

Module 2

History and Perspectives in Psychological Science

Learning Goals

- 2-1** Define *psychology*, and name several topics that psychologists study.
- 2-2** Describe how the study of psychology as a science got started.
- 2-3** Explain how twentieth-century psychologists changed how it was studied.
- 2-4** Explain how psychology's groundbreakers moved it forward and advanced gender and race equality.
- 2-5** Describe six theories that explain thinking and behavior.
- 2-6** Identify the basic ideas behind three of psychology's developing areas.



This psychograph would never be used by today's psychologists, but it illustrates psychology's interesting history.

An unusually large group of students collects in the hallway during the 5-minute break between class periods. Some stand on tiptoe, craning their necks from side to side, trying to gain a better view of the two students shouting at each other 10 feet from my classroom door. Cell phones are out, held high, filming the altercation. The tardy bell rings, but nobody leaves for class.

The crowd swells in number, making it nearly impossible to identify who is at the center of this argument. An assistant principal intervenes, and the escalating shouting match ends as quickly as it started. Both students are escorted to the office to sort things out.

Fortunately, these disruptions are very rare where I teach, but talk of the dispute, which started as an insult over what someone was wearing, buzzes from desk to desk. As a way to bring my students back from the almost-fight, we begin class by discussing some questions that psychologists might pose about the incident we just witnessed:

- Are some of us born more aggressive than others?
- How are levels of aggression affected by the presence of peers?
- What are the biological influences on aggression?
- What motivates some people to settle their differences physically, while others are more likely to talk them out?
- Are young adults more likely than middle-aged adults to take part in physical confrontations?
- How could this situation have been avoided or defused?

- Why were students more likely to film this altercation with their phones than to break it up or intervene?
- Why do some groups get along better than others?

In fact, psychologists try to find the answers to all kinds of interesting questions, such as these:

- Why does writing down the good things that happen in our lives help us deal with the challenges we face?
- Why do we have to sleep?
- What is the best way to help a 19-year-old soldier cope with the trauma experienced during battle?
- How do people's race or ethnicity affect the way they are treated by others?

After you finish this course, you should be able to answer these and many other interesting questions about the human mind and human behavior.



Getting Along—The Math Behind Groups That Thrive

One interesting question psychologists explore is how people work best in groups. One day, if you haven't already, you'll participate in a committee or group that meets regularly in your high school, the college you attend, or your community. Whether you're involved in a student council, youth group, or Spanish club, group members must get along to agree upon and accomplish goals. Some groups get along well and get a lot done, but others get bogged down. Psychologists have asked, What's the difference between productive and nonproductive groups or committees?

It turns out that there is an emotional recipe for healthy, productive groups. The number of positive experiences during meetings (compared to negative experiences) has a HUGE impact on a group's productivity. Psychologists have found that productive groups usually have at least three positive interactions for every negative one. This doesn't mean that there shouldn't be debates on topics that need resolving, but you should keep this 3-to-1 ratio in mind when you are working with others on a committee or a project.

Research shows that groups, committees, or student councils with positivity–negativity ratios worse than 3 to 1 rarely get much done and are almost never considered successful by its group members. If you think the positivity–negativity ratio of a group you belong to is worse than 3 to 1, what should you do? Research suggests that you should

- promote undivided focus as each group member speaks. (Outlaw texting during meetings!)
- express support, encouragement, or appreciation during and after a group member's presentation.
- ask questions that explore a speaker's viewpoint instead of saying things like, "That will never work."
- minimize sarcasm.
- discourage nonverbal behaviors (like eye rolling and smirking) during meetings.

The 3-to-1 ratio idea is likely to spill over into other aspects of your life. Interestingly, unsuccessful business teams, failed relationships, and even feelings of depression are also characterized by very few positive interactions and lots of negative interactions with others. Learning to integrate these suggestions can help you build better group experiences and more positive relationships in other areas of your life. Studying psychology can make navigating life easier!

The Definition of Psychology



2-1 What is psychology, and what kinds of topics do psychologists study?

psychology Scientific study of behavior and mental processes.

Psychology is the scientific study of behavior and mental processes. Before going any further, let's make sure we understand the three parts of this definition: Scientific study, behavior, and mental processes.

When we say that psychology is a *scientific study*, we mean that psychologists rely on scientific research methods in their attempts to unravel answers to questions such as, Why do some people offer help when others do not? Psychologists systematically collect research data and use statistical formulas to analyze the results. Scientific research methods are an essential key to unlocking psychology's secrets.

The last two parts of our definition, *behavior* and *mental processes*, establish the incredibly broad range of interesting topics that psychologists study. Any directly observable thing you do, from laughing to turning the pages of this book, is a behavior that psychologists could study. But psychologists also study the things we cannot observe directly—our mental processes, which include all our thoughts and emotions.

Are some people simply born more aggressive than others? To find out, psychologists might study children in a day care by watching for aggressive behaviors at early ages. Psychologists might also study the parts of the brain that are most active during aggressive behavior to try to determine what chemicals affect the brain. Psychologists who are less biologically inclined might examine a person's home life in search of the origins of aggressive acts. Interestingly, psychologists also study people who witness aggressive behavior, trying to understand why some people offer help and try to stop the aggression, while others do not.

Psychologists who do research on such topics do so with various goals in mind. Some conduct **basic research**, which is done to increase the scientific knowledge base of psychology. Others conduct **applied research**, which is intended to solve



"So, how do you want to play this?
Nature, nurture, or a bit of both?"

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basic research Pure science that aims to increase the scientific knowledge base.

applied research Scientific study that aims to solve practical problems.

What Makes You Smile?

Psychologists use scientific methods to study topics such as happiness, love, and friendship.



