

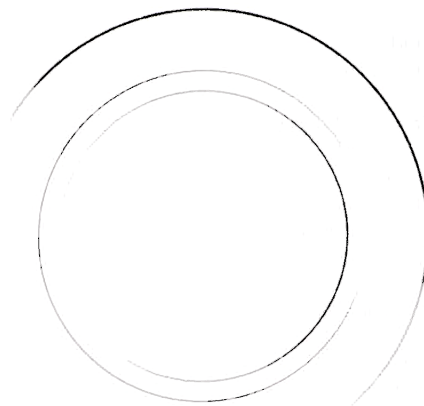


Understanding Psychology

FIFTEENTH EDITION

Robert S. Feldman

University of Massachusetts Amherst



**Mc
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Hill**





UNDERSTANDING PSYCHOLOGY: FIFTEENTH EDITION

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CHAPTER 1

Introduction to Psychology

LEARNING OUTCOMES FOR CHAPTER 1

- LO 1-1** What is the science of psychology?
- LO 1-2** What are the major specialties in the field of psychology?
- LO 1-3** Where do psychologists work?

- LO 2-1** What are the origins of psychology?
- LO 2-2** What are the major approaches in contemporary psychology?

- LO 3-1** What are psychology's key issues and controversies?
- LO 3-2** What is the future of psychology likely to hold?

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Psychology's Future
Neuroscience in Your Life: Enhancing Your Mind
Becoming an Informed Consumer of Psychology: Thinking Critically About Psychology: Distinguishing Legitimate Psychology from Pseudo-Psychology

PROLOGUE *A MAN-MADE CATASTROPHE*

At first the loud popping noises seemed like they were a part of the show at Pulse, a well-known gay nightclub in Orlando, Florida. But as people began to drop to the floor, injured and dying, panicky clubgoers rushed to escape what turned out to be a barrage of bullets. Until he himself was killed by the police, the shooter, Omar Mateen, murdered and injured scores of people over the next three hours.

It was the worst act of domestic terrorism in the United States other than the 9/11 attack on the World Trade Center, showing the darkest side of human behavior. But at the same time the carnage was occurring, the best of humanity was also on display. Some people rushed to help the wounded, and survivors comforted those who were near death. Strangers risked their own lives to help those in desperate need. There was an outpouring of grief around the world.

LOOKING Ahead

The Orlando massacre gives rise to a host of important psychological issues. For example, consider these questions asked by psychologists following the catastrophe:

- What motivated the shooter's rampage? Was he driven by political, social, or religious beliefs, or was he psychologically disturbed?

- What internal, biologically-based changes occurred in those fleeing for their lives from the shooter?
- What memories did people have of the massacre afterward? Why were there contradictory eyewitness reports?
- What would be the long-term effects of the massacre on the psychological and physical health of the survivors and witnesses?
- What are the most effective ways to help people cope with the sudden and unexpected loss of loved ones, many of whom were in the prime of their lives?
- Could this tragedy have been prevented if the shooter had earlier received psychological therapy?

As you'll soon see, the field of psychology addresses questions like these—and many, many more. In this chapter, we begin our examination of psychology, the different types of psychologists, and the various roles that psychologists play.

Module 1

Psychologists at Work

Psychology is the scientific study of behavior and mental processes. The simplicity of this definition is in some ways deceiving, concealing ongoing debates about how broad the scope of psychology should be. Should psychologists limit themselves to the study of outward, observable behavior? Is it possible to scientifically study thinking? Should the field encompass the study of such diverse topics as physical and mental health, perception, dreaming, and motivation? Is it appropriate to focus solely on human behavior, or should the behavior of other species be included?

Most psychologists would argue that the field should be receptive to a variety of viewpoints and approaches. Consequently, the phrase *behavior and mental processes* in the definition of psychology must be understood to mean many things: It encompasses not just what people do but also their thoughts, emotions, perceptions, reasoning processes, memories, and even the biological activities that maintain bodily functioning.

Psychologists try to describe, predict, and explain human behavior and mental processes, as well as helping to change and improve the lives of people and the world in which they live. They use scientific methods to find answers that are far more valid and legitimate than those resulting from intuition and speculation, which are often inaccurate (see Figure 1).

LEARNING OUTCOMES

LO 1-1 What is the science of psychology?

LO 1-2 What are the major specialties in the field of psychology?

