

SEVENTH EDITION

PSYCHOLOGY



CAROLE WADE
CAROL TAVRIS



www.prenhall.com/Wade



Psychology

SEVENTH EDITION

Carole Wade

Dominican University of California

Carol Tavris



UPPER SADDLE RIVER, NJ 07458

Library of Congress Cataloging-in-Publication Data

Wade, Carole.

Psychology / Carole Wade, Carol Tavris.—7th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-13-098263-6

I. Psychology. I. Tavris, Carol. II. Title.

BF121.W27 2002

150—dc21

2002017098

VP/Editorial Director: Leah Jewell
Sr. Acquisitions Editor:
Jennifer Gilliland
Editorial Assistant: Nicole Girrbach
Associate Editor in Chief,
Development: Rochelle Diogenese
Development Editor: Leslie Carr
AVP/Director of Production and
Manufacturing: Barbara Kittle
Sr. Project Manager: Maureen
Richardson
Sr. Managing Editor: Mary Rottino
Manufacturing Manager: Nick Sklitsis
Prepress and Manufacturing Buyer:
Tricia Kenny
Creative Design Director: Leslie Osher
Interior Design: Tom Nery
Cover Design: Ximena Tamvakopoulos

Cover Art: Courtesy of Jennifer and
Elaine Bass and the estate of Saul Bass
Photo Researcher: Barbara Salz
Interior Image Specialist: Beth Boyd
Image Permission Coordinator:
Joanne Dippel
Manager, Rights & Permissions:
Zina Arrabia
Director, Image Resource Center:
Melinda Reo
Illustrator: Electra Graphics
Production/Formatting/Art Manager:
Guy Ruggiero
Electronic Art Creation: Maria Piper
Director of Marketing:
Beth Gillett Mejia
Marketing Manager: Jeff Hester
Marketing Assistant: Ron Fox

Photo and text credits appear on pp. 731–734, which constitute a continuation of the copyright page.

This book was set in 10/12.5 Sabon by TSI Graphics and was printed and bound by RR Donnelley & Sons Company. The cover was printed by Phoenix Color Corp.



© 2003, 2000 by Pearson Education, Inc.
Upper Saddle River, New Jersey 07458

All rights reserved. No part of this book may be reproduced, in any form or by any means, without permission in writing from the publisher.

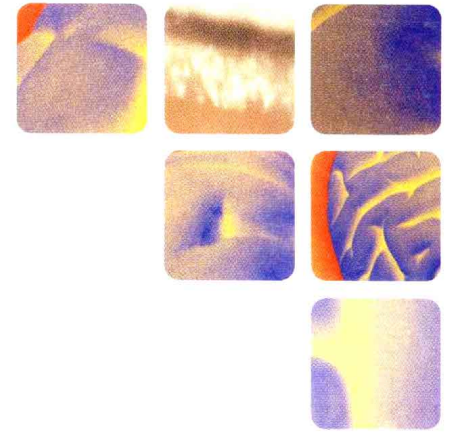
Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

ISBN 0-13-098263-6

Pearson Education LTD., London
Pearson Education Australia PTY, Limited, Sydney
Pearson Education Singapore, Pte. Ltd
Pearson Education North Asia Ltd, Hong Kong
Pearson Education Canada, Ltd., Toronto
Pearson Educación de México, S. A. de C. V.
Pearson Education-Japan, Tokyo
Pearson Education Malaysia, Pte. Ltd

To the Instructor



When we began work on the first edition of this textbook in the mid-1980s, we had five goals, some of which then were considered quite daring: (1) to make critical thinking integral to the introductory psychology course; (2) to represent psychology as the study of *all* human beings by mainstreaming research on culture and gender; (3) to keep ahead of the curve in coverage of new research and directions in the field; (4) to acknowledge forthrightly the many controversies in psychology; and (5) to foster active learning, so that students would become involved with the material and see how it applies to their personal and social lives.

