CHAPTER 2

# The Nature of Psychology and the Psychology Major

Jane remembers what a struggle it was to try to help her grandmother understand what she planned to do in college. She described her excitement about what she was learning about human behavior in her psychology classes. She anticipated how interesting it would be to do research on unsolved questions about human behavior. She shared a hope that she would be able someday to use what she learned to help people with their problems as a clinical psychologist. Grandma nodded appreciatively. Later, Jane overheard her bragging to a neighbor that her granddaughter was studying to be "a brain surgeon."

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It isn't surprising that the discipline of psychology can be a hard one to grasp. When that conversation transpired in the late 1960s, we didn't have much in the way of visible representatives who could help the unschooled come to terms with what it meant to study "psychology." Although we now have abundant examples of psychology in the media, many exemplars are narrow or misleading stereotypes that don't do much to reveal the true nature of the discipline. Despite the fact that psychology has produced some Nobel Prize winners, images of "Dr. Phil" McGraw tend to come to the minds of the public as the quintessential psychologist.

Most depictions in the entertainment media involve the noble (and sometimes flawed) clinical psychologist striving to make a difference in people's lives, often in forensic or legal settings. Such treatments tend to be great recruiting devices to students into the major but also unfortunately set prospective students up to think that the sum total of the major is about the diagnosis and treatment of

mental health problems. These students typically become disappointed when they learn that clinical matters actually represent a very small percentage of the undergraduate curriculum.

To set the stage for later personal explorations of fit with the psychology major (Chapter 3), in this chapter we will discuss two key topics: What exactly does the discipline of psychology entail, and what can you expect from a major in psychology?

# WHAT IS PSYCHOLOGY?

In this section, we take a look at how psychology has evolved from its origins to its complex contemporary character, which involves both research and practice. We explore the difficulty the discipline has had in trying to establish a clear-cut identity for itself. We conclude this section by equipping you to dispel the myths that persist about the nature of psychology, myths that you may confront as you navigate your way through the major.

## How Do We Define Psychology?

Compared to most other sciences, psychology is the new kid on the block. Most historians trace the formal beginnings of the science of psychology to 1879, when Wilhelm Wundt founded an experimental laboratory in Leipzig, Germany. This development marked a departure from the related but nonscientific discipline of philosophy. Psychology is less than 140 or so years old (by comparison, physics in some form has been around since ancient Greece, if not before). Although the discipline of psychology is fairly young, it has already undergone an evolution in character and definition.

During the earliest days of exploring psychology as a scientific endeavor, psychologists were interested in mapping the most basic functions of the human body. This version or "orientation" of psychology is referred to as ***structuralism***. The label makes sense because the questions were **empirical** (that is, based on direct observation and experimentation) attempts to map human capacity. For example, the structuralists were curious about how much weight would need to be added to a standard stimulus before we could perceive it as heavier. They spent significant amounts of time testing and reporting individual perceptual experience about weights, sounds, tastes, and other dimensions of the senses through a scientific self-report process called introspection. Structuralists would be dazzled if they could see what has happened to the discipline they helped to establish.

Many other psychology orientations have emerged over time, including functionalism, **behaviorism**, and humanistic psychology, as well as psychoanalytic

and cognitive approaches. It's beyond our purpose to do a systematic discussion of all of the trends and orientations in psychology. (If you are a major, you will probably have the opportunity/obligation to study that evolution in a history of psychology course.) To be fair, psychologists have not yet arrived at a shared paradigm or approach for studying behavior, which contributes to the confusion that exists about what psychology truly represents.

Most contemporary psychologists would agree with the definition of **psychology** as **the scientific study of mind and behavior in human and nonhuman animals**. Thus, psychology majors scientifically study the way living organisms behave, learn, think, and feel. An undergraduate degree doesn't qualify psychology majors to claim the title of psychologist, but psychology majors do learn to think as psychologists do by completing the major.

