A

**A-B-A design** Experimental design in which participants first experience the baseline condition (A), then experience the experimental treatment (B), and then return to the baseline (A).

**Abnormal psychology** The area of psychological investigation concerned with understanding the nature of individual pathologies of mind, mood, and behavior.

**Absolute threshold** The minimum amount of physical energy needed to produce a reliable sensory experience; operationally defined as the stimulus level at which a sensory signal is detected half the time.

**Accommodation** The process by which the ciliary muscles change the thickness of the lens of the eye to permit variable focusing on near and distant objects.

**Accommodation** According to Piaget, the process of restructuring or modifying cognitive structures so that new information can fit into them more easily; this process works in tandem with assimilation.

**Acquisition** The stage in a classical conditioning experiment during which the conditioned response is first elicited by the conditioned stimulus.

**Action potential** The nerve impulse activated in a neuron that travels down the axon and causes neurotransmitters to be released into a synapse.

**Acute stress** A transient state of arousal with typically clear onset and offset patterns.

**Addiction** A condition in which the body requires a drug in order to function without physical and psychological reactions to its absence; often the outcome of tolerance and dependence.

**Ageism** Prejudice against older people, similar to racism and sexism in its negative stereotypes.

**Aggression** Behaviors that cause psychological or physical harm to another individual.
Agoraphobia An extreme fear of being in public places or open spaces from which escape may be difficult or embarrassing.

AIDS Acronym for acquired immune deficiency syndrome, a syndrome caused by a virus that damages the immune system and weakens the body's ability to fight infection.

Algorithm A step-by-step procedure that always provides the right answer for a particular type of problem.

All-or-none law The rule that the size of the action potential is unaffected by increases in the intensity of stimulation beyond the threshold level.

Altruism Prosocial behaviors a person carries out without considering his or her own safety or interests.

Alzheimer's disease A chronic organic brain syndrome characterized by gradual loss of memory, decline in intellectual ability, and deterioration of personality.

Amacrine cells Cells that integrate information across the retina; rather than sending signals toward the brain, amacrine cells link bipolar cells to other bipolar cells and ganglion cells to other ganglion cells.

Ambiguity A perceptual object that may have more than "one interpretation.

Amnesia A failure of memory caused by physical injury, disease, drug use, or psychological trauma.

Amygdala The part of the limbic system that controls emotion, aggression, and the formation of emotional memory.

Analytic psychology A branch of psychology that views the person as a constellation of compensatory internal forces in a dynamic balance.

Anchoring heuristic An insufficient adjustment up or down from an original starting value when judging the probable value of some event or outcome.

Animal cognition The cognitive capabilities of nonhuman animals; researchers trace the development of cognitive capabilities across species and the continuity of capabilities from nonhuman to human animals.

Anorexia nervosa An eating disorder in which an individual weighs less than 85 percent of her or his expected weight but still controls eating because of a self-perception of obesity.

Anticipatory coping Efforts made in advance of a potentially stressful event to overcome, reduce, or tolerate the imbalance between perceived demands and available resources.

Anxiety An intense emotional response caused by the preconscious recognition that a repressed conflict is about to emerge into consciousness.
Anxiety disorders Mental disorders marked by physiological arousal, feelings of tension, and intense apprehension without apparent reason.

Apparent motion A movement illusion in which one or more stationary lights going on and off in succession are perceived as a single moving light; the simplest form of apparent motion is the phi phenomenon.

Archetype A universal, inherited, primitive, and symbolic representation of a particular experience or object.

Assimilation According to Piaget, the process whereby new cognitive elements are fitted in with old elements or modified to fit more easily; this process works in tandem with accommodation.

Association cortex The parts of the cerebral cortex in which many high-level brain processes occur.

Attachment Emotional relationship between a child and the "regular caregiver.

Attention A state of focused awareness on a subset of the available perceptual information.

Attitude The learned, relatively stable tendency to respond to people, concepts, and events in an evaluative way.

Attribution theory A social-cognitive approach to describing the ways the social perceiver uses information to generate causal explanations.

Attributions Judgments about the causes of outcomes.

Audience design The process of shaping a message depending on the audience for which it is intended.

Auditory cortex The area of the temporal lobes that receives and processes auditory information.

Auditory nerve The nerve that carries impulses from the cochlea to the cochlear nucleus of the brain.

Automatic processes Processes that do not require attention; they can often be performed along with other tasks without interference.

Autonomic nervous system (ANS) The subdivision of the peripheral nervous system that controls the body's involuntary motor responses by connecting the sensory receptors to the central nervous system (CNS) and the CNS to the smooth muscle, cardiac muscle, and glands.

Availability heuristic A judgment based on the information readily available in memory.

Aversion therapy A type of behavioral therapy used to treat individuals attracted to harmful stimuli; an attractive stimulus is paired with a noxious stimulus in order to elicit a negative reaction to the target stimulus.
Axon The extended fiber of a neuron through which nerve impulses travel from the soma to the terminal buttons.

Basic level The level of categorization that can be retrieved from memory most quickly and used most efficiently.

Basilar membrane A membrane in the cochlea that, when set into motion, stimulates hair cells that produce the neural effects of auditory stimulation.

Behavior The actions by which an organism adjusts to its environment.

Behavior analysis The area of psychology that focuses on the environmental determinants of learning and behavior.

Behavior modification The systematic use of principles of learning to increase the frequency of desired behaviors and/or decrease the frequency of problem behaviors.

Behavior therapy See behavior modification.

Behavioral confirmation The process by which people behave in ways that elicit from others specific expected reactions and then use those reactions to confirm their beliefs.

Behavioral data Observational reports about the behavior of organisms and the conditions under which the behavior occurs or changes.

Behavioral measures Overt actions and reactions that are observed and recorded, exclusive of self-reported behavior.

Behavioral rehearsal Procedures used to establish and strengthen basic skills; as used in social-skills training programs, requires the client to rehearse a desirable behavior sequence mentally.

Behaviorism A scientific approach that limits the study of psychology to measurable or observable behavior.

Behaviorist perspective The psychological perspective primarily concerned with observable behavior that can be objectively recorded and with the relationships of observable behavior to environmental stimuli.

Belief-bias effect A situation that occurs when a person's prior knowledge, attitudes, or values distort the reasoning process by influencing the person to accept invalid arguments.

Between-subjects design A research design in which different groups of participants are randomly assigned to experimental conditions or to control conditions.
Biofeedback A self-regulatory technique by which an individual acquires voluntary control over nonconscious biological processes.

Biological constraints on learning Any limitations on an organism's capacity to learn that are caused by the inherited sensory, response, or cognitive capabilities of members of a given species.

Biological perspective The approach to identifying causes of behavior that focuses on the functioning of the genes, the brain, the nervous system, and the endocrine system.

Biomedical therapies Treatments for psychological disorders that alter brain functioning with chemical or physical interventions such as drug therapy, surgery, or electroconvulsive therapy.

Biopsychosocial model A model of health and illness that suggests that links among the nervous system, the immune system, behavioral styles, cognitive processing, and environmental factors can put people at risk for illness.

Bipolar cells Nerve cells in the visual system that combine impulses from many receptors and transmit the results to ganglion cells.

Bipolar disorder A mood disorder characterized by alternating periods of depression and mania.

Blocking A phenomenon in which an organism does not learn a new stimulus that signals an unconditioned stimulus, because the new stimulus is presented simultaneously with a stimulus that is already effective as a signal.

Body image The subjective experience of the appearance of one's body.

Bottom-up processing Perceptual analyses based on the sensory data available in the environment; results of analyses are passed upward toward more abstract representations.

Brain stem The brain structure that regulates the body's basic life processes.

Brightness The dimension of color space that captures the intensity of light.

Broca's area The region of the brain that translates thoughts into speech or sign.

Bulimia nervosa An eating disorder characterized by binge eating followed by measures to purge the body of the excess calories.

Bystander intervention Willingness to assist a person in need of help.
Cannon-Bard theory of emotion  A theory stating that an "emotional stimulus produces two co-occurring reactions-arousal "and experience of emotion-that do not cause each other.

Case study  Intensive observation of a particular individual or small group of individuals.

Catharsis  The process of expressing strongly felt but usually repressed emotions.

Central nervous system (CNS)  The part of the nervous system consisting of the brain and spinal cord.

Centration  A thought pattern common during the beginning of the preoperational stage of cognitive development; characterized by the child's inability to take more than one perceptual factor into account at the same time.

Cerebellum  The region of the brain attached to the brain stem that controls motor coordination, posture, and balance as well as the ability to learn control of body movements.

Cerebral cortex  The outer surface of the cerebrum.

Cerebral hemispheres  The two halves of the cerebrum, connected by the corpus callosum.

Cerebrum  The region of the brain that regulates higher cognitive and emotional functions.

Child-directed speech  A special form of speech with an exaggerated and high-pitched intonation that adults use to speak to infants and young children.