Thinking Critically about Critical Thinking

Our first ambition, unique to textbooks at the time, was to get students to reflect on what they were learning—to show them what it is like to think like a psychologist. Psychology is not just a body of knowledge; it is also a way of approaching and analyzing the world. From the beginning, therefore, our approach has been based on critical thinking, the understanding that knowledge is advanced when people resist leaping to conclusions on the basis of personal experience alone (so tempting in psychological matters), when they apply rigorous standards of evidence, and when they listen to competing views. Because many students equate the word “critical” with “negative,” we later added an emphasis on the creative, forward-moving aspects of critical thinking—the importance of generating alternative explanations of events, asking questions, and using one’s imagination.

In a textbook, true critical thinking cannot be reduced to a set of rhetorical questions or to a formula for analyzing studies; it is a process that must be woven seamlessly into the narrative. The primary way we “do” critical and creative thinking, therefore, is by modeling it in our evaluations of research and popular ideas. In this book, we encourage *critical thinking* about concepts that many students approach uncritically, such as astrology, “premenstrual syndrome,” and the “instinctive” nature of sexuality. And we also apply it to some ideas that many psychologists have



Thinking Critically and Creatively about Psychological Issues



ASK QUESTIONS; BE WILLING TO WONDER

After the collapse of the World Trade Center, rescuers like this one inspired millions by searching tirelessly to find survivors. Why do some people risk their lives to help their fellow human beings, whereas others watch from the sidelines? Social psychologists explore these and many other questions raised by the events of September 11, 2001, as we will see in Chapter 8.



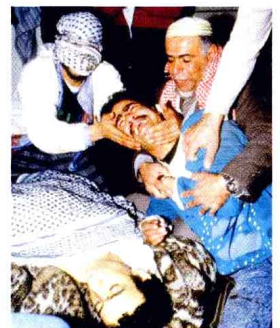
DEFINE YOUR TERMS

People refer to intelligence all the time, but what is it exactly? Does the musical genius of a world-class violinist like Anne-Sophie Mutter count as intelligence? Is intelligence captured by an IQ score, or does it also include wisdom and practical “smarts”? We will consider some answers in Chapter 9.



EXAMINE THE EVIDENCE

When demonstrating “levitation” and other supposedly magical phenomena, illusionists such as André Kole exploit people’s tendency to trust the evidence of their own eyes even when such evidence is misleading, as discussed in Chapter 6.



ANALYZE ASSUMPTIONS AND BIASES

Many North Americans assume that men are by nature less emotionally expressive than women. But this Palestinian man, grieving over his dead son, does not fit Western stereotypes of male emotionality. Cultural rules have a powerful influence on how men and women express their feelings, as we will see in Chapter 11.

accepted unquestioningly, such as the decisive importance of childhood to later life, Maslow's motivational hierarchy, and the disease model of addiction. By probing beneath assumptions and presenting the most recent evidence, we hope to convey the excitement and open-ended nature of psychological research and inquiry.

The first chapter starts with an extended discussion of what critical thinking is and what it isn't, and why critical thought is particularly relevant to the study of psychology. Here we introduce eight **guidelines to critical thinking**, which we draw on throughout the text as we evaluate research and popular ideas. (These guidelines are also listed and described briefly on the inside front cover of the book.)

Many, though by no means all, of our critical-thinking discussions are signaled by the lightbulb symbol shown in the margin, along with "signposts" containing provocative questions. We have explicitly identified the relevant guidelines in each signpost so that students can see more easily how the guidelines are actually applied. *The questions in the signposts are not, in themselves, illustrations of critical thinking*; rather, they serve as pointers to critical analyses in the text and invite the reader into the discussion.



THINKING CRITICALLY

Avoid Emotional Reasoning

Many people get upset at the idea that their earliest experiences are lost to memory and angrily insist that memories from the first two years must be true. How can research help us think clearly about this issue?

