

ANNOTATED INSTRUCTOR'S EDITION

ESSENTIALS OF PSYCHOLOGY

SECOND EDITION



DOUGLAS A. BERNSTEIN & PEGGY W. NASH

Annotated Instructor's Edition

ESSENTIALS *of* **PSYCHOLOGY**

SECOND EDITION

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To my dear wife, Miss Lindsay N. Kennedy

Doug Bernstein

To my family and sons, Rob and Jeff, with love

Peggy Nash

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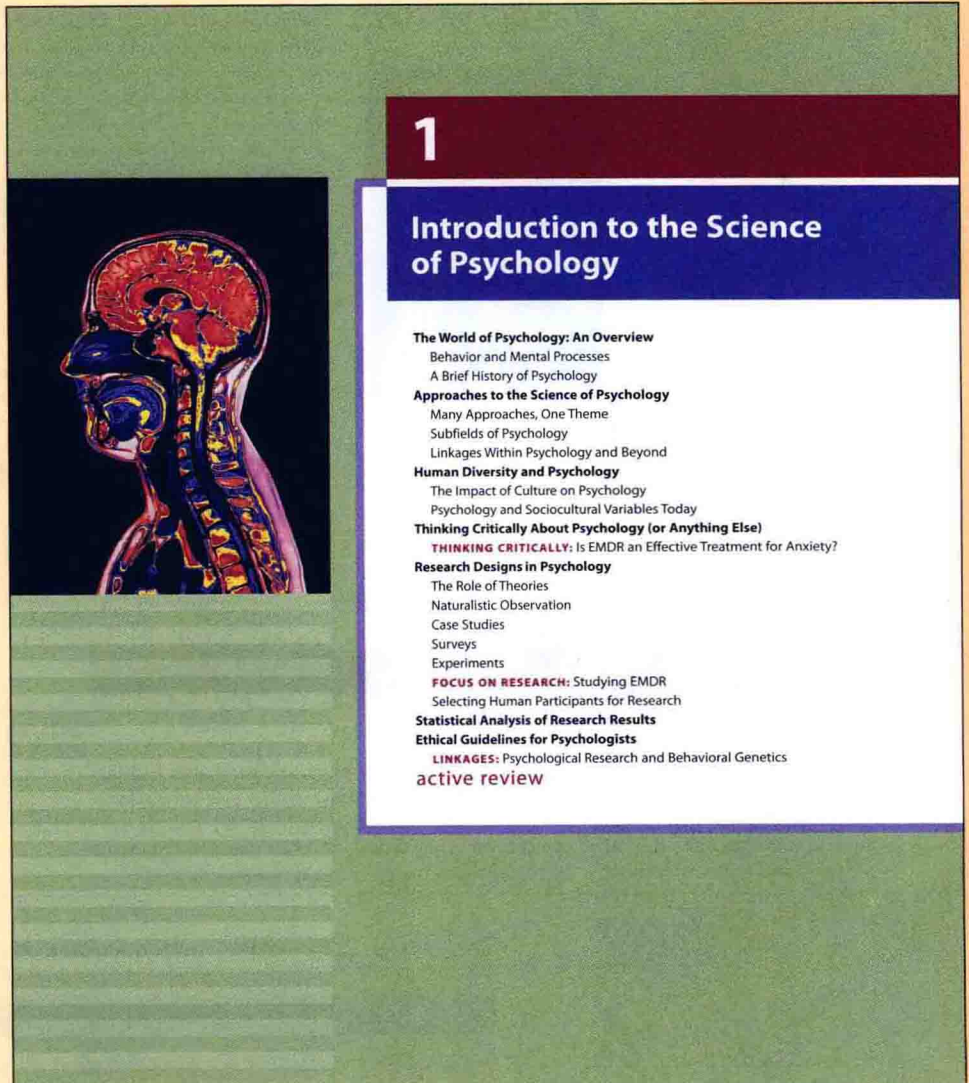
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ESSENTIALS *of* PSYCHOLOGY

Second Edition Feature Highlights

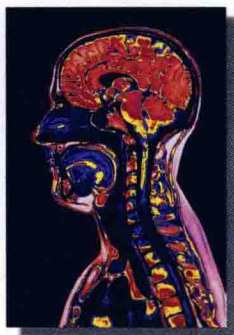
Essentials of Psychology Second Edition offers an integrated pedagogical system designed to help students get the most out of their reading. Based on the proven PQ4R study system, it includes an outline, a preview statement, preview questions, instructional captions, In Review charts, and a marginal glossary. Each chapter ends with an Active Review that includes a Linkages diagram, chapter summary, Learn by Doing and Step into Action sections, a review of key terms, and multiple-choice questions.



Each chapter opens with a full **outline**, a brief **preview statement**, and a list of **preview questions** related to each main section of the chapter. The preview questions are repeated at the start of each section and within the chapter summary.

PREVIEW

Why did you take this psychology course?



Maybe you wanted to learn more about yourself. This course is a great place to begin, and the complexity of the field may surprise you! We will begin our exploration of the science of psychology with a brief look at its scope and history. In this chapter, we will see how psychologists think critically, conduct research, and evaluate the evidence they collect. We will also see how psychologists take into account the richness of human diversity and important ethical concerns as they study behavior and mental processes. The chapter describes several theories and approaches that will help us organize our journey into the exciting realm of psychology. It also introduces the subfields of psychology and links them with each other and with other fields, including medicine, law, physics, and mathematics.

Preview Statement

Reading this chapter will help you to answer the following questions:

- What is psychology, and how did it grow?
- Why don't all psychologists explain behavior in the same way?
- How does your cultural background influence your behavior?
- How can critical thinking save you money?
- How do psychologists learn about people?
- When scientists announce a significant breakthrough in research, how can you be sure it is "significant"?
- Do psychologists trick people to get research data?

Preview Questions

The World of Psychology: An Overview

What is psychology, and how did it grow?

Psychology is the science of behavior and mental processes. Its subject matter includes thinking, feeling, eating, talking, reading, and loving! The full range of psychology, however, includes many other behaviors and mental processes as well. The topics have to be diverse to capture the full range of behaviors and mental processes that make you who you are, and make other people the way they are in every culture around the world.

August 1999 that their six-year-old son, who had battled leukemia, would be allowed to play in the yard treehouse, where Brage therapy sessions, would have been allowed by the rules in the yard to comply, and their conflict

Preview Question

that helped to fortify the parents' association committee and other groups reach their goal? To what extent does social support help, and how does the stress

active review Introduction to the Science of Psychology

Summary

Preview Question

THE WORLD OF PSYCHOLOGY: AN OVERVIEW

What is psychology, and how did it grow?

Psychology is the science that seeks to understand behavior and mental processes. The broad concept of "behavior and mental processes" encompasses virtually all aspects of what it means to be a human being. Psychologists study a wide variety of topics, ranging from the activity of individual nerve cells, to the way people sense and perceive

things, think, make decisions, and experience emotion, to the way people create, and interact in, societies.

Human beings have always sought to understand themselves, but the modern science of psychology began to emerge in the late nineteenth century as philosophers and scientists in Germany and North America established laboratories to conduct scientific research in psychology. In Germany, Wundt explored the building blocks of **consciousness** (Gestalt psychologists there later studied it as a whole),

Instructional captions for all figures, tables, photographs, and cartoons reiterate core concepts and help to interpret visual material.

