

# Chapter 1

Psychology, Behaviorism



Chapter 1 Structuralism was based on the notion that the task of psychology is to analyze consciousness into its basic elements and investigate how these elements are related. Work concerned sensation and perception in vision, hearing, and touch. The structuralists depended on the method of introspection, or the careful, systematic self-observation of one's own conscious experience. Introspection required training to make the subject—the person being studied—more objective and more aware. Once trained, participants were typically exposed to stimuli under carefully controlled and systematically varied conditions and were asked to analyze what they experienced. Functionalism was based on the belief that psychology should investigate the function or purpose of consciousness, rather than its structure. The chief impetus for the emergence of functionalism was the work of William James (1842—1910), *Consciousness consists of a continuous flow of thoughts*. In analyzing consciousness into its elements, the structuralists were looking at static points in that flow. James wanted to understand the flow itself, which he called the stream of consciousness.

Differences between the two schools of thought: Whereas structuralists naturally gravitated to the research lab, functionalists were more interested in how people adapt their behavior to the demands of the real world around them. Instead of focusing on sensation and perception, functionalists such as James McKeen Cattell and John Dewey began to investigate mental testing, patterns of development in children, the effectiveness of educational practices, and behavioral differences between the sexes. Functionalism fostered the development of two important descendants: behaviorism and applied psychology. Freud, the unconscious contains thoughts, memories,

and desires that are well below the surface of conscious awareness but that nonetheless exert great influence on behavior. Psychoanalytic theory attempts to explain personality, motivation, and mental disorders by focusing on unconscious determinants of behavior. The concept of the unconscious was a major departure from the prevailing belief that people are fully aware of the forces affecting their behavior. In arguing that behavior is governed by unconscious forces, Freud made the disconcerting suggestion that people are not masters of their own minds. Other aspects of Freud's theory also stirred up debate. For instance, he proposed that behavior is greatly influenced by how people cope with their sexual urges. The widespread popular acceptance of psychoanalytic theory essentially forced psychologists to apply their scientific methods to the topics Freud had studied: personality, motivation, and abnormal behavior. Between 1913 and the late 1920s. Founded by John B. Watson (1878—1958), behaviorism is a theoretical orientation based on the premise that scientific psychology should study only observable behavior. Watson (1913, 1919) proposed that psychologists abandon the study of consciousness altogether and focus exclusively on behaviors that they could observe directly. If psychology was to be a science, it would have to give up consciousness as its subject matter and become instead the science of behavior. Behavior refers to any overt (observable) response or activity by an organism. Watson asserted that psychologists could study anything that people do or say—shopping, playing chess, eating, complimenting a friend. However, according to Watson, they could not study scientifically the thoughts, wishes, and feelings that might accompany these observable behaviors. Nature vs. Nurture Watson argued

that each is made, not born. In other words, he downplayed the importance of heredity. He maintained that behavior is governed primarily by the environment. Influenced by Ivan Pavlov's discovery of the conditioned reflex (see Chapter 6), the behaviorists eventually came to view psychology's mission as an attempt to relate overt behaviors ("responses") to observable events in the environment ("stimuli"). Because the behaviorists investigated stimulus-response relationships, the behavioral approach is often referred to as stimulus-response (S-R) psychology. Behaviorism's stimulus-response approach contributed to the rise of animal research in psychology. The fundamental principle of behavior documented by Skinner is deceptively simple: Organisms tend to repeat responses that lead to positive outcomes, and they tend not to repeat responses that lead to neutral or negative outcomes. Skinner refutes free will *Beyond Freedom and Dignity* (1971). There Skinner asserted that all behavior is fully governed by external stimuli. In other words, your behavior is determined in predictable ways by lawful principles. According to Skinner, people are controlled by their environment, not by themselves. In short, Skinner arrived at the conclusion that free will is an illusion. Humanism is a theoretical orientation that emphasizes the unique qualities of humans, especially their freedom and their potential for personal growth. Humanists take an optimistic view of human nature. They maintain that people are not pawns of either their animal heritage or their environmental circumstances. Furthermore, humanists say, because humans are fundamentally different from other animals, research on animals has little relevance to the understanding of human behavior Carl Rogers pioneered a new approach to psychotherapy-called person-centered