Mainstreaming Culture, Gender, and Biology

Of course, all introductory textbooks are divided into chapters that cover particular topics or subfields, such as the brain, emotion, developmental psychology, and social psychology. Increasingly, however, some areas of investigation can no longer be squeezed into a single chapter, because they are relevant to topics throughout the course. This is especially true of findings from the "bookends" of human behavior—culture and biology—as well as research on gender.

At the time of our first edition, some considered our goal of incorporating research on gender and culture into introductory psychology to be quite radical—either a sop to political correctness or a fluffy and superficial fad. Today, the issue is no longer whether to include these topics, but how best to do it. From the beginning, our own answer has been to include studies of gender and culture in the main body of the text, wherever they are relevant to the larger discussion, rather than relegating these studies to an intellectual ghetto of separate chapters or boxed features.

Gender

For examples of how we treat gender issues, see our discussions of:

- Evolutionary theories of sexual behavior (pp. 82–86)
- Sex differences in the brain (pp. 132–134)
- Gender and emotion (pp. 417–421)
- Weight and eating disorders in women and men (pp. 432–435)
- Male-female similarities in moral reasoning (p. 521)

Gender. We cover many kinds of gender differences in this book—differences in pain perception, sexual attitudes and motives, body satisfaction, depression, antisocial personality disorder, children's play preferences, and ways of expressing love, intimacy, and emotion, to mention just a few. (You will find many other gender-related topics in the index.) We do not equate "gender" with "women," either! We have been particularly attentive to research on the psychology of men, for example in discussing the underdiagnosis of male depression and the rise of eating disorders and distorted body images in young men. In many cases, we have tried to go beyond mere description of differences, by examining competing explanations for them: biological influences, evolutionary influences, social roles, gender socialization, gender schemas, and the power of current situations and experiences to shape people's choices and lives.

Nor do we focus exclusively on gender *differences*. Many differences, though reliable, are trivial in terms of real-life importance. And gender *similarities*, though they are often overlooked, are every bit as important and interesting as the eternal search

for differences. We therefore include findings on similarities, too—for example, that men and women do not, overall, differ in moral reasoning (Chapter 14), obedience to authority (Chapter 8), or mood swings in the course of an average month (Chapter 5).

Culture. In recent years—and certainly in the aftermath of 9/11—most psychologists have come to appreciate the profound influence of culture on all aspects of life, from nonverbal behavior to the deepest attitudes towards how the world should be. Thus we report empirical findings about culture and ethnicity throughout the book—for example, in our discussions of addiction, anxiety symptoms, differing cultural norms (e.g., for cleanliness, risk, and conversational distance), emotional expression, group differences in IQ scores and academic achievement, motivational conflicts, personality, psychotherapy, rules about time, attitudes toward weight and the ideal body, and the effectiveness of medication. (Again, we refer you to the index for a complete listing of topics.) In addition, Chapter 8 highlights the sociocultural perspective in psychology and includes extended discussions of ethnocentrism, prejudice, and cross-cultural relations. However, the scientific study of cultural diversity is not synonymous with the popular movement called multiculturalism. The study of culture, in our view, should increase students' understanding of what culture means, how and why ethnic and national groups differ, and why no group is inherently better than another. Thus we try to apply critical thinking to our own coverage of culture, avoiding the twin temptations of ethnocentrism and stereotyping.

Biology. Anyone who is awake and conscious knows that we are in the midst of a biomedical revolution that is transforming science and psychology. Findings from the Human Genome Project, studies of behavioral genetics, astonishing discoveries about the brain, the development of technologies such as PET scans and fMRIs, the proliferation of medications for psychological disorders—all have had a profound influence on our understanding of human behavior and on interventions to help people with chronic problems. This work, too, can no longer be confined to a single chapter; accordingly, we report new findings from the biological front wherever they are relevant: for example, in our discussions of neurogenesis in the brain, memory, emotion, stress, child development, aging, mental illness, personality, and many other topics (again, we refer you to the index for a full list). But just as we do with culture and gender, we apply principles of critical thinking to this domain of research, too. Thus we caution students about the dangers of reducing complex behaviors solely to biology, overgeneralizing from limited data, failing to consider other explanations, and oversimplifying solutions (e.g., as promises of “miracle” drugs often do).