LO 1-3 Where do psychologists work?

psychology The scientific study of behavior and mental processes. (Module 1)

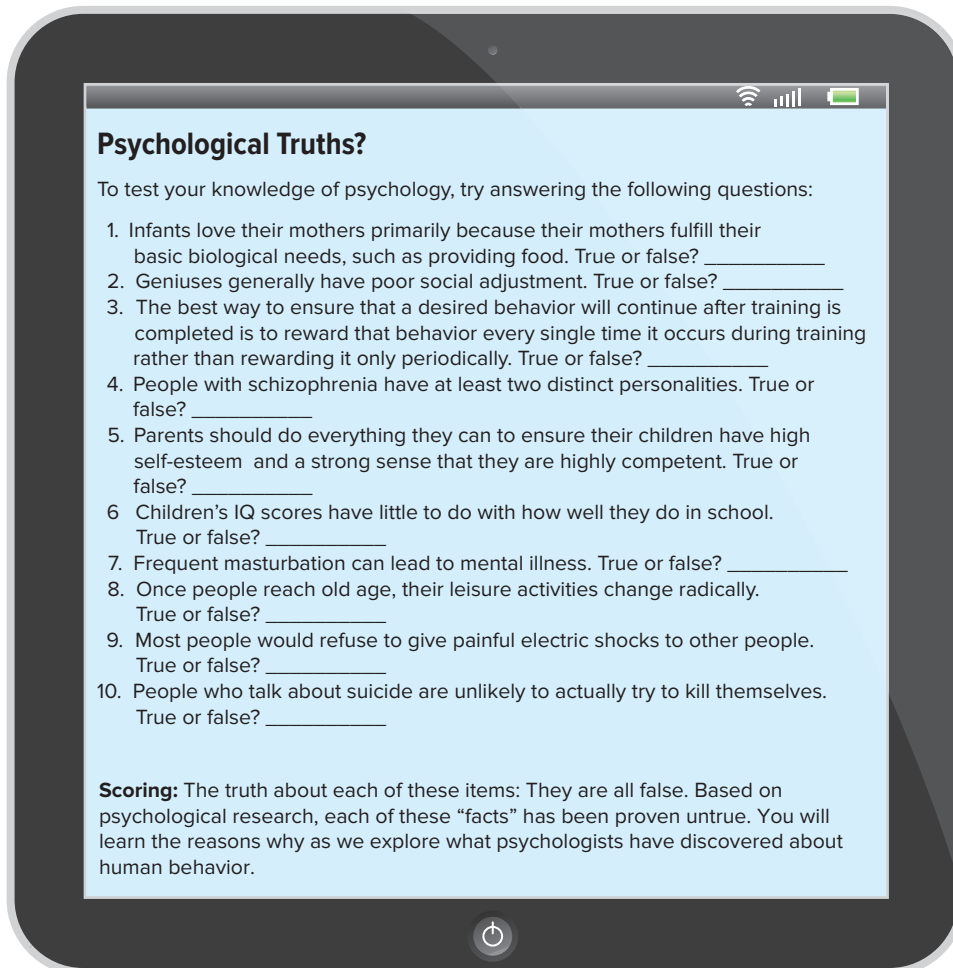


FIGURE 1 The scientific method is the basis of all psychological research and is used to find valid answers. Test your knowledge of psychology by answering these questions.

(Source: Adapted from Lamal, 1979.)

The Subfields of Psychology: Psychology's Family Tree

As the study of psychology has grown, it has given rise to a number of subfields (described in Figure 2). The subfields of psychology can be likened to an extended family, with assorted nieces and nephews, aunts and uncles, and cousins who, although they may not interact on a day-to-day basis, are related to one another, because they share a common goal: understanding behavior. One way to identify the key subfields is to look at some of the basic questions about behavior that they address.



Study Alert

The different subfields of psychology allow psychologists to explain the same behavior in multiple ways. Review Figure 2 for a summary of the subfields.



PsychTech

We now know we cannot text and drive at the same time. Cognitive psychologists have demonstrated that it is impossible to do both without a serious and potentially deadly decline in driving ability.

WHAT ARE THE BIOLOGICAL FOUNDATIONS OF BEHAVIOR?

In the most fundamental sense, people are biological organisms. *Behavioral neuroscience* is the subfield of psychology that focuses on how the brain and the nervous system, as well as other biological aspects of the body, determine behavior.

