuman research participants and psychotherapy clients**. All psychologists must maintain high ethical standards. This includes respecting the rights of both human and nonhuman research participants and of psychotherapy clients. Informed consent, voluntary participation, restricted use of deception followed by debriefing, and confidentiality are important protections during any research that involves human participants. Researchers also must take great care when handling research animals and search for new and better ways to protect them. To protect psychotherapy clients, therapists must uphold high ethical standards and their clients’ trust, which includes maintaining privacy and confidentiality.

Research Methods

1. **Explain why only experiments can identify the cause and effect underlying particular patterns of behavior**. Only through an experiment can researchers manipulate and control the variables, and thereby determine cause and effect. The only way to discover which particular variable had an effect is to experimentally isolate each one.

2. **Describe the three key types of descriptive research**. Naturalistic observation is used to observe and describe behavior and mental processes without manipulating variables. Surveys use tests, questionnaires, polls, and interviews to measure a variety of behaviors and mental processes. Case studies are in-depth studies of a single research participant.

3. **Define positive and negative correlation**. A positive correlation is one in which the two variables move (or vary) in the same direction—the two factors increase or decrease together. A negative correlation exists when two factors vary in opposite directions—as one factor increases, the other factor decreases.

4. **Summarize important methods used in biological research**. Biological research studies the brain and other parts of the nervous system by invasive means such as dissection of cadaver brains or lesion techniques on living brains. However, researchers more commonly use less invasive methods, such as clinical observation, case studies, electrical recordings, and various types of brain-imaging scans.
Strategies for Student Success

1. **Describe** the steps you can take to improve your study habits. Four steps you can take to make the most out of your study time include familiarization, active reading, distributed study, and overlearning.

2. **Explain** how visual features can enhance learning. Visual features, such as photographs and drawings, help us solidify our understanding, organize and internalize new material, recognize patterns and interrelationships, and think creatively.

3. **Identify** how you might improve your current time-management habits. Before attempting any changes, establish a baseline. This will help you decide where you need to improve. Next, set up a realistic schedule. Finally, reward yourself and maximize your time.

Chapter 2
Our Genetic Inheritance

1. **Describe** how genetic material passes from one generation to the next. At the moment of conception, our father’s sperm and our mother’s egg each contributed 23 chromosomes—thus each individual human has 23 pairs, or 46 total, chromosomes. Each one of these 46 chromosomes is composed of coiled strands of DNA (deoxyribonucleic acid). **Genes**, small segments of the DNA molecule, are the most important building blocks of inheritance, and they can be either dominant or recessive.

2. **Review** the approaches that scientists take to explore human inheritance. To determine the influences of heredity or environment on complex traits like aggressiveness, intelligence, or sociability, scientists rely on studies of twins, families and genetic abnormalities.

3. **Explain** the process of natural selection. **Natural selection** occurs when a particular genetic trait gives an organism a reproductive advantage over others.

Neural Bases of Behavior

1. **Identify** the key roles and features of neurons. Neurons are nerve cells that process and transmit information. Each neuron has three key features—dendrites, cell body, and axon.

2. **Explain** how neurons communicate throughout the body. Neurons “speak” to each other or, in some cases, to muscles or glands, in a type of electrical and chemical language. Within the neuron, a neural impulse, the **action potential**, moves from the cell body along the axon to the terminal buttons. Between neurons, messages are communicated via **neurotransmitters**, which are released into the synapse and attach to the receiving neuron.

3. **Describe** the role of hormones in the endocrine system. Hormones are chemicals manufactured by the endocrine glands that circulate in the bloodstream to produce bodily changes or maintain normal bodily function.

Nervous System Organization

1. **Identify** the major elements of the nervous system. The nervous system is divided into two main branches. The **central nervous system** (CNS) includes the brain and the spinal cord. The **peripheral nervous system** (PNS) includes all the nerves and neurons outside the brain and spinal cord that connect the CNS to the rest of the body.

2. **Explain** the role of the central nervous system (CNS). The CNS allows us to process and organize information and adapt to our environment. It directs mental and basic life functions.

3. **Describe** the components of the peripheral nervous system (PNS). The PNS is divided into several branches. First, the PNS is subdivided into the **somatic nervous system** (SNS) and the **autonomic nervous system** (ANS). The SNS controls voluntary muscles, conveys sensory information to the CNS, and sends motor messages to muscles. The ANS controls involuntary functions, such as heartbeat and response to stress. The ANS is further divided into the **sympathetic** and **parasympathetic systems**. The sympathetic nervous system is responsible for arousing the body to expend energy and respond to threat. The parasympathetic nervous system is responsible for calming the body to conserve energy and restore the status quo.

A Tour Through the Brain

1. **Identify** the major structures of the hindbrain, midbrain, and forebrain. The hindbrain includes the medulla, pons, and cerebellum. The midbrain includes several structures, including the reticular formation. The forebrain includes the thalamus, hypothalamus, limbic system (including the amygdala), and the cerebral cortex.

2. **Summarize** the major roles of the lobes of the cerebral cortex. The **frontal lobes** receive and coordinate messages from the other three lobes. They also are responsible for motor control, speech production, and higher functions such as thinking, personality, emotion, and memory. The **parietal...
lobes receive and interpret bodily sensations including pressure, pain, touch, temperature, and location of body parts. The temporal lobes are responsible for hearing, language comprehension, memory, and some emotional control. The occipital lobes are responsible for vision and visual perception.

3. Describe how the brain is divided into two specialized hemispheres. The brain’s left and right cerebral hemispheres control opposite sides of the body. The corpus callosum is the primary connection for communication between the two cerebral hemispheres. Keep in mind that both hemispheres are activated when we perform almost any task or respond to any stimuli.

Chapter 3
Understanding Stress

1. Explain how the sources and effects of stress are life changes, cataclysmic events, chronic stressors, job stressors, hassles, frustration, and conflict. Life changes require adjustment in our behaviors and cause stress. Cataclysmic events are sudden disasters. Chronic stressors produce a state of ongoing physiological arousal, in which our parasympathetic system cannot activate the relaxation response. Job stressors include unemployment and job performance. Hassles are little everyday life problems that pile up to cause major stress. Frustration refers to blocked goals, whereas conflict involves two or more competing goals. Conflicts can be classified as approach–approach, avoidance–avoidance, or approach–avoidance. Stress affects us through the GAS, SAM system, and HPA axis, which in turn affect our immune system and cognitive functioning.

2. Review the three phases of the general adaptation syndrome (GAS). When surprised or threatened, our bodies enter the first phase of the general adaptation syndrome (GAS), in which our resistance to stress is temporarily suppressed, while our heart rate and blood pressure increase. If the stress continues, our bodies rebound to a phase of increased resistance. Physiological arousal remains higher than normal, and there is an outpouring of stress hormones. In the final, exhaustion phase, we become more susceptible to serious illness and even death.

3. Describe the SAM system and the HPA axis. When stressed, our bodies undergo significant biological changes due primarily to the SAM system and the HPA axis. The SAM system (short for Sympatho-Adreno-Medullary) provides an initial, rapid-acting stress response from an interaction between the sympathetic nervous system and the adrenal medulla. The HPA axis (short for Hypothalamic-Pituitary-Adrenal) allows for a delayed stress response, involving the hypothalamus, pituitary, and adrenal cortex. One of the main stress hormones released by the HPA axis is cortisol. It sends feedback messages to the brain and pituitary to help us fight stressors and then regain homeostasis.

Stress and Illness

1. Explain how biological and psychological factors can jointly influence the development of gastric ulcers. It appears that the H. pylori bacteria, increased hydrochloric acid, stress hormones, and decreased blood flow all lead to the formation of gastric ulcers. Although the verdict is still out on the precise role of stress in the development of ulcers, in all likelihood biological, psychological, and social forces interact with one another (the biopsychosocial model) to create conditions ripe for the growth of H. pylori.

