

FOCUS ON VOCABULARY AND LANGUAGE

. . . *to remedy their own woes*, millions turn to “*psychology*.” To alleviate or fix (*remedy*) their misery, anxiety, grief, pain, and suffering (*woes*), people seek help from “*psychology*.” (***Psychology*** is in quotes because Myers wants to point out that not everything you think of as “*psychology*” is part of *scientific psychology*.)

What Is Psychology?

Have you ever played *peekaboo* with a 6-month-old . . . ? *Peekaboo* is a game played in most cultures in which a person hides or pretends to hide from a child and then reappears saying “**PEEKABOO!**” The important questions for psychologists are why do infants all over the world react similarly to this game—what are they actually feeling, perceiving, and thinking?

Psychology’s Roots

Let’s *unpack* this definition. As used here, *unpack* means to take apart or disassemble. So psychology, defined as the *science of behavior and mental processes*, is broken down into overt *behavior* (observable events) and covert *mental processes* (events that are hidden within, such as thoughts, feelings, perceptions, beliefs, and so on). It is studied using the scientific or empirical method.

Contemporary Psychology

This list of *pioneering* psychologists—“*Magellans of the mind*,” as Morton Hunt (1993) has called them . . . Ferdinand *Magellan* (1480–1521) was a famous Portuguese navigator who made many discoveries and explored areas of the world previously unknown to his fellow Europeans. Because early psychologists made exciting discoveries and explored unknown frontiers, they were preparing the way (they were acting as *pioneers*) for future psychologists and can thus be considered “*Magellans of the mind*.”

Psychology’s Biggest Question

Over and over again we will see that in contemporary science the nature–nurture *tension dissolves*. . . The main point here is that both sides of the debate have something to offer: Each contributes to the search for the truth. Thus, in modern science the strained relations (*tension*) over this **nature–nurture issue** diminish (*dissolve*). As Myers notes, we are biologically influenced (*genetically predisposed*) to adapt and learn from experiences (*environmental influences*)—*nurture works on what nature endows and every psychological event (every thought, every emotion) is simultaneously a biological event*.

Psychology’s Three Main Levels of Analysis

. . . “*red in the face*” and “*hot under the collar*.” These phrases refer to the physical changes that often accompany emotional arousal (for example, anger). A person’s face may become *red* due to blood rushing to it (blushing), and he or she may feel *hot* and perspire (feel *hot under the collar*). Different perspectives (*neuroscience, evolutionary, behavior genetics, psychodynamic, behavioral, cognitive, and social-cultural*) examine the same event (emotional change) using different **levels of analysis** (see Table 1.1, *Psychology’s Current Perspectives*). Myers points out that these different

levels of analysis are not necessarily in opposition to each other but, rather, are complementary; that is, each level helps to complete the puzzle of why the event occurs by supplying answers from different points of view (*perspectives*).

Psychology's Subfields

The cluster of subfields we call psychology is a *meeting ground* for different disciplines. Thus, it's a *perfect home* for those with *wide-ranging* interests. Myers points out that there is much diversity in the discipline of psychology. This is beneficial because it provides a setting that is comfortable to work in (*a perfect home*) for those who have broad or diverse (*wide-ranging*) interests. For that reason, it is the ideal gathering place (*meeting ground*) for different disciplines.

. . . *from womb to tomb* . . . Developmental psychologists conduct basic research on the changes that take place throughout the life span, from conception to death (*from womb to tomb*), investigating how we mature physically, psychologically, and socially. (Another humorous expression describing the life span, or life cycle, is from "sperm to worm.")

. . . *psychoceramics (the study of crackpots)*. This joke derives its humor from the fact that some English words or phrases have more than one meaning, and it is this "play on words" that makes the joke funny. *Ceramics* is concerned with the work (or art) of making pottery, porcelain, and so on. Some of the pots may develop small breaks or splits and consequently would be referred to as "cracked pots." The term *crackpot*, on the other hand, is a colloquial (informal) expression used to describe a useless, impractical, or even crazy person. Although psychologists engage in a variety of interdisciplinary studies, such as psychohistory, psycholinguistics, and so on, there is obviously no such thing as *psychoceramics (the study of crackpots)*. Clinical psychologists, of course, assess and treat mental, emotional, and behavior disorders (mental illness). (Note that Myers confesses in a footnote that he wrote this sentence on April 1st, April Fools' Day, which traditionally involves people playing practical jokes on other people. Did he fool you?)

