

History and Approaches

Psychology is the scientific study of the mind, behavior and the relationship between them. As such it is both a *natural* science and a *social* science. As a natural science, psychology involves the study of the laws of nature. As a social science, psychology involves the study of thoughts, feelings and behaviors of people.

The roots of modern-day psychology can be traced to ancient Greece. In fact, the word *psychology* itself is derived from the Greek word *psyche*, meaning the soul or breath of life. But not until the late 1800s did psychology develop as a formal, scientific discipline. When the first formal psychological laboratory was founded in 1879 by Wilhelm Wundt, a psychologist and philosopher at the University of Leipzig in Germany, the seeds of modern-day psychology were planted.

Since its inception, the field of psychology has included people with different ideas about what to study and how to study it. Today's psychologists work from a variety of theoretical models as they attempt to unravel the mysteries of the mind. And though the field has changed and expanded dramatically since its ancient Greek beginnings, many of the original ideas form the basis of psychological inquiry today.

This chapter provides an overview of the history of psychology and a summary of the seven theoretical approaches to psychological study. Together, these form the pillars of modern-day psychology providing a strong foundation for exploring contemporary psychological ideas as they continue to evolve.

Logic, Philosophy and History of Science

The field of psychology has been shaped by a diverse list of people and ideas throughout history. Each historical phase has left its mark on modern-day psychological studies.

The roots of psychology can be traced back to both philosophy and physiology. *Philosophy* is the study of seeking knowledge and wisdom in understanding the nature of the universe through self-examination and experiences. *Physiology* is the scientific study of living organisms primarily through observation. Both fields had a direct influence on ancient Greek discussions about the nature of human thoughts and behavior.

The Greek physician **Hippocrates** (ca 460–377 B.C.) is commonly known as the father of medicine. However, he was also a respected philosopher who was one of the first to impose empirical observations to the study of medicine. In his research, Hippocrates sought to discover the source of the mind. To him, the mind was a separate, distinct entity that controlled the body. This philosophical belief that the mind is different from the body is called **mind-body dualism**. Proponents of dualism believe that the body is composed of physical substances, but the mind is ethereal and not composed of physical substance. These mental and physical phenomena are considered to be separate in the eyes of dualists.

Two other famous Greek philosophers, **Plato** (ca 428–348 B.C.) and **Aristotle** (ca 384–322 B.C.) also influenced our modern-day psychology studies. Plato is considered a **rationalist** because of his assertion that knowledge is most effectively acquired through rational methods by using philosophical analysis to understand the world and the people in it. Aristotle, Plato's student, is called an **empiricist** because of his belief that we acquire knowledge through empirical methods, obtaining evidence through experience, observation and experimentation. He is often credited with the development of a systematic approach to the physical world, an approach that is at the core of the modern **scientific method**. Today, psychologists rely on the scientific method to conduct research in an orderly, standardized way.

Almost 2,000 years later, a French philosopher named **Rene Descartes** (1596–1650) renewed interest in the mind-body problem. To answer the question of how the mind is related to the body, Descartes developed a concept known as **interactionism** in which he proposed that the mind affects the body and the body affects the mind. He believed that this interaction occurs in the **pineal gland**, a small gland located in the lower center of the brain. According to Descartes, the dualistic nature of humans is what separates humans from animals. For humans, the mind is essential. *Cogito ergo sum* (Latin for *I think, therefore I am*) is perhaps Descartes' most famous quotation.

Thomas Hobbes (1588–1679), a seventeenth-century English philosopher, furthered the idea of **monism** (the idea that human experiences are physical processes emanating from the brain). According to monism, the mind does not exist in its own right. Instead, our thoughts are by-products of anatomical and physiological activity. As a result, Hobbes believed that we can understand the mind only by understanding the body.

The British empiricist and philosopher **John Locke** (1632–1704) believed that the interaction between the mind and body is a symmetrical relationship. He rejected Descartes’s notion that physical and mental phenomena are distinct. He perpetuated the idea that the mind is dependent on the body for all its information and that the body is dependent on the mind to store experiences for later use. Locke also espoused the idea that humans are born without any knowledge, and have to seek knowledge through empirical observation. His belief that a newborn child is a blank slate, or *tabula rasa* in Latin, means that all knowledge is acquired through experiences over an entire lifetime.

German philosopher **Immanuel Kant** (1724–1804) redefined the mind-body question by asking how the mind and body are related instead of asking which is in control. He proposed that a set of faculties, or mental powers, provides a link between mind and body, integrating the two. These faculties (senses, understanding and reason) were believed to work together, and Kant used both rationalism and empiricism in his quest for understanding the relationship between the mind and body. Kant’s philosophical contributions combined with nineteenth-century scientific exploration of the body to influence the eventual establishment of psychology as a discipline.