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practical problems. Basic research on aggressive behavior might aim to find out more about the biological influences on aggression. Applied research on helping behaviors might aim to reduce apathy in bystanders who witness aggressive behavior. Knowing more about the biology of aggression would add to our knowledge of aggression but wouldn't solve any problems. That makes it basic research. Research aimed at figuring out how to reduce apathy is applied research.

Fascinating subjects such as aggression against others, helping others, gratitude, and the development of children as they grow into adolescents and young adults are examined in this textbook. The psychologists studying these concepts chose one of the many careers (see Appendix A: Careers in Psychology) available to those who decide to pursue psychology as an occupation.

MAKE IT STICK!

- Which of the following best matches the definition of psychology?
 - Scientific research about why we act and think in the ways we do
 - The study of people
 - Thinking about human behaviors
 - Investigations of the human psyche and why we think the things we think
- What is the primary tool psychologists use to answer questions about behavior and thinking?
 - Insight
 - The unconscious mind
 - Dream analysis
 - The scientific method
- Dr. Schullo conducts research on cell phones, attempting to find out what would make them easier to use. What kind of research is Dr. Schullo conducting?
 - Applied research
 - Basic research
 - Behavioral processes
 - Mental processes
- Psychology is a scientific study. This means that psychology relies on which of the following to answer questions about behavior and mental processes?
 - Scientific research methods
 - Best-guess hunches
 - Observation only
 - Applied research methods only

Modern Psychology's Roots



2-2 How did the study of psychology as a science get started?

We humans have probably been curious about ourselves and the world around us for as long as we have been around, yet the history of modern psychology represents less than 150 years of work. As a science, psychology is relatively new.

Understanding what psychologists used to think about the mind and human behavior helps us understand current beliefs about psychology. Thus, we will start with the first experimental psychologist, Wilhelm Wundt.

Wilhelm Wundt and the Beginning of Psychology as a Science

Psychology's earliest pioneers shared a keen interest in understanding mental processes and later, behavior. One of these early pioneers was German physiologist **Wilhelm Wundt** (pronounced **VOONT**). As a youngster, Wundt had trouble concentrating in school. He often got bad grades and had to repeat his first year



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WILHELM WUNDT [VOONT] (1832–1920) Founder of modern psychology; he opened the first psychology laboratory.

of high school. Fortunately, the future founder of psychology buckled down and eventually graduated from medical school. But Wundt didn't want to practice medicine; he wanted to understand human consciousness. So, he began conducting experiments that tested how perceptions, sensations, and feelings related to human behavior. Wundt was given laboratory space in 1879, which is now recognized as the birth year of psychology.

Wundt's attempts to understand human consciousness used a process called *introspection*. Students trained in the introspection method were taught to describe their own conscious experiences in a step-by-step way. For instance, Wundt would create some kind of sound (like banging a gong) and ask all his students to explain what they heard first, how the sound changed after first hearing it, and how it ended. Wundt used their detailed descriptions as a foundation for understanding consciousness. Trying to figure out the mind's basic elements was generally at the heart of Wundt's research.

Wundt is considered the founder of modern psychology because he was the first to use experimental methods to study consciousness. For example, in one study, participants were told to press a button as soon as they saw a light come on. This was called Task 1. The time it took them to respond was recorded. Next, participants were told that either a red or a green light would come on. Their instructions were to press the left-hand button if the light was green and the right-hand button if the light was red. This was called Task 2. Again, the time to respond was recorded. Task 1 required only perception of a light before responding, but Task 2 required perception of the light, a decision about which color was shown, and a second decision about whether to push the left button or the right button. The time needed to respond to Task 2 was longer than that for Task 1, and Wundt believed the time difference between tasks measured the speed of mental processes. No one had used experimental methods such as these to study consciousness before Wundt.

structuralism Theory that the structure of conscious experience could be understood by analyzing the basic elements of thoughts and sensations.

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EDWARD B. TITCHENER
(1867–1927) Founder of structuralism.

Gestalt [gih-SHTALT] psychology Psychological perspective that emphasized our tendency to integrate pieces of information into meaningful wholes.

functionalism Theory that emphasized the functions of consciousness or the ways consciousness helps people adapt to their environment.

Edward B. Titchener and Structuralism

One of Wundt's students, **Edward B. Titchener**, introduced **structuralism**, the first major school of thought in psychology. Just as a chemist tries to understand the different elements in chemical compounds, structuralists tried to understand the *structure* of conscious experience by analyzing the intensity, clarity, and quality of its basic parts. For example, picture a blade of grass. A structuralist might have lingered over the intensity of the green color of the blade of grass, the clarity of its texture, and the roughly rectangular shape of the blade. For Titchener and his students, successful descriptions of such basic elements were the building blocks of consciousness. Unlike Wundt, Titchener did not want to use something invisible (such as mental processes) to explain consciousness. Instead, Titchener steered psychology toward a descriptive science, one that he could see.

Ultimately, structuralism did not produce many followers and died out. One reason for this was that in practice, it didn't prove to be very reliable. You see, since psychology is a science, the results from psychological research must be reliable meaning the methods used to study something get roughly the same results. Titchener's students often described the same object differently; hence, they produced unreliable data. Perhaps the greatest contribution structuralism made to psychology is that it provided a theory for others to disprove, giving rise to other schools of thought in psychology.

Gestalt Psychology

Gestalt (a German word that means *configuration* and is pronounced gih-SHTALT) **psychology** was a perspective that emphasized our tendency to integrate pieces of information into meaningful wholes. Gestalt psychologists suggested that adding together the individual elements of an experience created something new and different—that *the whole is different from the sum of its parts* (see **Figure 2.1**). For example, think of the notes to your favorite song. Individually, each note means little, but put them together and you have a great tune. Combining the elements, then, creates something that did not exist before. Most prominent Gestalt psychologists were persecuted by Nazis in the 1930s and fled to the United States as immigrants in search of safety. This slowed their research, but their work resurfaced in new psychological theories later in the century.



dryy/Stock/Getty Images

FIGURE 2.1

The Gestalt of Sound

In Gestalt theory, the whole (in this case, the collective notes of a song) is different from the individual parts (that is, the notes).