Thus, neuroscientists consider how our body influences our behavior. For example, they may examine the link between specific sites in the brain and the muscular tremors of people affected by Parkinson's disease or attempt to determine how our emotions are related to physical sensations.

HOW DO PEOPLE SENSE, PERCEIVE, LEARN, AND THINK ABOUT THE WORLD?

If you have ever wondered why you are susceptible to optical illusions, how your body registers pain, or how to make the most of your study time, an experimental psychologist can answer your questions. *Experimental psychology* is the branch of psychology that studies the processes of sensing, perceiving, learning, and thinking about the world. (The term *experimental psychologist* is somewhat misleading: Psychologists in every specialty area use experimental techniques.)

Several subspecialties of experimental psychology have become specialties in their own right. One is *cognitive psychology*, which focuses on higher mental processes, including thinking, memory, reasoning, problem solving, judging, decision making, and language.

WHAT ARE THE SOURCES OF CHANGE AND STABILITY IN BEHAVIOR ACROSS THE LIFE SPAN?

A baby producing her first smile . . . taking his first step . . . saying her first word. These universal milestones in development are also singularly special and unique for each person. *Developmental psychology* studies how people grow and change from the moment of conception through death. *Personality psychology* focuses on the consistency in people's behavior over time and the traits that differentiate one person from another.

HOW DO PSYCHOLOGICAL FACTORS AFFECT PHYSICAL AND MENTAL HEALTH?

Frequent depression, stress, and fears that prevent people from carrying out their normal activities are topics that interest a health psychologist, a clinical psychologist, and a counseling psychologist. *Health psychology* explores the relationship between psychological factors and physical ailments or disease. For example, health psychologists are interested in assessing how long-term stress (a psychological factor) can affect physical health and in identifying ways to promote behavior that brings about good health (Belar, 2008; Yardley & Moss-Morris, 2009; Proyer et al., 2013).



Subfield

Description

Behavioral genetics	<i>Behavioral genetics</i> studies the inheritance of traits related to behavior.
Behavioral neuroscience	<i>Behavioral neuroscience</i> examines the biological basis of behavior.
Clinical psychology	<i>Clinical psychology</i> deals with the study, diagnosis, and treatment of psychological disorders.
Clinical neuropsychology	<i>Clinical neuropsychology</i> unites the areas of biopsychology and clinical psychology, focusing on the relationship between biological factors and psychological disorders.
Cognitive psychology	<i>Cognitive psychology</i> focuses on the study of higher mental processes.
Counseling psychology	<i>Counseling psychology</i> focuses primarily on educational, social, and career adjustment problems.
Cross-cultural psychology	<i>Cross-cultural psychology</i> investigates the similarities and differences in psychological functioning in and across various cultures and ethnic groups.
Developmental psychology	<i>Developmental psychology</i> examines how people grow and change from the moment of conception through death.
Educational psychology	<i>Educational psychology</i> is concerned with teaching and learning processes, such as the relationship between motivation and school performance.
Environmental psychology	<i>Environmental psychology</i> considers the relationship between people and their physical environment.
Evolutionary psychology	<i>Evolutionary psychology</i> considers how behavior is influenced by our genetic inheritance from our ancestors.
Experimental psychology	<i>Experimental psychology</i> studies the processes of sensing, perceiving, learning, and thinking about the world.
Forensic psychology	<i>Forensic psychology</i> focuses on legal issues, such as determining the accuracy of witness memories.
Health psychology	<i>Health psychology</i> explores the relationship between psychological factors and physical ailments or disease.
Industrial/organizational psychology	<i>Industrial/organizational psychology</i> is concerned with the psychology of the workplace.
Personality psychology	<i>Personality psychology</i> focuses on the consistency in people's behavior over time and the traits that differentiate one person from another.
Program evaluation	<i>Program evaluation</i> focuses on assessing large-scale programs, such as the Head Start preschool program, to determine whether they are effective in meeting their goals.
Psychology of women	<i>Psychology of women</i> focuses on issues such as discrimination against women and the causes of violence against women.
School psychology	<i>School psychology</i> is devoted to counseling children in elementary and secondary schools who have academic or emotional problems.
Social psychology	<i>Social psychology</i> is the study of how people's thoughts, feelings, and actions are affected by others.
Sport psychology	<i>Sport psychology</i> applies psychology to athletic activity and exercise.

FIGURE 2 The major subfields of psychology.