Let's take the definition apart because it will help to explain why the major is so easily misunderstood and might not appeal to everyone. First—and psychologists tend to be quite passionate about this point—psychology is a SCIENCE. We use scientific methods to draw conclusions about mind and behavior. Stanovich (2007) summarized that a science is not defined by any specific content area or technologies but by the general characteristics of the process used for validating conclusions. He suggested that the sciences concentrate on (a) reliance on systematic **empiricism** (direct observation); (b) commitment to making findings public to expand and build our understanding; and (c) application of key ideas in solving problems.

Psychologists like to describe behavior with a high degree of precision, carefully distinguishing descriptions of behavior from inferences drawn about behavior. We demonstrate the value of carefully defined behavior by relying on **"operational" definitions**, meaning we define behaviors through the use of observable operations. For example, if we are going to research playground aggression, we must carefully delineate what "counts" as an aggressive act. Must a punch be thrown or can mean words count as an aggressive act? Abiding by the rules of science, the psychologist is obligated to define key ideas in such a way that others could reproduce the same research protocols. Defined properly, we measure behavior and subject our measurements to statistical analyses to establish whether our experiments or research designs produce the outcomes we expect. Psychologists use a variety of strategies, from self-report measures to behavioral observations to fMRI scans—that is, all of the approaches psychologists use adhere to the scientific method.

"Mind and behavior" is an expansive way to talk about the content of what psychologists study. Over time, some subgroups in psychology have concentrated on one arena or another. For examples, behaviorists, who declared their founding principles in a historic manifesto (Watson, 1913), believed that the only valid focus of study was observable behavior. If you couldn't directly observe a phenomenon, then it had no place in their labs. In contrast, **cognitive psychology** broadened the focus to justify studying covert activity, such as dreaming and thinking. This field uses 1956—the year George Miller published a seminal article about the capacity of human information processing—as its official origin.

Psychologists don't restrict themselves to the study of humans. Contemporary psychology labs can feature primates, planaria, or pelicans, among others. Virtually any life form that engages in behavior can be the focus of a psychological investigation. Although enthusiasm has waned a bit for requiring students to work with animals as a part of their major, psychologists remain committed to conducting research on animals as long as they abide by strict rules to protect and care for those animals (Plous, 1996). Similarly, research with humans is also governed by a standard set of regulations.

## Psychology's Struggle for Identity

Although the definition of psychology is fairly straightforward, the discipline has been plagued with identity problems from the outset. William James, arguably the founder of American psychology, described psychology as a "nasty little subject" (Hunt, 1961). Frustrated by the constraints of structuralism, James (1892/1961, p. 335) concluded, "This is no science, it is only the hope of a science." James was optimistic that psychology could evolve into a respectable natural science and opened the first experimental lab in America at Harvard. He later founded the orientation of **functionalism**, shifting attention to the motives behind and the purpose of behavior and away from structuralism's focus on sensory capacity.

Although many other orientations would follow over time, no one orientation has proven to be a unifying force to help strengthen psychology's identity. Contemporary critics (cf. Henriques, 2014) suggest that the proliferation of viewpoints and knowledge in the discipline reduces the coherence of psychology and may foster a deep sense of fragmentation within the discipline.

Just as a starting point, psychology operates in two distinct but related scientific spheres, as it has elements of both natural science and social science. As a natural science, psychology attempts to explain and predict natural phenomena that parallel the focus of chemistry and biology. For example, studies on the effectiveness of a new antidepressant medication clearly illustrate the natural science focus of psychology. As a social science, psychology strives to explain and predict social phenomena, using empirical methods that are similar to those used in economics, anthropology, and political science, among others. For example, a relevant social science study might explore why sports victories can sometimes result in mob violence. Any introductory course in psychology will ground students in both the natural and social dimensions of the discipline.

Another dichotomy complicates psychology's contemporary identity. Broadly speaking, professional psychology has been characterized as having two cultures (Kimble, 1984). The first culture represents the academic psychologists who create new knowledge through scientific research. The second culture includes those who apply psychological principles to solve problems. Popular culture tends to concentrate on the second culture—psychologists as helpers. Indeed, the vast majority of psychology majors initially start out in psychology in response to the impulse to "help people." However, the range of possibilities for the psychology major is not restricted to clinical concerns.

Technically, research has the potential to help people, too. And the remarkable thing about psychology is the wild diversity of options one can study. However, simply contrasting the psychology communities as "research" or "practice" doesn't capture the richness of the topics that can be studied in psychology.