William James and Functionalism

Another psychologist who disagreed with the structuralist approach was **William James**. James, the first American psychologist, once noted that the first psychology lecture he ever heard was his own. He went on to write the first psychology textbook, published in 1890, which influenced thousands of students over the next several decades. For James, psychology needed to study the *functions* of consciousness, or the ways consciousness helps people adapt to their environment, a view that became known as **functionalism**. James was influenced by Charles Darwin's theory of evolution and believed that mental processes evolved over time. James also thought that we developed useful habits—such as washing our hands before eating or brushing our teeth after a meal—because they help us function more effectively in our daily lives. That is, washing our hands keeps us from eating germs and becoming sick, and brushing our teeth keeps them from rotting and falling out. James's idea was that consciousness helped us adapt to and function in our surroundings, and he thought that understanding this idea should be the goal of psychology.



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WILLIAM JAMES (1842–1910)
First American psychologist and author of the first psychology textbook.

MAKE IT STICK!

- Wilhelm Wundt is considered the founder of psychology as a science because
 - it was decided that clinical psychology should become a medical field.
 - he conducted important research on the unconscious mind.
 - he established the first experimental psychology laboratory.
 - he won the Nobel Prize for science.
- Which research question would have been most interesting to the Gestalt psychologists?
 - Why do we perceive objects in specific groups?
 - Can introspection be used to describe thought accurately?
 - What is the structure of conscious experience?
 - How is our personality expressed in our dreams?
- According to this textbook, who wrote that mental processes *evolve* over time?
 - Wundt (introspection)
 - Titchener (structuralism)
 - James (functionalism)
 - A Gestalt psychologist
- Which of the following is associated with the notion that the whole is different from the sum of its parts?

a. Functionalism	c. Structuralism
b. Gestalt	d. Introspection
- Who wrote the first psychology textbook?

a. James	c. Titchener
b. Wundt	d. None of them

Psychology in the Twentieth Century



2-3 In what ways did twentieth-century psychologists change how psychology was studied?

As the 1900s began, the science of psychology was heading in new directions. The most influential figure of this time was a man whose name you have likely heard associated with psychology, Sigmund Freud.

Sigmund Freud and Psychoanalysis

Few outside psychology have heard of structuralism and functionalism, but almost everyone has heard of the Austrian physician **Sigmund Freud**. In 1900, Freud introduced the world to **psychoanalysis**, a therapeutic technique and theory of personality that attributes our thoughts and actions to unconscious motives and conflict.

The stereotypical image of a therapist comes from pop culture notions surrounding Freud, whom countless cartoons have poked fun at over the years. Freud's approach to psychology differed from structuralism and functionalism in two key ways:

1. Psychoanalysis focused on abnormal behavior, which Freud attributed to unconscious drives and conflicts, often stemming from childhood. For instance, Freud thought that a conflict experienced in childhood, such as a difficult time in potty training, could reappear for that person as an obsession for order and cleanliness later in life.
2. Psychoanalysis relied on personal observation and reflection instead of controlled laboratory experimentation as its means of discovery. While Freud claimed his work was scientific, it really wasn't because he relied on self-reported reflections rather than scientific methods to gather information.

Freud died in 1939, and many of his ideas have since been disproved. However, elements of Freud's original theory are still part of pop culture. A Freudian slip, for example, is a misstatement reflective of something you'd *like* to say. For instance, during an interview, a member of the president's cabinet referred to her boss as my husband and not the president. She corrected herself, but did this mistake indicate a longing for a closer relationship? News anchors were quick to label the error as a Freudian slip, implying it's what she wished for. The term *anal retentive* comes from one of Freud's developmental stages and refers to someone who is excessively neat, clean, and compulsive (stuck in the "anal stage," where we supposedly come to terms with bodily functions). Freud's greater legacy, however, was his novel approach to understanding behavior, and some of these ideas have been incorporated

into *psychodynamic theory*, which is a modernized version of Freud's original theories (and is discussed in more detail later in this module). Psychologists influenced by psychodynamic theory still assume, as Freud did, that our unconscious thoughts, inner conflicts, and childhood experiences significantly affect our personality and behaviors.

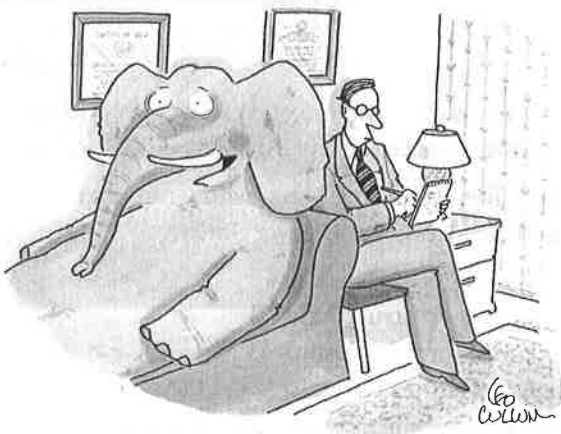


Keystone Pictures USA/Alamy

SIGMUND FREUD (1856–1939)

Founder of psychoanalysis, a controversial theory about the workings of the unconscious mind.

psychoanalysis Freud's theory of personality; also, a therapeutic technique that attempts to provide insight into thoughts and actions by exposing and interpreting the underlying unconscious motives and conflicts.



Leo Cullum/Conde Nast

"I'm right there in the room, and no one even acknowledges me."

behaviorism The theory that psychology should only study observable behaviors, not mental processes.