Chronic stress  A continuous state of arousal in which an individual perceives demands as greater than the inner and outer resources available for dealing with them.

Chronological age  The number of months or years since an individual's birth.

Chunking  The process of taking single items of information and recoding them on the basis of similarity or some other organizing principle.

Circadian rhythm  A consistent pattern of cyclical body activities, usually lasting 24 to 25 hours and determined by an internal biological clock.

Classical conditioning  A type of learning in which a behavior (conditioned response) comes to be elicited by a stimulus (conditioned stimulus) that has acquired its power through an association with a biologically significant stimulus (unconditioned stimulus).

Client  The term used by clinicians who think of psychological disorders as problems in living, and not as mental illnesses, to describe those being treated.
Client-centered therapy A humanistic approach to treatment that emphasizes the healthy psychological growth of the individual; based on the assumption that all people share the basic tendency of human nature toward self-actualization.

Clinical ecology A field of psychology that relates disorders such as anxiety and depression to environmental irritants and sources of trauma.

Clinical psychologist An individual who has earned a doctorate in psychology and whose training is in the assessment and treatment of psychological problems.

Clinical social worker A mental health professional whose specialized training prepares him or her to consider the social context of people's problems.

Closure A perceptual organizing process that leads individuals to see incomplete figures as complete.

Cochlea The primary organ of hearing; a fluid-filled coiled tube located in the inner ear.

Cognition Processes of knowing, including attending, remembering, and reasoning; also the content of the processes, such as concepts and memories.

Cognitive appraisal With respect to emotions, the process through which physiological arousal is interpreted with respect to circumstances in the particular setting in which it is being experienced; also, the recognition and evaluation of a stressor to assess the demand, the size of the threat, the resources available for dealing with it, and appropriate coping strategies.

Cognitive appraisal theory of emotion A theory stating that the experience of emotion is the joint effect of physiological arousal and cognitive appraisal, which serves to determine how an ambiguous inner state of arousal will be labeled.

Cognitive behavior modification A therapeutic approach that combines the cognitive emphasis on the role of thoughts and attitudes influencing motivations and response with the behavioral emphasis on changing performance through modification of reinforcement contingencies.

Cognitive development The development of processes of knowing, including imagining, perceiving, reasoning, and problem solving.

Cognitive dissonance The theory that the tension-producing effects of incongruous cognitions motivate individuals to reduce such tension.

Cognitive map A mental representation of physical space.
Cognitive perspective The perspective on psychology that stresses human thought and the processes of knowing, such as attending, thinking, remembering, expecting, solving problems, fantasizing, and consciousness.

Cognitive processes Higher mental processes, such as perception, memory, language, problem solving, and abstract thinking.

Cognitive psychology The study of higher mental processes such as attention, language use, memory, perception, problem solving, and thinking.

Cognitive science The interdisciplinary field of study of the approach systems and processes that manipulate information.

Cognitive therapy A type of psychotherapeutic treatment that attempts to change feelings and behaviors by changing the way a client thinks about or perceives significant life experiences.

Collective unconscious The part of an individual's unconscious that is inherited, evolutionarily developed, and common to all members of the species.

Comorbidity The experience of more than one disorder at the same time.

Complementary colors Colors opposite each other on the color circle; when additively mixed, they create the sensation of white light.

Compliance A change in behavior consistent with a communication source's direct requests.

Concepts Mental representations of kinds or categories of items or ideas.

Conditioned reinforcers In classical conditioning, formerly neutral stimuli that have become reinforcers.

Conditioned response (CR) In classical conditioning, a response elicited by some previously neutral stimulus that occurs as a result of pairing the neutral stimulus with an unconditioned stimulus.

Conditioned stimulus (CS) In classical conditioning, a previously neutral stimulus that comes to elicit a conditioned response.

Conditioning The ways in which events, stimuli, and behavior become associated with one another.

Cones Photoreceptors concentrated in the center of the retina that are responsible for visual experience under normal viewing conditions and for all experiences of color.

Conformity The tendency for people to adopt the behaviors, attitudes, and values of other members of a reference group.
**Confounding variable** A stimulus other than the variable an experimenter explicitly introduces into a research setting that affects a participant's behavior.

**Consciousness** A state of awareness of internal events and of the external environment.

**Consensual validation** The mutual affirmation of conscious views of reality.

**Conservation** According to Piaget, the understanding that physical properties do not change when nothing is added or taken away, even though appearances may change.

**Consistency paradox** The observation that personality ratings across time and among different observers are consistent, while behavior ratings across situations are not consistent.

**Contact comfort** Comfort derived from an infant's physical contact with the mother or caregiver.

**Contact hypothesis** The idea that direct contact between hostile groups alone will reduce prejudice.

**Context of discovery** The initial phase of research, in which observations, beliefs, information, and general knowledge lead to a new idea or a different way of thinking about some phenomenon.

**Context of justification** The research phase in which evidence is brought to bear on hypotheses.

**Contextual distinctiveness** The assumption that the serial position effect can be altered by the context and the distinctiveness of the experience being recalled.

**Contingency management** A general treatment strategy involving changing behavior by modifying its consequences.

**Control procedures** Consistent procedures for giving instructions, scoring responses, and holding all other variables constant except those being systematically varied.

**Controlled processes** Processes that require attention; it is often difficult to carry out more than one controlled process at a time.

**Convergence** The degree to which the eyes turn inward to fixate on an object.

**Coping** The process of dealing with internal or external demands that are perceived to be threatening or overwhelming.

**Corpus callosum** The mass of nerve fibers connecting the two hemispheres of the cerebrum.

**Correlation coefficient** (r) A statistic that indicates the degree of relationship between two variables.
Correlational methods Research methodologies that determine to what extent two variables, traits, or attributes are related.

Counseling psychologist Psychologist who specializes in providing guidance in areas such as vocational selection, school problems, drug abuse, and marital conflict.

Counterconditioning A technique used in therapy to substitute a new response for a maladaptive one by means of conditioning procedures.

Countertransference Circumstances in which a psychoanalyst develops personal feelings about a client because of perceived similarity of the client to significant people in the therapist's life.

Covariation principle A theory that suggests that people attribute a behavior to a causal factor if that factor was present whenever the behavior occurred but was absent whenever it did not occur.

Creativity The ability to generate ideas or products that are both novel and appropriate to the circumstances.

Criterion validity The degree to which test scores indicate a result on a specific measure that is consistent with some other criterion of the characteristic being assessed; also known as predictive validity.

Cross-sectional design A research method in which groups of participants of different chronological ages are observed and compared at a given time.

Crystallized intelligence The facet of intelligence involving the knowledge a person has already acquired and the ability to access that knowledge; measures by vocabulary, arithmetic, and general information tests.

Cultural perspective The psychological perspective that focuses on cross-cultural differences in the causes and consequences of behavior.

Cutaneous senses The skin senses that register sensations of pressure, warmth, and cold.

D

Dark adaptation The gradual improvement of the eyes’ sensitivity after a shift in illumination from light to near darkness.

Date rape Unwanted sexual violation by a social acquaintance in the context of a consensual dating situation.

Daytime sleepiness The experience of excessive sleepiness during daytime activities; the major complaint of patients evaluated at sleep disorder centers.
Debriefing A procedure conducted at the end of an experiment in which the researcher provides the participant with as much information about the study as possible and makes sure that no participant leaves feeling confused, upset, or embarrassed.

Decision aversion The tendency to avoid decision making; the tougher the decision, the greater the likelihood of decision aversion.

Decision making The process of choosing between alternatives; selecting or rejecting available options.

Declarative memory Memory for information such as facts and events.

Deductive reasoning A form of thinking in which one draws a conclusion that is intended to follow logically from two or more statements or premises.

Delusions False or irrational beliefs maintained despite clear evidence to the contrary.

Demand characteristics Cues in an experimental setting that influence the participants' perception of what is expected of them and that systematically influence their behavior within that setting.

Dendrites The branched fibers of neurons that receive incoming signals.

Dependent variable In an experimental setting, any variable whose values are the results of changes in one or more independent variables.

Descriptive statistics Statistical procedures that are used to summarize sets of scores with respect to central tendencies, variability, and correlations.

Determinism The doctrine that all events-physical, behavioral, and mental-are determined by specific causal factors that are potentially knowable.

Developmental age The chronological age at which most children show a particular level of physical or mental development.

Developmental psychology The branch of psychology concerned with interaction between physical and psychological processes and with stages of growth from conception throughout the entire life span.

Diathesis-stress hypothesis A hypothesis about the cause of certain disorders, such as schizophrenia, that suggests that genetic factors predispose an individual to a certain disorder, but that environmental stress factors must impinge in order for the potential risk to manifest itself.

Dichotic listening An experimental technique in which a different auditory stimulus is simultaneously presented to each ear.
**Difference threshold** The smallest physical difference between two stimuli that can still be recognized as a difference; operationally defined as the point at which the stimuli are recognized as different half of the time.