The Central Nervous System: Making Sense of the World

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OHT & PPT: Figure 2.11: The Brain's Left and Right Hemispheres

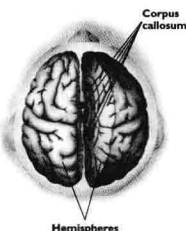


FIGURE 2.11
The Brain's Left and Right Hemispheres

The brain's two hemispheres are joined by a core bundle of nerve fibers known as the corpus callosum. In this figure the corpus callosum has been cut, and the hemispheres are separated. The two cerebral hemispheres look nearly the same but perform somewhat different tasks. For one thing, the left hemisphere receives sensory input from, and controls movement on, the right side of the body. The right hemisphere senses and controls the left side of the body.

sphere interfered with the use or comprehension of language. Corresponding damage to the right hemisphere usually did not. Could it be that the right and left hemispheres of the brain serve different functions?

This is not a new idea. It has long been understood that most sensory and motor pathways cross over from one hemisphere to the other as they enter or leave the brain. As a result, the left hemisphere receives information from and controls movements of, the right side of the body. The right hemisphere receives input from and controls the left side of the body. Figure 2.11 shows the two hemispheres. The fact that language centers such as Broca's area and Wernicke's area almost always occur on the left side of the brain suggests that each hemisphere might be specialized to perform some functions almost independently of the other hemisphere.

In the late 1800s there was great interest in the idea that the hemispheres might be specialized, but no techniques were available for testing it. Renewed interest grew out of studies during the 1960s by Roger Sperry, Michael Gazzaniga, and their colleagues.

Split-Brain Studies Sperry studied split-brain patients—people who had undergone surgery in an attempt to control the severe seizures of epilepsy. Before the surgery, their seizures began in one hemisphere and then spread throughout the brain. As a last resort, surgeons isolated the two hemispheres from each other by cutting the corpus callosum.

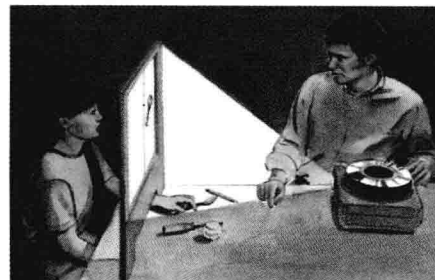
After the surgery, researchers used a special device like the one shown in Figure 2.12 to present visual images to only one side of these patients' split brains. They found that cutting the tie between the hemispheres had dramatically affected the way these people thought about and dealt with the world. For example, when the image of a spoon was presented to the left, language-oriented side of patient N.G.'s split brain, she could say what the spoon was. But when the spoon was presented to the right side of her brain, she could not describe the spoon in words. She still knew what the object was, because she could pick it out from a group of objects by feeling its shape with her left hand (controlled by the right hemisphere). When asked what she had just grasped, she replied, "A pencil." The right hemisphere recognized the object, but the patient could not say what it was because the left (language) half of her brain did not see or feel it (R. W. Sperry, 1968).

Although the right hemisphere has no control over spoken language in split-brain patients, it does have important capabilities related to nonspeech language. For example, a split-brain patient's right hemisphere can guide the left hand in spelling out words with Scrabble tiles (Gazzaniga & LeDoux, 1978). Thanks to this finding, researchers concluded that split-brain patients have self-awareness and normal learning abilities in their

FIGURE 2.12

Apparatus for Studying Split-Brain Patients

When the person stares at the dot on the screen, images briefly presented on one side of the dot go to only one side of the brain. For example, a picture of a spoon presented on the left side of the screen goes to the right side of the brain. The right side of the brain can find the spoon and direct the left hand to touch it but because the language areas on the left side of the brain did not see it, the person is not able to say what it is.



Statistical Analysis of Research Results

in review

Methods of Psychological Research

Method	Features	Strengths	Pitfalls
Naturalistic observations	Observation of human or animal behavior in the environment where it typically occurs	Provide descriptive data about behavior presumably uncontaminated by outside influences	Observer bias, self-consciousness, distort results
Case studies	Intensive examination of the behavior and mental processes associated with a specific person or situation	Provide detailed descriptive analyses of new, complex, or rare phenomena	May not provide representative of phenomena
Surveys	Standard sets of questions asked of a large number of participants	Gather large amounts of descriptive data relatively quickly and inexpensively	Sampling error, phrased questions, response biases can distort results
Experiments	Manipulation of an independent variable and measurement of its effects on a dependent variable	Can establish a cause-effect relationship between independent and dependent variables	Confounding variables may prevent valid conclusions
Quasi-experiments	Measurement of dependent variables when random assignment to groups is impossible or unethical	Can provide strong evidence suggesting cause-effect relationships	Lack of random assignment may weaken conclusions
All of the above	Choosing among alternative hypotheses; sometimes generating theories	Can expand our understanding of behavior and mental processes	Errors, limitations, and biases in research evidence can lead to incorrect or incomplete explanations

A truer comparison would sample men and women of equal status. Similarly, researchers who use a male-only sample should give this fact the same emphasis in their report as is customarily the case when only females are studied (Ader & Johnson, 1994). To do otherwise would imply that males provide a standard against which females' behavior and mental processes are to be compared. Finally, researchers must report whatever results appear. It is just as valuable to know that men and women, or African Americans and European Americans, did not differ on a test of leadership ability as to know that they did. Stephanie Riger (1992) suggests that one of psychologists' greatest challenges is to "disengage themselves sufficiently from commonly shared beliefs so that those beliefs do not predetermine research findings" (p. 732). For a recap of the strategies research psychologists use in their studies, see "In Review: Methods of Psychological Research."

Statistical Analysis of Research Results

When scientists announce a significant breakthrough in research, how can you be sure it is "significant"?

data Numbers that represent research findings and provide the basis for conclusions.

Regardless of the research methods used, any study usually generates a large amount of data. Data are numbers that represent research findings and provide the basis for conclusions. Researchers use statistical analyses to summarize and analyze data. These

In Review Charts summarize information in a convenient format.

The marginal glossary found throughout the text defines key terms on the appropriate pages.

Active Review

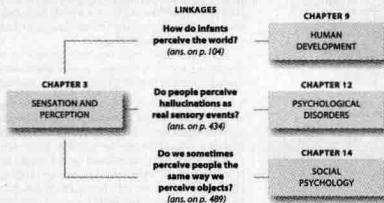
Active Review

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active review Sensation and Perception

Linkages

As noted in Chapter 1, all of psychology's subfields are related to one another. Our discussion of the development of perception illustrates just one way in which the topic of this chapter, sensation and perception, is linked to the subfield of developmental psychology (Chapter 9). The Linkages diagram shows ties to two other subfields as well, and there are many more ties throughout the book. Looking for linkages among subfields will help you see how they all fit together and help you better appreciate the big picture that is psychology.



Summary

SENSING AND PERCEIVING THE WORLD

What is the difference between sensation and perception?

A **sense** is a system that translates information from outside the nervous system into neural activity. Messages from the senses are called **sensations**. **Perception** is the process through which people actively use knowledge and understanding of the world to interpret sensations as meaningful experiences.

SENSORY SYSTEMS

How does information from my eyes and ears get to my brain?