Facing the Controversies

Psychology has always been full of lively, sometimes angry, debates, and we feel that students should not be sheltered from them. They are what make psychology so interesting! Sociobiologists and feminist psychologists often differ

Culture

For examples of how we treat culture, see our discussions of:

- Ethnocentrism and stereotyping (pp. 292–295)
- Attitudes toward achievement (pp. 340, 477)
- Cultural influences on personality (pp. 480–485)
- Ethnic identity and acculturation (pp. 531–533)
- Addiction rates and drug abuse (pp. 603–604)

Biology

For examples of how we cover biological research, see our discussions of:

- Stem cells and neurogenesis (pp. 108–109)
- Weight and body shape (pp. 428–435)
- Sexual desire, orientation, and behavior (pp. 440–443, 447–448)
- Genetics and personality (pp. 471–474, 479)
- Schizophrenia (pp. 612–614)

Controversies

For examples of our in-depth treatment of important controversies in psychology, see our discussions of:

- The contributions and limitations of evolutionary psychology (pp. 72–86)
- The extent of parental influence on children's personalities (pp. 474–476)
- The adult repercussions of childhood abuse and trauma (pp. 541–543)
- Medication in the treatment of psychological disorders (pp. 624–627)
- The “scientist–practitioner gap” (pp. 639–640, 646–648)

strongly in their analyses of gender relations (Chapters 3 and 12). Psychodynamic clinicians and experimental psychologists differ strongly in their assumptions about memory, child development, and trauma; these differences have heated repercussions for, among other things, “recovered memory” therapy and the questioning of children as eyewitnesses (Chapter 10). The “scientist–practitioner gap” between researchers and psychodynamic psychotherapists is continuing to widen (Chapter 17). Developmental psychologists are hotly debating the extent and limits of parental influence on children (Chapters 13 and 14). And psychologists continue to argue among themselves about the genetic and cultural origins of addiction, in a debate that has profound importance for the treatment of drug abuse (Chapters 5 and 16). In this book we candidly address these and other controversies, try to show why they are occurring, and suggest the kinds of questions that might lead to useful resolutions.

Applications and Active Learning: Getting Involved

Throughout this book, we have kept in mind one of the soundest findings about learning: that it requires the active encoding of material. You can’t just sit there and expect it to happen. Several pedagogical features in particular encourage students to become actively involved in what they are reading.

What’s Ahead consists of a brief set of questions introducing each major section within a chapter. These questions are not merely rhetorical; they are intended to be provocative and intriguing enough to arouse students’ curiosity about the material to follow: Why are people all over the world getting fatter? What part of the anatomy do psychologists think is the “sexiest sex organ”? How are your beliefs about love affected by your income? What is the difference between ordinary techniques of persuasion and the coercive techniques used by cults? What is the “Big Lie”?

Looking Back, at the end of each chapter, lists all of the What’s Ahead questions along with page numbers to show where the material for each question was covered. Students can check their retention and can easily review if they have trouble answering a question. This feature has another purpose as well: It gives students a sense of how much they are learning about matters of personal and social importance, and helps them appreciate that psychology offers more than “common sense.” Some instructors may want to turn some of the Looking Back questions into essay or short-answer test items or written assignments.

Get Involved exercises in each chapter make active learning entertaining. Some consist of quick demonstrations (e.g., clapping your hands together to find out if you are genetically a “right thumb over left” person or the reverse). Some are simple mini-studies (e.g., observing seating patterns in the school cafeteria). Some help students relate

WHAT’S AHEAD

- Why does a note played on a flute sound different from the same note played on an oboe?
- If you habitually listen to loud music through headphones, what kind of hearing impairment are you risking?
- To locate the source of a sound, why does it sometimes help to turn or tilt your head?