**Diffusion of responsibility** In emergency situations, the larger the number of bystanders, the less responsibility any one bystander feels to help.

**Discriminative stimuli** Stimuli that act as predictors of reinforcement, signaling when particular behaviors will result in positive reinforcement.

**Dispositional variables** The organismic variables, or inner determinants of behavior, that occur within human and nonhuman animals.

**Dissociative amnesia** The inability to remember important personal experiences, caused by psychological factors in the absence of any organic dysfunction.

**Dissociative disorder** A personality disorder marked by a disturbance in the integration of identity, memory, or consciousness.

**Dissociative identity disorder (DID)** A dissociative mental disorder in which two or more distinct personalities exist within the same individual; formerly known as multiple personality disorder.

**Distal stimulus** In the processes of perception, the physical object in the world, as contrasted with the proximal stimulus, the optical image on the retina.

**Divergent thinking** An aspect of creativity characterized by an ability to produce unusual but appropriate responses to problems.

**DNA (deoxyribonucleic acid)** The physical basis for the transmission of genetic information.

**Double-blind control** An experimental technique in which biased expectations of experimenters are eliminated by keeping both participants and experimental assistants unaware of which participants have received which treatment.

**Dream analysis** The psychoanalytic interpretation of dreams used to gain insight into a person's unconscious motives or conflicts.

**Dream work** In Freudian dream analysis, the process by which the internal censor transforms the latent content of a dream into manifest content.

**Drives** Internal states that arise in response to a disequilibrium in an animal's physiological needs.

**DSM-IV-TR** The current diagnostic and statistical manual of the American Psychiatric Association that classifies, defines, and describes mental disorders.
Echoic memory  Sensory memory that allows auditory information to be stored for brief durations.

Ego  The aspect of personality involved in self-preservation activities and in directing instinctual drives and urges into appropriate channels.

Ego defense mechanisms  Mental strategies (conscious or unconscious) used by the ego to defend itself against conflicts experienced in the normal course of life.

Egocentrism  In cognitive development, the inability of a young child at the preoperational stage to take the perspective of another person.

Elaboration likelihood model  A theory of persuasion that defines how likely it is that people will focus their cognitive processes to elaborate upon a message and therefore follow the central and peripheral routes to persuasion.

Elaborative rehearsal  A technique for improving memory by enriching the encoding of information.

Electroconvulsive therapy (ECT)  The use of electroconvulsive shock as an effective treatment for severe depression.

Electroencephalogram (EEG)  A recording of the electrical activity of the brain.

Emotion  A complex pattern of changes, including physiological arousal, feelings, cognitive processes, and behavioral reactions, made in response to a situation perceived to be personally significant.

Emotional intelligence  Type of intelligence defined as the abilities to perceive, appraise, and express emotions accurately and appropriately, to use emotions to facilitate thinking, to understand and analyze emotions, to use emotional knowledge effectively, and to regulate one's emotions to promote both emotional and intellectual growth.

Encoding  The process by which a mental representation is formed in memory.

Encoding specificity  The principle that subsequent retrieval of information is enhanced if cues received at the time of recall are consistent with those present at the time of encoding.

Endocrine system  The network of glands that manufacture and secrete hormones into the bloodstream.

Engram  The physical memory trace for information in the brain.

Environmental variables  External influences on behavior.

Episodic memories  Long-term memories for autobiographical events and the contexts in which they occurred.
EQ The emotional intelligence counterpart of IQ.

Equity theory A cognitive theory of work motivation that proposes that workers are motivated to maintain fair and equitable relationships with other relevant persons; also, a model that postulates that equitable relationships are those in which the participants' outcomes are proportional to their inputs.

Erogenous zones Areas of the skin surface that are especially sensitive to stimulation and that give rise to erotic or sexual sensations.

Estrogen The female sex hormone, produced by the ovaries, that is responsible for the release of eggs from the ovaries as well as for the development and maintenance of female reproductive structures and secondary sex characteristics.

Etiology The causes of, or factors related to, the development of a disorder.

Evolutionary perspective The approach to psychology that stresses the importance of behavioral and mental adaptiveness, based on the assumption that mental capabilities evolved over millions of years to serve particular adaptive purposes.

Excitatory inputs Information entering a neuron that signals it to fire.

Expectancy effects Results that occur when a researcher or observer subtly communicates to participants the kind of behavior he or she expects to find, thereby creating that expected reaction.

Expectancy theory A cognitive theory of work motivation that proposes that workers are motivated when they expect their efforts and job performance to result in desired outcomes.

Experience-sampling method An experimental method that assists researchers in describing the typical contents of consciousness; participants are asked to record what they are feeling and thinking whenever signaled to do so.

Experimental methods Research methodologies that involve the manipulation of independent variables in order to determine their effects on the dependent variables.

Explicit uses of memory Conscious efforts to recover information through memory processes.

Extinction In conditioning, the weakening of a conditioned association in the absence of a reinforcer or unconditioned stimulus.

Face validity The degree to which test items appear to be directly related to the attribute the researcher wishes to measure.
Fear A rational reaction to an objectively identified external danger that may induce a person to flee or attack in self-defense.

Fight-or-flight response A sequence of internal activities triggered when an organism is faced with a threat; prepares the body for combat and struggle or for running away to safety; recent evidence suggests that the response is characteristic only of males.

Figure Object-like regions of the visual field that are distinguished from background.

Five-factor model A comprehensive descriptive personality system that maps out the relationships among common traits, theoretical concepts, and personality scales; informally called the Big Five.

Fixation A state in which a person remains attached to objects or activities more appropriate for an earlier stage of psychosexual development.

Fixed-interval schedule A schedule of reinforcement in which a reinforcer is delivered for the first response made after a fixed period of time.

Fixed-ratio schedule A schedule of reinforcement in which a reinforcer is delivered for the first response made after a fixed number of responses.

Flooding A therapy for phobias in which clients are exposed, with their permission, to the stimuli most frightening to them.

Fluid intelligence The aspect of intelligence that involves the ability to see complex relationships and solve problems.

Formal assessment The systematic procedures and measurement instruments used by trained professionals to assess an individual's functioning, aptitudes, abilities, or mental states.

Foundational theories Frameworks for initial understanding formulated by children to explain their experiences of the world.

Fovea Area of the retina that contains densely packed cones and forms the point of sharpest vision.

Frame A particular description of a choice; the perspective from which a choice is described or framed affects how a decision is made and which option is ultimately exercised.

Free association The therapeutic method in which a patient gives a running account of thoughts, wishes, physical sensations, and mental images as they occur.

Frequency distribution A summary of how frequently each score appears in a set of observations.
**Frequency theory** The theory that a tone produces a rate of vibration in the basilar membrane equal to its frequency, with the result that pitch can be coded by the frequency of the neural response.

**Frontal lobe** Region of the brain located above the lateral fissure and in front of the central sulcus; involved in motor control and cognitive activities.

**Frustration-aggression hypothesis** According to this hypothesis, frustration occurs in situations in which people are prevented or blocked from attaining their goals; a rise in frustration then leads to a greater probability of aggression.

**Functional fixedness** An inability to perceive a new use for an object previously associated with some other purpose; adversely affects problem solving and creativity.

**Functional MRI (fMRI)** A brain imaging technique that combines benefits of both MRI and PET scans by detecting magnetic changes in the flow of blood to cells in the brain.

**Functionalism** The perspective on mind and behavior that focuses on the examination of their functions in an organism's interactions with the environment.

**Fundamental attribution error (FAE)** The dual tendency of observers to underestimate the impact of situational factors and to overestimate the influence of dispositional factors on a person's behavior.

**G**

* g According to Spearman, the factor of general intelligence underlying all intelligent performance.

**Ganglion cells** Cells in the visual system that integrate impulses from many bipolar cells in a single firing rate.

**Gate-control theory** A theory about pain modulation that proposes that certain cells in the spinal cord act as gates to interrupt and block some pain signals while sending others on to the brain.

**Gender** A psychological phenomenon that refers to learned sex-related behaviors and attitudes of males and females.

**Gender identity** One's sense of maleness or femaleness; usually includes awareness and acceptance of one's biological sex.

**Gender roles** Sets of behaviors and attitudes associated by society with being male or female and expressed publicly by the individual.

**General adaption syndrome (GAS)** The pattern of nonspecific adaptational physiological mechanisms that occurs in response to continuing threat by almost any serious stressor.
**Generalized anxiety disorder** An anxiety disorder in which an individual feels anxious and worried most of the time for at least six months when not threatened by any specific danger or object.

**Generativity** A commitment beyond one's self and one's partner to family, work, society, and future generations; typically, a crucial step in development in one's 30s and 40s.