The first step in sensation involves **accessory structures**, which collect and modify sensory stimuli. The second step is **transduction**, the process of converting incoming energy into neural activity; it is accomplished by **sensory receptors**, neural cells specialized to detect energy of some type. **Adaptation** takes place when receptors receive unchanging stimulation. Except in the case of smell, neural activity is transferred through the thalamus, which relays it to the cerebral cortex.

Coding is the translation of physical properties of a stimulus into a pattern of neural activity that specifically identifies those physical properties. It is the language that the brain uses to describe sensations.

The minimum amount of light, sound, pressure, or other physical energy that can be detected 50 percent of the time is called the **absolute threshold**. **Internal noise** is the spontaneous, random firing of cells in the nervous system that occurs whether or not you are stimulated by physical energy. The **response criterion** reflects the willingness to respond to a stimulus or ignore it. **Signal-detection theory** addresses whether you will perceive a stimulus. **Sensitivity** refers to

your ability to discriminate a stimulus from its background. **Weber's law** states that the smallest detectable difference in stimulus energy is a constant fraction of the intensity of the stimulus. This smallest detectable difference in a stimulus is called the **difference threshold** or **just-noticeable difference (JND)**. **Wavelength** is the distance from one peak of a sound wave or light wave to the next. **Wave frequency** is the number of complete waves, or cycles, that pass a given point per unit of time. **Amplitude** is the height of the wave from baseline to peak.

SEEING

Why do some people need eyeglasses?

Visible light is electromagnetic radiation with a wavelength of about 400 to about 750 nanometers. **Light intensity**, or the amount of energy in light, determines its brightness. Differing **light wavelengths** are sensed as different colors.

Accessory structures of the eye include the **cornea**, **pupil**, **iris**, and **lens**. Through **accommodation** and other means, these structures focus light rays on the **retina**, the netlike structure of cells at the back of the eye.

Photoreceptors in the retina—**rods** and **cones**—convert light into neural activity. **Rods** and **cones** differ in shape, sensitivity to light, ability to discriminate colors, and distribution across the retina. Both types of photoreceptors contribute to **dark adaptation**. The **fovea**, the area of highest acuity, has only cones, which are color sensitive. **Rods** are more sensitive to light but do not discriminate colors; they are distributed in areas around the fovea. From the photoreceptors, neural activity is transferred to bipolar cells and then to ganglion cells. A **blind spot** is created at the point where axons of ganglion cells leave the eye.

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Chapter 3 Sensation and Perception



The Web

The World Wide Web is a good source of additional information about the science of psychology, provided you use it carefully and think critically about the information you find. The Psychabilities web site that accompanies this text offers many resources relevant to

this chapter. They include interactive NetLab exercises; Thinking Critically and Evaluating Research exercises; ACE chapter quizzes; recommended web links; and articles on current events, books, and movies. At <http://college.hmco.com>, select *Psychology* and then this textbook.

Review of Key Terms

Can you define each of the key terms in the chapter? Check your definitions against those on the pages listed in parentheses below or in the Glossary/Index at the end of the text.

absolute threshold (p. 72)	depth perception (p. 95)	loudness (p. 81)	schemas (p. 102)
accessory structures (p. 70)	eardrum (p. 82)	olfactory bulb (p. 85)	sensations (p. 70)
accommodation (p. 74)	feature detectors (p. 76)	opponent-process theory (p. 79)	sense (p. 70)
adaptation (p. 71)	figure (p. 94)	optic nerve (p. 76)	sense of smell (p. 85)
amplitude (p. 73)	fovea (p. 75)	pupillae (p. 87)	sense of taste (p. 85)
analgesia (p. 89)	frequency (p. 73)	perception (p. 70)	sensitivity (p. 72)
attention (p. 106)	gate control theory (p. 89)	perceptual constancy (p. 98)	signal-detection theory (p. 72)
auditory nerve (p. 82)	Gestalt (p. 94)	pheromones (p. 86)	somatic senses (p. 87)
basilar membrane (p. 82)	ground (p. 94)	photoreceptors (p. 75)	sound (p. 80)
binocular disparity (p. 97)	hue (p. 77)	pinna (p. 82)	stroboscopic motion (p. 98)
blind spot (p. 76)	internal noise (p. 72)	pitch (p. 82)	timbre (p. 82)
bottom-up processing (p. 101)	iris (p. 74)	place theory (p. 84)	top-down processing (p. 101)
brightness (p. 77)	just-noticeable difference (JND) (p. 72)	proprioceptive (p. 91)	transduction (p. 70)
cochlea (p. 82)	kinesthesia (p. 91)	pupil (p. 74)	trichromatic theory (p. 78)
coding (p. 71)	lens (p. 74)	receptors (p. 70)	ventricular sense (p. 92)
cones (p. 75)	light intensity (p. 74)	response criterion (p. 72)	visible light (p. 74)
convergence (p. 97)	light wavelength (p. 74)	retina (p. 74)	volley theory (p. 84)
cornea (p. 74)	looming (p. 97)	rod (p. 75)	wavelength (p. 73)
dark adaptation (p. 75)		saturation (p. 77)	Weber's law (p. 72)

Multiple-Choice Self-Test

Select the best answer for each of the questions below. Then check your responses against the Answer Key at the end of the text.

- The frequency of a sound wave determines its
a. pitch.
b. loudness.
c. timbre.
d. intensity.
- Expecting to see a stimulus will _____ your response criterion.
a. raise
b. lower
c. not influence
d. be influenced by
- Participants in a study are comparing the weight of two pay envelopes, one containing 10 bills and the other containing 12 bills. They also compare the weight of two bags, one of which contains 1,000 coins and the other of which contains 1,100 coins. Which difference will be easier to detect?
a. Both differences will be equally noticeable and detectable.
b. The difference in the bags of coins will be easier to detect.
c. The difference in the envelopes will be easier to detect.
d. Neither difference is likely to be detected.
- Ally has lost her kinesthetic sense. She will most likely be unable to
a. know that her hand is raised without looking at it.
b. identify the flavor of her ice cream cone.
c. feel the warmth of the sun on her face.
d. feel pain.

The Active Review at the end of each chapter acts as a built-in study guide.

A **Linkages Diagram** illustrates how material in the chapter is connected to other chapters. A **Chapter Summary**, two **Learn by Doing** activities, an opportunity to **Step into Action**, a **Review of Key Terms**, and a **Multiple-Choice Self-Test** all help students master the chapter material successfully.

Active Review

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finding a match between the pattern of sensations organized by the perceptual system and a pattern that is stored in memory. Bottom-up processing seems to be accomplished by the analysis of features, or combinations of features, such as form, color, motion, and depth. Top-down processing is influenced by expectancy and motivation. **Schemas** based on past experience can create a perceptual set, the readiness or predisposition to perceive stimuli in certain ways. Expectancies can also be created by the context in which a stimulus appears. Top-down and bottom-up processing commonly work together to create recognition. Top-down processing can fill in gaps in physical stimuli, in part because the environment provides redundant stimuli.

The abilities to perceive color, basic shape features, and possibly the human face are present at or near birth. Other abilities, such as recognition of form, develop later. Depth, too, is perceived early, but its meaning is learned later. Perceptual abilities are modified by both experience and maturation.

ATTENTION

Can you "run out" of attention?