2. Explain the relationship between stress and cancer. Cancer appears to result from an interaction of heredity, environmental factors (such as diet, smoking and pollutants), and immune system deficiency. Although stress is linked to a decreased immunity, research does not show that it causes cancer, or that a positive attitude can prevent it.

3. Define the personality patterns that can influence how we respond to stress. The effects of stress on heart disease may be amplified in people with Type A personalities, who tend to be hard driving, competitive, ambitious, impatient, and hostile. The antithesis of the Type A personality is the Type B personality, having a laid back, calm, patient, relaxed attitude toward life. Some people are more resistant to stress than others because of a personality factor called hardiness, a resilient type of optimism that comes from three distinctive attitudes: commitment, control, and challenge. It is also important to note that Type A personality and lack of hardiness are not the only controllable risk factors associated with heart disease. Smoking, obesity, diet, and lack of exercise are very important factors.

4. Describe the key symptoms of posttraumatic stress disorder (PTSD). The essential features of PTSD are feelings of terror and helplessness during the trauma and recurrent flashbacks, nightmares, impaired concentration and emotional numbing afterward.
Health Psychology and Stress Management

1. **Explain** what health psychologists do. Health psychologists study how people’s lifestyles and activities, emotional reactions, ways of interpreting events, and personality characteristics influence their physical health and well-being.

2. **Compare** emotion-focused and problem-focused forms of coping. **Emotion-focused coping** manages one’s emotional reactions to a stressor. **Problem-focused coping** deals directly with the stressor to decrease or eliminate it. In some situations, an emotion-focused strategy can allow people to step back from an especially overwhelming problem. Then they can reappraise the situation and use a problem-focused approach to look for solutions.

3. **Review** the eight major resources for combating stress. Researchers have identified at least eight important resources: exercise, positive beliefs, social skills, social support, control, material resources, sense of humor, and relaxation.

Chapter 4

Understanding Sensation

1. **Describe** how raw sensory stimuli are converted to signals in the brain. First, our eyes and other sense organs contain specific cells, receptors, which detect and process the environmental stimuli. Next, information from these receptors is converted (transduced) into neural messages that are sent to the brain. These messages are then further converted (coded) into specific sensations (e.g., sight vs. sound).

2. **Explain** how our experience of stimuli can be measured. In the field of psychophysics, scientists aim to measure our various senses using a series of signals (stimuli) that vary in intensity. The scientists record the signals that can be reliably detected. The **absolute threshold** is the smallest amount of a stimulus that can be reliably detected. The **difference threshold** is the minimum difference that can be reliably detected.

3. **Describe** why adapting to sensory stimuli provides an evolutionary advantage. **Sensory adaptation** is a sensory system’s reduced responsiveness to unchanging stimuli. It offers important survival benefits because the organism does not waste attention on unchanging stimuli and can therefore focus on the generally more important changing stimuli (e.g., predator or prey).

How We See and Hear

1. **Identify** the three major characteristics of light and sound waves. Light and sound waves are characterized by wavelength, amplitude (wave height), and complexity.

2. **Explain** how the eye captures and focuses light energy and how it converts it into neural signals. Light first enters through the pupil and lens, and then travels to the retina where receptor cells called rods (specialized for night vision) and cones (specialized for color and fine detail) generate neural impulses that are carried by the optic nerve to the brain.

3. **Describe** the path that sound waves take in the ear. The **outer ear** conducts sound waves to the **middle ear**, which in turn conducts vibrations to the **inner ear**. Hair cells in the inner ear are bent by a traveling wave in the fluid of the **cochlea** and transduced into neural impulses. The neural message is then carried along the auditory nerve to the brain.

4. **Summarize** the two theories that explain how we distinguish among different pitches. **Place theory** proposes that pitch perception corresponds to the particular spot (or place) on the cochlea’s basilar membrane that is most stimulated. **Frequency theory** suggests that pitch perception occurs when nerve impulses sent to the brain match the frequency of the sound waves. Both place and frequency theories are correct, but place theory best explains how we hear high-pitched sounds, whereas frequency theory best explains how we hear low-pitched sounds.

Our Other Important Senses

1. **Explain** how the information contained in food and liquid molecules reaches the brain. When we eat and drink, liquids and dissolved foods flow over bumps on our tongue called papillae and into their pores to the taste buds, which contain the receptors for taste. Taste (gustation) is called a “chemical” sense because it involves chemoreceptors that are sensitive to certain chemical molecules. The receptors for gustation are located primarily on the tongue and are sensitive to five basic tastes: salty, sweet, sour, bitter, and umami. Sensations received from the tongue are sent along to the brain.

2. **Describe** how the information contained in odor molecules reaches the brain. Odor molecules stimulate the receptors in the nasal cavity. A neural impulse travels to the olfactory bulb. Each odorous chemical excites a specific portion of the olfactory bulb and is coded according to the stimulated area. From the olfactory bulb, messages then travel to other areas of the brain.
3. Identify the body senses. The body senses include the skin senses, the vestibular sense, and kinesthesia. The skin senses detect touch or pressure, temperature, and pain. The vestibular apparatus is located in the inner ear and supplies balance information. The kinesthetic sense provides the brain with information about body posture and orientation, as well as body movement. The kinesthetic receptors are spread throughout the body in muscles, joints, and tendons.

Understanding Perception

1. Document the relationship between selective attention, feature detectors, and habituation. The selection process allows us to choose which of the billions of separate sensory messages will eventually be processed. Selective attention refers to the process of filtering out and attending only to important sensory messages. Feature detectors are specialized brain cells that respond to specific features of the stimulus, such as movement, shape, and angles. We habituate to unchanging stimuli and only pay attention when stimuli change in intensity, novelty, movement, or contrast.

2. Describe the four ways we organize sensory data. We organize sensory data in terms of form, constancy, depth, and color.

3. Summarize the factors involved in perceptual interpretation. Interpretation, the final stage of perception, can be influenced by perceptual adaptation, perceptual set, frame of reference, and bottom-up or top-down processing.

Chapter 5
Consciousness, Sleep and Dreaming

1. Compare the different forms and levels of consciousness. Consciousness can be defined as an organism’s awareness of its own self and surroundings. Most of our lives are spent in normal, waking consciousness. However, we also spend considerable time in various alternate states of consciousness (ASCs), such as sleep and dreaming, daydreams, and states induced by psychoactive drugs, hypnosis, and meditation. Consciousness exists along a continuum, from high awareness to sleep, dreaming, and coma.

2. Explain the elements of the circadian “clock.” Circadian rhythms are biological changes that occur on a 24-hour cycle. Our alertness, core body temperature, moods, learning efficiency, blood pressure, metabolism, and pulse rate all follow circadian rhythms. Disruptions to circadian rhythms due to shift work, jet lag, and sleep deprivation can cause decreased productivity and concentration, leading to serious accidents and health concerns. Circadian rhythms are regulated by a part of the hypothalamus called the suprachiasmatic nucleus (SCN). The SCN receives information about light and darkness from the eyes and then sends control messages to the pineal gland, which releases the hormone melatonin.

3. Review the stages of sleep. A typical night’s sleep consists of four to five 90-minute cycles. The cycle begins in Stage 1 and then moves through Stages 2, 3, and 4. After reaching level 4, the deepest level of sleep, the cycle reverses (4-3-2-1) back up to level 1 and REM (rapid-eye-movement) sleep, in which the person often is dreaming. Sleep stages 1, 2, 3 and 4 are called NREM (non-rapid-eye-movement) sleep.