The Need for Psychological Science

Although in some ways *we outsmart the smartest computers*, our *intuition* often goes *awry*. *To err is human*. Human beings are superior to computers in many ways (*we outsmart the smartest computers*). However, our beliefs, emotions, perceptions, and *intuitions* (the feelings we have of instinctively knowing something) can often lead us astray or away from the truth (*awry*). To be human means that we can, and do, make mistakes (*to err is human*). Psychological science, with its procedures for gathering and systematically sorting through (*sifting*) evidence, can help reduce or prevent mistakes (*science restrains error*).

What About Intuition and Common Sense?

Some people suppose that psychology merely *documents and dresses in jargon* what people already know . . . Some people criticize psychology, saying that it simply reports (*documents*) common sense, or what's obvious to everyone. Critics suggest that, instead of stating something plainly, psychology translates information into the specialized and obscure vocabulary of the discipline (*it dresses it in jargon*). Myers makes it very clear with some good examples that this criticism is not justified and points out that our *intuitions* about reality can often be very mistaken.

"*I'm a gut player*. I rely on my *instincts*." This comment indicates that the person speaking uses his basic intuitive reactions and subjective feelings in making decisions ("*I'm a gut player*"). Myers

asks if it is reasonable or rational to pay attention to and act on these *instinctive* feelings (*are we smart to listen to the whispers of our inner wisdom, to simply trust “the force within”?*). Or, should we be more critical in assessing our intuitive tendencies and subjective reactions? It is clear that we frequently underestimate the dangers (*perils*) of relying on these *instinctive* feelings (*intuitions*).

Like jumbo jets, we fly mostly on autopilot. Many of our cognitive processes—including large parts of our thinking, memory, and attitudes—are a function of the unconscious, intuitive mind, which operates without our awareness (*it operates off-screen, automatically*). In this sense, we are much like large, modern jet planes (*jumbo jets*) that are flown by computerized, mechanical, electronic pilots (*we fly on autopilot*).

Consider how easy it is to draw *the bull’s eye after the arrow strikes*. In the sport of archery, the task is to shoot the arrow at the red circle in the center of the target (*the bull’s eye*). If we first shoot an arrow, then draw the target so that the arrow is in the center (*in the bull’s eye*), we can appear to be very accurate. Myers uses this analogy to illustrate how the **hindsight bias** (or the *I-knew-it all-along phenomenon*) can lead us to believe that we are clever and would have been able to predict outcomes that we have learned after-the-fact.

“*Out of sight, out of mind*” and “*Absence makes the heart grow fonder.*” These two sayings, or expressions, about romantic love have opposite meanings. The first one suggests that when couples are apart (*out of sight*) they are less likely to think about each other (*out of mind*) than when they are together. The second saying makes the point that being separated (*absence*) increases the feelings of love the couple shares (*makes the heart grow fonder*). People who are told that the results of a study support the first expression (“*out of sight, out of mind*”) see this as mere common sense. People told that the results support the second expression (“*absence makes the heart grow fonder*”) also say this is obviously true. There is clearly a problem here; relying on common sense can lead to opposite conclusions.

. . . *familiarity breeds contempt* . . . This expression and others are based on many casual observations but are often wrong. For example, is it true that the better you know someone (your *familiarity* with him or her), the more likely it is that you will dislike the person (have *contempt* for him or her)? In fact, research shows that the opposite is probably true. (Your text, again and again, will emphasize the fact that our common sense and intuition do not always provide us with reliable evidence; *we often underestimate intuition’s perils.*)

. . . “*cold hand*” . . . “*hot hand*” . . . In this context, “*hot*” and “*cold*” do not refer to temperature. Here, being *hot* (or having a “*hot hand*”) means doing well; doing well consistently is having a “*hot streak*.” Having a run of poor luck is a “*cold streak*.” The crucial point, however, is that our intuition about sequences of events (*streaks* or *streaky patterns*) frequently deceives us. True random sequences often are not what we think they should be and, thus, they do not appear to be random. When we think we’re doing well (having a “*hot hand*”), we are merely noting or *overinterpreting* certain sequences (*streaks*) found in any random data.

Did I *snap out of my tails funk* and *get in a heads groove*? David Myers flipped (*tossed*) a coin 51 times. The results showed several sequences (*streaks*) that did not appear to be random (for example, a series of tails followed by a series of heads). He asks whether this was due to his paranormal control of the coin, which ended the series of tails (*he snapped out of his tails funk*) and produced a new series of all heads (*he got into a heads groove*). This type of explanation is not necessary, because these types of sequences (*streaks*) exist in any random sequence. As Myers notes, the outcome of any particular toss does not predict or influence the result of the next toss.