Attention is the process of focusing psychological resources to enhance perception, performance, and mental experience. We can shift attention overtly (by moving the eyes, for example) or covertly (without any movement of sensory systems). Attention is selective; it is like a spotlight that illuminates different parts of the external environment or specific mental processes. Control over attention can be voluntary and knowledge based or involuntary and driven by environmental stimuli. People can sometimes attend to two tasks at once, but there are limits to how much they can divide their attention.

Learn by Doing

Put It in Writing

Which of your five sensory systems—vision, hearing, touch, taste, or smell—do you think you could most easily do without? Which could you least easily do without? Write a page describing why you chose each of these sensory systems and listing what you would do to try to make up for the loss of each of these two systems.

Personal Learning Activity

Have you ever noticed how big the full moon appears when it has just risen above the horizon? Some researchers suggest that the moon appears larger on the horizon than overhead because the horizon moon—seen across a space filled with houses, trees, and terrain—appears to be farther away than when it is overhead (L. Kaufman &

Kaufman, 2000). According to principles of size constancy discussed in this chapter, the greater perceived distance causes the horizon moon to be perceived as larger. This explanation has been questioned, though, because the horizon moon sometimes seems larger even when the observer cannot see the intervening terrain. The next time you see what appears to be a bigger-than-normal full moon just above the horizon, turn your back to it, and then bend over and look at the moon, upside down, between your legs. Does the so-called moon illusion remain, or is it destroyed when you look at the moon so that terrain appears above it rather than below it? What do you think causes the moon illusion? For additional projects, see the *Personal Learning Activities* in the corresponding chapter of the study guide that accompanies this text.

Step into Action



Courses

Sensation and Perception
Speech and Hearing
Biological Psychology
Vision
Artificial Intelligence



Movies

The Miracle Worker (the story of Helen Keller, who was both deaf and blind)
Home Before Dark (a thriller about a blind girl menaced by a killer)
Children of a Lesser God (set in a school for the deaf)
At First Sight (changes and problems that occur when a man, blind from birth, can suddenly see)
The Matrix (a futuristic film that raises the question, What is reality?)
Rashomon (focuses on a single event perceived in vastly different ways by different people)



Books

Michael Posner and Marcus Raichle, *Images of Mind* (W. H. Freeman, 1997) (brain imaging)
Richard L. Gregory and J. Harris (Eds.), *The Artful Eye* (Oxford University Press, 1995) (visual perception)
Richard L. Gregory and Andrew M. Colman (Eds.), *Sensation and Perception* (Longman, 1995) (the senses and psychophysics)
Roger Shepard, *Mind Sights* (W. H. Freeman, 1990) (visual illusions, ambiguous figures)
J. Richard Block and Harold Yuler, *Can You Believe Your Eyes?* (Gardner Press, 1989) (more illusions and visual oddities)

Learn by Doing

Three new **Learn by Doing** features throughout the text promote active learning.

Figure and Photo Captions

Dozens of new figure and photo captions identified with a “Learn by Doing” symbol reinforce concepts by suggesting ways in which students can demonstrate the concepts for themselves.



BON APPETIT! The definition of delicacy differs from culture to culture. At this elegant restaurant in Mexico, diners pay to feast on baby alligators, insects, and other dishes that some people from other cultures would not eat even if the restaurant paid them. To appreciate your own food culture, make a list of foods that are traditionally valued by your family or cultural group but that people from other groups do not, or might even be unwilling, to eat.

Bolivian highlands but illegal in the United States (Burchard, 1992). And insects called *palm weevils*, a delicacy for people in Papua New Guinea (Paoletti, 1995), are regarded by many Westerners as disgusting (Springer & Belk, 1994). Even within the same general culture, different groups may have sharply contrasting food traditions. Thus, squirrel brains won't be found on most dinner tables in the United States, but some people in the rural South consider them to be a tasty treat. In short, eating serves functions beyond nutrition—functions that help to remind us of who we are and with whom we identify.

Eating Disorders

Problems in the processes regulating hunger and eating may cause an *eating disorder*. The most common and dangerous examples are obesity, anorexia nervosa, and bulimia nervosa.

Obesity The World Health Organization defines **obesity** as a condition in which a person's body-mass index, or BMI, is greater than 30 (WHO, 1995). BMI is determined by dividing a person's weight (in kilograms) by the square of the person's height (in meters). Thus, someone who is 5 feet 2 inches and weighs 164 pounds would be classified as obese, as would someone 5 feet 10 inches who weighs 207 pounds. (You will find quick BMI calculators at web sites such as www.consumer.gov/weightloss/bmi.htm.) Using this BMI criterion, 27 percent of adults in the United States are obese (USDHHS, 2000). And obesity appears to be on the rise, not only in the United States but also in regions as diverse as Asia, South America, and Africa (Kopelman, 2000; Lewis et al., 2000; Mokdad et al., 2000; Taubes, 1998). Obesity is associated with health problems such as diabetes, high blood pressure, and increased risk of heart attack; nearly 300,000 deaths in the United States alone are attributed to obesity (Allison et al., 1999). Caring for people with obesity-related health problems costs about \$51 billion each year (Wolf & Colditz, 1998).

Learn by Doing Marginal Callout

A symbol appears in the page margin where active learning opportunities occur in the narrative.



The Process of Attention

To experience attention as a process, try “moving it around” a bit. When you finish reading this sentence, look at something behind you, then face forward and notice the next sound you hear, then visualize your best friend, then focus on how your tongue feels. You just used attention to direct your perceptual systems toward different aspects of your external and internal environments. When you looked behind you, shifting attention involved *overt orienting*—pointing sensory systems at a particular stimulus. But you were able to shift attention to an image of your friend's face without having to move a muscle. This is called *covert orienting*.

Put It in Writing and Personal Learning Activity

As part of the Active Review section, **Put It in Writing** invites readers to write about a specific chapter topic, and **Personal Learning Activity** provides another opportunity to *do* psychology—not just read about it.

Learn by Doing

Put It in Writing

Try writing your own definition of intelligence. Make a list of at least seven behaviors or characteristics that you feel represent “intelligence,” and then decide how they could best be tested in children and adults from your own culture and other cultures. Describe the kinds of difficulties you encountered in making your list and designing your assessment devices.

Personal Learning Activity

Consider a problem that you are facing at the moment, or one that is being faced by someone you know. In accordance with the problem-solving section of this chapter, write down all the alternative solutions you can think of to solve this problem; then list the pros and cons of each option. Which alternative comes out on top? Does the alternative that seems best on paper also strike you as the best solution to try? Why or why not? For additional projects, see the five *Personal Learning Activities* in the corresponding chapter of the study guide that accompanies this text.

Thinking Critically

A dedicated section in each chapter helps improve this vital skill.

Structured around five questions, these sections encourage readers to analyze material before drawing conclusions:

- What am I being asked to believe or accept?
- Is there evidence available to support the claim?
- Can that evidence be interpreted another way?
- What evidence would help to evaluate the alternatives?
- What conclusions are most reasonable?

THINKING CRITICALLY

Are All Forms of Psychotherapy Equally Effective?