4. Compare and contrast the theories of why we sleep and dream. The exact function of sleep is unknown. But according to the adaptation/protection theory, sleep evolved to protect us from predators. According to repair/restoration theory, sleep is thought to be necessary for its restorative value, both physically and psychologically. The growth/development theory notes that deep sleep coincides with the release of growth hormones. Finally, the learning/memory theory argues that sleep is important for learning and the consolidation, storage and maintenance of memories.

5. Summarize the types of sleep disorders. Sleep disorders fall into two major diagnostic categories—dyssomnias (including insomnia, narcolepsy, and sleep apnea) and parasomnias (such as nightmares, night terrors, sleepwalking, and sleeptalking).

Psychoactive Drugs

1. Explain how psychoactive drugs affect nervous system functioning. These drugs work primarily by changing the amount and effect of neurotransmitters in the synapse. Some drugs act as agonists that mimic a neurotransmitter’s effects, whereas other drugs act as antagonists and block normal neurotransmitter functioning.

2. Compare the four major categories of psychoactive drugs. The major categories of psychoactive drugs are depressants, stimulants, opiates, and hallucinogens. Depressant drugs slow the central nervous system, whereas stimulants increase its activity. Opiates numb the senses and relieve pain. And hallucinogens produce sensory or perceptual distortions called hallucinations.

3. Describe the effects of club drugs on the nervous system. Club drugs can produce desirable effects (e.g., greater empathy),
Meditation and Hypnosis

1. Describe the effect of meditation on the nervous system. Meditation is a group of techniques designed to refocus attention, block out all distractions, and produce an alternate state of consciousness. It can produce dramatic changes in physiological processes, including brain changes, heart rate, and respiration. During meditation, the hypothalamus diminishes the sympathetic response and increases the parasympathetic response, allowing for deep rest, slower respiration, and increased and more coordinated use of the brain’s two hemispheres.

2. Explain the features of the hypnotic state. Hypnosis is an alternate state of heightened suggestibility characterized by deep relaxation and intense focus. Hypnosis is the subject of many myths, such as “forced hypnosis.” But it has been used successfully to reduce pain, to increase concentration, and as an adjunct to psychotherapy. There are five key features of the hypnotic state: a narrowed, highly focused attention (ability to “tune out” competing sensory stimuli), increased use of imagination and hallucinations, a passive and receptive attitude, decreased responsiveness to pain, and a heightened suggestibility, or a greater willingness to respond to proposed changes in perception.

Chapter 6

Classical Conditioning

1. Describe Pavlov and Watson’s contributions to our understanding of learning. Pavlov discovered a fundamental form of conditioning, called classical conditioning, in which a neutral stimulus (NS) becomes associated with an unconditioned stimulus (US) to elicit a conditioned response (CR). His work laid a foundation for Watson’s later experiments with Little Albert, which demonstrated how simple emotions, like fear, could be classically conditioned to become a conditioned emotional response (CER).

2. Describe the three steps in classical conditioning. In classical conditioning, learning is achieved through involuntarily paired associations. In Step 1, the NS produces no relevant response and the US elicits a UR. In Step 2, the NS is repeatedly paired with a US to produce the UR. In Step 3, the NS becomes a CS and the GS produces a CR.

3. Summarize the six principles of classical conditioning. Acquisition, the first of the six components, is a term describing basic classical conditioning when a NS is consistently paired with a US so that the NS becomes a CS that elicits a CR. Stimulus generalization occurs when stimuli similar to the original CS elicit the CR. Stimulus discrimination takes place when only the CS, and not similar stimuli, elicit the CR. Extinction occurs when the CS is repeatedly presented without the US, which gradually weakens the CR. Spontaneous recovery occurs when a CR that had been extinguished suddenly reappears. In higher-order conditioning, a NS becomes a CS through repeated pairings with a previously conditioned stimulus (CS).

Operant Conditioning

1. Describe Thorndike’s and Skinner’s contributions to operant conditioning research. Thorndike and Skinner are the two major contributors to operant conditioning. Thorndike’s law of effect states that rewarded behavior is more likely to recur. Skinner extended Thorndike’s work to more complex behaviors, with a special emphasis on external, observable behaviors.

2. Explain how positive and negative reinforcement influence behavior. Positive reinforcement is any procedure that strengthens or increases a response by adding stimuli. Negative reinforcement is any procedure that strengthens or increases a response by removing stimuli.

3. Explain how punishment influences behavior. Positive punishment is any procedure that weakens or decreases a response by adding stimuli. Negative punishment is any procedure that weakens or decreases a response by removing stimuli. Punishment plays an important role in behavior, but it is tricky because we often unintentionally punish the very behaviors we’re trying to increase. Also, to be effective, punishment must be immediate and consistent. When it’s delayed and/or inconsistent, the undesirable behavior can be unintentionally reinforced. This reinforcement then places the undesirable behavior on a partial schedule of reinforcement—thus making it even more resistant to extinction. Furthermore, punishment only teaches what not to do—not what should be done. Punishment also has several undesirable side effects: passive aggressiveness, avoidance, inappropriate modeling, temporary suppression versus elimination, learned helplessness, and rewarded aggression.
Cognitive-Social Learning

1. **Summarize** the cognitive-social theory of learning. **Cognitive-social learning theory** emphasizes the roles of thinking and social learning in behavior.

2. **Describe** insight learning and latent learning. Wolfgang Köhler showed that learning could occur with a sudden flash of insight. Tolman demonstrated that latent learning takes place in the absence of reward and remains hidden until some future time when it can be retrieved as needed.

3. **Explain** the principles of observational learning. According to Albert Bandura, **observational learning** is the process of learning by watching and imitating others. It requires at least four processes: attention, retention, reproduction, and reinforcement.

Biology of Learning

1. **Explain** how an animal’s environment might affect learning and behavior. Compared to rats raised in a deprived environment, rats raised in an enriched environment (e.g., cages with lots to explore and see) had a thicker cortex, increased nerve growth factor, more fully developed synapses, more dendritic branching, and improved performance on many tests of learning and memory.

2. **Describe** the biological foundations for empathy. Using electrical recordings, fMRIs, and other brain-imaging techniques, researchers have identified specific mirror neurons believed to be responsible for human empathy and imitation. Mirror neurons fire both when performing specific actions and when simply observing the actions or emotions of others. This “mirroring” involves a combination of both biology and observational learning, and it may explain infant imitation of adults, as well as the emotional deficits of some mental disorders.

3. **Summarize** the role of evolution in learning. At least some behavior is innate, or inborn, in the form of either reflexes or instincts. Learning and conditioning are further adaptations that have evolutionary survival benefits. Through **biological preparedness** an organism is innately predisposed to form associations between certain stimuli and responses. **Taste aversions** are conditioned associations of food to illness that are rapidly learned, often in a single pairing. These aversions offer a protective survival mechanism. Findings on instinctive drift (tendency of CR to return or “drift” toward an innate response pattern) show there are also biological constraints on learning.

Chapter 7

The Nature of Memory

1. **Review** the principles of the major memory models. The **encoding, storage, and retrieval (ESR) model** draws analogies between human memory and a computer. Like typing on a keyboard, **encoding** translates information into neural codes that match the brain’s language. **Storage** retains neural coded information over time, like saving material on the computer’s hard drive or a disk. **Retrieval** gets information out of memory storage, similar to how files are retrieved and then opened and displayed on the computer’s monitor.

   The **three-stage memory model** proposes that information must pass through each of three stages before being stored—**sensory memory**, **short-term memory (STM)**, and **long-term memory (LTM)**. Each stage differs in purpose, duration, and capacity.