**Genes** The biological units of heredity; discrete sections of chromosomes responsible for transmission of traits.

**Genetics** The study of the inheritance of physical and psychological traits from ancestors.

**Genocide** The systematic destruction of one group of people, often an ethnic or racial group, by another.

**Genotype** The genetic structure an organism inherits from its parents.

**Gestalt psychology** A school of psychology that maintains that psychological phenomena can be understood only when viewed as organized, structured wholes, not when broken down into primitive perceptual elements.

**Gestalt therapy** Therapy that focuses on ways to unite mind and body to make a person whole.

**Glia** The cells that hold neurons together and facilitate neural transmission, remove damaged and dead neurons, and prevent poisonous substances in the blood from reaching the brain.

**Goal-directed selection** A determinant of why people select some parts of sensory input for further processing; it reflects the choices made as a function of one's own goals.

**Ground** The backdrop or background areas of the visual field, against which figures stand out.

**Group dynamics** The study of how group processes change individual functioning.

**Group polarization** The tendency for groups to make decisions that are more extreme than the decisions that would be made by the members acting alone.

**Groupthink** The tendency of a decision-making group to filter out undesirable input so that a consensus may be reached, especially if it is in line with the leader's viewpoint.

**Guided search** In visual perception, a parallel search of the environment for single, basic attributes that guides attention to likely locations of objects with more complex combinations of attributes.

**Hallucinations** False perceptions that occur in the absence of objective stimulation.
Health A general condition of soundness and vigor of body and mind; not simply the absence of illness or injury.

Health promotion The development and implementation of general strategies and specific tactics to eliminate or reduce the risk that people will become ill.

Health psychology The field of psychology devoted to understanding the ways people stay healthy, the reasons they become ill, and the ways they respond when they become ill.

Heredity The biological transmission of traits from parents to offspring.

Heritability estimate A statistical estimate of the degree of inheritance of a given trait or behavior, assessed by the degree of similarity between individuals who vary in their extent of genetic similarity.

Heuristics Cognitive strategies, or "rules of thumb," often used as shortcuts in solving a complex inferential task.

Hierarchy of needs Maslow's view that basic human motives form a hierarchy and that the needs at each level of the hierarchy must be satisfied before the next level can be achieved; these needs progress from basic biological needs to the need for transcendence.

Hippocampus The part of the limbic system that is involved in the acquisition of explicit memory.

HIV Human immunodeficiency virus, a virus that attacks white blood cells (T lymphocytes) in human blood, thereby weakening the functioning of the immune system; HIV causes AIDS.

Homeostasis Constancy or equilibrium of the internal conditions of the body.

Horizontal cells The cells that integrate information across the retina; rather than sending signals toward the brain, horizontal cells connect receptors to each other.

Hormones The chemical messengers, manufactured and secreted by the endocrine glands, that regulate metabolism and influence body growth, mood, and sexual characteristics.

Hozho A Navajo concept referring to harmony, peace of mind, goodness, ideal family relationships, beauty in arts and crafts, and health of body and spirit.

Hue The dimension of color space that captures the qualitative experience of the color of a light.

Human behavior genetics The area of study that evaluates the genetic component of individual differences in behaviors and traits.

Human-potential movement The therapy movement that encompasses all those practices and methods that release the potential of the average human being for greater levels of performance and greater richness of experience.
**Humanistic perspective** A psychological model that emphasizes an individual's phenomenal world and inherent capacity for making rational choices and developing to maximum potential.

**Hypnosis** An altered state of awareness characterized by deep relaxation, susceptibility to suggestions, and changes in perception, memory, motivation, and self-control.

**Hypnotizability** The degree to which an individual is responsive to standardized hypnotic suggestion.

**Hypothalamus** The brain structure that regulates motivated behavior (such as eating and drinking) and homeostasis.

**Hypothesis** A tentative and testable explanation of the relationship between two (or more) events or variables; often stated as a prediction that a certain outcome will result from specific conditions.

**Iconic memory** Sensory memory in the visual domain; allows large amounts of information to be stored for very brief durations.

**Id** The primitive, unconscious part of the personality that operates irrationally and acts on impulse to pursue pleasure.

**Identification and recognition** Two ways of attaching meaning to percepts.

**Illusion** An experience of a stimulus pattern in a manner that is demonstrably incorrect but shared by others in the same perceptual environment.

**Illusory contours** Contours perceived in a figure when no contours are physically present.

**Implicit uses of memory** Availability of information through memory processes without the exertion of any conscious effort to encode or recover information.

**Implosion therapy** A behavioral therapeutic technique that exposes a client to anxiety-provoking stimuli, through his or her own imagination, in an attempt to extinguish the anxiety associated with the stimuli.

**Imprinting** A primitive form of learning in which some infant animals physically follow and form an attachment to the first moving object they see and/or hear.

**Impulsive aggression** Emotion-driven aggression produced in reaction to situations in the “heat of the moment.”

**Incentives** External stimuli or rewards that motivate behavior although they do not relate directly to biological needs.
**Independent construals of self** Conceptualization of the self as an individual whose behavior is organized primarily by reference to one's own thoughts, feelings, and actions, rather than by reference to the thoughts, feelings, and actions of others.

**Independent variable** In experimental settings, the stimulus condition whose values are free to vary independently of any other variable in the situation.

**Induced motion** An illusion in which a stationary point of light within a moving reference frame is seen as moving and the reference frame is perceived as stationary.

**Inductive reasoning** A form of reasoning in which a conclusion is made about the probability of some state of affairs, based on the available evidence and past experience.

**Inferences** Missing information filled in on the basis of a sample of evidence or on the basis of prior beliefs and theories.

**Inferential statistics** Statistical procedures that allow researchers to determine whether the results they obtain support their hypotheses or can be attributed just to chance variation.

**Informational influence** Group effects that arise from individuals' desire to be correct and right and to understand how best to act in a given situation.

**In-group bias** An evaluation of one's own group as better than others.

**In-groups** The groups with which people identify as members.

**Inhibitory inputs** Information entering a neuron signaling it not to fire.

**Insanity** The legal (not clinical) designation for the state of an individual judged to be legally irresponsible or incompetent.

**Insight therapy** A technique by which the therapist guides a patient toward discovering insights between present symptoms and past origins.

**Insomnia** The chronic inability to sleep normally; symptoms include difficulty in falling asleep, frequent waking, inability to return to sleep, and early-morning awakening.

**Instincts** Preprogrammed tendencies that are essential to a species's survival.

**Instinctual drift** The tendency for learned behavior to drift toward instinctual behavior over time.
**Instrumental aggression** Cognition-based and goal-directed aggression carried out with premeditated thought, to achieve specific aims.

**Intelligence quotient (IQ)** An index derived from standardized tests of intelligence; originally obtained by dividing an individual's mental age by chronological age and then multiplying by 100; now directly computed as an IQ test score.

**Intelligence** The global capacity to profit from experience and to go beyond given information about the environment.

**Interdependent construals of self** Conceptualization of the self as part of an encompassing social relationship; recognizing that one's behavior is determined, contingent on, and, to a large extent organized by what the actor perceives to be the thoughts, feelings, and actions of others.

**Interference** A memory phenomenon that occurs when retrieval cues do not point effectively to one specific memory.

**Internal consistency** A measure of reliability; the degree to which a test yields similar scores across its different parts, such as on odd versus even items.

**Internalization** According to Vygotsky, the process through which children absorb knowledge from the social context.

**Interneurons** Brain neurons that relay messages from sensory neurons to other interneurons or to motor neurons.

**Intimacy** The capacity to make a full commitment—sexual, emotional, and moral—to another person.

**Ion channels** The portions of neurons’ cell membranes that selectively permit certain ions to flow in and out.

**James-Lange theory of emotion** A peripheral-feedback theory of emotion stating that an eliciting stimulus triggers a behavioral response that sends different sensory and motor feedback to the brain and creates the feeling of a specific emotion.

**Jigsaw classrooms** Classrooms that use a technique known as jigsawing, in which each pupil is given part of the total material to master and then share with other group members.

**Job burnout** The syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment, often experienced by workers in high-stress jobs.

**Judgment** The process by which people form opinions, reach conclusions, and make critical evaluations of events and people based on available material; also, the product of that mental activity.

**Just noticeable difference (JND)** The smallest difference between two sensations that allows them to be discriminated.
Kinesthetic sense Sense concerned with bodily position and movement of the body parts relative to each other.

Language-making capacity The innate guidelines or operating principles that children bring to the task of learning a language.

Language production What people say, sign, and write, as well as the processes they go through to produce these messages.

Latent content In Freudian dream analysis, the hidden meaning of a dream.

Law of common fate A law of grouping that states that elements moving in the same direction at the same rate are grouped together.

Law of effect A basic law of learning that states that the power of a stimulus to evoke a response is strengthened when the response is followed by a reward and weakened when it is not followed by a reward.

Law of proximity A law of grouping that states that the nearest, or most proximal, elements are grouped together.

