

## ***FOCUS ON VOCABULARY AND LANGUAGE***

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**

#### *Psychological Science Is Born*

Psychology’s earliest *pioneers*—“*Magellans of the mind*,” Morton Hunt called them . . . Ferdinand Magellan (c. 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 *pioneers*) for future psychologists and can thus be considered “*Magellans of the mind*.”

William James *helped break that mold* when he accepted Mary Whiton Calkins as his student. In the late 1800s, many disciplines (*fields*)—including **psychology**—prohibited women (*it was a man’s world*). William James challenged and facilitated a change in that tradition (*he helped break that mold*) when he accepted Mary Whiton Calkins as his student.

. . . *larger-than-life* . . . John B. Watson and B. F. Skinner promoted the view that psychology should study only observable behavior and not mental processes. They were controversial figures who became well known and gained a certain notoriety (they were *larger-than-life*).

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

My aim, then, is not merely to report results but also to show you how psychologists *play their game, weighing opinions and ideas*. Throughout this text, Myers’ goal is to illustrate how psychologists go about their work of scientifically answering questions (*playing their game*) by evaluating, assessing, and considering various points of view and new approaches (by *weighing opinions and ideas*).

#### *Contemporary Psychology*

. . . *from womb to tomb* . . . Psychologists study the process of development, from conception to death (*from womb to tomb*) as people change and mature physically, psychologically, and socially. (Another humorous expression describing the life span or life cycle is from “sperm to worm.”)

### **Four Big Ideas in Psychology**

. . . *fine-tune* . . . *Fine-tune* means to modify or make small adjustments to achieve a better performance. Although human nature has a biological basis (it is *rooted* in our biology), social-cultural and psychological factors modify and change (*fine-tune*) our assumptions, values, and

behaviors. The **biopsychosocial approach** views human behavior from three levels—biological, psychological, and social-cultural.

### *Big Idea 1: Critical Thinking Is Smart 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*), an anecdote (a story someone tells), or on reliable scientific evidence.

. . . *debunked* . . . This 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.

Neither brain stimulation nor hypnosis will let us *push “play”* and relive *long-buried* memories. This is an example of a discredited (*debunked*) idea that hidden (*long-buried*) memories can be accurately and reliably brought back intact and complete in the same way that pressing (*pushing*) the “rewind” and “play” buttons on the DVD or Blu-ray player allows us to watch exactly the same scene over and over again.

### *Big Idea 3: We Operate With a Two-Track Mind (Dual Processing)*

*We know more than we know we know.* This sentence may sound confusing, but it means simply that we hold more knowledge in our brains than we are consciously aware of holding. We hold information at both the unconscious, automatic level and at the aware, deliberate, conscious level. Perception, memory, thinking, language, and attitudes all operate on these two levels. This is referred to as **dual processing**.

### *Big Idea 4: Psychology Explores Human Strengths as Well as Challenges*

Current research examines *the roots and fruits* of such qualities . . . **Positive psychology** uses scientific methods to investigate our ability to grow, develop, and thrive (*human flourishing*). In that investigation, it includes traits such as creativity, compassion, and integrity. Ongoing research examines the foundations, origins, and uses (*the roots and fruits*) of such qualities, sometimes by studying the lives of people who offer exceptional (*striking*) examples.

## **Why Do Psychology?**

### *The Limits of Intuition and Common Sense*

Like *jumbo jets*, we fly mostly on *autopilot*. Much of our thinking, memory, and attitudes are a function of unconscious processes that operate without our awareness (they are *off screen*). In this sense, we are much like large modern jet planes (*jumbo jets*) that are flown by computerized, mechanical, electronic pilots (they *fly on autopilot*).

*Hunches* are a good starting point, even for smart thinkers. In popular usage, a *hunch* is an intuitive feeling about a situation or event (*what your gut tells you*). Psychology can use subjective ideas to help formulate **hypotheses** or predictions, which can then be tested scientifically. In doing so, psychological science has standards for collecting and sorting through (*sifting*) evidence that promotes thinking more intelligently and thus helps us to avoid mistakes.

Some people think psychology merely proves what we already know and then *dresses it in jargon* . . . Some people criticize psychology, saying that it simply reports common sense, or what’s

obvious to everyone. Instead of stating something plainly, the critics suggest psychology translates the information into the specialized and obscure vocabulary of the discipline (*dresses it in jargon*). Myers makes it clear with some good examples that this criticism is not justified, and he points out that our intuitions about reality can often be mistaken (*they can lead us astray*).