2. **Describe** the purpose of sensory memory? Sensory memory preserves a brief replica of sensory information. It has a large capacity, but information only lasts from a fraction of a second to four seconds. Selected information is sent to short-term memory (STM).

3. **Explain** how short-term memory (STM) operates as our working memory. STM is often called **working memory** because it actively receives information from sensory memory and transfers it to and from LTM. It also actively manipulates the incoming, transferred, and retrieved information.

4. **Describe** the various types of long-term memory (LTM). Long-term memory (LTM) is a relatively permanent storage system, with an apparently unlimited capacity. It is divided into two major branches. The first branch, the **explicit (declarative) memory** branch, is further subdivided into semantic and episodic memory. The second branch, the **implicit (nondeclarative) memory** branch, is similarly further subdivided into procedural memory, classically conditioned memory, and priming.

5. **Explain** how organization, elaborative rehearsal, and retrieval cues improve long-term memory. When encoding information, LTM is improved by the use of organization and **elaborative rehearsal**. During retrieval from LTM, we should be aware of the two types of **retrieval cues**—specific (which require recognition) and general (which require recall).

Forgetting

1. **Describe** Ebbinghaus’s research on learning and forgetting. Ebbinghaus’s famous “curve of forgetting” shows that it occurs most rapidly immediately after learning. However,
Ebbinghaus also showed that relearning usually takes less time than original learning.

2. Review the five key theories on why we forget. The decay theory simply states that memory, like all biological processes, deteriorates as time passes. The interference theory suggests that memories are forgotten because of either retroactive or proactive interference. (Retroactive interference occurs when new information interferes with previously learned information. Proactive interference occurs when old information interferes with newly learned information.) The motivated forgetting theory states that people forget things that are unpleasant or anxiety-producing. According to encoding failure theory, some material is forgotten because it was never encoded from STM to LTM. Retrieval failure theory suggests information stored in LTM is not forgotten, but may at times be inaccessible.

3. Explain the six most important factors that contribute to forgetting. To prevent problems with forgetting, you should be aware of six important factors: the misinformation effect (distorting memory with misleading post-event information); the serial position effect (remembering material presented at the first and last better than in the middle); source amnesia (forgetting the true source of a memory); the sleeper effect (initially discounting information from an unreliable source, but later judging it as reliable because the source is forgotten); information overload (in which distributed practice is found to be superior to massed practice); and cultural factors, such as oral versus written stories.

Biological Bases of Memory

1. Describe two kinds of biological changes that occur when we learn something new. Memories are formed through changes in neurons, called long-term potentiation (LTP), and this LTP occurs in at least two ways—strengthening particular synapses and/or affecting neurons’ ability to release their neurotransmitters.

2. Explain the effect of hormones on memory. Stress hormones secreted during heightened arousal affect the amygdala and other brain areas important for encoding and memory storage. Fight-or-flight hormones help explain “flashbulb memories.”

3. Identify some brain areas involved in memory. The prefrontal cortex, cerebral cortex, thalamus, hippocampus, cerebellum, amygdala, and basal ganglia are some of the major brain areas involved in memory.

4. Explain how injury and disease can affect memory. Memory problems that result from serious brain injuries or trauma are called amnesia. In retrograde amnesia, memory for events that occurred before an accident is lost. In anterograde amnesia, memory for events that occur after an accident is lost.

Alzheimer’s disease (AD) is a progressive mental deterioration and severe memory loss, particularly of explicit/declarative memory, occurring most commonly in later life.

Memory Distortions

1. Explain why our memories sometimes become distorted. Memory distortions tend to arise from our human need for logic and consistency, as well as because it’s sometimes more efficient to do so.

2. Describe problems with eyewitnesses in the criminal justice system. Eyewitness accounts are highly persuasive in the courtroom, but they’re subject to serious errors that may lead to wrongful judgments of guilt or innocence and even life or death decisions.

3. Distinguish between false and repressed memories. Repressed memories are memories that are actively forgotten to avoid pain. False memories can be created when we store information received from others but believe it to be real upon recall. Psychologists continue to debate whether recovered memories are accurate recollections (repressed memories) or false memories. Concern about the reliability of recovered memories has led many experts to encourage a cautious approach.

Chapter 8

Thinking

1. Describe the roles of mental images and concepts in thinking. Mental images are mental representations of a sensory experience, including visual, auditory, olfactory, tactile, motor, and gustatory imagery. Concepts are mental representations of members of a group or category that that share similar characteristics. Mental images are important because they allow us to visualize and manipulate our previously stored sensory images. Concepts are similarly important because they help us simplify and organize information.

2. Describe the three stages of problem solving. Problem solving entails three stages: preparation, production, and evaluation. During the preparation stage, we identify given facts, separate relevant from irrelevant facts, and define the
ultimate goal. During the production stage, we generate possible solutions, called hypotheses. We typically generate hypotheses by using algorithms and heuristics. Algorithms, as problem-solving strategies, are guaranteed to lead to an eventual solution. But they are not practical in many situations. Heuristics, or simplified rules based on experience, are much faster but do not guarantee a solution. The evaluation stage in problem solving involves judging the hypotheses generated during the production stage against the criteria established in the preparation stage.

3. Identify the barriers to problem solving. Major barriers to successful problem solving are mental sets, functional fixedness, confirmation bias, the availability heuristic, and the representativeness heuristic.

4. Explain the characteristics associated with creativity. Creativity is the ability to produce valued outcomes in a novel way. Creative thinking involves originality, fluency, and flexibility. Tests of creativity usually focus on divergent thinking.

Language

1. Identify the building blocks of language. Human language is a form of communication using sounds and symbols combined according to a set of specified rules. Phonemes are the smallest distinctive sound units. They are combined to form morphemes, the smallest meaningful units of language. Phonemes, morphemes, words, and phrases are put together by rules of grammar (syntax and semantics). Syntax refers to the grammatical rules for ordering words in sentences. Semantics refers to rules for deriving meaning in language.

2. Describe the prominent theories of how language and thought interact. According to Benjamin Whorf’s original linguistic relativity hypothesis, language determined thought, but modern research suggests it only influences our thought processes.

3. Describe the major stages of language development. Children go through two stages in their acquisition of language: prelinguistic (crying, cooing, babbling) and linguistic (single utterances, telegraphic speech, and acquisition of grammar rules).

4. Review the evidence that nonhuman animals are able to learn and use language. The most successful nonhuman animal language studies have been done with apes using American Sign Language (ASL) and computer symbols. Using hand signals, dolphins also have been taught to comprehend sentences that vary in syntax and meaning. Some psychologists believe that nonhuman animals can truly learn human language. Others suggest that nonhuman animals are merely responding to rewards.

Intelligence

1. Review the history of theorizing about single versus multiple intelligences. Today, intelligence is commonly defined as the global capacity to think rationally, act purposefully, and deal effectively with the environment. Several theorists have debated whether intelligence is one or many abilities. Spearman viewed intelligence as one factor, called g, for general intelligence. Thurstone saw it as seven distinct mental abilities. Guilford believed it was composed of 120 or more separate abilities. And Cattell viewed it as two types of general intelligence (g), which he called fluid intelligence and crystallized intelligence.

Both Gardner and Sternberg believe intelligence is a collection of multiple abilities. Gardner’s theory of multiple intelligences identifies eight (and possibly nine) types of intelligence. He believes people are stronger in some areas than others and use their intelligences differently. Sternberg’s triarchic theory of intelligence (analytical, creative, and practical) emphasizes the process underlying thinking rather than just the product.

2. Describe the components of emotional intelligence. According to researchers, emotional intelligence (EI) involves knowing and managing one’s emotions, empathizing with others, and maintaining satisfying relationships.