Law of similarity A law of grouping that states that the most similar elements are grouped together.

Learned helplessness A general pattern of nonresponding in the presence of noxious stimuli that often follows after an organism has previously experienced noncontingent, inescapable aversive stimuli.

Learning A process based on experience that results in a relatively permanent change in behavior or behavioral potential.

Learning-performance distinction The difference between what has been learned and what is expressed in overt behavior.

Lesions Injuries to or destruction of brain tissue.

Levels-of-processing theory A theory that suggests that the deeper the level at which information was processed, the more likely it is to be retained in memory.

Libido The psychic energy that drives individuals toward sensual pleasures of all types, especially sexual ones.

Life-change units (LCUs) In stress research, the measure of the stress levels of different types of change experienced during a given period.
Lightness constancy The tendency to perceive the whiteness, grayness, or blackness of objects as constant across changing levels of illumination.

Limbic system The region of the brain that regulates emotional behavior, basic motivational urges, and memory, as well as major physiological functions.

Longitudinal design A research design in which the same participants are observed repeatedly, sometimes over many years.

Long-term memory (LTM) Memory processes associated with the preservation of information for retrieval at any later time.

Loudness A perceptual dimension of sound influenced by the amplitude of a sound wave; sound waves with large amplitudes are generally experienced as loud and those with small amplitudes as soft.

Lucid dreaming The theory that conscious awareness of dreaming is a learnable skill that enables dreamers to control the direction and content of their dreams.

Magnetic resonance imaging (MRI) A technique for brain imaging that scans the brain using magnetic fields and radio waves.

Major depressive disorder A mood disorder characterized by intense feelings of depression over an extended time, without the manic high phase of bipolar depression.

Manic episode A component of bipolar disorder characterized by periods of extreme elation, unbounded euphoria without sufficient reason, and grandiose thoughts or feelings about personal abilities.

Manifest content In Freudian dream analysis, the surface content of a dream, which is assumed to mask the dream's actual meaning.

Maturation The continuing influence of heredity throughout development; the age-related physical and behavioral changes characteristic of a species.

Mean The arithmetic average of a group of scores; the most commonly used measure of central tendency.

Measure of central tendency A statistic, such as a mean, median, or mode, that provides one score as representative of a set of observations.

Measures of variability A statistic, such as a range or standard deviation, that indicates how tightly the scores in a set of observations cluster together.
**Median** The score in a distribution above and below which lie 50 percent of the other scores; a measure of central tendency.

**Meditation** A form of consciousness alteration designed to enhance self-knowledge and well-being through reduced self-awareness.

**Medulla** The region of the brain stem that regulates breathing, waking, and heartbeat.

**Memory** The mental capacity to encode, store, and retrieve information.

**Menarche** The onset of menstruation.

**Mental age** In Binet's measure of intelligence, the age at which a child is performing intellectually, expressed in terms of the average "age at which normal children achieve a particular score.

**Mental retardation** Condition in which individuals have IQ scores 70 to 75 or below and also demonstrate limitations in the ability to bring adaptive skills to bear on life tasks.

**Mental set** The tendency to respond to a new problem in the manner used to respond to a previous problem.

**Meta-analysis** A statistical technique for evaluating hypotheses by providing a formal mechanism for detecting the general conclusions found in data from many different experiments.

**Metamemory** Implicit or explicit knowledge about memory abilities and effective memory strategies; cognition about memory.

**Mnemonics** Strategies or devices that use familiar information during the encoding of new information to enhance subsequent access to the information in memory.

**Mode** The score appearing most frequently in a set of observations; a measure of central tendency.

**Mood disorder** A mood disturbance such as severe depression or depression alternating with mania.

**Morality** A system of beliefs and values that ensures that individuals will keep their obligations to others in society and will behave in ways that do not interfere with the rights and interests of others.

**Motivation** The process of starting, directing, and maintaining physical and psychological activities; includes mechanisms involved in preferences for one activity over another and the vigor and persistence of responses.

**Motor cortex** The region of the cerebral cortex that controls the action of the body's voluntary muscles.
**Motor neurons** The neurons that carry messages away from the central nervous system toward the muscles and glands.

**Narcolepsy** A sleep disorder characterized by an irresistible compulsion to sleep during the daytime.

**Natural selection** Darwin's theory that favorable adaptations to features of the environment allow some members of a species to reproduce more successfully than others.

**Nature-nurture controversy** The debate concerning the relative importance of heredity (nature) and learning or experience (nurture) in determining development and behavior.

**Need for achievement (n Ach)** An assumed basic human need to strive for achievement of goals that motivates a wide range of behavior and thinking.

**Negative punishment** A behavior is followed by the removal of an appetitive stimulus, decreasing the probability of that behavior.

**Negative reinforcement** A behavior is followed by the removal of an aversive stimulus, increasing the probability of that behavior.

**Neuromodulator** Any substance that modifies or modulates the activities of the postsynaptic neuron.

**Neuron** A cell in the nervous system specialized to receive, process, and/or transmit information to other cells.

**Neuropathic pain** Pain caused by abnormal functioning or overactivity of nerves; it results from injury or disease of nerves.

**Neuroscience** The scientific study of the brain and of the links between brain activity and behavior.

**Neurotic disorders** Mental disorders in which a person does not have signs of brain abnormalities and does not display grossly irrational thinking or violate basic norms but does experience subjective distress; a category dropped from DSM-III.

**Neurotransmitters** Chemical messengers released from neurons that cross the synapse from one neuron to another, stimulating the postsynaptic neuron.

**Nociceptive pain** Pain induced by a noxious external stimulus; specialized nerve endings in the skin send this pain message from the skin, through the spinal chord, into the brain.

**Nonconscious** Information not typically available to consciousness or memory.
Non-REM (NREM) sleep The period during which a sleeper does not show rapid eye movement; characterized by less dream activity than REM sleep.

Norm crystallization The convergence of the expectations of a group of individuals into a common perspective as they talk and carry out activities together.

Normal curve The symmetrical curve that represents the distribution of scores on many psychological attributes; allows researchers to make judgments of how unusual an observation or result is.

Normative influence Group effects that arise from individuals' desire to be liked, accepted, and approved of by others.

Normative investigations Research efforts designed to describe what is characteristic of a specific age or developmental stage.

Norms Standards based on measurements of a large group of people; used for comparing the scores of an individual with those of others within a well-defined group.

Object permanence The recognition that objects exist independently of an individual's action or awareness; an important cognitive acquisition of infancy.

Object relations theory Psychoanalytic theory that originated with Melanie Klein's view that the building blocks of how people experience the world emerge from their relations to loved and hated objects (significant people in their lives).

Observational learning The process of learning new responses by watching the behavior of another.

Observer bias The distortion of evidence because of the personal motives and expectations of the viewer.

Obsessive-compulsive disorder (OCD) A mental disorder characterized by obsessions-recurrent thoughts, images, or impulses that recur or persist despite efforts to suppress them-and compulsions-repetitive, purposeful acts performed according to certain rules or in a ritualized manner.

Occipital lobe Rearmost region of the brain; contains primary visual cortex.

Olfactory bulb The center where odor-sensitive receptors send their signals, located just below the frontal lobes of the cortex.

Operant Behavior emitted by an organism that can be characterized in terms of the observable effects it has on the environment.
Operant conditioning Learning in which the probability of a response is changed by a change in its consequences.

Operant extinction When a behavior no longer produces predictable consequences, its return to the level of occurrence it had before operant conditioning.

Operational definition A definition of a variable or condition in terms of the specific operation or procedure used to determine its presence.

Opponent-process theory The theory that all color experiences arise from three systems, each of which includes two “opponent” elements (red versus green, blue versus yellow, and black versus white).

Optic nerve The axons of the ganglion cells that carry information from the eye toward the brain.

Organismic variables The inner determinants of an organism’s behavior.

Organizational psychologists Psychologists who study various aspects of the human work environment, such as communication among employees, socialization or enculturation of workers, leadership, job satisfaction, stress and burnout, and overall quality of life.

Orientation constancy The ability to perceive the actual orientation of objects in the real world despite their varying orientation in the retinal image.

Out-groups The groups with which people do not identify.

Overregularization A grammatical error, usually appearing during early language development, in which rules of the language are applied too widely, resulting in incorrect linguistic forms.

Pain The body’s response to noxious stimuli that are intense enough to cause, or threaten to cause, tissue damage.

Panic disorder An anxiety disorder in which sufferers experience unexpected, severe panic attacks that begin with a feeling of intense apprehension, fear, or terror.

Parallel forms Different versions of a test used to assess test reliability; the change of forms reduces effects of direct practice, memory, or the desire of an individual to appear consistent on the same items.

Parallel processes Two or more mental processes that are carried out simultaneously.

Parasympathetic division The subdivision of the autonomic nervous system that monitors the routine operation of the body’s internal functions and conserves and restores body energy.
Parental investment The time and energy parents must spend raising their offspring.