**The American Psychological Association (APA)** maintains special interest groups that provide a great array of the special interests psychology fostered within psychology. **Table 2.1** reflects the full range of subdisciplines that constitute contemporary psychology. As you can see in Table 2.1, only some divisions (numbers 12, 17, 29, 39, 42, and 49) deal explicitly with the clinically or counseling-oriented issues most laypeople think of when they think of "psychology."

**TABLE 2.1**

**Current Divisions in the American Psychological Association**

Division 1: Society for General Psychology
Division 2: Society for the Teaching of Psychology
Division 3: Society for Experimental Psychology and Cognitive Science
*[There is currently no Division 4]*
Division 5: Quantitative and Qualitative Methods
Division 6: Society for Behavioral Neuroscience and Comparative Psychology
Division 7: Developmental Psychology
Division 8: Society for Personality and Social Psychology
Division 9: Society for the Psychological Study of Social Issues (SPSSI)
Division 10: Society for the Psychology of Aesthetics, Creativity and the Arts
*[There is currently no Division 11]*
Division 12: Society of Clinical Psychology
Division 13: Society of Consulting Psychology
Division 14: Society for Industrial and Organizational Psychology
Division 15: Educational Psychology
Division 16: School Psychology
Division 17: Society of Counseling Psychology
Division 18: Psychologists in Public Service
Division 19: Society for Military Psychology
Division 20: Adult Development and Aging
Division 21: Applied Experimental and Engineering Psychology
Division 22: Rehabilitation Psychology
Division 23: Society for Consumer Psychology
Division 24: Society for Theoretical and Philosophical Psychology
Division 25: Behavior Analysis
Division 26: Society for the History of Psychology

*Continued*

Division 27: Society for Community Research and Action: Division of Community Psychology
Division 28: Psychopharmacology and Substance Abuse
Division 29: Society for the Advancement of Psychotherapy
Division 30: Society of Psychological Hypnosis
Division 31: State, Provincial and Territorial Psychological Association Affairs
Division 32: Society for Humanistic Psychology
Division 33: Intellectual and Developmental Disabilities/Autism Spectrum Disorders
Division 34: Society for Environmental, Population and Conservation Psychology
Division 35: Society for the Psychology of Women
Division 36: Society for the Psychology of Religion and Spirituality
Division 37: Society for Child and Family Policy and Practice
Division 38: Society for Health Psychology
Division 39: Psychoanalysis
Division 40: Society for Clinical Neuropsychology
Division 41: American Psychology–Law Society
Division 42: Psychologists in Independent Practice
Division 43: Society for Couple and Family Psychology
Division 44: Society for the Psychological Study of Lesbian, Gay, Bisexual and Transgender Issues
Division 45: Society for the Study of Culture, Ethnicity and Race
Division 46: Society for Media Psychology and Technology
Division 47: Society for Sport, Exercise and Performance Psychology
Division 48: Society for the Study of Peace, Conflict and Violence: Peace Psychology Division
Division 49: Society of Group Psychology and Group Psychotherapy
Division 50: Society of Addiction Psychology
Division 51: Society for the Psychological Study of Men and Masculinity
Division 52: International Psychology
Division 53: Society of Clinical Child and Adolescent Psychology
Division 54: Society of Pediatric Psychology
Division 55: American Society for the Advancement of Pharmacotherapy
Division 56: Trauma Psychology

*Information from:* American Psychological Association (2015). http://www.apa.org/about/division/

## Dispelling Myths About Psychology

There are many myths or compelling but untrue beliefs about the discipline of psychology (Lilienfeld, Lynn, Ruscio, & Beyerstein, 2010). Psychology's popularity is in part based on the ease with which all of us create on-the-spot theories about why people behave as they do. After all, most of us are steeped in our own and others' behavior (much of it ordinary, some of it downright wacky) from the moment we wake up until we go to sleep again. We can't help ourselves: Actions require explanation.

Part of the fault also lies with psychologists themselves. Collectively, we have not done a very good job of public relations in countering the falsehoods or half-truths about the discipline and the people who work in it.