Charles Darwin (1809–1882) had a significant impact on the evolution of psychology as a science. Before Darwin, human beings considered themselves separate from all other animals and, as such, above the laws of nature. Darwin’s *Origin of Species*, published in 1859, introduced the ideas of **natural selection** and **evolution**. Although Darwin was not the first person to propose a theory of evolution, his explanation of how evolution occurs offered a unique perspective. Natural selection promotes the survival and reproduction of individuals who are most able to adapt to their particular environment. Darwin’s principles still serve as a cornerstone of all contemporary life sciences, and Darwin’s explanation of the mechanism by which evolution worked is essential to the evolutionary approach.

The first psychological laboratory was founded in 1879 by **Wilhelm Wundt** (1832–1920), a physiologist and philosopher at the University of Leipzig in Germany. Wundt’s work focused on perception and conscientiousness. He believed that psychology should deal with conscious experiences. This means evaluating the contents of consciousness to find the most fundamental elements of thought. He worked with his students to refine the art of **objective introspection**, the process of recording their thoughts, feelings and sensory experiences in great detail.

One of Wundt’s students, **Edward Titchener** (1867–1927), wrote that psychology “is the science of consciousness.” He broke consciousness down into three basic elements: physical sensations (what we see), feelings (such as liking or disliking something) and images (memories of things). Titchener believed that even the most complex thoughts can be reduced to these simple elements, and that the role of psychology is to identify these elements and show how they can be combined and integrated. His ideas were similar to Wundt’s, as they both subscribed to a school of thought known as **structuralism**, which emphasizes the analysis of consciousness into its basic components through introspection.

William James (1842–1910) was the first American-born psychologist. With an academic interest in both physiology and philosophy, James gravitated toward psychology as a way to link his two passions. As a Harvard professor, he rejected the notion of structuralism, arguing that perceptions, emotions and images cannot be separated. Instead, he believed that consciousness flows in a continuous stream. As a result of his work, he was a leader in the **functionalism** movement. Functionalism goes beyond sensation and perception in an attempt to explore how an individual learns to function in an environment. Influenced by Darwin’s theory of evolution, functionalism developed the idea of learning through adapting to the environment.

Modern Psychological Perspectives

Psychological perspectives that emerged in the twentieth century were built on some of the ideas developed throughout history. In fact, some of the central themes found in these perspectives were first examined by the ancient Greeks. While the twentieth-century ideas are more sophisticated than their Greek counterparts, many of the principles are familiar.

The AP Psychology exam focuses on seven approaches: biological, behavioral, cognitive, humanistic, psychodynamic, sociocultural and evolutionary/sociobiological. Historically, psychologists have clashed over the merits of the various approaches to psychology, advocating one theoretical perspective over another. Today's psychologists tend to see the different approaches as complementary, with each contributing in its own way to our overall understanding of human behavior.

Biological Approach

Biological psychology attempts to understand behavior through the study of anatomy and physiology, especially of the brain. Firmly rooted in the work of Hippocrates, biological psychology, or *psychobiology*, assumes that the mind and body are interrelated. And, as such, both nature and nurture can influence personality traits and disorders. Through the years, a biological approach to psychology has helped shed light on the possible treatments of psychological disorders as well as the neural activity related to normal functioning. By using modern-day medical devices such as CAT scans, PET scans, MRIs and EEGs to study the biological functions of the brain, researchers are able to pinpoint regions of the brain that are responsible for specific behaviors.

The view that all psychological disorders have a biochemical or physiological basis has helped researchers discover links between genetic factors and mental disorders, leading to new treatment options.

Behavioral Approach

Originating in the United States during the early twentieth century, **behaviorism** emphasizes the idea that psychology should be completely objective, focusing only on observable behavior and corresponding stimuli. Rejecting the principles of functionalism and structuralism, American **John B. Watson** (1878–1958) is usually acknowledged as the founder of behaviorism. Watson's view states that any behavior can be shaped and controlled. In the most extreme case, he believed that he could take a healthy infant and raise him to become anything he wanted him to be. This idea is reminiscent of John Locke's *tabula rasa* concept.

Watson's view of psychology was based on experiments conducted by the Russian physiologist, **Ivan Pavlov** (1849–1936). Pavlov used the dogs in his laboratory to test whether a reflex such as salivation could be shaped by learning. By pairing the sound of a bell with the presence of food, and then later ringing the bell without introducing any food, Pavlov concluded that all behavior is a learned response to some stimulus in the environment. Known as **classical conditioning**, this stimulus-response technique was employed by Watson on humans in an attempt to induce specific learned behaviors.