Parenting practices Specific parenting behaviors that arise in response to particular parental goals.

Parenting styles The manner in which parents rear their children; an authoritative parenting style, which balances demandingness and responsiveness, is seen as the most effective.

Parietal lobe Region of the brain behind the frontal lobe and above the lateral fissure; contains somatosensory cortex.

Partial reinforcement effect The behavioral principle that states that responses acquired under intermittent reinforcement are more difficult to extinguish than those acquired with continuous reinforcement.

Participant modeling A therapeutic technique in which a therapist demonstrates the desired behavior and a client is aided, through supportive encouragement, to imitate the modeled behavior.

Pastoral counselor A member of a religious order who specializes in the treatment of psychological disorders, often combining spirituality with practical problem solving.

Patient The term used by those who take a biomedical approach to the treatment of psychological problems to describe the person being treated.

Peace psychology An interdisciplinary approach to the prevention of nuclear war and the maintenance of peace.

Perceived control The belief that one has the ability to make a difference in the course or the consequences of some event or experience; often helpful in dealing with stressors.

Perception The processes that organize information in the sensory image and interpret it as having been produced by properties of objects or events in the external, three-dimensional world.

Perceptual constancy The ability to retain an unchanging percept of an object despite variations in the retinal image.

Perceptual organization The processes that put sensory information together to give the perception of a coherent scene over the whole visual field.

Peripheral nervous system (PNS) The part of the nervous system composed of the spinal and cranial nerves that connect the body's sensory receptors to the CNS and the CNS to the muscles and glands.

Personality The unique psychological qualities of an individual that influence a variety of characteristic behavior patterns (both overt and covert) across different situations and over time.
**Personality disorder** A chronic, inflexible, maladaptive pattern of perceiving, thinking, and behaving that seriously impairs an individual's ability to function in social or other settings.

**Personality inventory** A self-report questionnaire used for personality assessment that includes a series of items about personal thoughts, feelings, and behaviors.

**Personality types** Distinct patterns of personality characteristics used to assign people to categories; qualitative differences, rather than differences in degree, used to discriminate among people.

**Persuasion** Deliberate efforts to change attitudes.

**PET scans** Brain images produced by a device that obtains detailed pictures of activity in the living brain by recording the radioactivity emitted by cells during different cognitive or behavioral activities.

**Phantom limb phenomenon** As experienced by amputees, extreme or chronic pain in a limb that is no longer there.

**Phenotype** The observable characteristics of an organism, resulting from the interaction between the organism’s genotype and its environment.

**Pheromones** Chemical signals released by organisms to communicate with other members of the species; often serve as long-distance sexual attractors.

**Phi phenomenon** The simplest form of apparent motion, the movement illusion in which one or more stationary lights going on and off in succession are perceived as a single moving light.

**Phobia** A persistent and irrational fear of a specific object, activity, or situation that is excessive and unreasonable, given the reality of the threat.

**Phonemes** Minimal units of speech in any given language that make a meaningful difference in speech production and reception; r and l are two distinct phonemes in English but variations of one in Japanese.

**Photoreceptors** Receptor cells in the retina that are sensitive to light.

**Physical development** The bodily changes, maturation, and growth that occur in an organism starting with conception and continuing across the life span.

**Physiological dependence** The process by which the body becomes adjusted to and dependent on a drug.

**Pitch** Sound quality of highness or lowness; primarily dependent on the frequency of the sound wave.

**Pituitary gland** Located in the brain, the gland that secretes growth hormone and influences the secretion of hormones by other endocrine glands.
**Place theory** The theory that different frequency tones produce maximum activation at different locations along the basilar membrane, with the result that pitch can be coded by the place at which activation occurs.

**Placebo control** An experimental condition in which treatment is not administered; it is used in cases where a placebo effect might occur.

**Placebo effect** A change in behavior in the absence of an experimental manipulation.

**Placebo therapy** A therapy independent of any specific clinical procedures that results in client improvement.

**Pons** The region of the brain stem that connects the spinal cord with the brain and links parts of the brain to one another.

**Population** The entire set of individuals to which generalizations will be made based on an experimental sample.

**Positive punishment** A behavior is followed by the presentation of an aversive stimulus, decreasing the probability of that behavior.

**Positive reinforcement** A behavior is followed by the presentation of an appetitive stimulus, increasing the probability of that behavior.

**Possible selves** The ideal selves that a person would like to become, the selves a person could become, and the selves a person is afraid of becoming; components of the cognitive sense of self.

**Posttraumatic stress disorder (PTSD)** An anxiety disorder characterized by the persistent reexperience of traumatic events through distressing recollections, dreams, hallucinations, or dissociative flashbacks; develops in response to rapes, life-threatening events, severe injuries, and natural disasters.

**Preattentive processing** Processing of sensory information that precedes attention to specific objects.

**Preconscious memories** Memories that are not currently conscious but that can easily be called into consciousness when necessary.

**Predictive validity** See criterion validity.

**Prefrontal lobotomy** An operation that severs the nerve fibers connecting the frontal lobes of the brain with the diencephalon, especially those fibers of the thalamic and hypothalamic areas; best-known form of psychosurgery.

**Prejudice** A learned attitude toward a target object, involving negative affect (dislike or fear), negative beliefs (stereotypes) that justify the attitude, and a behavioral intention to avoid, control, dominate, or eliminate the target object.
**Primacy effect** Improved memory for items at the start of a list.

**Primary reinforcers** Biologically determined reinforcers such as food and water.

**Priming** In the assessment of implicit memory, the advantage conferred by prior exposure to a word or situation.

**Problem solving** Thinking that is directed toward solving specific problems and that moves from an initial state to a goal state by means of a set of mental operations.

**Problem space** The elements that make up a problem: the initial state, the incomplete information or unsatisfactory conditions the person starts with; the goal state, the set of information or state the person wishes to achieve; and the set of operations, the steps the person takes to move from the initial state to the goal state.

**Procedural memory** Memory for how things get done; the way perceptual, cognitive, and motor skills are acquired, retained, and used.

**Projective test** A method of personality assessment in which an individual is presented with a standardized set of ambiguous, abstract stimuli and asked to interpret their meanings; the individual's responses are assumed to reveal inner feelings, motives, and conflicts.

**Prosocial behaviors** Behaviors that are carried out with the goal of helping other people.

**Prototype** The most representative example of a category.

**Proximal stimulus** The optical image on the retina; contrasted with the distal stimulus, the physical object in the world.

**Psychiatrist** An individual who has obtained an M.D. degree and also has completed postdoctoral specialty training in mental and emotional disorders; a psychiatrist may prescribe medications for the treatment of psychological disorders.

**Psychic determinism** The assumption that mental and behavioral reactions are determined by previous experiences.

**Psychoactive drugs** Chemicals that affect mental processes and behavior by temporarily changing conscious awareness of reality.

**Psychoanalysis** The form of psychodynamic therapy developed by Freud; an intensive and prolonged technique for exploring unconscious motivations and conflicts in neurotic, anxiety-ridden individuals.

**Psychoanalyst** An individual who has earned either a Ph.D. or an M.D. degree and has completed postgraduate training in the Freudian approach to understanding and treating mental disorders.
Psychobiography  The use of psychological (especially personality) theory to describe and explain an individual's course through life.

Psychodynamic personality theories  Theories of personality that share the assumption that personality is shaped by and behavior is motivated by powerful inner forces.

Psychodynamic perspective  A psychological model in which behavior is explained in terms of past experiences and motivational forces; actions are viewed as stemming from inherited instincts, biological drives, and attempts to resolve conflicts between personal needs and social requirements.

Psychological assessment  The use of specified procedures to evaluate the abilities, behaviors, and personal qualities of people.

Psychological dependence  The psychological need or craving for a drug.

Psychological diagnosis  The label given to psychological abnormality by classifying and categorizing the observed behavior pattern into an approved diagnostic system.

Psychologist  An individual with a doctoral degree in psychology from an organized, sequential program in a regionally accredited university or professional school.

Psychology  The scientific study of the behavior of individuals and their mental processes.

Psychometric function  A graph that plots the percentage of detections of a stimulus (on the vertical axis) for each stimulus intensity (on the horizontal axis).

Psychometrics  The field of psychology that specializes in mental testing.

Psychoneuroimmunology  The research area that investigates interactions between psychological processes, such as responses to stress, and the functions of the immune system.

Psychopathological functioning  Disruptions in emotional, behavioral, or thought processes that lead to personal distress or block one's ability to achieve important goals.

Psychopharmacology  The branch of psychology that investigates the effects of drugs on behavior.

Psychophysics  The study of the correspondence between physical stimulation and psychological experience.