If you are thinking about majoring in psychology, then you need an understanding of the most basic myths so that you not only don't fall prey to them yourself but so that you can gently but firmly counter those myths when others offer them as truths. What follows are some of the myths that surface most frequently about the nature of psychology. You may recognize some of them.

**Psychology is nothing more than common sense.** When people read about psychological research or hear about it—even in the classroom—they have a tendency to react as if the reported scientific findings are clear and obvious—how else could the findings have turned out? In reality, of course, the results only *seem* obvious. Psychologists refer to this as the ***hindsight bias*** or the "I-knew-it-all-along effect," where learning how things turned out makes great good sense once you know the outcome—however, if you examine people's expectations in advance, they often favor some other outcome (Roese & Vohs, 2012). In a classic example from 1991, psychologists Martin Bolt and John Brink asked a group of college students to forecast the outcome of whether the U.S. Senate would vote to confirm nominee Clarence Thomas to the Supreme Court (Cherry, 2014). Before the actual vote, 58% of the students predicted that Thomas would be confirmed but when they were polled after his confirmation, 78% asserted that this was the outcome they predicted in advance. Even the most thoughtful and judicious people can fall prey to this everyday bias because once we know how something has turned out, we find it very hard to entertain alternatives.

In addition, psychology contains a plethora of research findings that challenge common sense or are "counterintuitive." For example, if you are out driving and you suddenly need help with some car problems, are you better off on a low-traffic country road or a busy city street? Intuition tells you that a higher traffic volume would produce more potential helpers, but as confirmed in the classic work of Darley and Latané (1964) on "diffusion of responsibility" or "the bystander effect," your better bet is the country road; people are more likely to perform altruistic acts when they don't see others who can be counted on to intervene (see also Fischer et al., 2011).

Humans assume a lot of cause-and-effect relationships that just aren't accurate (Lilienfeld et al., 2010). For example, the right-brain (logic) versus left-brain (creative) distinction is overblown; adolescents don't necessarily demonstrate turmoil during this time of transition; and students don't necessarily learn best when teachers deliver courses designed to match their preferred styles. These are just a few of the commonsense conclusions that scientific psychology has challenged. Much of what we tacitly accept as true thrives as common sense but falters under scientific scrutiny.

**Whatever it is, psychology is not a science.** Psychology often doesn't get any respect as a science because many of its areas of inquiry are more familiar and accessible (love, depression) than those associated with older sciences, such as

physics (black holes), biology (genetics), chemistry (covalent bonding), or some other science discipline. Laypeople generally assume that science is defined by what is being studied rather than by how the study is being done.

In actuality, a science is defined by the research methods it uses to pose and answer questions. Like other sciences, psychology relies on the **scientific method** (hypothesis testing, careful observation and experimentation, manipulation and measurement of variables, rigorous analysis, **replication**) rather than subject matter (psychologists study the behavior of organisms—everything from mice to marsupials, not just people). Psychology, then, is very much a science. If anyone still objects to this claim, as a last retort, point out that neuroscience and the study of the brain are highly technical and scientific.

**Psychology is a pseudoscience.** Nothing rankles a psychologist more than to have the false comparison of psychology with nonscientific behavioral explanations. Although horoscopes, numerology, and handwriting analysis can be fun and even compelling, psychologists protest the absence of scientific validation in the predictions that **pseudoscience** produces. In fact, the pseudosciences generally have no empirical data to support the claims they make about behavior (Lilienfeld, 2004).

**Psychologists know how to "read minds."** As psychologists, both of your authors dread getting the question, "What do you do for a living?" Answering "I'm a psychologist" is risky. Many people get nervous, begin to watch their words with care, and often inquire, "Are you going to read my mind!?" On the other hand, others see the lucky encounter as a way of getting free expert input on some psychological problem. (Saying you are a professor is almost as bad—people begin to worry you will correct their grammar.)

As should be clear, psychologists are scientists who use careful theories and research methods to study how people think, feel, and act—they don't read people's minds. If a psychologist has any particular insight into the human condition, it is likely the result of years of study, careful observation and inference, and honest hard work, not intuition or being a mentalist.