therapy—that remains extremely influential today. REVIEW 1. 1 Psychology became an independent discipline when Wilhelm Wundt established the first psychological research laboratory in 1879 at Leipzig, Germany. Wundt, who is widely characterized as the founder of psychology, viewed psychology as the scientific study of consciousness. The new discipline grew rapidly in North America in the late 19th century, as illustrated by G. Stanley Hall's career. Hall established America's first research lab in psychology and founded the American Psychological Association. 1. 2 The structuralists, led by Edward Titchener, believed that psychology should use introspection to analyze consciousness into its basic elements. The functionalists, inspired by the ideas of William James, believed that psychology should focus on the purpose and adaptive functions of consciousness. Functionalism paved the way for behaviorism and applied psychology and had more of a lasting impact than structuralism. 1. 3 Sigmund Freud was an Austrian physician who invented psychoanalysis. His psychoanalytic theory emphasized the unconscious determinants of behavior and the importance of sexuality. Freud's ideas were controversial, and they met with resistance in academic psychology. However, as more psychologists developed an interest in personality, motivation, and abnormal behavior, psychoanalytic concepts were incorporated into mainstream psychology. 1. 4 Behaviorists, led by John B. Watson, argued that psychology should study only observable behavior. Thus, they campaigned to redefine psychology as the science of behavior. Emphasizing the importance of the environment over heredity, the behaviorists began to explore stimulus- response relationships, often using laboratory animals as subjects. 1. 5 Working with laboratory rats and

pigeons, American behaviorist B. F. Skinner demonstrated that organisms tend to repeat responses that lead to positive consequences and not to repeat responses that lead to neutral or negative consequences. Based on the belief that all behavior is fully governed by external stimuli, Skinner argued that free will is an illusion. Finding both behaviorism and psychoanalysis unsatisfactory, advocates of a new theoretical orientation called humanism became influential in the 1950s. Humanism, led by Abraham Maslow and Carl Rogers, emphasized the unique qualities of human behavior and humans' freedom and potential for personal growth. Many psychologists provide a variety of professional services to the public. Their work falls within the domain of applied psychology, the branch of psychology concerned with everyday, practical problems. However, it remained on the fringes of mainstream psychology until World War II (Benjamin et al., 2003). Not until the 1950s did psychology really start to come of age as a profession. The first applied arm of psychology to achieve any prominence was clinical psychology. As practiced today, clinical psychology is the branch of psychology concerned with the diagnosis and treatment of psychological problems and disorders. Since the 1950s and 1960s, psychologists have shown a renewed interest in consciousness (now called "cognition") and the physiological bases of behavior. Cognition refers to the mental processes involved in acquiring knowledge. The research of Swiss psychologist Jean Piaget (1954) focused increased attention on the study of children's cognitive development, while the work of Noam Chomsky (1957) elicited new interest in the psychological underpinnings of language. Advocates of the cognitive perspective point out that the ways people think about events

surely influence how they behave. Consequently, focusing exclusively on overt behavior yields an incomplete picture of why individuals behave as they do. Equally important, psychologists investigating decision making, reasoning, and problem solving have shown that methods can be devised to study cognitive processes scientifically. The 1960s also brought the publication of David Hubel and Torsten Wiesel's (1962, 1963) Nobel prize—winning work on how visual signals are processed in the brain. These and many other findings stimulated an increase in research on the biological, and especially the neurobiological, bases of behavior. Advocates of the biological or neuroscience perspective maintain that much of human and animal behavior can be explained in terms of the brain structures and biochemical processes that allow organisms to behave. Evolutionary psychologists assert that the patterns of behavior seen in a species are products of evolution in the same way that anatomical characteristics are. Evolutionary psychology examines behavioral processes in terms of their adaptive value for members of a species over the course of many generations.