3. Explain how intelligence is measured. Although there are many tests for intelligence, the Stanford-Binet and Wechsler are the most widely used. Both tests compute an intelligence quotient (IQ) by comparing a person’s test score to the norm for that person’s age group.

The Intelligence Controversy

1. Explain why extremes in intelligence provide support for the validity of IQ testing. Intelligence testing has long been the subject of great debate. To determine whether these tests are valid, you can examine people who fall at the extremes of intelligence. People with IQs of 70 and below (referred to as intellectually disabled) and those with IQs of 135 and above (identified as gifted) do differ in their respective intellectual abilities.

2. Review research on how brain functioning is related to intelligence. Research on the brain’s role in intelligence has
focused on three major questions: (1) Does a bigger brain mean greater intelligence? (Answer: “Not necessarily.”) (2) Is a faster brain more intelligent? (Answer: “A qualified yes.”) And (3) Does a smart brain work harder? (Answer: “No, the smarter brain is more efficient.”)

3. **Describe how genetics and the environment interact to shape intelligence.** Another topic of debate is whether intelligence is inherited or due to the environment. According to the Minnesota Study of Twins Reared Apart (1979 to present), heredity and environment are important, inseparable factors in intellectual development. Heredity equips each of us with innate capacities. The environment significantly influences whether an individual will reach full potential.

4. **Summarize the controversy over whether or not IQ tests are culturally biased.** Perhaps the most hotly debated topic is whether ethnic differences on IQ tests are primarily “genetic in origin,” or whether IQ tests may be culturally biased. Environmental factors, including the Flynn effect, cultural exposure, socioeconomic differences, language, and **stereotype threat**, have all been found to be contributing factors in score differences.

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**Chapter 9**

**Studying Development**

1. **Summarize the three most important debates or questions in developmental psychology.** The first debate is over nature versus nurture. Is development governed by automatic, genetically predetermined signals or through learning by personal experience and observation? The second debate is over stages versus continuity. Does development occur in discrete, qualitative stages or from continuous, quantitative gradual shifts? The third debate, stability versus change, asks how much of one’s personal characteristics are consistent and how much they are changeable over a lifespan.

2. **Contrast the cross-sectional research design with the longitudinal research design.** Researchers in developmental psychology generally use a **cross-sectional design** (different participants of various ages at one point in time) or a **longitudinal design** (same participants over an extended period). Each research design has advantages and disadvantages.

**Physical Development**

1. **Describe the three stages of prenatal physical development.** The prenatal period of development consists of three major stages: the **germinal** (conception to implantation), **embryonic** (implantation to eight weeks), and **fetal** (eight weeks to birth) stages.

2. **Summarize physical development during early childhood.** During the prenatal period and the first two years of life, the brain and nervous system grow faster than any other part of the body. Early motor development (crawling, standing, and walking) is largely the result of maturation, not experience. Except for vision, the sensory and perceptual abilities of newborns are relatively well developed.

3. **Describe the physical changes that occur during adolescence and adulthood.** At **puberty**, the individual becomes capable of reproduction and experiences a sharp increase in height, weight, and skeletal growth, called the pubertal **growth spurt**. Both men and women experience less dramatic physical changes in middle age, but the most notable are the **menopause** and **male climacteric**. After middle age, most physical changes occur in the heart, arteries, and sensory receptors.

**Cognitive Development**

1. **Explain the role of schemas, assimilation, and accommodation in cognitive development.** Piaget believed an infant’s intellectual growth progresses in distinct stages, motivated by an innate need to know. He also proposed three major concepts: **schemas**, patterns that organize our interactions with the environment; **assimilation**, absorbing new information “as is” into existing schemas; and **accommodation**, adjusting old schemas or developing new ones to better fit with new information.

2. **Describe the major characteristics of Piaget’s four stages of cognitive development.** According to Piaget, cognitive development occurs in an invariant sequence of four stages: **sensorimotor** (birth to age 2), **preoperational** (ages 2–7), **concrete operational** (ages 7–11), and **formal operational** (age 11 and up). In the sensorimotor stage, children use their senses and motor skills to develop cognitively and they acquire **object permanence**. During the preoperational stage, children develop significant language and the ability to think symbolically. But their language and thinking are limited by their lack of operations, **egocentrism**, and animism. In the concrete operational stage, children learn to perform “operations” on concrete objects, but they cannot think abstractly and hypothetically. They also understand the principles of **conservation** and reversibility. During the formal operational stage, the adolescent is able to think abstractly and deal with hypothetical situations, but is prone to a type of adolescent egocentrism.
Chapter 10
Social, Moral, and Personality Development

1. Describe how attachment influences our social development. Attachment is a strong affectional bond with special others that endures over time. Nativists believe it is innate. Nurturists believe it is learned. Harlow and his colleagues’ experiments with monkeys raised by cloth or wire surrogate mothers found that contact comfort might be the most important factor in attachment. Infants who fail to form attachments may suffer serious effects. When attachments are formed, they may differ in level or degree. Ainsworth’s research with the strange situation procedure identified three patterns of attachment in human infants: securely attached, anxious/avoidant, and anxious/ambivalent. Later research added a fourth type, disorganized/disoriented, and found that early patterns of attachment may carry over into romantic relationships in adulthood.

2. Describe Baumrind’s four different parenting styles. Parenting styles fall into four major categories: permissive-neglectful (few parental demands and little interest or emotional support), permissive-indulgent (few parental limits or demands but highly involved and emotionally connected), authoritarian (parents are rigid and punitive with little warmth and responsiveness), and authoritative (parents set and enforce limits with lots of involvement and emotional support).

3. Summarize the central characteristics of Kohlberg’s theory of moral development. According to Kohlberg, morality progresses through three levels, with each level containing two stages. At the preconventional level, morality is based on rewards, punishments, and exchange of favors. What is right is what one can get away with (Stage 1) or what is personally satisfying (Stage 2). Conventional level morality is based on compliance with the rules and values of society. Morality is centered on being nice and gaining approval (Stage 3) and obedience to laws because they maintain the social order (Stage 4). Postconventional level morality comes from personal standards defined in terms of abstract principles and values, which apply to all situations. Morality is centered on adhering to the social contract (Stage 5) and the individual’s own principles and universal values (Stage 6).

4. Identify Erikson’s eight stages of psychosocial development. Erikson’s eight psychosocial stages of development cover the entire lifespan and each stage is marked by a “psychosocial crisis” or conflict related to a specific developmental task. Four stages that occur during childhood are: trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, and industry versus inferiority. The major psychosocial identity crisis of adolescence is the search for identity versus role confusion. During young adulthood, the individual’s task is to establish intimacy versus isolation. During middle adulthood, the person must deal with generativity versus stagnation. At the end of life, the older adult must establish ego integrity or they will suffer despair at the realization of lost opportunities.

How Sex, Gender, and Culture Affect Development

1. Describe how sex and gender differences are related to physical, cognitive, personality, and social development. In addition to biological sex differences, scientists have found numerous gender differences relevant to cognitive, social, and personality development. Sex refers to biological elements, such as chromosomes, or physical behaviors, such as masturbation or intercourse. Gender encompasses the psychological and sociocultural meanings added to biology, such as “Men should be aggressive” and “Women should be nurturing.”) Scientists have proposed both biological and environmental explanations for these differences. Most research emphasizes two major theories of gender-role development: social learning and cognitive developmental.

2. Explain how individualistic versus collectivistic cultures shape personality development. In individualistic cultures, the needs and goals of the individual are emphasized over the needs and goals of the group. However, the reverse is true in collectivistic cultures.