Ivan Pavlov, John Watson, and Behaviorism

In 1906, the classic studies on animal learning of Russian physiologist **Ivan Pavlov** fueled a move in psychology toward an interest in *observable* behaviors and away from the self-examination of inner ideas and experiences. Pavlov's emphasis on things we can see (rather than mental processes) quickly caught on in the United States. Consider the following, which appeared in *Psychological Review* 7 years after Pavlov first published his work and struck a nerve in the world of psychology: "Psychology as the behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of human behavior."¹ It can be argued that the words in this article sent the study of mental processes into hibernation for the next 40 years.

John B. Watson, the author of this article that encouraged psychologists to dismiss the study of consciousness, considered structuralism and functionalism failures, given his belief that the methods of these perspectives were unscientific. He wanted psychology to move in a more experimental direction, and to that end he launched **behaviorism**, the theory that psychology should only study observable behaviors, not mental processes. Watson's work made psychology more objective and scientific in its methods, although most behaviorists today recognize the significance of studying both mental processes and behaviors.

Watson's behaviorism was the most dominant school of thought in psychology in the twentieth century, and he promoted the study of learned reflexes originally developed by Pavlov. This method included precise experimental observations of human reactions to various stimuli. His most famous study paired the presentation of a furry white object to an infant along with the presentation of a loud noise. The loud noise frightened the infant, but pairing a furry white object with the loud noise also led the child to fear furry white objects. Later, the sight of something like a white rabbit would lead to uncontrollable crying by the infant.

In the years since, this school of thought has been modified somewhat by other behaviorists, such as **B. F. Skinner**. Today, behaviorism focuses on learning through rewards and observation, and studies that include frightening small children would neither be approved by a research review panel nor be conducted by any ethical psychologist.

Abraham Maslow, Carl Rogers, and Humanistic Psychology

Behaviorism and psychoanalysis maintained their hold on the field into the 1960s, when a third force began to influence psychology.² **Humanistic psychology**, led by **Abraham Maslow** and **Carl Rogers**, rejected the idea that humans are controlled by a series of rewards and reinforcements. Instead, they emphasized *conscious experience* as the proper focus of psychology. They also believed that humans have free will in their decision making and that healthy people strive to reach their full potential. Furthermore, humanistic psychologists did not believe that humans could be reduced to various parts and pieces. That is, an entire human—the whole person—is different from the sum of all the parts (brain, neurons, emotions, and so on). Does this remind you of an older school of thought? *Yes*, the humanistic psychologists were influenced by the Gestalt psychologists who preceded them.



Savitsky

IVAN PAVLOV (1849–1936)
Russian physiologist and learning theorist famous for the discovery of classical conditioning, in which learning occurs through association.



George Brant/CORBIS Historical/Getty Images

JOHN B. WATSON (1878–1958)
Founder of behaviorism, the theory that psychology should restrict its efforts to studying observable behaviors, not mental processes.



Science History Images/Alamy stockphoto

▲ **Animal Behavior**
Ivan Pavlov studied animal (dogs) behavior to gain insight into how we learn.

humanistic psychology A perspective that focuses on the study of conscious experience, the individual's freedom to choose, and the individual's capacity for personal growth.

Rehrach/Archive
Photos/Getty Images



B. F. SKINNER (1904–1990)
American behavioral psychologist who developed the fundamental principles and techniques of operant conditioning and devised ways to apply them in the real world.

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ABRAHAM MASLOW (1908–1970) Humanistic psychologist who proposed the *hierarchy of needs*, with *self-actualization* as one of the ultimate psychological needs.

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CARL ROGERS (1902–1987)
Humanistic psychologist who developed *client-centered therapy* and stressed the importance of acceptance, genuineness, and empathy in fostering human growth.

Fairall Graham/CORBIS/
Corbis via Getty Images



JEAN PIAGET [pee-ah-ZHAY] (1896–1980) Pioneer in the study of developmental psychology who introduced a stage theory of cognitive development that led to a better understanding of children's thought processes.

Humanistic psychology showed great promise early in its existence, but many believe its subsequent decline resulted from the lack of scientific research to back up its proposals.³ The idea of striving to reach one's potential, proposed by Maslow 40 years ago, has been picked up by the *positive psychologists* of the twenty-first century, as you will see later in this module.

Jean Piaget and Child Development

Swiss biologist and psychologist **Jean Piaget** (pronounced pee-ah-ZHAY) was another pioneer; he is best known for his work on how children develop their thinking abilities. His early work focused on biology, but after he moved to France in the 1920s, his interest turned to psychology. When he began teaching in a school known for administering intelligence tests, Piaget noticed an interesting phenomenon: Students of a certain age consistently made mistakes on the tests that older children did not make. This led Piaget to believe that younger children thought differently than older children. Piaget published more than 60 books over the next 50 years that most often dealt with how thinking develops in children.



MAKE IT STICK!

- Sigmund Freud's theories differed from all other early psychological theories because of his emphasis on
 - the effect of the unconscious mind on our thinking and behavior.
 - our conscious experience and perception of the world around us.
 - introspection as a form of gathering data about thinking.
 - experimental research and gathering data on observable behaviors.
- What was Watson's primary complaint about early psychological theories?
 - Early theories emphasized human actions instead of the basic thinking behind them.
 - Early theories addressed thinking instead of observable behaviors.
 - Early theories were based on experimental methods instead of introspection.
 - Early theories were too closely tied to William James's work.
- Which of the following would most likely be said by a behaviorist?
 - We should only study observable behaviors.
 - We should only study mental processes.
 - We should only study drives and conflicts.
 - We should only study conscious experiences.
- Which of the following, considered by some to be the third force in psychology, would most likely be associated with the idea that humans have free will in their decision making?

a. Behaviorism	c. Development
b. Psychoanalysis	d. Humanism
- Striving to reach one's potential is a field of study picked up by which of the following kinds of psychologists?

a. Humanistic	c. Positive
b. Psychoanalytic	d. Developmental

Psychology's American Groundbreakers

 **2-4** How did psychology's groundbreakers move psychology forward and help advance gender and race equality?


Like other academic fields, early psychology lacked the ethnic and gender diversity it has today. Although it is difficult to imagine by today's standards, women and minority students were often discouraged from attending colleges and universities at the time of and for decades after psychology's birth. If this seems shocking, remember, for example, that women were not allowed to vote in the United States until 1920. The spirit of the times in North America and in Europe (where psychology flourished) favored the advancement of white men at the expense of nonwhite men and all women. These racial and gender barriers meant white males dominated psychology (and all sciences) because others rarely had the opportunity to gain the education, knowledge, and training necessary to become a psychologist. Several groundbreakers in psychology excelled in, and in spite of, this hostile cultural climate (see **Figure 2.2**).