But scientific inquiry can help us *sift reality from illusion*. Literally, to *sift* means to separate finer particles from coarser ones by passing them through a sieve. Myers uses the word “*sift*” to explain how a scientific approach can separate (*sift*) what is true and factual (*reality*) from what is not true (*illusion* or *fantasy*). He also shows how it can take us beyond the constraints (*limits*) of our beliefs, experience, intuition, and common sense. (Be sure you understand what the word *sift* means because Myers uses it quite often.)

The Scientific Attitude: Curious, Skeptical, and Humble

Underlying all science is, first, a *hard-headed curiosity* . . . Here, *hard-headed* means to be practical, uncompromising, realistic, or unswayed by sentiment. All science, including psychology, is guided by this realistic desire to know (*curiosity*) about nature and life.

. . . *leap of faith*. This is a belief in something in the absence of demonstrated proof. Some questions—about the existence of God or life after death, for example—cannot be answered by science and cannot be scientifically proved or disproved; if a person believes, it is on the basis of trust and confidence alone (*a leap of faith*).

. . . *the proof is in the pudding*. This comes from the expression “*the proof of the pudding is in the eating*.” A *pudding* is a sweet dessert. We can test (*prove*) the quality of the dessert (*pudding*) by trying it (*eating* it). Likewise, many questions, even if they appear to make little sense (*crazy-sounding ideas*), can be tested using the scientific method and, ultimately, the scientific truth will emerge and become clear (*the facts speak for themselves*).

. . . *auras* . . . An *aura* is a bright glow surrounding a figure or an object. Some people believe that humans have *auras* that can only be seen by those with extrasensory abilities. The magician James Randi proposed a simple test of this claim, but nobody who is alleged to have this magical power (an *aura seer*) has been willing to take this straightforward test.

More often, science becomes society’s garbage *disposal*, sending *crazy-sounding ideas* to the *waste heap* . . . The use of scientific inquiry can get rid of (*dispose* of) non-sensible concepts (*crazy-sounding ideas*) and add them to the long list of other ridiculous claims (for example, perpetual motion machines or miracle cancer cures). This is similar to the way that discarded materials, junk, and other rubbish are *disposed* of in a garbage dump (a *waste heap*). As Myers notes, we need a scientific attitude to separate (*sift*) truth (*reality*) from false assertions. That means doubting and questioning (*being skeptical*) but not scornful or mocking (*cynical*), and to be accepting of novelty and change (*open*) without being naïve (*gullible*).

. . . *then so much the worse for our ideas*. This means that we have to give up, or get rid of, our ideas if they are shown to be wrong (*so much the worse for them*). We have to be *humble* (that is, we have to have *humility*).

“*The rat is always right*.” This early *motto* (a phrase used as a guiding principle) comes from the fact that, for most of the first half of the twentieth century, psychology used animals in its research (especially in the study of learning). The *rat* became a symbol of this research and its behavior or performance in **experiments** demonstrated the truth. If the truth, as shown by the *rat*, is contrary to the prediction, or hypothesis, then one has to be humble and try another way (*the rat is always right*).

Critical Thinking

. . . *gut feelings* . . . This refers to basic intuitive reactions or responses. **Critical thinking** requires determining whether a conclusion is based simply on a subjective opinion (a *gut feeling*), on a story someone tells (an *anecdote*), or on reliable scientific evidence.

. . . *debunked* . . . To *debunk* means to remove glamour or credibility from established ideas, persons, and traditions. Myers points out that scientific evidence and critical inquiry have indeed discredited (*debunked*) many popular presumptions.

. . . one *cannot* simply “*hit the replay button*” and relive long-buried or *repressed* memories. This is an example of a discredited (*debunked*) idea that hidden (*repressed*) memories can be accurately and reliably brought back intact and complete in the same way that pressing “rewind” and “play” (“*hitting the replay button*”) allows us to watch exactly the same show over and over again on a DVD or Blu-ray player.

How Do Psychologists Ask and Answer Questions?

. . . psychological science welcomes *hunches* and plausible-sounding theories. In popular usage, a *hunch* is an intuitive feeling about a situation or event. Psychology can use subjective ideas to help formulate **hypotheses**, or predictions, which can then be tested empirically or scientifically.