Psychosocial stages  Proposed by Erik Erikson, successive developmental stages that focus on an individual's orientation toward the self and others; these stages incorporate both the sexual and social aspects of a person's development and the social conflicts that arise from the interaction between the individual and the social environment.
**Psychosomatic disorders** Physical disorders aggravated by or primarily attributable to prolonged emotional stress or other psychological causes.

**Psychosurgery** A surgical procedure performed on brain tissue to alleviate a psychological disorder.

**Psychotherapy** Any of a group of therapies, used to treat psychological disorders, that focus on changing faulty behaviors, thoughts, perceptions, and emotions that may be associated with specific disorders.

**Psychotic disorders** Severe mental disorders in which a person experiences impairments in reality testing manifested through thought, emotional, or perceptual difficulties; no longer used as a diagnostic category after DSM-III.

**Puberty** The attainment of sexual maturity; indicated for girls by menarche and for boys by the production of live sperm and the ability to ejaculate.

**Punisher** Any stimulus that, when made contingent upon a response, decreases the probability of that response.

**R**

**Racism** Discrimination against people based on their skin color or ethnic heritage.

**Range** The difference between the highest and the lowest scores in a set of observations; the simplest measure of variability.

**Rapid eye movements (REM)** A behavioral sign of the phase of sleep during which the sleeper is likely to be experiencing dreamlike mental activity.

**Rational-emotive therapy (RET)** A comprehensive system of personality change based on changing irrational beliefs that cause undesirable, highly charged emotional reactions such as severe anxiety.

**Reasoning** The process of thinking in which conclusions are drawn from a set of facts; thinking directed toward a given goal or objective.

**Recall** A method of retrieval in which an individual is required to reproduce the information previously presented.

**Recency effect** Improved memory for items at the end of a list.

**Receptive field** The visual area from which a given ganglion cell receives information.

**Reciprocal altruism** The idea that people perform altruistic behaviors because they expect that others will perform altruistic behaviors for them in turn.
Reciprocal determinism A concept of Albert Bandura’s social learning theory that refers to the notion that a complex reciprocal interaction exists among the individual, his or her behavior, and environmental stimuli and that each of these components affects the others.

Reciprocity norm Expectation that favors will be returned-if someone does something for another person, that person should do something in return.

Recognition A method of retrieval in which an individual is required to identify stimuli as having been experienced before.

Reconstructive memory The process of putting information together based on general types of stored knowledge in the absence of a specific memory representation.

Reflex An unlearned response elicited by specific stimuli that have biological relevance for an organism.

Refractory period The period of rest during which a new nerve impulse cannot be activated in a segment of an axon.

Reinforcement contingency A consistent relationship between a response and the changes in the environment that it produces.

Reinforcer Any stimulus that, when made contingent upon a response, increases the probability of that response.

Relative motion parallax A source of information about depth in which the relative distances of objects from a viewer determine the amount and direction of their relative motion in the retinal image.

Relaxation response A condition in which muscle tension, cortical activity, heart rate, and blood pressure decrease and breathing slows.

Reliability The degree to which a test produces similar scores each time it is used; stability or consistency of the scores produced by an instrument.

Representative sample A subset of a population that closely matches the overall characteristics of the population with respect to the distribution of males and females, racial and ethnic groups, and so on.

Representativeness heuristic A cognitive strategy that assigns an object to a category on the basis of a few characteristics regarded as representative of that category.

Repression The basic defense mechanism by which painful or guilt-producing thoughts, feelings, or memories are excluded from conscious awareness.

Residual stress pattern A chronic syndrome in which the emotional responses of posttraumatic stress persist over time.
Resistance  The inability or unwillingness of a patient in psychoanalysis to discuss certain ideas, desires, or experiences.

Response bias  The systematic tendency as a result of nonsensory factors for an observer to favor responding in a particular way.

Resting potential  The polarization of cellular fluid within a neuron, which provides the capability to produce an action potential.

Reticular formation  The region of the brain stem that alerts the cerebral cortex to incoming sensory signals and is responsible for maintaining consciousness and awakening from sleep.

Retina  The layer at the back of the eye that contains photoreceptors and converts light energy to neural responses.

Retinal disparity  The displacement between the horizontal positions of corresponding images in the two eyes.

Retrieval  The recovery of stored information from memory.

Retrieval cues  Internally or externally generated stimuli available to help with the retrieval of a memory.

Reversal theory  Theory that explains human motivation in terms of reversals from one to the other opposing metamotivational states.

Ritual healing  Ceremonies that infuse special emotional intensity and meaning into the healing process.

Rods  Photoreceptors concentrated in the periphery of the retina that are most active in dim illumination; rods do not produce sensation of color.

Rules  Behavioral guidelines for acting in certain ways in certain situations.

Sample  A subset of a population selected as participants in an experiment.

Saturation  The dimension of color space that captures the purity and vividness of color sensations.

Schedules of reinforcement  In operant conditioning, the patterns of delivering and withholding reinforcement.

Schemas  General conceptual frameworks, or clusters of knowledge, regarding objects, people, and situations; knowledge packages that encode generalizations about the structure of the environment.
**Schemes** Piaget's term for cognitive structures that develop as infants and young children learn to interpret the world and adapt to their environment.

**Schizophrenic disorder** Severe form of psychopathology characterized by the breakdown of integrated personality functioning, withdrawal from reality, emotional distortions, and disturbed thought processes.

**Scientific method** The set of procedures used for gathering and interpreting objective information in a way that minimizes error and yields dependable generalizations.

**Selective optimization with compensation** A strategy for successful aging in which one makes the most of gains while minimizing the impact of losses that accompany normal aging.

**Selective social interaction theory** The view that suggests that, as people age, they become more selective in choosing social partners who satisfy their emotional needs.

**Self-actualization** A concept in personality psychology referring to a person's constant striving to realize his or her potential and to develop inherent talents and capabilities.

**Self-awareness** The top level of consciousness; cognizance of the autobiographical character of personally experienced events.

**Self-concept** A person's mental model of his or her abilities and attributes.

**Self-efficacy** The set of beliefs that one can perform adequately in a particular situation.

**Self-esteem** A generalized evaluative attitude toward the self that influences both moods and behavior and that exerts a powerful effect on a range of personal and social behaviors.

**Self-fulfilling prophecy** A prediction made about some future behavior or event that modifies interactions so as to produce what is expected.

**Self-handicapping** The process of developing, in anticipation of failure, behavioral reactions and explanations that minimize ability deficits as possible attributions for the failure.

**Self-perception theory** The idea that people observe themselves in order to figure out the reasons they act as they do; people infer what their internal states are by perceiving how they are acting in a given situation.

**Self-report measures** The self-behaviors that are identified through a participant's own observations and reports.

**Self-serving bias** A class of attributional biases in which people tend to take credit for their successes and deny responsibility for their failures.
**Semantic memories** Generic, categorical memories, such as the meanings of words and concepts.

**Sensation** The process by which stimulation of a sensory receptor gives rise to neural impulses that result in an experience, or awareness of, conditions inside or outside the body.

**Sensory adaptation** A phenomenon in which receptor cells lose their power to respond after a period of unchanged stimulation; allows a more rapid reaction to new sources of information.

**Sensory memory** The initial memory processes involved in the momentary preservation of fleeting impressions of sensory stimuli.

**Sensory neurons** The neurons that carry messages from sense receptors toward the central nervous system.

**Sensory physiology** The study of the way in which biological mechanisms convert physical events into neural events.

**Sensory receptors** Specialized cells that convert physical signals into cellular signals that are processed by the nervous system.

**Serial position effect** A characteristic of memory retrieval in which the recall of beginning and end items on a list is often better than recall of items appearing in the middle.

**Serial processes** Two or more mental processes that are carried out in order, one after the other.

**Set** A temporary readiness to perceive or react to a stimulus in a particular way.

**Sex chromosomes** Chromosomes that contain the genes that code for the development of male or female characteristics.

**Sex differences** Biologically based characteristics that distinguish males from females.

**Sexism** Discrimination against people because of their sex.

**Sexual arousal** The motivational state of excitement and tension brought about by physiological and cognitive reactions to erotic stimuli.

**Sexual scripts** Socially learned programs of sexual responsiveness.

**Shamanism** A spiritual tradition that involves both healing and gaining contact with the spirit world.

**Shape constancy** The ability to perceive the true shape of an object despite variations in the size of the retinal image.
**Shaping by successive approximations** A behavioral method that reinforces responses that successively approximate and ultimately match the desired response.

**Short-term memory (STM)** Memory processes associated with preservation of recent experiences and with retrieval of information from long-term memory; short-term memory is of limited capacity and stores information for only a short length of time without rehearsal.

**Shyness** An individual's discomfort and/or inhibition in interpersonal situations that interferes with pursuing interpersonal or professional goals.

**Signal detection theory (SDT)** A systematic approach to the problem of response bias that allows an experimenter to identify and separate the roles of sensory stimuli and the individual's criterion level in producing the final response.