G. Stanley Hall was a student of Wundt's who achieved a number of psychological firsts. Hall was the first American to receive a doctoral degree (Ph.D.) in psychology. He also opened the first psychology laboratory in the United States (at Johns Hopkins University), and he was the first president of the American Psychological Association (APA), elected in 1892.

Working with William James, Mary Whiton Calkins had to overcome discrimination and prejudice against women to become the first woman to complete the requirements for a Ph.D. in psychology, in 1895. Harvard at that time did not admit women and so would not award her a degree. Years later, Harvard offered to give her a degree from Radcliffe College (established by Harvard to educate women). Calkins refused the offer, stating that she had completed her work at Harvard, not Radcliffe. Calkins was elected president of the APA in 1905.

Margaret Floy Washburn was Edward B. Titchener's first graduate student at Cornell University, and she was the first woman to receive a Ph.D. in psychology. In 1908, Washburn wrote the first textbook on comparative psychology, which examined animal behavior.

Francis Cecil Sumner, in 1920, became the first African American to receive a Ph.D. in psychology. Sumner wrote many articles on racial prejudice, education for African Americans, and nature–nurture issues. Sumner also established the psychology department at Howard University.

Inez Beverly Prosser, the first African American woman to earn an Ed.D. in psychology, completed the requirements in 1933 at the University of Cincinnati. She studied the development of African American children in segregated and integrated schools.

Kenneth Clark and **Mamie Phipps Clark** were educational psychologists whose research was presented as evidence to the U.S. Supreme Court during the landmark court case on desegregating schools, *Brown v. Board of Education*. The Clarks (both students of Francis Sumner) helped show that internalized racism was a product of the stigmas attached to “separate but equal” schools for white children and black children. For instance, black children attending a segregated school (where they were apart from white children) often viewed *white* as good and pretty and *black* as bad and ugly. The Supreme Court listened to the Clarks' findings and mentioned them when ruling in 1954 that segregated schools were unconstitutional. Kenneth Clark was also the first African American to be president of the APA.

LIFE MATTERS

History often paints historical figures in absolutes— as all good or all bad— when the reality is often much more complicated. While G. Stanley Hall can be accredited with the advancement of race equality, he was a strong opponent of women's access to education due to his belief that women were biologically inferior.



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KENNETH CLARK (1914–2005) AND MAMIE PHIPPS CLARK (1917–1983) Researchers whose work was used in the *Brown v. Board of Education* case that overturned segregation in schools.



G. Stanley Hall
(1844–1924)



Alfred Binet
(1857–1911)



Karen Horney
(1885–1952)



Albert Bandura
(1925–)



Martin Seligman
(1942–)

- 1879 Wilhelm Wundt opens the first psychology laboratory in Leipzig, Germany.
- 1890 William James publishes the first psychology textbook, *Principles of Psychology*.
- 1892 G. Stanley Hall founds the American Psychological Association (APA). E. B. Titchener introduces structuralism.
- 1900 Sigmund Freud publishes his psychoanalytic views in *The Interpretation of Dreams*.
- 1905 Mary Whiton Calkins becomes the first woman to be president of the APA. Alfred Binet develops the first intelligence test.
- 1906 Ivan Pavlov publishes his results on learning by association.
- 1908 Margaret Floy Washburn becomes the first woman to receive a doctoral degree (Ph.D.) in psychology.
- 1913 John B. Watson publishes "Psychology as the Behaviorist Views It."
- 1920 Francis Cecil Sumner becomes the first African-American to earn a doctoral degree in psychology.
- 1926 Jean Piaget publishes *The Language and Thought of the Child*.
- 1933 Inez Beverly Prosser becomes the first African-American woman to earn a doctoral degree in psychology.
- 1938 B. F. Skinner promotes behaviorism, publishing *The Behavior of Organisms*.
- 1939 Kenneth Clark and Mamie Phipps Clark begin work that will be cited by the U.S. Supreme Court 1954 decision ending racial segregation in public schools.
- 1945 Karen Horney challenges the male bias in Freud's psychoanalytic theory and proposes a social-cultural approach.
- 1950 Erik Erikson publishes *Childhood and Society*, outlining stages of psychosocial development.
- 1954 Abraham Maslow presents the humanistic perspective. Gordon Allport publishes *The Nature of Prejudice*.
- 1961 Albert Bandura stresses the importance of imitation in learning, proposing a social-learning theory.
- 1969 John Berry calls attention to the importance of cross-cultural research in psychology.
- 1974 Eleanor Maccoby and Carol Jacklin publish *The Psychology of Sex Differences*.
- 1981 Roger Sperry receives a Nobel Prize for research on split-brain patients.
- 1998 Martin Seligman's APA presidential address launches the positive psychology movement.
- 2002 Daniel Kahneman receives a Nobel Prize for research on decision making.
- 2007 Barbara Fredrickson advances a new broaden-and-build theory on emotions.
- 2012 The American Psychiatric Association issues official position statements supporting the civil rights of gender-nonconforming individuals.
- 2013 President Barack Obama announces the BRAIN initiative to map the activity of every neuron in the human brain.
- 2014 Psychologist John O'Keefe is awarded the Nobel Prize for his work on brain networks and memory.
- 2015 The American Psychological Association bars psychologists from participating in interrogations at sites violating international law.
- 2017 First-ever High School Psychology Summit on how to best teach psychology held in Ogden, Utah. (Both of your authors spoke at the summit.)