Developmental Challenges Through Adulthood

1. Describe the factors that ensure realistic expectations for marriage and long-term committed relationships. In successful relationships, both partners establish “love maps,” share
power, provide mutual support, manage their conflicts, have similar values, beliefs, and religions, enjoy a supportive social environment, and maintain a positive emphasis.

2. **Explain** the factors that affect life satisfaction during the adult working years and retirement. The kind of work we do can affect our health, friendships, where we live, and even our leisure activities. Life satisfaction after retirement appears to be most strongly related to good health, control over one’s life, social support, and participation in community services and social activities.

3. **Describe** the three basic concepts about death and dying that people learn to understand through the course of development. Adults understand death in terms of three basic concepts: permanence (once a living thing dies, it cannot be brought back to life), universality (all living things die), and nonfunctionality (thought, movement and vital signs end at death). Children most easily understand the first concept, but universality and nonfunctionality comes later.

### Chapter 11

**Theories of Motivation**

1. **Summarize** the three biologically based theories of motivation. *Instinct theories* emphasize inborn, genetic components in motivation. *Drive-reduction theory* suggests that internal tensions (produced by the body's demand for homeostasis) drive the organism toward satisfying basic needs. And the *optimal-arousal theory* proposes that organisms seek an optimal level of arousal that maximizes their performance.

2. **Explain** how incentives, attributions, and expectations affect motivation. *Incentive theory* of motivation maintains that external stimuli pull people toward desirable goals or away from undesirable ones. *Cognitive theories* of motivation argue that *attributions* (how we interpret our own and others’ actions) and *expectancies* (what we believe will happen) are important factors in motivation.

3. **Describe** Maslow’s hierarchy of needs. Maslow’s hierarchy of needs (or motives) suggests that basic survival needs must be satisfied before a person can attempt to satisfy higher needs and eventually become self-actualized.

### Motivation and Behavior

1. **Describe** how internal (biological) and external (psychosocial) factors direct hunger and eating as well as how they are involved in serious eating disorders. Several biological, internal factors, including messages from the stomach and intestines, numerous chemicals, and structures in the brain, all seem to play important roles in hunger and eating. But psychosocial factors, such as stimulus cues and cultural conditioning, also play a role. **Obesity** (being 15% or more above the ideal for one’s height and age) seems to result from biological factors, such as the individual’s genetic inheritance, lifestyle factors, and numerous psychological factors.

   - **Anorexia nervosa** (extreme weight loss due to self-imposed starvation) and **bulimia nervosa** (excessive consumption of food followed by purging) are both related to an intense fear of obesity.

   2. **Explain** why some people are more highly achievement motivated than others. **Achievement motivation** refers to the desire to excel, especially in competition with others. People with high achievement needs prefer moderately difficult tasks and clear goals with competent feedback. They also tend to be more competitive, responsible, persistent, and accomplished.

3. **Summarize** what happens to the human body during sexual activity. Sex researchers, William Masters and Virginia Johnson, identified four stages of the *sexual response cycle*, which explain the series of physiological and sexual responses that occur during sexual activity. The names of the cycle are: the *excitement phase*, *plateau phase*, *orgasm phase*, and *resolution phase*.

4. **Compare** intrinsic and extrinsic motivation. *Extrinsic motivation* stems from external rewards or threats of punishment. *Intrinsic motivation* comes from personal enjoyment of a task or activity. Research shows that extrinsic rewards can lower interest and motivation if they are not based on competency.

### Components and Theories of Emotion

1. **Describe** the biological, cognitive, and behavioral components of emotion. All emotions have three basic components: biological arousal (e.g., heart pounding), cognitive elements (e.g., thoughts, values, and expectations), and behavioral expressions (e.g., smiles, frowns, running). Studies of the biological component find that most emotional experiences involve interactions between several areas of the brain and the ANS. The cognitive component explains why some experiences are more pleasurable than others. The behavioral component focuses on how we express our emotions, particularly facial expressions.

2. **Compare** the three major theories of emotion. Four major theories explain what causes emotion. According to the
James-Lange theory, emotions begin with physiological arousal of the ANS. The Cannon-Bard theory suggests that emotions and physiological changes occur separately, but simultaneously. The two-factor theory suggests that emotions depend on two factors—physiological arousal followed by a cognitive labeling of that arousal.

3. Explain cultural similarities and differences in emotion. Studies have identified 7 to 10 basic emotions that may be universal—experienced and expressed in similar ways across almost all cultures. Display rules for emotional expression differ across cultures. Most psychologists believe that emotions result from a complex interplay between evolution and culture.

4. Review the problems with relying on polygraph testing as a “lie detector.” The polygraph machine measures changes in sympathetic arousal (increased heart rate, blood pressure, and so on). But research shows it is a poor “lie detector” because it cannot reliably identify whether a response is due to emotional arousal or something else, such as physical exercise, drugs, tense muscles, or even previous experience with polygraph tests.

Chapter 12
Psychoanalytic/Psychodynamic Theories

1. Identify Freud’s most basic and controversial contributions to the study of personality. Sigmund Freud founded the psychoanalytic approach to personality, which emphasizes the power of the unconscious. The mind (or psyche) reportedly functions on three levels of consciousness, or awareness (conscious, preconscious, and unconscious). Similarly, he believed the personality has three distinct structures (id, ego, and superego). The ego struggles to meet the demands of both the id and superego. When these demands conflict, the ego may resort to defense mechanisms to relieve anxiety. Perhaps the most controversial aspect of Freud’s approach is his five psychosexual stages.

2. Explain how Adler’s, Jung’s, and Horney’s theories differ from Freud’s thinking. Three influential followers of Freud who later broke from him were Alfred Adler, Carl Jung, and Karen Horney. Known as neo-Freudians, they emphasized different issues. Adler emphasized the inferiority complex and the compensating will-to-power. Jung introduced the collective unconscious and archetypes. Horney stressed the importance of basic anxiety and refuted Freud’s idea of penis envy.

3. Explore the major criticisms of Freud’s psychoanalytic theories. Critics of the psychoanalytic approach, especially Freud’s theories, argue that the approach has inadequate empirical support, overemphasizes sexuality, biology, and unconscious forces, and it is sexist.

Trait Theories

1. Explain how early trait theorists approached the study of personality. Gordon Allport described individuals by their trait hierarchy, with the most important and pervasive at the top. Raymond Cattell and Hans Eysenck used a statistical technique called factor analysis to identify the smallest possible number of traits.

2. Identify the Big Five personality traits. The five traits are openness, conscientiousness, extraversion, agreeableness, and neuroticism (or emotional stability).

3. Summarize the major critiques of trait theory. Although trait theories, particularly the Big 5, have proven to be successful at describing personality, critics argue that they fail to offer causal explanations for why people develop specific traits. Similarly, trait theories have shown personality stability, but failed to identify which characteristics are stable and which ones change over the lifespan.

Humanistic Theories

1. Explain the importance of the self in Roger’s theory of personality. Carl Rogers believed that our self-concept was the most important component to personality. Maladjustment develops when there is incongruence between the self-concept and actual life experiences. According to Rogers, early childhood experiences without unconditional positive regard may distort our self-concept.

2. Describe how Maslow’s hierarchy of needs affects personality. Abraham Maslow saw personality development as a natural progression from lower to higher levels—a basic hierarchy of needs. As newborns, we focus on physiological needs. As we develop, we attempt to meet safety needs, belonging and love needs, esteem needs, and finally self-actualization needs.

3. Identify the pros and cons of humanistic theories. Critics of the humanistic approach argue that these theories are based on naive assumptions and are not scientifically testable or well supported by empirical evidence. In addition, their focus on description, rather than explanation, makes them narrow.
Social-Cognitive Theories

1. **Explain** Bandura’s concept of self-efficacy and Rotter’s concept of locus of control. Social-cognitive theorists emphasize the importance of our interactions with the environment and how we interpret and respond to these external events. Albert Bandura’s social-cognitive approach focuses on self-efficacy and reciprocal determinism. Julian Rotter emphasizes cognitive expectancies and an internal or external locus of control.