**Significant difference** A difference between experimental groups or conditions that would have occurred by chance less than an accepted criterion; in psychology, the criterion most often used is a probability of less than 5 times out of 100, or p < .05.

**Situational variables** External influences on behavior.

**Size constancy** The ability to perceive the true size of an object despite variations in the size of its retinal image.

**Sleep apnea** A sleep disorder of the upper respiratory system that causes the person to stop breathing while asleep.

**Social categorization** The process by which people organize the social environment by categorizing themselves and others into groups.

**Social development** The ways in which individuals' social interactions and expectations change across the life span.

**Social intelligence** A theory of personality that refers to the expertise people bring to their experience of life tasks.

**Social-learning theory** The learning theory that stresses the role of observation and the imitation of behaviors observed in others.

**Social-learning therapy** A form of treatment in which clients observe models' desirable behaviors being reinforced.

**Social norms** The expectation a group has for its members regarding acceptable and appropriate attitudes and behaviors.

**Social perception** The process by which a person comes to know or perceive the personal attributes of himself or herself and other people.
Social phobia A persistent, irrational fear that arises in anticipation of a public situation in which an individual can be observed by others.

Social psychology The branch of psychology that studies the effect of social variables on individual behavior, attitudes, perceptions, and motives; also studies group and intergroup phenomena.

Social role A socially defined pattern of behavior that is expected of a person who is functioning in a given setting or group.

Social support Resources, including material aid, socioemotional support, and informational aid, provided by others to help a person cope with stress.

Socialization The lifelong process whereby an individual's behavioral patterns, values, standards, skills, attitudes, and motives are shaped to conform to those regarded as desirable in a particular society.

Sociobiology A research field that focuses on evolutionary explanations for the social behavior and social systems of humans and other animal species.

Soma The cell body of a neuron, containing the nucleus and cytoplasm.

Somatic nervous system The subdivision of the peripheral nervous system that connects the central nervous system to the skeletal muscles and skin.

Somatosensory cortex The region of the parietal lobes that processes sensory input from various body areas.

Specific phobias Phobias that occur in response to specific types of objects or situations.

Split-half reliability A measure of the correlation between test takers' performance on different halves (e.g., odd- and even-numbered items) of a test.

Spontaneous recovery The reappearance of an extinguished conditioned response after a rest period.

Spontaneous-remission effect The improvement of some mental patients and clients in psychotherapy without any professional intervention; a baseline criterion against which the effectiveness of therapies must be assessed.

Standard deviation (SD) The average difference of a set of scores from their mean; a measure of variability.

Standardization A set of uniform procedures for treating each participant in a test, interview, or experiment or for recording data.

Stereotype threat The threat associated with being at risk for confirming a negative stereotype of one's group.
**Stereotypes** Generalizations about a group of people in which the same characteristics are assigned to all members of a group.

**Stigma** The negative reaction of people to an individual or group because of some assumed inferiority or source of difference that is degraded.

**Stimulus discrimination** A conditioning process in which an organism learns to respond differently to stimuli that differ from the conditioned stimulus on some dimension.

**Stimulus-driven capture** A determinant of why people select some parts of sensory input for further processing; occurs when features of stimuli-objects in the environment automatically capture attention, independent of the local goals of a perceiver.

**Stimulus generalization** The automatic extension of conditioned responding to similar stimuli that have never been paired with the unconditioned stimulus.

**Storage** The retention of encoded material over time.

**Stress** The pattern of specific and nonspecific responses an organism makes to stimulus events that disturb its equilibrium and tax or exceed its ability to cope.

**Stress moderator variables** Variables that change the impact of a stressor on a given type of stress reaction.

**Stressor** An internal or external event or stimulus that induces stress.

**Structuralism** The study of the structure of mind and behavior; the view that all human mental experience can be understood as a combination of simple elements or events.

**Superego** The aspect of personality that represents the internalization of society’s values, standards, and morals.

**Sympathetic division** The subdivision of the autonomic nervous system that deals with emergency response and the mobilization of energy.

**Synapse** The gap between one neuron and another.

**Synaptic transmission** The relaying of information from one neuron to another across the synaptic gap.

**Systematic desensitization** A behavioral therapy technique in which a client is taught to prevent the arousal of anxiety by confronting the feared stimulus while relaxed.
**Taste-aversion learning** A biological constraint on learning in which an organism learns in one trial to avoid a food whose ingestion is followed by illness.

**Temporal lobe** Region of brain found below the lateral fissure; contains auditory cortex.

**Tend-and-befriend response** A response to stressors that is hypothesized to be typical for females; stressors prompt females to protect their offspring and join social groups to reduce vulnerability.

**Terminal buttons** The bulblike structures at the branched endings of axons that contain vesicles filled with neurotransmitters.

**Testosterone** The male sex hormone, secreted by the testes, that stimulates production of sperm and is also responsible for the development of male secondary sex characteristics.

**Test-retest reliability** A measure of the correlation between the scores of the same people on the same test given on two different occasions.

**Thalamus** The brain structure that relays sensory impulses to the cerebral cortex.

**Thematic Apperception Test (TAT)** A projective test in which pictures of ambiguous scenes are presented to an individual, who is encouraged to generate stories about them.

**Theory** An organized set of concepts that explains a phenomenon or set of phenomena.

**Theory of ecological optics** A theory of perception that emphasizes the richness of stimulus information and views the perceiver as an active explorer of the environment.

**Think-aloud protocols** Reports made by experimental participants of the mental processes and strategies they use while working on a task.

**Three-term contingency** The means by which organisms learn that, in the presence of some stimuli but not others, their behavior is likely to have a particular effect on the environment.

**Timbre** The dimension of auditory sensation that reflects the complexity of a sound wave.

**Tolerance** A situation that occurs with continued use of a drug in which an individual requires greater dosages to achieve the same effect.

**Top-down processing** Perceptual processes in which information from an individual's past experience, knowledge, expectations, motivations, and background influence the way a perceived object is interpreted and classified.

**Traits** Enduring personal qualities or attributes that influence behavior across situations.
Transduction Transformation of one form of energy into another; for example, light is transformed into neural impulses.

Transfer-appropriate processing The perspective that suggests that memory is best when the type of processing carried out at encoding matches the processes carried out at retrieval.

Transference The process by which a person in psychoanalysis attaches to a therapist feelings formerly held toward some significant person who figured in a past emotional conflict.

Trichromatic theory The theory that there are three types of color receptors that produce the primary color sensations of red, green, and blue.

Type A behavior pattern A complex pattern of behaviors and emotions that includes excessive emphasis on competition, aggression, impatience, and hostility; hostility increases the risk of coronary heart disease.

Type B behavior pattern As compared to Type A behavior pattern, a less competitive, less aggressive, less hostile pattern of behavior and emotion.

Type C behavior pattern A constellation of behaviors that may predict which individuals are more likely to develop cancer or to have their cancer progress quickly; these behaviors include passive acceptance and self-sacrifice.

Unconditional positive regard Complete love and acceptance of an individual by another person, such as a parent for a child, with no conditions attached.

Unconditioned response (UCR) In classical conditioning, the response elicited by an unconditioned stimulus without prior training or learning.

Unconditioned stimulus (UCS) In classical conditioning, the stimulus that elicits an unconditioned response.

Unconscious The domain of the psyche that stores repressed urges and primitive impulses.

Unconscious inference Helmholtz's term for perception that occurs outside of conscious awareness.

Validity The extent to which a test measures what it was intended to measure.

Variable In an experimental setting, a factor that varies in amount and kind.
Variable-interval schedule A schedule of reinforcement in which a reinforcer is delivered for the first response made after a variable period of time whose average is predetermined.

Variable-ratio schedule A schedule of reinforcement in which a reinforcer is delivered for the first response made after a variable number of responses whose average is predetermined.

Vestibular sense The sense that tells how one's own body is oriented in the world with respect to gravity.

Visual cortex The region of the occipital lobes in which visual information is processed.

Volley principle An extension of frequency theory which proposes that when peaks in a sound wave come too frequently for a single neuron to fire at each peak, several neurons fire as a group at the frequency of the stimulus tone.

Weber’s law An assertion that the size of a difference threshold is proportional to the intensity of the standard stimulus.

Wellness Optimal health, incorporating the ability to function fully and actively over the physical, intellectual, emotional, spiritual, social, and environmental domains of health.

Wisdom Expertise in the fundamental pragmatics of life.

Within-subjects design A research design that uses each participant as his or her own control; for example, the behavior of an experimental participant before receiving treatment might be compared to his or her behavior after receiving treatment.

Working memory A memory resource that is used to accomplish tasks such as reasoning and language comprehension; consists of the phonological loop, visuospatial sketchpad, and central executive.

Yerkes-Dodson law A correlation between task performance and optimal level of arousal.

Zygote The single cell that results when a sperm fertilizes an egg.
How to Be A Wise Consumer of Psychological Research