Mary Whiton
Calkins
(1863–1930)



Francis Cecil
Sumner
(1895–1954)



Mamie Phipps
Clark
(1917–1983)



Daniel Kahneman
(1934–)



John O'Keefe
(1939–)

FIGURE 2.2
Psychology's
Groundbreakers

There is ample evidence to show that psychology supports and promotes the importance of diversity more than ever. In 2017, over two-thirds of all psychology doctorates were awarded to women. Half of the APA presidents elected this century have been women, and the 2017 APA president was born in Cuba.⁴ Worldwide, psychology is growing rapidly. In 1977, China had no psychology department in any of its universities. Less than 30 years later, there were over 200.⁵ But although roughly 33 percent of the U.S. population consists of nonwhites, the proportion of minority students in graduate programs is far from one in three. This gap will continue to close as university psychology departments across the country work to recruit the best and brightest students from all backgrounds. To meet the demands of our increasingly multicultural and ethnically diverse population, psychology will need to continue evolving.

MAKE IT STICK!

1. Kenneth and Mamie Phipps Clark's work, which showed that African American children attending a segregated school often viewed *white* as _____, was used in the *Brown v. Board of Education* case that overturned _____.
2. An example of how psychology has been a progressive science is that even though universities like Harvard University did not allow women to enroll in 1905, Mary Whiton Calkins was elected president of the _____ that same year.
3. Today, about what percentage of psychology doctorates are awarded to women?
 - a. 25 percent
 - b. 10 percent
 - c. 50 percent
 - d. 65 percent
4. Who of the following opened the first psychology lab in the United States?
 - a. Alfred Binet
 - b. G. Stanley Hall
 - c. Albert Bandura
 - d. Mamie Phipps Clark
5. Which of the following likely contributed to the fact that no woman received a doctorate in psychology until about 30 years after the first man received a doctorate?
 - a. At the time, many universities did not admit women.
 - b. Prejudicial attitudes toward women were prevalent.
 - c. Psychology, like all sciences at the time, was dominated by men.
 - d. All of the answers are correct.

Six Psychological Perspectives



2-5 How do six psychological theories explain thinking and behavior?

We can explain behavior from many viewpoints, or perspectives. *Psychological perspectives*, *schools of thought*, and *psychological approaches* are all synonyms for the ways in which psychologists classify collections of ideas. Put another way, the psychologist who believes in a particular collection of ideas is said to view behavior from that particular perspective. For instance, a behaviorist views psychology from a behavioral perspective.

Psychology has seen many perspectives come and go. We have already noted the emergence of psychoanalysis, behaviorism, and humanistic psychology. The other three discussed here are the cognitive perspective, the biological perspective, and the social-cultural perspective (see **Figure 2.3**).

To understand these six perspectives, let's apply each to the same real-life possibility: whether or not a person helps a stranger pick up a spilled sack of groceries when given the opportunity. Why do some people help when others don't? Each of the six perspectives has an explanation.

Psychologists who are psychoanalysts work from the *psychodynamic perspective*, a school of thought that focuses on how behavior springs from unconscious drives and conflicts. A psychologist influenced by the psychodynamic perspective might suggest that a person does *not* help the stranger pick up the groceries because she has an unresolved childhood conflict about her father always yelling at her to pick up her toys. The assumption is that there is a conflict, from long ago, that needs to be resolved. The psychologist assumes that until it is resolved, the conflict will affect behavior.

Psychologists who are behaviorists work from the *behavioral perspective*, a school of thought that focuses on how we learn observable responses. As we learned