But 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 shrewd and would have been able to predict outcomes that we have learned after-the-fact.

'*Out of sight, out of mind*' . . . '*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.

. . . *that 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 that person), the more likely it is that you will dislike the person (have *contempt* for him)? 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.)

. . . *drop a course* . . . This means to stop going to class and to have your name removed from the class list. Although we may have a high level of confidence in our ability to predict our own social behavior, such as whether we will stop attending a class (*drop a course*), our self-predictions are often wrong.

. . . "*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 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*? 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 magical 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.

. . . *sift reality from illusion*. Literally, *sift* means to separate finer particles from coarser ones by passing material through a sieve. Myers uses the word *sift* to explain how a scientific approach can separate (*sift*) what is true and factual (*real*) from what is not real (*illusion* or *fantasy*). (Be sure you understand the word *sift* because Myers uses it quite often.)

### *The Scientific Attitude: Curious, Skeptical, and Humble*

Underlying all science is, first, a *hard-headed curiosity* . . . *Hard-headed* here 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, then 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 (or *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.

. . . *auras* . . . An *aura* is a bright glow surrounding a figure or an object. Some believe that humans have *auras* that only those with extrasensory abilities can see. The magician James Randi proposed a simple test of this claim, but nobody who is said to have this magical power (*an aura-seer*) has taken the test.

More often, they become part of the *mountain* of forgotten claims . . . The use of scientific inquiry can get rid of, or dispose of, concepts that make no sense (*crazy-sounding ideas*), which are then added to the large stack or pile (*mountain*) of ridiculous claims no longer remembered. Just as unwanted materials, junk, and other rubbish are discarded in a waste site or garbage dump, science serves as society’s *garbage disposal* for many bad ideas, such as palm reading, miracle cancer cures, and out-of-body travel. As Myers notes, we need a scientific attitude to separate (*sift*) truth (*reality*) from false assertions (*fantasy*). That means doubting and questioning (*being skeptical*) without being scornful or mocking (*cynical*). It also requires the ability to accept new ideas and change 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 should 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 about it and try another way (“*the rat is always right*”).

## How Do Psychologists Ask and Answer Questions?

### *Description*

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*).

. . . *eavesdropped on* . . . In a study using **naturalistic observation**, researchers asked 52 students to wear small recording devices called EARs—electronically activated recorders (*to don hip-worn tape recorders*). For four days, they secretly recorded (*eavesdropped on*) 30-second segments (*snippets*) of their conversations every 12.5 minutes for a total of more than 10,000 fragments (*half-minute life slices*) of the students’ waking hours. They found that students were talking with someone 28 percent of the time and were at a computer keyboard 9 percent of the time. Naturalistic studies such as this one can describe behavior; however, they do not explain it.

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 and 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*

This means that, like children on 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). To use it, 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 to visualize 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 (*one set of scores goes down precisely as the other goes up*).

. . . *gushed* . . . The Associated Press (AP) reported in an exaggerated and overly enthusiastic manner (a *gushing* manner) about a correlational research finding, implying that there was a cause-effect relationship between the two variables (between *adult parenting* and *teen behavior*). As Myers points out, a correlation does not tell us about the causal relationship or the direction of any effect (*no correlation has a built-in cause-effect arrow*).

## 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.

. . . a man *dumped his new fiancée—on camera* . . . Most psychological studies using humans are relatively free of stress and follow strict guidelines that are designed to protect research participants from harm. Reality TV shows, by comparison, often involve embarrassing and stressful events. For example, in an episode of *The Bachelor*, a man humiliated the woman he had recently pledged to marry (*his new fiancée*) by publicly ending their relationship during the TV show (*he dumped her—on camera*).

Moreover, most universities now have *ethics committees* that *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 they are fair and reasonable and that research participants are not harmed in any way (*they safeguard participants' well-being*).

Our *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**

One of psychology's oldest findings is that if you want to retain information, *spaced practice* is better than *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 (*cramming*). Distributing your study time is much better for learning and retention than one long study period (*one long study blitz*). Use of the **SQ3R** method (**S**urvey, **Q**uestion, **R**ead, **R**etrieve, **R**evue) encourages *distributed* or *spaced practice* and will help you learn and retain the information in this book.