Description

Numbers can be numbing, but the plural of anecdote is not evidence. We are often overwhelmed and our senses deadened (*numbed*) by the sometimes inappropriate use of statistics and numbers. Although stories by and about individuals (*anecdotes*) can generate productive lines of inquiry (*fruitful ideas*), they do not constitute reliable empirical facts, no matter how numerous they are (*the plural of anecdote is not evidence*).

As psychologist Gordon Allport (1954, p. 9) said, “Given *a thimbleful* of [dramatic] facts we rush to make *generalizations as large as a tub*.” A *thimble* is a small metal container that fits over the top of the thumb or finger. It is used while sewing to push the needle through the material. A *tub* is a very large container (for example, a bathtub). Allport is saying that, given a small amount of information (*a thimbleful*), we tend to make very big assumptions (*generalizations as large as a tub*).

(*Photo caption*) . . . *a fly on the wall* . . . When someone says, “*I’d like to be a fly on the wall*,” it means that the person would like to be able to unobtrusively and secretly spy on (or observe) people or events without being noticed. Researchers using **naturalistic observation** attempt to accomplish this when collecting data.

. . . *eavesdrop on* . . . In a study using naturalistic observation, researchers asked 52 students to attach small recording devices called EARs (Electronically Activated Recorders) to their belts. For up to four days, every 12.5 minutes the researchers secretly recorded (*eavesdropped on*) 30-second segments of the students’ waking hours (*half-minute life slices*). They found that students were talking with someone 28 percent of the time and at a computer keyboard 9 percent of the time. Naturalistic studies, such as this one, can describe behavior—but they do not explain it. Nevertheless they provide fascinating small samples (*interesting snapshots*) of everyday life.

Using only *1500 randomly sampled people, drawn* from all areas of a country, they can provide a remarkably accurate *snapshot* of the nation’s opinions. A *snapshot* is a picture taken with a camera; it captures what people are doing at a given moment in time. A good **survey** that involves 1500 randomly selected (***randomly sampled***) representative people, selected (*drawn*) from all areas of a country, gives an accurate picture (*snapshot*) of the opinions of the whole **population** of interest.

Correlation

. . . like people on the opposite ends of a *teeter-totter*, one set of scores goes down precisely as the other goes up. A *teeter-totter* is a playground toy (also called a “seesaw”) on which two people sit at either end of a bar or plank that is balanced in the middle and take turns going up and down. Myers uses this example as a way of visualizing a *negative correlation* (between 0 and – 1.00); as one set of scores goes up the other set goes down accordingly, and vice versa. There is an *inverse relationship* between the two, as one increases the other decreases.

Experimentation

Let’s *recap*. *Recap* is an abbreviation of *recapitulate*, which means to repeat or go over briefly, to summarize. Myers summarizes (*recaps*) the important points in each section of the chapter.

Frequently Asked Questions About Psychology

. . . *plunge in* . . . In this context, *plunge in* means to move ahead quickly with the discussion. (Similarly, when you dive into a swimming pool [*plunge in*], you do so quickly.) Before going on with the discussion of psychology (before *plunging in*), Myers addresses some important issues and questions (he *entertains some frequently asked questions*).

Moreover, university *ethics committees screen* research proposals and safeguard participants’ well-being. *Ethics committees* (groups of people concerned with moral behavior and acceptable standards of conduct) subject research proposals to rigorous tests (they *screen* them) to ensure that the tests are fair and reasonable and that they do not harm the participants’ well-being.

Values can also color “the facts.” Our *values* (what we believe is right and true) can influence (*color*) our observations, interpretations, and conclusions (“*the facts*”).

Improve Your Retention—and Your Grades

. . . *taking a bird’s-eye view*. Flying overhead, birds have a very good overall view of the landscape and its contents (they literally have a *bird’s-eye view*). Myers suggests that one way to get a general sense of what a chapter is about is to quickly view (*scan*) its organization, noting its headings, subheadings, and so on (*taking a bird’s-eye view* of it). This is called *surveying* the chapter and is the first of five steps in the **SQ3R** study method (*Survey, Question, Read, Retrieve, Review*).

One of psychology’s oldest findings is that *spaced practice* promotes better retention than does *massed practice*. *Spaced practice* refers to studying over a longer period of time, say 2 hours a day over 5 days rather than 10 hours on 1 day (*massed practice* or *cramming*). Distributing your study time is much better for learning and retention than an extended *cramming* session (*one long study blitz*). Be sure to follow the other tips, such as the SQ3R method, that Myers suggests in the section *Improve Your Retention—and Your Grades*.