**Psychologists = therapists.** As you will learn later in this chapter, only some—by no means all—psychologists do counseling or therapy with people. In the popular mind, psychologists are supposed to do some form of counseling with people who are struggling with mental illness, for example, or some other psychological issue (e.g., chronic shyness). Jane, for example, fits the stereotype. She was trained as a clinical psychologist; although she does not currently have a practice, she maintained a private practice part-time as therapist for a dozen years while she established her academic career. In contrast, Dana is a social psychologist, a researcher, and has no training in clinical or counseling skills. Both of us are interested in teaching, research, and educational issues, including clarifying the nature of psychology as a science, part of which serves as a helping profession.

Because the media overrepresent clinical psychologists when portraying the discipline, many students come into psychology with the wrong idea about what the major will entail. Perhaps from an overexposure to "Dr. Phil," they eagerly anticipate courses that will be filled with case studies and fun speculations about what separates the normal from the abnormal. They are stressed when they learn the degree to which they will need to be good at mathematics to handle the demands of statistical analysis and conversely how limited their studies will be in the clinical realm. They can be horrified when confronted with the amount of biology they need to learn to understand the functioning of the brain. See *A Major Success Story* to learn about how a psychology background, coupled with mathematical skills, created a distinctive career opportunity for a psychology major.

**Psychology is personally defined.** No, it's not. Although some orientations in psychology are distinctly friendly to personal experience (e.g., humanism, phenomenology), the knowledge corpus of the science of psychology is carefully built from the rigorous rules of science. In addition, cognitive psychology has dramatically demonstrated how flawed personal reasoning and judgment can be. Consequently, personal experience as "proof" of a behavioral phenomenon is simply unacceptable to psychologists. A good example is the all-too-common belief that the full moon tends to induce higher levels of human craziness. No full moon effect has ever been verified (Arkowitz & Lilienfeld, 2009). A bad day as a barista during a full moon doesn't constitute solid proof of a psychological principle.

### A **Major** Success Story

#### Data Analysis for Fun and Profit

From the outset of her major in psychology, Nikki had no intention of being a helper. She loved math and especially loved the challenges in the major that involved making sense of mounds of data. She was thrilled to discover that the research emphasis in psychology played to her strengths. She excelled in her classes and joined a research team supervised by her favorite professor. Her classmates fought to get her assigned to their team projects because they knew her persistence would help them develop and produce high-quality projects.

While she was completing her major, Nikki wasn't sure where she would end up, but after graduation she went on the job market, where a major food services corporation saw the value she demonstrated in her undergraduate major. She was able to go to work with a psychology major and a math minor in the marketing division and rapidly rose through the ranks. Not only did she secure a satisfying and profitable position, the company she worked for proposed to pay for her to continue her education to secure a master's degree as a "perk" of the job. And the food discounts weren't too shabby either!

# WHAT IS THE NATURE OF THE PSYCHOLOGY MAJOR?

In this section we take a look at the process of being a psychology major, from the moment of decision on. We look at opportunities that can optimize your experience in the major. We also identify the misperceptions that abound regarding what it means to major in psychology.

## Declaring the Major

Students usually end up in the psychology major in one of two pathways. Through personal experience with psychologists or imagined encounters stimulated by media, students decide that being a psychologist looks fulfilling and elect the major from the outset of their studies. Increasingly, high school students can take courses in psychology so many students come to college with experience of a psychological worldview and have a reasonable idea of what they are getting into. Dana fits this pattern; he knew from the start that psychology would be his disciplinary home.

However, often psychology represents a "found" major. That is, students start out in a different major but move to psychology when they discover the fit of the original major wasn't satisfying and something about the content of psychology was. The dynamic can grow out of taking a class with a charismatic psychology teacher or the recognition that something about the concepts and frameworks in psychology feels like home. Jane gravitated toward psychology when she found her original journalism major to be unsatisfying. Regardless of whether committed from the beginning or switched over, students can find a true comfort zone in psychological ways of thinking that will help them endure the rigors of the major.