In short, the question of whether psychotherapy “works” is difficult or impossible to answer scientifically in a way that applies across the board. However, several research reviews (E. M. Anderson & Lambert, 1995; Galatzer-Levy et al., 2000; Shadish et al., 2000; M. L. Smith, Glass, & Miller, 1980; Weisz & Jensen, 1999) and personal experience leave psychotherapists convinced that it *does* work (see Figure 13.2). Further, most of them believe that the theoretical approach and treatment methods *they* use are superior to those of other therapists (e.g., Giles, 1990). They can’t all be right, of course, so what is going on?

■ What am I being asked to believe or accept?

Some researchers argue that theories of behavior disorder and the specific treatment methods based on them don’t have much to do with the success of psychotherapy. All approaches, they say, are equally effective. This has been called the “Dodo Bird Verdict,” after the *Alice in Wonderland* creature who, when called upon to judge who had won a race, answered, “Everybody has won and all must have prizes” (Luborsky, Singer, & Luborsky, 1975).

■ Is there evidence available to support the claim?

Some evidence does suggest that there are no significant differences in the overall effectiveness of the psychodynamic, phenomenological, and behavioral approaches to therapy. Statistical analyses that combine the results of a large number of therapy studies show that the three approaches are associated with about the same degree of success (M. J. Lambert & Bergin, 1994; M. L. Smith, Glass, & Miller, 1980).

Thinking Critically

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Focus on Research

Highlighting a particular study, these sections emphasize the value of research and the creativity with which it is often conducted.

These sections are organized around five questions:

- What was the researcher's question?
- How did the researcher answer the question?
- What did the researcher find?
- What do the results mean?
- What do we still need to know?

FOCUS ON RESEARCH

Problem-Solving Strategies in the Real World

The problem-solving strategies we have described were identified by laboratory studies in which psychologists observed volunteers wrestling with, and perhaps “thinking aloud” about, various types of problems. However, we do not yet know how well the strategies seen in these studies reflect the problem-solving methods that people use in the real world. To explore this question, researchers have reconstructed problem-solving strategies associated with major inventions and scientific discoveries (Klahr & Simon, 1999; Weber, 1992).

■ What was the researcher's question?

On December 17, 1903, Wilbur and Orville Wright successfully flew the first heavier-than-air flying machine. Gary Bradshaw (1993a, 1993b) was interested in identifying the problem-solving strategies that led to this momentous event. He found that forty-nine individuals or teams had worked on the problem of heavier-than-air flight, but only the Wright brothers were successful. In fact, it took them only four years to develop the airplane, whereas others worked for decades without success. Bradshaw asked, How did the Wright brothers solve the problem of creating a heavier-than-air flying machine when so many others had failed?

■ How did the researcher answer the question?

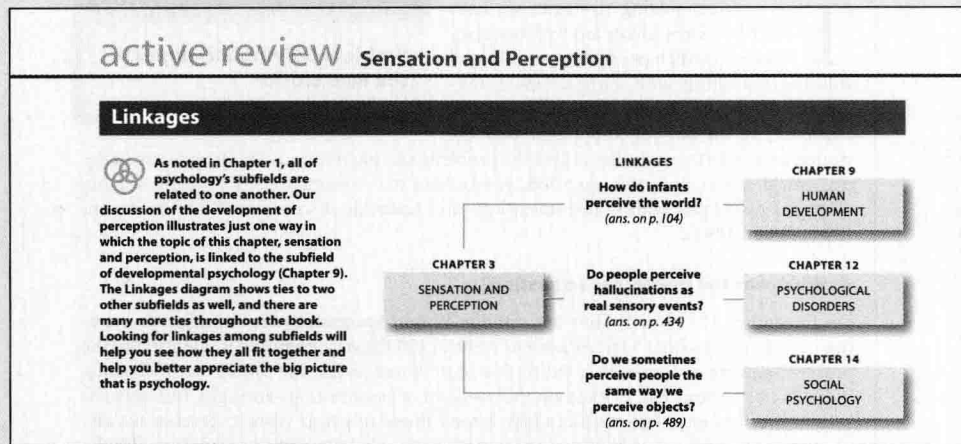
Bradshaw compared the written records left by all the individuals and teams who had worked on an airplane design. Using this “comparative case study” method, he was able

Focus on Research

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Linkages

The **Linkages** feature reflects the relationships among the subfields of psychology.



Linkages Diagram

In the *Active Review* section at the end of each chapter, a **Linkages diagram** presents three questions to illustrate how material in the chapter is related to other chapters in the book.

LINKAGES
How do infants perceive the world? (a link to Human Development)

We have seen that perception is influenced by the knowledge and experience we acquire over time, but what perceptual abilities do we start with? To learn about infants' perception, psychologists have studied two inborn patterns called *habituation* and *dishabituation*. Infants stop looking when they repeatedly see stimuli perceived to be the same. This is habituation. If they see a stimulus that is perceived to be different, they resume looking. This is dishabituation. Using the habituation/dishabituation technique, some researchers found that newborns could perceive the difference between black-and-white and colored displays, even though they could not distinguish between particular colors (Burr, Morrone, & Fiorentini, 1996). Other researchers used the same method to show that newborns can perceive differences in the angles of lines (Slater et al., 1991). These studies suggest that we are born with the basic components of feature detection.

Are we also born with the ability to combine features into perceptions of whole objects? Apparently not. At one month of age, infants concentrate their gaze on one part of an object, such as the corner of a triangle (E. B. Goldstein, 1999). By two months, however, infants systematically scan the perimeter of the object. This finding suggests that

LINKAGES
Perception And Human Development

Linkages Sections

One of the questions in the Linkages diagram is discussed at length in the chapter's special section titled **Linkages**.

Linkages

Psychological Research and Behavioral Genetics	30
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Stress and Psychological Disorders	356
Personality, Culture, and Human Development	395
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Motivation and the Presence of Others	504

LINKAGES
Do we sometimes perceive people the same way we perceive ourselves? (a link to Sensation and Perception)

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Marginal Callouts

The Linkages diagram directs students to the pages that carry further discussion of each question, where a **marginal callout** appears.

PSYCHOLOGY IS A RICH and varied science, covering the breadth and depth of human behavior—everything from fleeting reflexes to enduring memories, from falling asleep to falling in love. In our experience, most students enter the introductory course thinking that psychology concerns itself mainly with personality, psychological testing, mental disorders, psychotherapy, and other aspects of clinical psychology. Many of these students are surprised, then, when we ask them to read about such topics as the structure of the brain, optical illusions, the effect of jet lag on Olympic athletes, AIDS and the immune system, and prenatal risk factors, to name just a few. Yet these are all topics under the umbrella that is psychology.

For all its diversity, psychology is also a remarkably integrated discipline whose subfields are linked to one another through common interests and overarching research questions. As psychologists and scholars, we wrote this book to portray the wide range of topics that make up the science of psychology. As teachers, we focused on the essentials of the discipline, the core concepts of psychology that we hope will be especially accessible and interesting to students. We also tried to present these topics through an integrated, active pedagogical system designed to help students get the most out of the text.

In revising *Essentials of Psychology*, we rededicated ourselves to presenting a textbook that not only is clear and enjoyable to read, but that also provides features to support the learning process in all students, regardless of their academic background. Specifically, we set these goals:

- To focus on topics that represent the full range of psychology, from cell to society, without overwhelming the reader with details.
- To provide lots of active learning exercises that invite students to work with the text material in ways that can help them understand and remember it.
- To help students develop their ability to think critically and scientifically by examining the ways that psychologists have solved, or failed to solve, fascinating puzzles of behavior and mental processes.
- To explain the content of psychology with an emphasis on the *doing* of psychology, grounding all discussions in current and classic research studies. (We help students appreciate the importance of research by exploring one study in detail in a special feature in each chapter.)