Overview of Six Contemporary Theoretical Perspectives in Psychology

Perspective	Contributors	Subject Matter	Basic Premise	Behavioral
(1913—present)	John B. Watson, Ivan Pavlov, B. F. Skinner	Effects of environment on the overt behavior of humans and animals	Only observable events (stimulus-response relations) can be studied scientifically.	
Psychoanalytic (1900—present)	Sigmund Freud, Carl Jung, Alfred Adler	Unconscious determinants of behavior	Unconscious motives and experiences in early childhood govern personality and mental disorders.	
Humanistic (1950s—present)	Carl Rogers, Abraham Maslow	Unique aspects of human		

experience Humans are free, rational beings with the potential for personal growth, and they are fundamentally different from animals. Cognitive (1950s—present) Jean Piaget Noam Chomsky Herbert Simon Thoughts; mental processes Human behavior cannot be fully understood without examining how people acquire, store, and process information. Biological/ Neuroscience (1950s—present) James Olds Roger Sperry David Hubel Torsten Wiesel Physiological bases of behavior in humans and animals An organism's functioning can be explained in terms of the bodily structures and biochemical processes that underlie behavior. Evolutionary (1980s—present) David Buss Martin Daly Margo Wilson Leda Cosmides John Tooby Evolutionary bases of behavior in humans and animals Behavior patterns have evolved to solve adaptive problems; natural selection favors behaviors that enhance reproductive success. The aim of positive psychology is to begin to catalyze a change in the focus of psychology from preoccupation with only repairing the worst things in life to also building positive qualities. Thus, positive psychology uses theory and research to better understand the positive, adaptive, creative, and fulfilling aspects of human existence. The emerging field of positive psychology has three areas of interest (Seligman, 2003). The first is the study of positive subjective experiences, or positive emotions, such as happiness, love, gratitude, contentment, and hope. The second focus is on positive individual traits—that is, personal strengths and virtues. Theorists are working to identify, classify, and analyze the origins of such positive traits as courage, perseverance, nurturance, tolerance, creativity, integrity, and kindness. The third area of interest is in positive institutions and communities. Here the focus is on how societies can



foster civil discourse, strong families, healthful work environments, and supportive neighborhood communities. REVIEW 1. 6 Stimulated by the demands of World War II, clinical psychology grew rapidly in the 1950s. Thus, psychology became a profession as well as a science. This movement toward professionalization eventually spread to other areas in psychology, such as counseling psychology, industrial/organizational psychology, and school psychology. 1. 7 During the 1950s and 1960s advances in the study of cognition led to renewed interest in mental processes, as psychology returned to its roots. Advocates of the cognitive perspective argue that human behavior cannot be fully understood without considering how people think. The 1950s and 1960s also saw advances in research on the biological bases of behavior. Advocates of the neuroscience perspective assert that human and animal behavior can be explained in terms of the brain structures and biochemical processes that allow organisms to behave. 1. 8 In the 1980s, Western psychologists, who had previously been rather provincial, developed a greater interest in how cultural factors influence behavior. This trend was sparked in large part by growing global interdependence and by increased cultural diversity in Western societies. 1. 9 The 1990s witnessed the emergence of a new theoretical perspective called evolutionary psychology. The central premise of this new school of thought is that the patterns of behavior seen in a species are products of evolution in the same way that anatomical characteristics are and that the human mind has been sculpted by natural selection. 1. 10 Around the beginning of the 21st century, the positive psychology movement became an influential force. Advocates of positive psychology argue that the field has

historically devoted too much attention to pathology, weakness, and ways to heal suffering. Positive psychology seeks to better understand the adaptive, creative, and fulfilling aspects of human existence. Psychology is the science that studies behavior and the physiological and cognitive processes that underlie it, and it is the profession that applies the accumulated knowledge of this science to practical problems. Psychiatry is a branch of medicine concerned with the diagnosis and treatment of psychological problems and disorders. In contrast, clinical psychology takes a non medical approach to such problems.

REVIEW 1. 11 Contemporary psychology is a diversified science and profession that has grown rapidly in recent decades, as evidenced by the fact that APA membership has grown ninefold since 1950. The main work settings for contemporary psychologists are (1) private practice, (2) colleges and universities, (3) hospitals and clinics, and (4) business and government.