B.F. Skinner (1904–1990) was another radical behaviorist who, like Watson, believed that psychologists should study only observable and measurable behaviors. He was also interested in changing behavior through conditioning, but through a new element: reinforcement. Skinner's work is built around the idea of **operant conditioning**, which rewards subjects for behaving in a specific way. According to Skinner, an external stimulus does not directly elicit a response. Instead, the presence of a reinforcer (a positive consequence that follows a behavior) increases the likelihood that the operant behavior will occur again under similar circumstances. This approach makes the subject an active participant in their own conditioning.

Cognitive Approach

Cognitive psychology emphasizes the importance of cognition—or how people think—as the basis for understanding human behavior. Emerging during the 1960s in response to behaviorism, cognitive psychology states that mental processes must be studied scientifically. By observing quantifiable behavior, cognitive psychologists believe that they can make inferences about the underlying cognitive processes at work.

Early cognitivists tended to emphasize **serial processing**, or step-by-step processing, of information. Today, many cognitivists also include **parallel processing**, in which multiple mental processes occur all at once, in their research.

Drawing from many different disciplines, cognitive psychology fuses together efforts in linguistics, philosophy, neurology, and computer science. Research using computer metaphors and computer programs to simulate human thought

processes and behavior is common in this field of study. Artificial intelligence models are used frequently to illustrate how human thought might work, providing insight into specific cognitive processes.

Humanistic Approach

The **humanistic approach** dates back to the ancient Greeks and centers on a holistic perspective that emphasizes the potential for individual growth and change. Humanistic psychologists focus on the impact of self-awareness and free will, emphasizing the role of conscious rather than unconscious experience. They also disregard the view that psychological research can only include measurable behavior.

Notable humanist **Carl Rogers** (1902–1987) is known for his person-centered approach that focuses on how an individual defines reality and personality rather than an external, objective view of these things. This self-concept comprises all the aspects of the self as perceived by an individual. And, according to Rogers, every individual strives to achieve self-actualization, or the fulfillment of their human potential. As an outgrowth of his theories, Rogers developed client-centered therapy in which a patient is given unconditional positive regard by the therapist in an attempt to help the patient develop a sense of congruence between who they are (self concept) and who they aspire to be (ideal self).

Abraham Maslow (1908–1970), a humanistic psychologist best known for his hierarchy of needs, also subscribed to the idea of self-actualization. According to Maslow, five levels of human needs make up the hierarchy. Starting from the bottom with the most basic needs, he believed that people progress through physiological needs, safety and security needs, belongingness and love needs, esteem needs, and finally the need for self-actualization.

Psychodynamic Approach

Psychodynamic (or **psychoanalytical**) **psychology** is based on the idea that unconscious thought is often in conflict with conscious behavior. **Sigmund Freud** (1856–1939) is considered the founder of the psychodynamic approach. His theories propose two levels of reality: conscious and unconscious. The conscious is composed of mental states such as memories, of which we are aware. The unconscious is composed of mental states of which we are unaware or to which we do not normally have access. According to Freud, the conscious and unconscious minds are often in conflict, giving way to a unique school of thought and a treatment methodology known as **psychoanalysis**. Psychoanalysis takes place when an experienced analyst uses techniques such as free association and dream analysis to probe a patient's true motivations.

Psychodynamic theory has been expanded and revised by Freud's colleagues and successors. **C.G. Jung** contributed the idea that the unconscious is made up of various layers, such as the personal unconscious and the collective unconscious. **Alfred Adler** originated the notion of the inferiority complex. And **Karen Horney** focused on the importance of basic anxiety in creating a feeling of isolation.

While the psychodynamic approach laid the foundation for the study of personality and psychological disorders, it has also been criticized due to a lack of empirical support.

Sociocultural Approach

Sociocultural approaches to learning and development are based on the concept that human activities take place in cultural contexts. Psychologists who subscribe to this approach believe that an individual cannot be understood outside of the culture in which they exist. They study the implications of cross-cultural phenomena, looking for unique perspectives and universal themes. The basic ideas of sociocultural psychology were introduced and applied by Russian theorist **L. S. Vygotsky** (1896–1934) and his collaborators. Vygotsky attempted to explain consciousness as the end product of socialization. Many of Vygotsky's ideas have had an impact not only on modern-day psychologists, but also on educators.

Evolutionary/Sociobiological Approach

Evolutionary psychology focuses on the evolutionary origins of behavior patterns and mental processes. Inspired by the work of **Charles Darwin**, it seeks to apply his ideas of natural selection to the mind. Evolutionary psychologists

explore how human beings got to be the way that they are and attempts to explain behavior in terms of evolved adaptations. The basic underlying principle of evolutionary psychology is the concept of **reproductive success**, meaning that all species are genetically programmed to produce offspring who can successfully reproduce themselves.

Evolutionary psychologists have recently applied Darwin's theory to explain how the human mind evolved to benefit the individual. From this point of view, complex aspects of human behavior and experience (such as language, memory and consciousness) all evolved because of their adaptive fitness. In one way or another, these features promote survival and propagation of the human species.