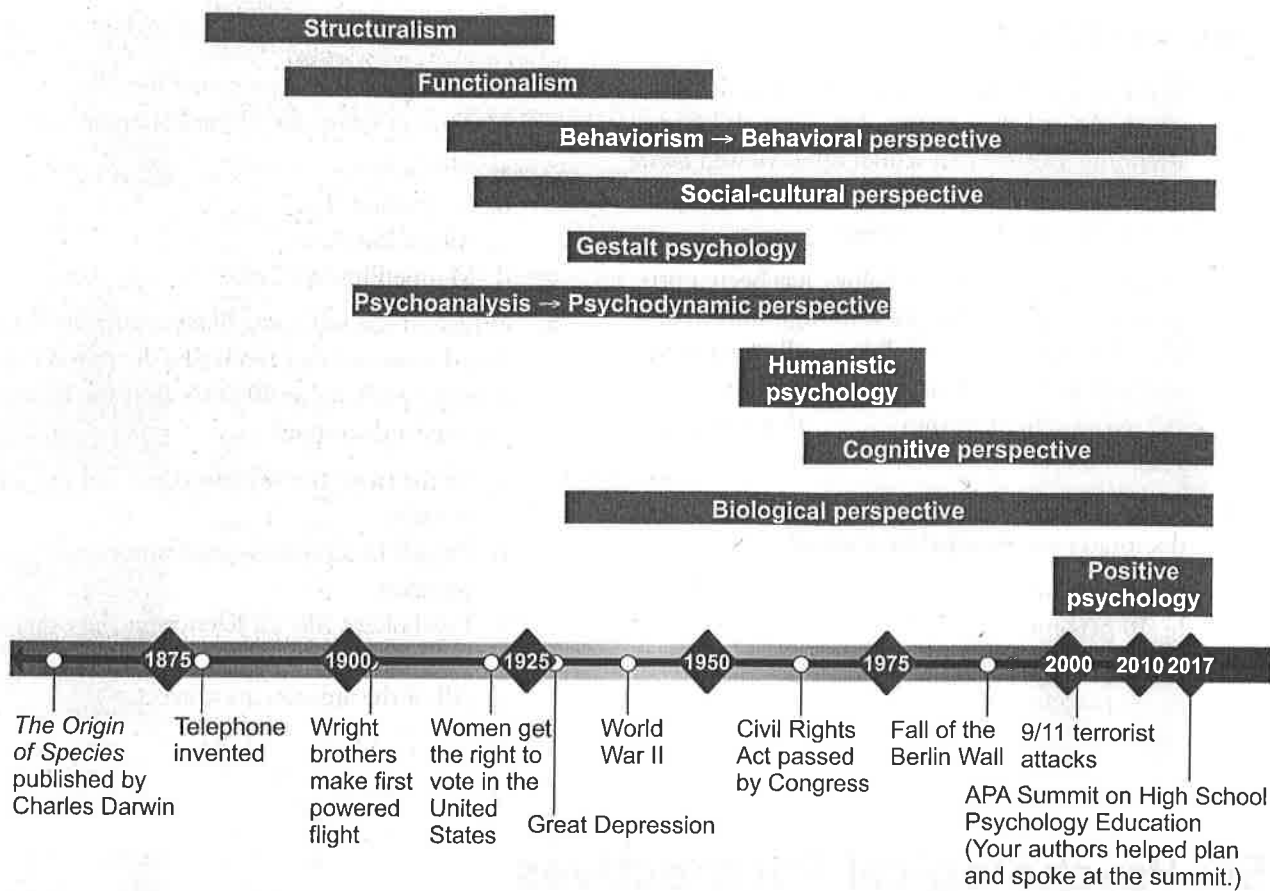


FIGURE 2.3
Historical Development of Psychology's Main Schools of Thought

This figure shows the periods in which each psychological perspective has had its most profound influence on psychology's development. (Adapted from Schultz & Schultz, 2016.)

earlier, behaviorists believe we learn certain responses through rewards, punishments, and observation. So, they might suggest that a person helps the stranger pick up the spilled sack of groceries because that person has observed someone being rewarded for helpful behavior in the past. Learning that rewards come to those who help others fosters helping behavior.

Psychologists who are humanistic therapists work from the *humanistic perspective*, a school of thought that focuses on how healthy people strive to reach their full potential. A humanistic psychologist might suggest that a person who has met his own basic needs (hunger, thirst, shelter) would be able to reach out socially and help another person in need.

Structuralism, functionalism, and Gestalt psychology are the forerunners of the **cognitive perspective**, a school of thought that focuses on how people think—how they take in, process, store, and retrieve information. Remembering something you've learned, for example, is a cognitive activity. From the cognitive perspective, helping a stranger could be a function of how we think about or interpret a situation. We may choose to help the stranger who spills a bag of groceries because we *think* it will make us look good to others. However, if we think helping will cause us to look silly, then we may well leave the stranger to pick up the groceries alone.

The **biological perspective** is a school of thought that focuses on physical structures and substances underlying a particular behavior, thought, or emotion. Biological psychologists might remind us that levels of a naturally occurring feel-good chemical found in the brain could affect whether we help the stranger or not. Those lacking normal amounts of this brain chemical might be feeling down and may not feel up to helping the stranger pick up the spilled groceries.

The **social-cultural perspective** is a school of thought that focuses on how thinking or behavior changes in different situations or as a result of cultural influences. Social-cultural psychologists might tell us that a person is more likely to help the stranger if that

cognitive perspective School of thought that focuses on how people think—how we take in, process, store, and retrieve information.

biological perspective School of thought that focuses on the physical structures and substances underlying a particular behavior, thought, or emotion.

social-cultural perspective School of thought that focuses on how thinking or behavior changes in different situations or as a result of cultural influences.

person is with some close-knit family members and 50 feet from his front door, less likely if he is alone in a crowded big-city grocery store he has never been to before.

As you can see, no one perspective lays claim to having all the answers to the question, What makes us tick? But look at these six perspectives collectively (see **Table 2.1**). Can you see why most psychologists today subscribe to more than one perspective? These six perspectives complement one another, and psychologists draw from them all in their attempts to understand behavior and mental processes. Sometimes they even look beyond these six—to developments on psychology's horizon—in their efforts to understand human behavior.

TABLE 2.1 Six Perspectives in Psychology

Perspective	Why Do We Help?
<ul style="list-style-type: none"> • Cognitive How we process information 	Our individual interpretations of an event affect how we respond.
<ul style="list-style-type: none"> • Biological How our biological structures and substances underlie a given behavior, thought, or emotion 	Our brain chemistry controls the emotions and thoughts that eventually produce helping behavior.
<ul style="list-style-type: none"> • Social-Cultural How thinking and behavior change depending on the situation or as a result of cultural influences 	If we come from a cultural background that values helping, we're more likely to help. We're also more likely to help if we are in a comfortable situation, such as with a good friend, than if we are in a large, unfamiliar crowd.
<ul style="list-style-type: none"> • Behavioral How we learn through rewards, punishments, and observation 	If we have witnessed or been rewarded for helping behavior in the past, we are more likely to help later.
<ul style="list-style-type: none"> • Humanistic How healthy people strive to reach their full potential 	If our needs for nourishment and safety have been met, we are more likely to feel we can reach out and help others.
<ul style="list-style-type: none"> • Psychodynamic How we are affected by unconscious drives and conflicts 	Unresolved inner conflicts can affect whether or not we help others.

MAKE IT STICK!