## The Typical Major Structure

Psychology departments across the country tend to offer majors that are fairly similar. For example, most students begin with an introductory psychology course. Students sometimes have the option of getting college credit in psychology in a high school dual-degree or advanced placement (AP) program. The introductory class often includes descriptions of the careers that might grow out of a psychology major and at minimum provide a broad foundation in both the natural and social science elements of psychology.

Many psychology departments offer a generic bachelor's degree, meaning that the degree addresses foundational skills and broad content areas to prepare students to be good psychological thinkers. The curriculum of such a program typically involves somewhere between 30 and 40 hours of specialized work in psychology courses that include an introduction, a research and statistics core, content courses with lab components, perhaps a history of psychology course,

and electives and other classes that explore how psychology can be applied. A comprehensive study of undergraduate curricula (Stoloff et al., 2010) determined that there is no standard undergraduate program.

Many programs have incorporated the concept of a capstone course in psychology to help students pull together what they have learned over the course of the major (Dunn & McCarthy, 2010). A capstone course might be a seminar in history, an advanced introductory psychology course, a course on professional issues, or another course designed to facilitate students' integration of their learning across courses. Participation on research teams or in psychologically oriented workplace internships can also provide a fertile format for capstone-level work (see Chapters 7, 8, and 9).

## Specializing Within the Major

Some educational contexts offer the option to pursue a bachelor of arts versus a bachelor of science in psychology. This distinction is not standard across colleges and universities, and individual departments can define the difference. Generally speaking, a bachelor of arts degree focuses on psychology's liberal arts side, including an emphasis on foreign language and a slightly reduced emphasis on science. The bachelor of science degree reduces the humanities influence in favor of an increase in the sciences, such as computer courses and additional math or statistics courses. Some departments have responded to the desire to make psychology more "STEM" (science, technology, engineering, and mathematics) oriented by renaming the degree as psychological science, rather than psychology.

Another trend has emerged in psychology curriculum that reflects the growth of specializations or concentrations within the major. For example, students can pursue degrees in human development, neuroscience, or neurobiology, all of which use psychology as the academic foundation for the curriculum structure. Some undergraduate programs offer certificates that can document that you have spent concentrated time in human resources, addictions, child development, or other content clusters that can add an impressive line on your resume and help set you apart from your competition.

## Enriching Your Major With a Minor

Most graduation requirements leave room for students to go beyond requirements for the major and add some areas of concentration. The choices you make in filling in your education reveal a great deal about your values. For example, some students choose a particular minor because of their high level of intrinsic interest in that minor. Others purposely seek minors that will make them more fit for a specific career direction. See *Reality Check: Adding Value to the Major* to explore profitable minors, whether to enhance your career or to satisfy your soul.

## Reality Check

### Adding Value to the Major With the Right Minor

Consider how the following minors might enrich your major and set you apart from your competition either for graduate school admission or entry into the workforce. Which choices have the greatest appeal to you for your career planning?

| *Minor* | *Graduate School Advantage* | *Workforce Advantage* |
|---|---|---|
| Biology | Most graduate programs have extensive requirements in biology. | A strong background in biology can qualify you for entry in health care and pharmaceuticals. |
| Business | Psychologists who plan to be private practitioners also need to be good at business. | Business courses enhance your appeal in many entry-level positions. |
| Communications | Graduate school and the professions entail substantial speaking and writing activities. | Psychology and communications produce a great background for public relations and marketing. |
| Computer science | Executing research design can be enhanced using technology. | Most workforce positions have a strong intersection with information technology. |
| English | Concentrated practice in clear writing helps with writing one's thesis and dissertation. | Being able to write capably about psychological phenomena can open interesting entry-level job prospects. |
| Mathematics | Even clinicians need to complete a variety of statistics classes. | Knowing how to collect and analyze data is helpful in both the profit and nonprofit sectors of business. |
| Philosophy | The writing and thinking practice involved in philosophy improves intellectual capacity. | Some entry-level jobs have a lot of opportunity for deep thinking and creative problem solving. |
| Sociology | Sociology assists in the advocacy and community organizing components of graduate training. | Understanding both individual and group behavior can help in community organizing. |
| Theater | Graduate school showcases presentation skills and offers teaching opportunities. | Theater experience can build one's confidence in self-presentation. |

# WHAT THE PSYCHOLOGY MAJOR IS NOT

**Psychology is not a very easy major.** Psychology gets a bum rap as being easy for the simple reason that people are so familiar with human behavior (their own and others') that they assume they know all there is to know about it. Many students approach taking introductory psychology with the attitude that the course will be a breeze—because psychology is based on common sense—but often face a rude awakening when they get back their scores on the first exam. What sounded so plausible and obvious during class turns out to have many subtle and nuanced effects when it appears on a test.