1. 12 Major areas of research in modern psychology include developmental psychology, social psychology, experimental psychology, physiological psychology, cognitive psychology, personality, psychometrics, educational psychology, and health psychology.

1. 13 Applied psychology encompasses six professional specialties: clinical psychology, counseling psychology, school psychology, industrial/organizational psychology, clinical neuropsychology, and forensic psychology. Although clinical psychology and psychiatry share some of the same interests, they are different professions with different types of training. Psychiatrists are physicians who specialize in the diagnosis and treatment of mental disorders, whereas clinical psychologists take a nonmedical approach to psychological problems.

1. 14 Psychology is empirical because

psychologists base their conclusions on observation through research rather than reasoning or common sense. Psychology is theoretically diverse, as there are many competing schools of thought in the field. This diversity has fueled progress and is a strength rather than a weakness. Psychology also evolves in a sociohistorical context, as trends, issues, and values in society influence what goes on in psychology, and vice versa.

1. 15 Behavior is determined by multiple causes, as most aspects of behavior are influenced by complex networks of interacting factors. Although cultural heritage is often taken for granted, it has a pervasive impact on people's thoughts, feelings, and behavior. Lively debate about the relative importance of nature versus nurture continues, but it is clear that heredity and environment jointly influence behavior. People's experience of the world is highly subjective, as they sometimes see what they want to see or what they expect to see.

1. 16 To foster sound study habits, you should devise a written study schedule and reward yourself for following it. Try to avoid the tendency to put off working on major tasks. You should also try to find one or two specific places for studying that are relatively free of distractions.

1. 17 You should use active reading techniques to select the most important ideas from the material you read. Highlighting textbook material is a useful strategy—if you are reasonably effective in focusing on the main ideas in the material and if you subsequently review what you have highlighted. The key to good note taking is to strive to make lecture notes as complete as possible. It's important to use active listening techniques and to record lecturers' ideas in your own words.

1. 18 In taking tests, it's a good idea to devise a schedule for progressing through an exam, to adopt the appropriate level of

sophistication, to avoid wasting time on troublesome questions, and to review your answers. On multiple-choice tests it is wise to read questions completely, to quickly eliminate implausible options, and to be wary of sweeping generalizations. On essay tests, it helps to allocate time wisely, to emphasize good organization, and to use technical vocabulary when appropriate. Testwiseness is the ability to use the characteristics and format of a cognitive test to maximize one's score. Critical thinking is purposeful, reasoned, goal-directed thinking that involves solving problems, formulating inferences, working with probabilities, and making carefully thought-out decisions. Here are some of the skills exhibited by critical thinkers: - They understand and use the principles of scientific investigation. (How can the effectiveness of punishment as a disciplinary procedure be determined?) - They apply the rules of formal and informal logic. (If most people disapprove of sex sites on the Internet, why are these sites so popular?) - They carefully evaluate the quality of information. (Can I trust the claims made by this politician?) - They analyze arguments for the soundness of the conclusions. (Does the rise in drug use mean that a stricter drug policy is needed?)

Critical Thinking Skills Discussed in This Application Skill Description Looking for alternative explanations for findings and events In evaluating explanations, the critical thinker explores whether there are other explanations that could also account for the findings or events under scrutiny. Looking for contradictory evidence In evaluating the evidence presented on an issue, the critical thinker attempts to look for contradictory evidence that may have been left out of the debate. REVIEW 1. 19 Critical thinking is the use of cognitive skills and strategies that increase the

probability of a desirable outcome. A critical thinker is flexible, vigilant, able to admit mistakes, and mindful of the thinking process. 1. 20 Evolutionary psychologists attribute gender differences in spatial abilities to the gender-based division of labor in hunting-and-gathering societies. However, alternative explanations have been offered for these differences, focusing on the gender-typed activities that modern males and females engage in. There also are contradictory data regarding the adaptive pressures faced by females and males in hunting-and-gathering societies.