1. A psychologist from which psychological perspective would be most likely to agree that thinking and behavior are caused by combinations of hormone and neurotransmitter activity in the brain?
 - a. Biological
 - b. Social-cultural
 - c. Cognitive
 - d. Behavioral
2. A psychologist from which psychological perspective would be most likely to agree that people act in the ways they do because of rewards and punishments?
 - a. Behavioral
 - b. Cognitive
 - c. Biological
 - d. Social-cultural
3. A psychologist from which of the following perspectives would most likely focus her research on what people think?
 - a. Social-cultural
 - b. Cognitive
 - c. Biological
 - d. Behavioral
4. Which of the following books would most likely contain information about unresolved unconscious conflicts?
 - a. *Humanistic Psychology and You*
 - b. *Thinking About Cognitive Psychology*
 - c. *Psychodynamic Psychology for Dummies*
 - d. *The Adventures of Biological Psychology*

Psychology in the Twenty-First Century



2-6 What are the basic ideas behind three of psychology's developing areas?

behavior genetics The school of thought that focuses on how much our genes and our environment influence our individual differences.

evolutionary psychology School of thought that focuses on the principles of natural selection to study the roots of behavior and mental processes.

positive psychology A movement in psychology that focuses on the study of optimal human functioning and the factors that allow individuals and communities to thrive.

Psychology continues to grow. Three particularly strong developing areas in psychology are behavior genetics, evolutionary psychology, and positive psychology.

Those studying **behavior genetics** focus on how much our genes and environment influence our individual differences. Does this sound like a combination of biology and behaviorism? You bet. Apply the behavior genetics perspective to the helping example. A psychologist interested in behavior genetics might ask two questions: Is there a helpfulness trait? If so, is it triggered by growing up in a family that promotes and values helping those in need? If the answer to both questions is *Yes*, and if you possess the helping trait and the helpful family, then you'll be bending down to help that stranger pick up the oranges and the loaf of bread. From the perspective of behavior genetics, helping behavior is the product of learning *and* inherited genetic traits.

Some psychologists study behaviors that helped our ancestors survive. These psychologists hope to gain insight into behavior by using the **evolutionary perspective**. This approach combines biological, psychological, and social aspects of human behavior. Is it possible to explain helping from the perspective of evolutionary psychology? Well, helping may have been a behavior generally seen as favorable, and helping could have occurred in the past because helping behavior made us more desirable to others. Those who were well liked in the community had good odds for surviving and successfully producing offspring.

Humanistic psychology is the forerunner of **positive psychology**, which became a force after Martin Seligman's 1998 APA presidential address on the positive psychology movement. Positive psychology shares with humanistic psychology a focus on wellness and on healthy people reaching their full potential, but it differs in one crucial way: Positive psychology is firmly grounded in psychological science, thereby avoiding humanistic psychology's lack of scientific research to support its theoretical foundations. Schools focusing on increased well-being (for example, teaching students how to express gratitude and how to be more resilient) in their curriculum have shown increases in achievement and attendance and decreases in the number of students experiencing symptoms of depression.^{6, 7, 8}

MAKE IT STICK!

- Which psychological perspective is most directly interested in factors such as wellness and human thriving?
 - The psychodynamic perspective
 - Behavior genetics
 - Positive psychology
 - The evolutionary perspective
- Which psychological perspective is most directly interested in how genes and experiences combine to form personalities?
 - Behavior genetics
 - The humanistic perspective
 - The psychodynamic perspective
 - Positive psychology

MAKE IT STICK! (continued)

3. Which psychological perspective is most directly interested in how the behavior of our ancestors helped them to survive?
 - a. The humanistic perspective
 - b. The evolutionary perspective
 - c. Behavior genetics
 - d. Positive psychology
4. Which type of psychologist would say, We should study what it means to flourish and how to promote well-being?
 - a. Positive psychologist
 - b. Behavioral psychologist
 - c. Cognitive psychologist
 - d. Biological psychologist

Module 2 Summary and Assessment

History and Perspectives in Psychological Science

2-1 What is psychology, and what kinds of topics do psychologists study?

- Psychology is the scientific study of behavior and mental processes.
- Psychologists rely on scientific research methods to answer questions.
- Any observable behavior or mental process can be studied by psychologists, with a focus on either basic or applied research.

2-2 How did the study of psychology as a science get started?

- Wilhelm Wundt is considered the founder of modern psychology because he established a lab and used experimental methods to study consciousness.
- Edward B. Titchener introduced structuralism, the theory that the structure of conscious experience could be understood by analyzing the basic elements of thoughts and sensations.
- Gestalt psychology emphasized our tendency to integrate pieces of information into meaningful wholes.
- William James introduced functionalism, the theory that explored the ways consciousness helps people adapt to their environment.

2-3 In what ways did twentieth-century psychologists change how psychology was studied?

- Sigmund Freud introduced psychoanalysis, a theory of personality and therapeutic technique that attributes our

thoughts and actions to unconscious motives and conflicts. Freud's new approach to understanding behavior and some of the ideas that developed from it have been incorporated into psychodynamic theory, which is a modernized version of Freud's original theories.

- Ivan Pavlov fostered interest in studying observable behavior by reporting how animals learn in certain situations.
- John B. Watson introduced behaviorism, the theory that psychology should only study observable behaviors, not mental processes. Behaviorism was the most dominant school of thought in psychology during the twentieth century and was later adapted and expanded by other behaviorists such as B. F. Skinner.
- Humanists such as Abraham Maslow and Carl Rogers emphasized conscious experience as the proper focus of psychology. They believed that humans have free will and that healthy people strive to reach their full potential.
- Jean Piaget's pioneering research in developmental psychology focused on how children develop their thinking abilities.

2-4 How did psychology's groundbreakers move psychology forward and help advance gender and race equality?

- G. Stanley Hall was the first American to receive a doctoral degree (Ph.D.) in psychology. He opened the first psychology laboratory in the United States and was the first American Psychological Association (APA) president.