Source: (Top) © Spencer Grant/Science Source; (Middle) © Monkey Business Images/Shutterstock; (Bottom) © Don Hammond/DesignPics RF

Clinical psychology deals with the study, diagnosis, and treatment of psychological disorders. Clinical psychologists are trained to diagnose and treat problems that range from the crises of everyday life, such as unhappiness over the breakup of a relationship, to more extreme conditions, such as profound, lingering depression. Some clinical psychologists also research and investigate issues that vary from identifying the early signs of psychological disturbance to studying the relationship between family communication patterns and psychological disorders.

Like clinical psychologists, counseling psychologists deal with people's psychological problems, but the problems they deal with are more specific. *Counseling psychology* focuses primarily on educational, social, and career adjustment problems. Almost every college has a center staffed with counseling psychologists. This is where students can get advice on the kinds of jobs they might be best suited for, on methods of studying effectively, and on strategies for resolving everyday difficulties, such as problems with roommates and concerns about a specific professor's grading practices. Many large business organizations also employ counseling psychologists to help employees with work-related problems.

HOW DO OUR SOCIAL NETWORKS AFFECT BEHAVIOR?

Our complex networks of social interrelationships are the focus for many subfields of psychology. For example, *social psychology* is the study of how people's thoughts, feelings, and actions are affected by others. Social psychologists concentrate on such diverse topics as human aggression, liking and loving, persuasion, and conformity.

Cross-cultural psychology investigates the similarities and differences in psychological functioning in and across various cultures and ethnic groups. For example, cross-cultural psychologists examine how cultures differ in their use of punishment during child rearing.

EXPANDING PSYCHOLOGY'S FRONTIERS

The boundaries of the science of psychology are constantly growing. Three newer members of the field's family tree—evolutionary psychology, behavioral genetics, and clinical neuropsychology—have sparked particular excitement, and debate, within psychology.

Evolutionary Psychology *Evolutionary psychology* considers how behavior is influenced by our genetic inheritance from our ancestors. The evolutionary approach suggests that the chemical coding of information in our cells not only determines traits such as hair color and race but also holds the key to understanding a broad variety of behaviors that helped our ancestors survive and reproduce.

Evolutionary psychology stems from Charles Darwin's arguments in his groundbreaking 1859 book, *On the Origin of Species*. Darwin suggested that a process of natural selection leads to the survival of the fittest and the development of traits that enable a species to adapt to its environment.

Evolutionary psychologists take Darwin's arguments a step further. They argue that our genetic inheritance determines not only physical traits such as skin and eye color but certain personality traits and social behaviors as well. For example, evolutionary psychologists suggest that behavior such as shyness, jealousy, and cross-cultural similarities in qualities desired in potential mates are at least partially determined by genetics, presumably because such behavior helped increase the survival rate of humans' ancient relatives (Sefcek, Brumbach, & Vasquez, 2007; Fost, 2015).

Although they are increasingly popular, evolutionary explanations of behavior have stirred controversy. By suggesting that many significant behaviors unfold automatically because they are wired into the human species, evolutionary approaches minimize the

role of environmental and social forces. Still, the evolutionary approach has stimulated a significant amount of research on how our biological inheritance influences our traits and behaviors (Buss, 2004; Neher, 2006; Mesoudi, 2011).

Behavioral Genetics Another rapidly growing area in psychology focuses on the biological mechanisms, such as genes and chromosomes, that enable inherited behavior to unfold. *Behavioral genetics* seeks to understand how we might inherit certain behavioral traits and how the environment influences whether we actually display such traits (Rende, 2007; Maxson, 2013; Vukasović & Bratko, 2015).

Clinical Neuropsychology *Clinical neuropsychology* unites the areas of neuroscience and clinical psychology: It focuses on the origin of psychological disorders in biological factors. Building on advances in our understanding of the structure and chemistry of the brain, this specialty has already led to promising new treatments for psychological disorders as well as debates over the use of medication to control behavior (Boake, 2008; Holtz, 2011).

Working at Psychology

Help Wanted: Assistant professor at a small liberal arts college. Teach undergraduate courses in introductory psychology and courses in specialty areas of cognitive psychology, perception, and learning. Strong commitment to quality teaching, as well as evidence of scholarship and research productivity, necessary.

Help Wanted: Industrial-organizational consulting psychologist. International firm seeks psychologists for full-time career positions as consultants to management. Candidates must have the ability to establish a rapport with senior business executives and help them find innovative and practical solutions to problems concerning people and organizations.