By comparison, few students or parents will suggest that majoring in architecture, chemistry, mechanical engineering, or even German studies is "easy." People don't have as many theories about what students, let alone professionals, do in these fields (just ask someone to explain what mechanical engineers or people in German studies do—then ask about people interested in psychology). Not to put too fine a point on it, but if psychology were the "academic gut" major it is often portrayed to be, then most majors would get straight A grades (alas, they don't) and there would be legions of psychologists walking the earth (there just aren't). The scientific, mathematical, and biological components of psychology quickly prompt new majors to recognize that a psychology degree won't be effortless. If psychology courses are taught properly, the major is far from easy (Halonen, 2012).

**Psychology majors cannot function as therapists.** Having a bachelor's degree in psychology does not mean you are a psychologist and can counsel people or do therapy. First, a bachelor's degree is an undergraduate degree, one signifying completion of some breadth of study (what are usually called liberal arts or general education courses) coupled with study in one or more majors (like psychology). Undergraduate degrees are required before students can pursue graduate education—that is, intensive study in some area for a master's degree or a doctorate or some other advanced (also called terminal) degree. People who call themselves "psychologists" must usually have a doctorate (often a PhD or a PsyD) and must be licensed to practice. So, let's be crystal clear: Having an undergraduate degree does not entitle students to call themselves psychologists, nor can they perform professional-level therapy. As we shall see in Chapter 7, however, there are a variety of employment opportunities for students who have completed an undergraduate degree in psychology.

To do any form of professional counseling, a psychologist must have additional years of training—the average undergraduate completes a degree in 4 years, while a master's degree may require an additional 2 years and a doctorate can take 4 to 6 years or even longer, depending on the particular situation. Advanced degrees in psychology and being admitted to graduate school in psychology are topics we discuss in detail in Chapters 10 and 11, so we will postpone going into further detail until then.

Psychology majors often relish having their friends come to them with their problems. Perhaps you've been labeled a "good listener" or as someone who gives good advice. That's fine, so far as it goes. Just understand that in order to work as a professional psychologist offering guidance to people requires advanced training, a degree, and being licensed to practice. If that is your passion or goal, we encourage you to undertake the academic journey—just don't misrepresent yourself before that journey's end.

**Majors choose psychology to solve their own problems.** Although students who have experienced emotional setbacks may be drawn to psychology as a major, there is little in the undergraduate curriculum that focuses on the development of insights into one's personal makeup. The degree concentrates on communicating concepts, principles, and theories about human behavior from the vantage point of science. The more direct route for deep self-insight and personal change is therapy, not baccalaureate study (Halonen, 2014).

**The psychology major can be a pathway to riches because psychologists are paid considerable amounts of money just for listening to people's problems.** The vast majority of psychology graduates do not go on into clinical psychology or graduate school, but instead use their degree as a passport into the workforce. Unfortunately, psychology majors who move into entry-level positions do tend to garner some of the lowest salaries in the workforce (Halonen, 2012). However, entry-level salaries merely open the door to a career that may be rich in opportunities for promotion and substantial pay increases over time. **Table 2.2** lists the starting salaries of several liberal arts majors as of spring 2014. The starting salary for those employed with undergraduate psychology degrees was $37,900. The figures shown in the table are no guarantee that

**TABLE 2.2**

**Starting Salaries for Class of 2014 Liberal Arts Majors**

| *Major* | *Starting salary* |
|---|---|
| Foreign languages and literatures | $46,900 |
| English language and literature letters | $42,200 |
| Liberal arts and sciences/General studies | $41,600 |
| Political science/Government | $41,600 |
| History | $40,600 |
| **Psychology** | **$37,900** |
| Social work | $36,700 |
| Sociology | $36,300 |
| Visual and performing arts | $36,300 |
| Criminal justice and corrections | $36,200 |

*Data from:* National Association of Colleges and Employers (2014).

your friend who majored in English is going to have a starting salary of $42,600 in her first job, of course, but they do indicate that students who major in the liberal arts can hold their own in workforce competition.