Our discussion of research in psychology is also designed to remind students that although, in some ways, “people are people wherever you go,” sociocultural factors, including gender, ethnicity, cultural background, and geography, often shape human behavior and mental processes. We repeatedly point out, therefore, that psychological research on the thinking styles, perceptual habits, psychological disorders, social pressures, and other phenomena seen in North America or Europe, for example, may or may not apply to other cultures, or even to subcultures within Western countries.

Rather than isolating discussion of sociocultural material in boxed features, we have woven it into every chapter so that students will encounter it repeatedly as they read. We introduce the importance of sociocultural factors in Chapter 1 and continue to reinforce it through coverage of such topics as the impact of culture and experience on perception (Chapter 3), classrooms across cultures (Chapter 5), ethnic differences in IQ (Chapter 7), social and cultural factors in sexuality (Chapter 8), gender differences in stress responses (Chapter 10), personality, culture, and human development (Chapter 11), gender and cultural differences in depression and suicide (Chapter 12), and cultural factors in aggression (Chapter 14), to cite just a few examples. (In the annotated instructor’s version of the book, each discussion of sociocultural factors is marked in the margin of the page where the discussion appears.)

WHAT’S NEW IN THE NEW EDITION?

Guided by feedback from faculty colleagues and students, and by our own teaching experiences, we have made a number of changes in *Essentials*. We believe that this new edition retains the best features of the first edition, and offers even more of what faculty and students want and need.

Improved Organization

Designed for presentation in a single semester, the book’s fourteen-chapter organization has been retained. It has also been slightly revised. We now cover psychological disorders and treatment of psychological disorders in separate chapters, and we have combined the topics of thought, language, and intelligence into a single chapter. Have we arranged our fourteen chapters in an ideal sequence? That sequence reflects the way we teach our

introductory courses, but we know that each instructor has his or her own preferences for sequencing that may not match ours. Accordingly we have again written each of the fourteen chapters as a freestanding unit so that you may assign it in whatever order you wish. For example, many instructors prefer to teach the material on human development relatively late in the course, which is why it appears as Chapter 9. However, the chapter can be just as comfortably assigned earlier in the course.

An Emphasis on Learning by Doing

To help promote active learning, we have placed three kinds of “Learn by Doing” features throughout the book.

- First, we have created dozens of new figure and photo captions that help students understand and remember a psychological principle or phenomenon by suggesting ways in which they can demonstrate it for themselves. In the memory chapter, for example, a photo caption suggests that students show the photo to a friend, and then ask questions about it to illustrate the operation of constructive memory. These captions are all identified with a Learn by Doing symbol.
- Second, we have placed a Learn by Doing symbol in page margins at the many places where active learning opportunities occur in the narrative. At these points, we ask students to stop reading and try *doing something* to illustrate or highlight the psychological principle or phenomenon under discussion. For example, in the sensation and perception chapter, we ask the student to focus attention on various targets as a way of appreciating the difference between overt and covert attention shifts.
- Finally, we have carried the active learning theme through to the end of each chapter, where—as part of the built-in study guide we call “Active Review”—students will find new sections called “Put It in Writing” and “Personal Learning Activity.” These sections invite students to (a) write about a specific chapter-related topic, and (b) collect, analyze, and discuss some data on a chapter-related principle or phenomenon.

Improved Active Review

The new Put It in Writing and Personal Learning Activity sections are just one part of our effort to add educational value to the built-in study guide that we call Active Review. Other changes include the following:

- To help students understand and appreciate the ways in which the chapter they have just read relates to other subfields of psychology, the Active Review opens with a *Linkages* diagram.
- As in the first edition, the Active Review contains a chapter summary organized around the chapter’s main topic headings. However, we have made the summary more accessible by breaking up the longer paragraphs into more manageable segments.

- We have revised the twenty-item multiple-choice self-tests that appear at the end of each chapter to make them somewhat less detail-oriented, and somewhat more focused on the application, not just the definition, of principles, concepts, and phenomena.
- To highlight our emphasis on active learning, the “To Learn More” section of the Active Review has been renamed “Step into Action.” As before, it lists the courses in which students can pursue further chapter-related study, and it provides an annotated list of movies and books related to each chapter. However, where we previously listed only search words for seeking chapter-related information on the World Wide Web, we now refer students to Houghton Mifflin’s *PsychAbilities* web site. This site is continuously updated and expanded to provide the latest, most interesting, and most valuable web addresses related to chapter content, as well as a range of interactive activities and self-quizzes for each chapter.
- The “Review of Key Terms,” which invites students to write their own definitions of the most important terms presented in the chapter, has been updated to include all the key terms discussed in the new edition.

New “Applying Psychology” Photos

As in the first edition, we continue to emphasize the many ways in which psychological theory and research results are being applied to benefit human welfare. In this edition, we further highlight the diversity of applied psychology by including in each chapter at least one Applying Psychology photo that offers a memorable example. In the learning chapter, for example, a photo illustrates the use of classical conditioning principles in the humane control of predators that once threatened sheep ranchers’ livelihoods. In the health, stress, and coping chapter, the Applying Psychology photo illustrates health psychologists’ use of health-belief models and persuasive communication principles to promote behavior that protects people from the threat of AIDS.

Updated Content

As in the first edition, our goal in preparing this new edition of *Essentials* was to present the latest, as well as the most established, results of basic and applied research on topics that are both important to psychology and of high interest to students. Accordingly, we offer updated coverage of research on how drugs affect the brain (Chapter 2), the basis for optical illusions (Chapter 3), the effects of subliminal messages (Chapter 4), the importance of active learning in the classroom (Chapter 5), the accuracy of eyewitness testimony (Chapter 6), the origins of intelligence (Chapter 7), sources of sexual orientation (Chapter 8), the development of morals (Chapter 9), the effects of stress on health (Chapter 10), what determines and shapes our personalities (Chapter 11), the causes of multiple personality disorder (Chapter 12), the effects of psychotherapy (Chapter 13), and the development of ethnic prejudice (Chapter 14).

In this new edition, students will also encounter the latest evidence on topics such as

- Stem cell growth and transplant technology, and their potential for treating Alzheimer's disease and repairing brain damage (Chapter 2)
- Individual differences in taste abilities, including how to determine if one is a "supertaster" (Chapter 3)
- Resetting biological clocks by shining light on the backs of the knees (Chapter 4)
- Use of conditioned eyeblink responses to identify people at risk for the development of Alzheimer's disease (Chapter 5)
- Factors that may make people more susceptible to reporting false memories (Chapter 6)
- Cultural differences in how people think (Chapter 7)
- Factors that influence subjective well-being, and why (Chapter 8)
- Whether there are gender differences in moral reasoning (Chapter 9)
- The "tend and befriend" response to stressors, and how it relates to the traditional "fight or flight" syndrome (Chapter 10)
- The validity of projective tests (Chapter 11)
- The origins of schizophrenia, depression, and anxiety (Chapter 12)
- A proposal to have psychotherapists follow procedure manuals when treating some clients (Chapter 13)
- The unconscious nature of some aspects of ethnic stereotyping and prejudice (Chapter 14)

SPECIAL FEATURES

The second edition of *Essentials of Psychology* contains improved versions of a number of special features found in its predecessor. Designed to promote efficient learning and mastery of the material, these include, in each chapter, an integrated pedagogical system, as well as sections called "Thinking Critically," "Focus on Research," and "Linkages," along with an expanded Active Review.