2. **Summarize** the attractions and criticisms of the social-cognitive perspective on personality. Social-cognitive theories are credited for their testable, objective hypotheses, operationally defined terms, reliance on empirical data, and emphasis on environmental factors. However, they have been criticized for their overemphasis on situational influences and for their lack of attention to unconscious, emotional, and biological factors.

Biological Theories

1. **Summarize** the roles that brain structures and neurochemistry play in personality. Modern research agrees that certain brain areas may contribute to some personality characteristics (e.g., extroversion, sensation-seeking). High or low levels of certain neurotransmitters, such as dopamine, and genetic factors also have been shown to have an influence on personality traits.

2. **Explain** the limitations of biological theories. Biological theories have provided exciting insights, but personality traits are not the result of a single biological process. Some believe the importance of the environment has been overlooked. Others worry that research could be misused to prove “genetic determinism.”

3. **Describe** how the biopsychosocial model integrates different theories of personality. Research indicates three major factors influence personality: genetic (inherited) factors, nonshared, environmental factors, and shared, environmental factors.

Personality Assessment

1. **Summarize** the four major methods psychologists use to measure personality. Psychologists use four basic methods to measure or assess personality: interviews, observations, objective tests, and projective techniques.

2. **Describe** the benefits and limitations of each method of personality assessment. Interviews (either structured or unstructured) and observations can provide insights into a wide variety of behaviors and personality traits. During observations, the rater looks for examples of specific behaviors and follows a careful set of evaluation guidelines. Both interviews and observations can provide valuable insights into personality, but they are time consuming and expensive. Furthermore, raters frequently disagree and they often involve unnatural settings.

3. **Explain** the purposes and criticisms of the Diagnostic and Statistical Manual (DSM). The Diagnostic and Statistical Manual (DSM) is a multiaxial classification system that provides detailed descriptions of the various mental disorders and lists known causes, statistics, prognosis, and research regarding treatment options. This information allows for scientific research and improved communication...
among professionals and between professionals and patients. The DSM has been criticized for its potential to overdiagnose, possible cultural bias, overreliance on the medical model, and for unfairly labeling people.

**Anxiety Disorders**

1. **Describe** the symptoms of generalized anxiety disorder (GAD), panic disorder, phobias, and obsessive-compulsive disorder (OCD). People with anxiety disorders experience unreasonable, often paralyzing, anxiety or fear. In generalized anxiety disorder (GAD), there is a persistent, uncontrollable, and free-floating anxiety. In panic disorder, anxiety is concentrated into sudden and inexplicable panic attacks. Phobias are intense, irrational fears and avoidance of specific objects or situations. Obsessive-compulsive disorder (OCD) involves persistent anxiety-arousing thoughts (obsessions) and/or ritualistic actions (compulsions). (The fifth major anxiety disorder, PTSD, was discussed in Chapter 3.)

2. **Summarize** how psychological, biological, and sociocultural factors contribute to anxiety disorders. Anxiety disorders are influenced by psychological, biological, and sociocultural factors (the biopsychosocial model). Psychological theories focus on faulty cognitions (hypervigilance) and maladaptive learning from classical conditioning, social learning, and vicarious conditioning. Biological approaches emphasize evolutionary and genetic predispositions, brain differences, and biochemistry. The sociocultural perspective focuses on environmental stressors that increase anxiety and cultural socialization that produces distinct culture-bound disorders, such as *taijin kyofusho* (TKS).

**Mood Disorder**

1. **Explain** how major depressive disorder and bipolar disorder differ. In major depressive disorder, individuals experience a long-lasting depressed mood that interferes with their ability to function, feel pleasure, or maintain interest in life. The feelings have no apparent cause, and the individual may lose contact with reality (psychosis). In bipolar disorder, episodes of mania and depression alternate with normal periods. During the manic episode, the person is overly excited, extremely active, easily distracted, his or her speech and thinking are rapid, and poor judgment is common.

2. **Summarize** research on the biological and psychological factors that contribute to mood disorders. Biological theories of mood disorders emphasize brain function abnormalities and disruptions in neurotransmitters (especially serotonin, norepinephrine, and dopamine). Genetic predispositions and evolutionary factors also play a role in both mood disorders. Psychosocial theories of mood disorders emphasize environmental factors, disturbed interpersonal relationships, faulty thinking, poor self-concept, anger turned inward, and blocked personal growth. According to learned helplessness theory, depression results from repeatedly failing to escape from a punishing situation.

**Schizophrenia**

1. **Describe** some common symptoms of schizophrenia. The five major symptoms of schizophrenia are disturbances in perception (distorted sensations and hallucinations), language (word salad), thought (lack of contact with reality and delusions), emotion (exaggerated, changeable, or blunted), and behavior (social withdrawal, bizarre mannerisms, catalepsy).

2. **Compare** the traditional, five-subtype system for classifying different types of schizophrenia with the two-group system that has recently emerged. Traditionally, researchers divided schizophrenia into five major subtypes—paranoid, catatonic, disorganized, undifferentiated, and residual. Critics argued that it did not differentiate in terms of prognosis, cause or response to treatment. For these reasons, an alternative classification which divides schizophrenia into two subtypes has been proposed. Positive schizophrenia symptoms involve additions or exaggerations to normal thoughts and behavior. Negative schizophrenia symptoms involve a loss or absence of normal thoughts and behavior.

3. **Summarize** the biological and psychosocial factors that contribute to schizophrenia. Biological theories of schizophrenia emphasize the role of genetics (people inherit a predisposition), disruptions in neurotransmitters (the dopamine hypothesis), and abnormal brain structure and function (such as enlarged ventricles and lower levels of activity in the frontal and temporal lobes). Psychosocial theories of schizophrenia focus on the diathesis-stress model and disturbed communication.

**Other Disorders**

1. **Describe** the types of dissociative disorders. In dissociative disorders, there is a splitting apart (disassociation) of significant aspects of experience from memory or
consciousness. People can fail to remember past events (dissociative amnesia), leave home and wander off (dissociative fugue), or lose their sense of self and reality (depersonalization disorder). Developing separate and distinct personalities (dissociative identity disorder (DID)) is the most severe dissociative disorder.

2. **Identify** the major characteristics of personality disorders. **Personality disorders** involve inflexible, maladaptive personality traits that cause significant impairment of social and occupational functioning. The most serious type is the **antisocial personality**, characterized by a profound disregard for, and violation of, the rights of others. The four hallmarks of antisocial personality disorder are egocentrism, lack of conscience, impulsive behavior, and superficial charm. **Borderline personality disorder** (BPD) is the most commonly diagnosed personality disorder. It is characterized by impulsivity and instability in mood, relationships, and self-image.

### How Gender and Culture Affect Abnormal Behavior

1. **Identify** the risk factors that might explain gender differences in depression. Certain risk factors for depression (such as poverty, sexual trauma, partner abuse, and chronic stress) are more common to women than men. Also, typical symptoms of depression are also more socially acceptable for women. In addition, researchers find that women are more likely to internalize their emotions and problems, whereas men tend to externalize them.

2. **Explain** why it is difficult to directly compare mental disorders across cultures. People experience mental disorders in a variety of ways. Symptoms of schizophrenia, for example, vary across cultures as do its triggers. The definition, diagnosis, and reporting of mental disorders may be different around the world and confuse published prevalence rates.