Review Questions

1. The belief that the mind is separate from the body is known as:
 - A. behaviorism
 - B. mind-body dualism
 - C. mind-body monism
 - D. Darwinism
 - E. structuralism
2. Which philosopher introduced the idea of tabula rasa?
 - A. Wilhelm Wundt
 - B. Rene Descartes
 - C. Abraham Maslow
 - D. John Locke
 - E. Plato
3. American psychologist William James is associated with which movement?
 - A. functionalism
 - B. structuralism
 - C. empiricism
 - D. rationalism
 - E. Darwinism
4. Which philosopher emphasized mind over body when he said, "*Cogito ergo sum*"?
 - A. Sigmund Freud
 - B. Rene Descartes
 - C. John Watson
 - D. Thomas Hobbes
 - E. John Locke
5. Which psychological approach has helped researchers discover links between genetic factors and mental disorders?
 - A. sociocultural
 - B. evolutionary
 - C. cognitive
 - D. behaviorism
 - E. biological

6. The idea of self-actualization was subscribed to by which humanistic psychologists?
- A. Darwin and Freud
 - B. Watson and Skinner
 - C. Pavlov and Vygotsky
 - D. Rogers and Maslow
 - E. Plato and Aristotle
7. Which profession has been directly impacted by many of Vygotsky's sociocultural ideas?
- A. neuroscience
 - B. law
 - C. education
 - D. the arts
 - E. technology
8. Which psychological approach makes use of computer models to simulate and study human thought and behavior?
- A. cognitive
 - B. psychodynamic
 - C. humanistic
 - D. behavioral
 - E. evolutionary/sociobiological
9. What is the biggest difference between classical and operant conditioning?
- A. Classical uses a reward system; operant does not.
 - B. Operant uses a reward system; classical does not.
 - C. Classical works on animals; operant works on humans.
 - D. Operant works on animals; classical works on humans.
 - E. Classical relies on serial processing; operant relies on parallel processing.
10. According to Sigmund Freud, the conscious and the unconscious are often _____.
- A. working together
 - B. in conflict with each other
 - C. misunderstood
 - D. the same as dualism and monism
 - E. the same as the ego and the superego

Answers

1. **B.** The philosophical belief that the mind is different from the body is called mind-body dualism. Proponents of dualism believe that the body is composed of physical substances, but the mind is ethereal and not composed of physical substance. These mental and physical phenomena are considered separate in the eyes of dualists.
2. **D.** John Locke espoused the idea that humans are born without any knowledge, and therefore have to seek knowledge through empirical observation. His belief that a newborn child is a tabula rasa means that all mental knowledge is acquired through experiences over a lifetime.
3. **A.** William James rejected the notion of structuralism, arguing that perceptions, emotions and images cannot be separated. Instead, he believed that consciousness flows in a continuous stream. As a result of his work, he was a leader in the functionalism movement. Functionalism goes beyond sensation and perception in an attempt to explore how an individual learns to function in an environment.

4. **B.** Descartes developed a concept known as interactionism in which he proposed that the mind affects the body and the body affects the mind. He believed that this interaction occurs in the pineal gland, a small gland located in the lower center of the brain. According to Descartes, the dualistic nature of humans is what separates humans from animals. For humans, the mind is essential. “*Cogito ergo sum*” is perhaps Descartes’s most famous quotation.
5. **E.** The view that all psychological disorders have a biochemical or physiological basis has helped researchers discover links between genetic factors and mental disorders, leading to new treatment options.
6. **D.** According to Rogers, every individual strives to achieve self-actualization, or the fulfillment of their human potential. According to Maslow, five levels of human needs make up a hierarchy of needs: physiological needs, safety and security needs, belongingness and love needs, esteem needs, and finally the need for self-actualization.
7. **C.** The basic ideas of sociocultural psychology were introduced and applied by Russian theorist L. S. Vygotsky (1896–1934) and his collaborators. Vygotsky attempted to explain consciousness as the end product of socialization. Many of Vygotsky’s ideas have had an impact not only on modern-day psychologists, but also on educators.
8. **A.** Research using computer metaphors and computer programs to simulate human thought processes and behavior is common in this field of study. Artificial intelligence models are used frequently to illustrate how human thought might work, providing insight into specific cognitive processes.
9. **B.** Classical conditioning is a stimulus-response technique used by Ivan Pavlov to shape learning. Operant conditioning rewards subjects for behaving in a specific way. Both fall under a behaviorism approach.
10. **B.** Freud’s theories propose two levels of reality: conscious and unconscious. The conscious is composed of mental states such as memories, of which we are aware. The unconscious is composed of mental states of which we are unaware or to which we do not normally have access. According to Freud, the conscious and unconscious minds are often in conflict, giving way to a unique school of thought and a treatment methodology known as psychoanalysis.