A still more recent salary survey published by the APA shows that the median annual salary for employees (ages 25 to 59 years) who have a bachelor's degree in psychology is $49,000. Degree recipients trained in some subfield of psychology earned more. For example, workers with training in industrial/organizational psychology earned a median salary of $66,000, while those who specialized in social psychology made $51,000. For comparison, the median salary for people with a bachelor's degree in any field, including psychology, was $61,000. Here is something else to consider: Psychology majors who go on to complete graduate degrees earn, on average, 33% more money than those who only have a bachelor's degree (American Psychological Association, 2016).

Of course, starting salaries aren't static; the potential to earn higher salaries, depending on the context, improves over time with strong performance. Psychology majors who pursue business applications, such as organizational psychology, marketing, or consumer behavior, will earn on the higher end of the scale. Those who go into social service occupations will generally make less than the average. Regardless of major, starting salaries in the human service fields are going to be somewhat disappointing when compared to salaries in business contexts, but those who opt to work in social services still can earn a respectable living.

Now, what about incomes for professional work? How much do psychologists earn? **Table 2.3** lists the average salaries for some groups of psychologists, and includes data on the average growth in salary that is related to the number of years of work experience. Note that these are averages—some psychologists have lower salaries than those reported here and others have higher salaries.

According to the National Bureau of Labor Statistics (2013), the cost of living in a particular area also has an impact on how much you earn (California and metropolitan New York are more expensive than many places in the Midwest or the South, for example). Still, a cursory examination of the numbers in Table 2.3

**TABLE 2.3**

**Average Salaries for Psychologists**

| *Experience* | *0–5 years* | *5–10 years* | *10–20 years* | *More than 20 years* |
|---|---|---|---|---|
| Clinical psychologist | $65,000 | $75,000 | $87,000 | $96,000 |
| Counseling psychologist | $55,000 | $69,000 | $75,000 | $70,000 |
| Forensic psychologist | $57,000 | $72,000 | $85,000 | $120,000 |
| School psychologist | $51,000 | $60,000 | $69,000 | $78,000 |
| Industrial–organizational psychologist | $65,000 | $89,000 | $107,000 | $109,000 |

*Data from:* Psychology Career Center (2015).

indicates that even though the typical psychologist makes a comfortable living, he or she is not rich. So, while most psychologist do fine financially, they don't necessarily make "a considerable amount of money" (National Association of Colleges and Employers, 2014).

Although a doctoral-trained psychologist may charge as much as $200 per therapy hour, that fee inspires an overestimation of income potential and fantasies of riches. At first blush, a 40-hour workweek should translate into a tidy haul of $8,000 a week. However, a full-time caseload probably represents more like 20 than 40 hours of direct service to leave time for record writing, correspondence, marketing, consultation, and meetings. In addition, fees must cover the cost of office rental, support staff, answering service, insurance, office supplies, and continuing education—and that is after taxes.

## WHAT THE PSYCHOLOGY MAJOR IS

In summary, the undergraduate psychology curriculum offers a splendid opportunity to learn about the behavior of living organisms from the standpoint of science. As such, it provides a great passport into the workforce, where psychological principles can be applied to solve problems. And for high-performing and strongly motivated majors, the undergraduate degree facilitates the greatest promise for acceptance into a graduate program; from there, professional choices can be even more focused on the content and skills sets of psychology. In the next chapter, we will explore whether the psychology major is a good option for you.

## THOUGHT QUESTIONS

1. Why is the discipline of psychology so frequently misunderstood?
2. In what way does psychology qualify as a science?
3. What myths complicate a layperson's understanding of psychology?
4. What are the key features of the undergraduate psychology curriculum?
5. What are some profitable minors that can enhance the value of a psychology major?
6. What are some inaccurate ideas about the nature of the psychology major?