An Integrated Pedagogical System

Our integrated pedagogical system is designed to help students get the most out of their reading. In keeping with the PQ4R study system (discussed in detail in Chapter 6, "Memory"), learning aids in each chapter include the following elements.

Preview Questions To help students survey and question the material, each chapter opens with a full outline, a brief preview statement, and a list of questions related to the key topic of each main section of the chapter. Those questions are repeated within the chapter at the start of each corresponding main section, and

they appear again in the Active Review, where they help to organize the chapter summary. For the second edition, many of these questions have been revised to make them more engaging and to refer to topics covered early in the related section of the chapter.

Margin Glossary Key terms are defined in the margin of the page where they appear, or on the facing page, reinforcing core concepts without interrupting the flow of reading. (For the second edition, we have revised many of our phonetic guides to make it easier than ever for students to correctly pronounce unfamiliar key terms—as well as other terms whose pronunciation is not immediately obvious.) In the Active Review section at the end of each chapter, a definition exercise encourages students to restate these core concepts in their own words.

Instructional Captions Captions to all figures, tables, photographs, and cartoons reiterate core concepts and help students learn to interpret visual information. And, as mentioned earlier, many of these captions prompt students to engage in various kinds of active learning experiences.

In Review Charts In Review study charts summarize information in a convenient tabular format. We have placed two or three In Review charts strategically in each chapter to help students synthesize and assimilate large chunks of information—for example, on drug effects, key elements in personality theories, and stress responses and mediators.

Active Review As mentioned earlier, we have expanded and improved the built-in study guide at the end of each chapter. This Active Review section now includes:

- A *Linkages diagram* containing questions that illustrate three of the ways in which material in each chapter is connected to other chapters in the book.
- A *chapter summary* organized, as before, around major topic headings and the related preview questions, but now presented in an easier-to-read format containing paragraphs that are shorter, and focused on subheadings.
- *Learn by Doing*, a new feature designed to promote active learning. Here, students will find Put It in Writing and Personal Learning Activity sections that invite them to (a) write about a specific chapter-related topic, and (b) collect, analyze, and discuss some data on a chapter-related principle or phenomenon. For example, in the personality chapter, the Put It in Writing section suggests that students list a celebrity's personality traits, and then summarize how various personality theories would account for the development of those traits. In the biology and behavior chapter, students are asked to write about how research on brain development might affect one's choice of an infant day-care center. These Put It in Writing suggestions might be helpful as writing-across-the-curriculum assignments. The Personal Learning Activities suggest ways in which students can *do* psychology as well as read about it. In the motivation and emotion chapter, for example, the Personal Learning Activity section suggests a way in which students can collect data on lie-detection

skills. In the social psychology chapter, students are invited to test some assumptions of evolutionary theories of mate selection by analyzing personals ads in a local newspaper. Each Personal Learning Activity section ends by referring the student to additional projects listed in the study guide that accompanies the book.

- A *Step into Action* section, which (a) suggests courses that students can take to pursue further chapter-related study, (b) presents an annotated list of movies and books related to each chapter, and (c) encourages students to visit Houghton Mifflin's *PsychAbilities* web site for resources related to the chapter in the form of interactive activities, self-quizzes, and web links.
- A *Review of Key Terms*, which invites students to write their own definitions of the most important terms presented in the chapter. These lists have been updated to include all the key terms discussed in the new edition, and the pronunciation guides for the more difficult terms have been improved.
- A twenty-item *Multiple-Choice Self-Test* designed to help students assess their understanding of the chapter's key points prior to taking quizzes and exams. As before, we provide an answer key at the back of the book that identifies and briefly explains each correct answer, and refers students to the page on which the tested material was first discussed.

Thinking Critically

A special Thinking Critically section in each chapter helps students hone their abilities in this vital skill. Our approach to writing centers on describing research on psychological phenomena in a way that reveals the logic of the scientific method, identifies possible flaws in design or interpretation, and leaves room for more questions and further research. In other words, as authors, we try to model critical thinking processes for our readers. The Thinking Critically sections are designed to make these processes more explicit and accessible by providing readers with a framework for analyzing evidence before drawing conclusions. The framework is built around five questions that the reader should find useful in analyzing not only psychological research studies, but other forms of communication as well, including political speeches, advertising claims, and appeals for contributions. These five questions first appear in Chapter 1, when we introduce the importance of critical thinking, and they are repeated in every chapter's Thinking Critically section:

1. What am I being asked to believe or accept?
2. Is there evidence available to support the claim?
3. Can that evidence be interpreted another way?
4. What evidence would help to evaluate the alternatives?
5. What conclusions are most reasonable?

Using this simple yet powerful framework, we explore issues such as subliminal persuasion, pornography and aggression,

recovered memories, and acupuncture, to name just a few. Page viii includes a complete list of the Thinking Critically features.

Focus on Research

Scientists in psychology have helped us to better understand behavior and mental processes through their commitment to empirical research. They have posed vital questions about psychological phenomenon and designed research that is capable of answering, or at least illuminating, those questions. In Chapter 1 we introduce readers to the methods of scientific research and to basic research designs in psychology. Every subsequent chapter features a Focus on Research section that highlights a particular research study to help students appreciate the value of research and the creativity with which psychologists have conducted it. Like the Thinking Critically sections, the Focus on Research features are organized around five questions designed to help readers organize their thinking about research questions and research results:

1. What was the researcher's question?
2. How did the researcher answer the question?
3. What did the researcher find?
4. What do the results mean?
5. What do we still need to know?

These Focus on Research sections help students to see how psychologists have used experiments, surveys, observations, and other designs to explore phenomena, such as learned helplessness, infant cognition, and evolutionary theories of helping. A full list of the Focus on Research features appears on page ix.

Linkages

In our experience, introductory psychology students are better able to appreciate the scope of our discipline when they look at it not as a laundry list of separate topics but as an interrelated set of subfields, each of which contributes to and benefits from the work going on in all of the others. To help students see these relationships, we have built into the book an integrating tool called Linkages. There are three elements in the Linkages program.

- *Linkages diagrams* The first element of each chapter's Active Review is a Linkages diagram, which presents a set of questions that illustrate three of the ways in which material in the chapter is related to other chapters in the book. For example, the Linkages diagram in Chapter 2, "Biology and Behavior," contains questions that show how biological psychology is related to consciousness ("Does the brain shut down when we sleep?"), human development ("How do our brains change over a lifetime?"), and treatment of psychological disorders ("How do drugs help people who suffer from schizophrenia?"). These diagrams are designed to help students keep in mind how the content of each chapter fits into psychology as a whole. To introduce the concept of Linkages, the diagram in Chapter 1 appears within the body of the chapter.

- **Cross-references** The page numbers following each question in the Linkages diagrams direct the student to pages that carry further discussion of that question. There, the linking question is repeated in the margin next to the discussion.
- **Linkages sections** One of the questions in each chapter's Linkages diagram reminds the student of the chapter's discussion of that question in a special section titled, appropriately enough, Linkages (see page x for a complete list of Linkages sections).