LOOKING BACK

- What kind of “code” in the nervous system helps explain why a pinprick and a kiss feel different? (p. 184)
- Why does your dog hear a “silent” doggie whistle when you can’t? (p. 186)
- What kind of bias can influence whether you think you hear the phone ringing when you’re in the shower? (pp. 186–187)
- What happens when people are deprived of all external sensory stimulation? (pp. 187–188)
- How does the eye differ from a camera? (pp. 193–194)
- Why can we describe a color as bluish green but not as reddish green? (p. 196)
- If you were blind in one eye, why might you misjudge your distance from a painting on the wall but not the distance to buildings a block away? (p. 199)
- As a friend approaches, her image on your retina grows larger; why do you continue to see her as the same size? (p. 200)
- Why are perceptual illusions so valuable to psychologists? (p. 202)
- Why does a note played on a flute sound different from the same note played on an oboe? (pp. 204–205)
- If you habitually listen to loud music through headphones, what kind of hearing impairment are you risking? (p. 206)

Get Involved

Thumbs Up!

Ask the members of your family, one person at a time, to clasp their hands together. Include aunts and uncles, grandparents—as many of your biological relatives as possible. Which thumb does each person put on top? About half of all people fold the left thumb over the right and about half fold the right thumb over the left, and these responses tend to run in families. Do your own relatives show one tendency over the other? (If your family is an adoptive one, of course, there is less chance of finding a trend.) Try the same exercise with someone else’s family; do you get the same results? Even for behavior as simple as thumb folding, the details of how genes exert their effect remain uncertain (Jones, 1994).

course material to their own lives (e.g., if they drink, listing their own motives for doing so). Instructors may want to assign some of these exercises to the entire class and then discuss the results and what they might mean.

Conceptual graphics help students visualize material in order to understand and retain it better. Students can see at a glance, for example, the various types of attachment, distinctions between different types of memories, the difference between positive and negative reinforcement, the elements of successful therapy, and how a self-fulfilling prophecy is created. We have tried to keep these visual summaries simple, straightforward, and appealing.

Review tables summarize and contrast theories and approaches discussed in the text—for example, methods used in brain research, theories of dreaming, theories of personality, and the factors that lead to health or illness. The Reviews help students extract main points, organize what they have learned, and study for exams.

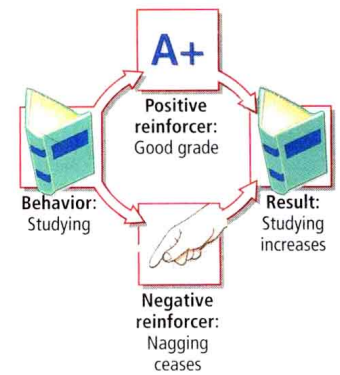
Quick Quizzes are periodic self-tests that encourage students to check their progress, and to go back and review if necessary. These quizzes do more than just test for memorization of definitions; they tell students whether they comprehend the issues. Mindful of the common tendency to skip quizzes or to peek at the answers, we have used various formats and have included engaging examples in order to motivate students to test themselves.

Many of the quizzes also include critical-thinking items, identified by the critical-thinking symbol. These items invite the student to reflect on the implications of findings and to consider how psychological principles might illuminate real-life issues. For example: What kinds of questions should a critical thinker ask about a new drug for depression? How might a hypothetical study of testosterone and hostility be improved? How should a critical consumer evaluate someone's claim that health is entirely a matter of "mind over matter"? Although we offer some answers to these questions, students may have valid, well-reasoned answers that differ from our own.

Other pedagogical features designed to help students study and learn better include a **running glossary** that defines boldfaced technical terms on the pages where they occur; a **cumulative glossary** at the back of the book; a list of **key terms** at the end of each chapter that includes page numbers so students can find the sections where the terms are first mentioned; **chapter outlines**; and **chapter summaries** in paragraph form to help students review.

Taking Psychology with You, a feature that concludes each chapter, illustrates the practical implications of psychological research for individuals, groups, institutions, and society. This feature tackles topics of personal interest and relevance to many students, such as managing pain (Chapter 6), getting along with people from other cultures (Chapter 8), managing anger (Chapter 11), rearing children (Chapter 14), and assessing self-help books (Chapter 17).