3. **Outline** strategies for avoiding ethnocentrism in diagnosis. **Culture-general symptoms** (nervousness or trouble sleeping) are similarly expressed and identified in most cultures, whereas **culture-bound symptoms** (“fullness in the head”) are unique to certain cultures. Similarly, culture-general disorders (schizophrenia) are similar across cultures, whereas culture-bound disorders (Koro) are unique. Recognizing these differences helps us expand our understanding of disorders and can thereby reduce our ethnocentrism.

### Chapter 14

#### Talk Therapies

1. **Describe** the core treatment techniques in psychoanalysis and modern psychodynamic treatments. Freudian **psychoanalysis** works to bring unconscious conflicts into consciousness. The five major techniques of psychoanalysis are **free association**, **dream analysis**, **analysis of resistance**, **analysis of transference**, and **interpretation**. Modern **psychodynamic therapy** is briefer, more directive, and more focused on conscious processes and current problems.

2. **Summarize** the four key qualities of communication in Rogerian therapy. Rogers’s **client-centered therapy** emphasizes **empathy** (sensitive understanding of another), **unconditional positive regard** (genuine caring for another based on his or her innate value as an individual), **genuineness** (therapists’ honest sharing of thoughts and feelings), and **active listening** (reflecting, paraphrasing, and clarifying what the client is saying).

3. **Explain** the principles underlying cognitive therapy. **Cognitive therapy** focuses on changing faulty thought processes and beliefs to treat problem behaviors. Through insight into negative **self-talk** (the unrealistic things people say to themselves), the therapist can use **cognitive restructuring** to challenge and change destructive thoughts or inappropriate behaviors. **Cognitive-behavior therapy** focuses on changing **both** self-destructive thoughts and self-defeating behaviors.

### Behavior Therapies

1. **Identify** a key difference between these two classical conditioning techniques: **systematic desensitization** and **aversion therapy**. In **systematic desensitization**, the client replaces a maladaptive response (e.g., anxiety, fear) with an adaptive one (e.g., relaxation). In **aversion therapy**, an aversive stimulus (e.g., nausea inducing drug) is paired with a maladaptive behavior (e.g., excessive drinking).

2. **Explore** how operant conditioning can be used in therapy. Operant conditioning principles are used in therapy to bring about a desired (or target) behavior. **Shaping** (providing rewards for successive approximations of the target behavior) and reinforcement (via tokens) are common behavior therapy techniques based on operant conditioning principles.

3. **Summarize** how modeling therapy works. Clients attain skills or positive behaviors through observation and imitation of appropriate models as they perform desired
behaviors. Bandura used modeling therapy to treat snake phobias, and it is also used in social skills training, such as assertiveness.

4. Describe two major criticisms of behavior therapies. Behavior therapies are criticized for possible lack of generalizability and the questionable ethics of attempting to control behavior.

Biomedical Therapies

1. Identify the major types of drugs used to treat psychological disorders. Antianxiety drugs (Valium, Ativan) generally are used to treat anxiety disorders, antipsychotic drugs (Thorazine, Haldol) treat the symptoms of psychotic disorders, such as schizophrenia, mood-stabilizer drugs (Tegretol) can help patients with bipolar disorder, and antidepressant drugs (Prozac, Effexor) treat depression, anxiety disorders, and eating disorders.

2. Explain what happens in electroconvulsive therapy and psychosurgery. During electroconvulsive therapy (ECT), an electric current is passed through the brain, which causes a widespread firing of neurons, or convulsions, and changes in the central and peripheral nervous systems. Psychosurgeries, such as a lobotomy, are operative procedures on the brain designed to relieve severe mental health symptoms.

3. Describe the risks associated with biomedical therapies. Drug therapy is enormously beneficial, but it also has several problems. For example, it offers symptom relief, but few “cures,” patients often stop medications once symptoms are relieved, patients may become dependent, and little is known about the side- or long-term effects and drug interactions. In addition, there are potentially dangerous side effects, and possible overuse. ECT is controversial and the benefits remain uncertain. Psychosurgery can have serious or fatal side effects as well as complications with irreversible consequences.

Psychotherapy in Perspective

1. Summarize the goals that are common to all forms of psychotherapy. There are numerous forms of therapy. But they all focus treatment on five basic areas of disturbance—thoughts, emotions, behaviors, interpersonal and life situations, and biomedical problems. Many therapists take an eclectic approach and combine techniques from various theories.

2. Describe the situations in which group, marital, or family therapy would be most appropriate. Therapists often refer their patients to group or self-help therapy and marital or family therapy to supplement individual therapy. Research on group and self-help groups for alcoholism, obesity, and other disorders suggest that they can be very effective. Marital or family therapy is appropriate when a maladaptive marital or family interaction is involved. Family therapy is useful in treating a number of disorders or clinical problems.

3. Describe some key cross-cultural similarities and differences in therapy. Therapies in all cultures share six culturally universal features: naming the problem, qualities of the therapist, establishing credibility, familiar framework, techniques that bring relief, and a special time and place. Important cultural differences in therapies also exist. For example, therapies in individualistic cultures emphasize the self and control over one’s life, whereas therapies in collectivist cultures emphasize interdependence. Japan’s Naikan therapy is a good example of a collectivistic culture’s therapy.

4. Explain why therapists need to be sensitive to gender issues that pertain to mental illness. Therapists must take five considerations into account when treating women clients: higher rate of diagnosis and treatment of mental disorders, stresses of poverty, stresses of aging, violence against women, and stresses of multiple roles.

Chapter 15
Social Cognition

1. Explain how attributions affect the way we perceive and judge others. Attribution is the process of explaining the causes of behaviors or events. We do this by determining whether actions resulted from internal, dispositional factors or external situation. The two key errors are: (1) the fundamental attribution error (FAE), which attributes behavior to internal (dispositional) causes rather than external (situational) factors; and (2) the self-serving bias, which involves taking credit for personal successes and externalizing failures when judging ourselves.

2. Summarize the three components of attitudes. An attitude is a learned predisposition to respond to objects, people, and events in a particular way. Its three ABC components are: (1) Affective (feelings), (2) Behavioral (predispositions to actions), and (3) Cognitive (thoughts and beliefs).

Social Influence

1. Identify the factors that contribute to conformity. Conformity involves changes in behavior in response to real or
identified group. In contrast, **discrimination** refers to action. The two often coincide, but not always.

2. **Summarize** the biological and psychosocial factors believed to be involved in aggression. **Aggression** is any behavior intended to harm someone. Some researchers believe it is caused by biological factors, such as instincts, genes, the brain and nervous system, and hormones and neurotransmitters. Other researchers emphasize psychosocial factors, such as substance abuse, aversive stimuli, media violence, and social learning.

3. **Describe** the theories that attempt to explain altruism. **Altruism**, or prosocial behavior, refers to actions designed to help others with no obvious benefit to the helper. The **evolutionary model** suggests altruism is innate and has survival value, the **egoistic model** proposes that helping is motivated by anticipated gain, and the **empathy-altruism hypothesis** suggests helping increases when the helper feels empathy for the victim. Latane and Darley found that in order for helping to occur, the potential helper must first notice what is happening, then interpret the event as an emergency, then take personal responsibility for helping, decide how to help, and finally actually initiate the helping response.

4. **Summarize** the factors that influence interpersonal attraction. **Physical attractiveness**, **proximity** (geographic nearness), and **similarity** are the three major factors in interpersonal attraction. Sternberg’s **triarchic theory of love** suggests **consummate love** depends in a healthy degree of intimacy, passion, and commitment. **Romantic love** is an intense but generally short-lived attraction based on mystery and fantasy. **Companionate love** is a strong, lasting attraction based on admiration, respect, trust, deep caring, and commitment.