These three elements combine with the text narrative to highlight the network of relationships among psychology's subfields. This Linkages program is designed to help students see the "big picture" that is psychology—no matter how many chapters their instructor assigns, or in what sequence.

TEACHING AND LEARNING SUPPORT PACKAGE

Many useful instructional and pedagogical materials have been developed to support the *Essentials of Psychology* textbook and the introductory course. Designed to enhance the teaching and learning experience, the components of the supplemental package are remarkably well integrated with the text and include some of the latest technologies. New features of several supplements reflect the text's emphasis on active learning and writing across the curriculum.

For the Instructor

Annotated Instructor's Edition To help instructors coordinate the many print, video, and software supplements available with the text, the *Annotated Instructor's Edition* shows which materials apply to the content on each page of the student text. The annotations coordinate learning objectives, test questions, discussion and lecture ideas, handouts, overhead transparencies, PowerPoint slides, active learning activities, video segments, and the like. New to the second edition are annotations marking passages in the text that cover sociocultural topics. A key to the annotations appears on the inside front cover.

Instructor's Resource Manual For each chapter of the textbook, the *Instructor's Resource Manual* includes learning objectives, a lecture outline, and numerous classroom "supplements," that is, discussion, activity, and lecture suggestions and related handouts. The revised manual includes new Thinking Critically and Put It in Writing supplements similar to the exercises that appear in the textbook. The manual also includes a video guide and a pedagogical strategy section that covers active learning, critical thinking, using the Linkages feature, using the Research Focus supplements, and new to this edition, writing across the curriculum. For instructors switching from the first to the second edition of the text, the manual includes a detailed transition guide for each chapter, outlining the key changes between editions.

Test Bank The *Test Bank*, available in print or within a testing software program, includes 125 multiple-choice questions per chapter, 25 percent more than in the first edition. Half of these are new, as are one-third of the essay questions. Each multiple-choice question is keyed to pages in the student text and to the learning objectives that appear in the *Instructor's Resource Manual* and *Study Guide* and that are now printed in the test bank, too. Each question is identified by whether it tests simple factual recall or deeper conceptual understanding. Over sixty percent of the items have been class-tested with between 400 and 2,500 students. A statistical performance analysis is provided for those items. The computerized version allows instructors to edit questions, integrate their own, and generate paper or online exams.

PowerPoint Slides A new and extensive set of PowerPoint slides is available with the second edition. Each chapter's show includes dozens of slides featuring a lecture sequence that includes tables, figures, and photos from the textbook and other sources. The slides are available on the *PsychAbilities* web site and the *Essentials* instructor CD.

Overhead Transparencies The *Essentials* transparency acetates include one hundred four-color images from the text and other sources, organized by chapter.

Instructor's Resource CD-ROM Instructors may obtain a CD that includes the PowerPoint slides, learning objectives, lecture outlines, *Instructor's Resource Manual* activities and handouts, selected *Study Guide* materials, the video guide, and the second-edition transition guide.

PsychAbilities Web Site On the full-service, interactive web site accompanying *Essentials*, instructors have access to the PowerPoint slides and most elements of the *Instructor's Resource Manual*, as previously described, as well as an online guide offering tips on how to use and assign the student activities available on the site. To view a sampling of instructor materials, point to <http://college.hmco.com> and select *Psychology* and then this textbook.

Content for Course Management Software A Blackboard course cartridge and a Web CT e-Pack are available with this text, allowing instructors to create a virtual classroom on either of these two distributed learning systems. Features of the course management systems include grading, calendar, and communication tools that allow instructors to create a web site for their course without any knowledge of HTML. The customized *Essentials* cartridges feature quizzes, study materials, and exercises related to the text.

Lecture Starter Videos Four videotapes featuring brief clips designed to launch lectures or discussions are available with *Essentials of Psychology*. The *Introductory Psychology Lecture Starter Video* includes approximately sixty-five short (two- to seven-minute) videoclips organized into thirty-four topical areas. An accompanying guide resides on the *PsychAbilities* web site. Also available are lecture starter videotapes covering child development, social psychology, and abnormal psychology.

The Psychology Show This video supplement is available in both videodisc and VHS format. Featuring nineteen brief segments and numerous still images, *The Psychology Show* is designed to expand on the text's coverage of major topical areas and stimulate class discussion. The accompanying guide offers information on each motion segment and provides bar codes for videodisc use.

Media Policy Ask your Houghton Mifflin representative about additional videos available for rental or purchase, including, among others, *The Brain* modules, *The Mind* modules, and *Discovering Psychology*.

For the Student

PsychAbilities Web Site For each chapter, the *PsychAbilities* web site offers students, among other things, interactive NetLab exercises, Thinking Critically and Evaluating Research exercises, ACE self-quizzes, learning objectives, recommended web links, and articles on current events, books, and movies.

PsychAbilities CD-ROM The CD that accompanies every copy of the student text at no extra charge features study outlines corresponding to each chapter of the textbook, embedded with relevant interactive NetLab exercises, Evaluating Research and Critical Thinking exercises, ACE self-quizzes, a glossary, and a link to the *PsychAbilities* web site.

Study Guide The *Study Guide* augments the Active Review study materials built into every chapter of the textbook. Introductory sections in the guide provide tips on developing critical thinking skills, studying Linkages, reading a textbook, and new to this edition, developing writing skills. For each chapter of the text, the guide includes learning objectives, key-term hints and examples, a Concepts and Exercises section that shows students how to apply their knowledge of psychology to everyday issues and concerns, a Critical Thinking exercise, and several Personal Learning Activities like those in the text. In addition, each chapter concludes with two multiple-choice quizzes with wrong-answer rejoinders and a self-diagnostic quiz analysis to pinpoint weak topic and cognitive skill areas. A new section of each chapter, called "What Should I Write About?", provides advice on how to choose an appropriate term-paper topic related to the chapter.

Internet Guide for Psychology Houghton Mifflin's *Internet Guide for Psychology*, which can also be shrinkwrapped for free with new copies of *Essentials of Psychology*, introduces students to electronic mail, discussion groups, the World Wide Web, and Usenet news groups. It provides students with step-by-step exercises and a wealth of addresses and sites relevant to psychology.

Psychology in Context: Voices and Perspectives The second edition of this exceptional reader, edited by David N. Sattler and Virginia Shabatay, may be shrinkwrapped with the text. It features engaging first-person narratives and essays by noted writers, with each article keyed to major psychological concepts.

Psychology: Fields of Application This unique reader, edited by Astrid Stec and Douglas Bernstein, explores the most prominent areas of applied psychology. Each chapter features an expert's account of one area of application, including a brief history of the area's development, examples of research and how it has been applied, and the challenges facing the field.

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Many people provided us with the help, criticism, and encouragement we needed to create *Essentials of Psychology*, and to revise it into this second edition. We are of course indebted to our colleagues Alison Clarke-Stewart, Louis Penner, Ed Roy, and Chris Wickens, who, as co-authors of the Bernstein, Clarke-Stewart, Penner, Roy, and Wickens textbook, *Psychology*, provided invaluable assistance in reviewing the revised *Essentials* manuscript as it developed.

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