Help Wanted: Clinical psychologist. PhD, internship experience, and license required. Comprehensive clinic seeks psychologist to work with children and adults providing individual and group therapy, psychological evaluations, crisis intervention, and development of behavior treatment plans on multidisciplinary team.

As these job ads suggest, psychologists are employed in a variety of settings. Many doctoral-level psychologists are employed by institutions of higher learning (universities and colleges) or are self-employed, usually working as private practitioners treating clients (see Figure 3). Other work sites include hospitals, clinics, mental health centers,

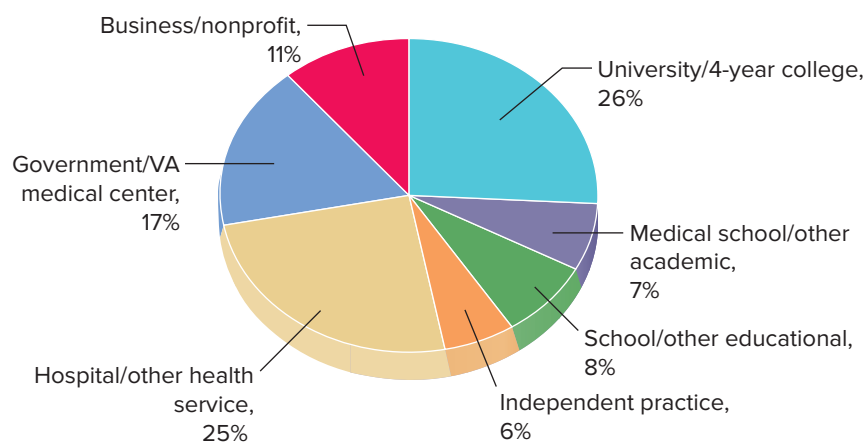


FIGURE 3 The breakdown of where U.S. psychologists (who have a PhD or PsyD degree) work.

(Source: Adapted from Michaels et al., 2011.)

counseling centers, government human-services organizations, businesses, schools, and even prisons. Psychologists are employed in the military, working with soldiers, veterans, and their families, and they work for the federal government Department of Homeland Security, fighting terrorism. Psychologists who specialize in program evaluation are increasingly employed by foundations that want to assess the value of programs they fund (American Psychological Association, 2007; DeAngelis & Monahan, 2008; Moscose et al., 2013).

Most psychologists, though, work in academic settings, allowing them to combine the three major roles played by psychologists in society: teacher, scientist, and clinical practitioner. Many psychology professors are also actively involved in research or in serving clients. Whatever the particular job site, however, psychologists share a commitment to improving individual lives as well as society in general.

Keep in mind that professionals from a variety of occupations use the findings of psychologists. To understand how nonpsychologists use psychology, you will find a feature titled “From the perspective of . . .” throughout the text.



Source: © Blend Images/Getty Images RF

From the perspective of...

An Educator Imagine that a classroom teacher wants to improve the performance of a 10-year-old boy who is not doing well in math. What branches of psychology might she draw on to get ideas about how to help him?

PSYCHOLOGISTS: A PORTRAIT

Although there is no “average” psychologist in terms of personal characteristics, we can draw a statistical portrait of the field. There are nearly 200,000 active psychologists working today in the United States, but they are outnumbered by psychologists in other countries. Europe has more than 290,000 psychologists, and in Brazil alone there are 140,000 licensed psychologists. Although most research is conducted in the United States, psychologists in other countries are increasingly influential in adding to the knowledge base and practices of psychology (Stevens & Gielen, 2007; Rees & Seaton, 2011; American Psychological Association, 2015).

In the United States, women outnumber men in the field, a big change from earlier years when women faced bias and were actively discouraged from becoming psychologists. Today, women far outnumber male psychologists: for every one male, there are 2.1 female psychologists. There is an active debate about whether, and how, to seek balance in the percentage of men and women in the field (Cynkar, 2007; Willyard, 2011; American Psychological Association, 2015).

The majority of psychologists in the United States are white, limiting the diversity of the field. Only around 16% of all professionally-active psychologists are members of racial minority groups. Although the number of minority individuals entering the field is far greater than a decade ago, and continues to grow, the numbers have not kept up with the dramatic growth of the minority population at large (Maton et al., 2006; Chandler, 2011; American Psychological Association, 2015).