The final "Taking Psychology with You" feature in the book is an **Epilogue**, a unique effort to show students that the vast number of seemingly disparate studies and points of view they have just read about are related. The Epilogue deals with a typical problem that everyone can be expected to encounter:



REVIEW 1.2 FIVE MAJOR PSYCHOLOGICAL PERSPECTIVES

Perspective	Major Topics of Study	Sample Finding on Violence
Biological	The nervous system, hormones, brain chemistry, heredity, evolutionary influences	Brain damage caused by birth complications or child abuse might incline some people toward violence.
Learning	Environment and experience	
Behavioral	Environmental determinants of observable behavior	Violence increases when it pays off.
Social-cognitive	Environmental influences, observation and imitation, beliefs and values	Violent role models can influence some children to behave aggressively.
Cognitive	Thinking, memory, language, problem solving, perceptions	Violent people are often quick to perceive provocation and insult.
Sociocultural	Social and cultural contexts	
Social Psychology	Social rules and roles, groups, relationships	People are often more aggressive in a crowd than they would be on their own.
Cultural Psychology	Cultural norms, values, and expectations	Cultures based on herding rather than agriculture tend to train boys to be aggressive.
Psychodynamic	Unconscious thoughts, desires, and conflicts	A man who murders prostitutes may have unconscious conflicts about his mother and about sexuality.

QUICK QUIZ

Is all this information about eating making you hungry for knowledge?

- True or false: Emotional problems explain why fat people are heavy.
- Falling and rising levels of leptin help the brain regulate appetite and _____ and play a role in maintaining a person's genetically influenced _____.
- Rising rates of obesity can best be explained by (a) genetic changes over the past few decades, (b) a lack of will power, (c) an abundance of high-fat food and sedentary lifestyles, (d) the increase in eating disorders.
- Bill, who is thin, reads in the newspaper that genes set the range of body weight and shape. "Oh, good," he exclaims, "now I can eat all the junk food I want; I was born to be skinny." What's wrong with Bill's conclusion?

Answers:

1. False. 2. Metabolism, set point. 3. c. 4. Bill is right to recognize that there may be limits to how heavy he can become. But he may also be oversimplifying and jumping to conclusions. Many people who have a set point for leanness will gain considerable weight on fatty foods and excess calories, especially if they don't exercise. Also, rich junk food is unhealthy for reasons that have nothing to do with becoming overweight.



Taking Psychology with You

FOOD FOR THOUGHT: DIET AND NEUROTRANSMITTERS

Vitamin improves sex!" "Sugar makes kids wild!" "Chocolate chases the blues!" Claims like these have given nutritional theories of behavior a bad reputation. In the late 1960s, when Nobel laureate Linus Pauling proposed treating some mental disorders with mas-

sive doses of vitamins, few researchers listened. Mainstream medical authorities classified Pauling's vitamin therapy with such infamous cure-alls as snake oil and leeches.

Today, most mental-health professionals remain skeptical of nutritional

cures for mental illness. But the underlying premise of nutritional treatments, that diet affects the brain and therefore behavior, is no longer considered a loony idea. Diet may indeed make a difference in cognitive function and in some types of disorders. In one

conflicts in a close relationship. We show how topics discussed in previous chapters can be applied to understanding and coping with such conflicts. The Epilogue can be a useful tool for helping students integrate the diverse approaches of contemporary psychology. Asking students to come up with research findings that might apply to other problems also makes for a good term paper assignment.

A Note to Users of Previous Editions

We have added up-to-date research in every chapter, from the latest findings on neuronal growth throughout life to new theories of schizophrenia. We have also made a few organizational changes, such as moving the discussion of weight and obesity from the genetics chapter (Chapter 3) to the motivation chapter (Chapter 12). As for content updates, a detailed explanation of all deletions, additions, and modifications in the Seventh Edition is available to adopters of the Sixth Edition, so that no one will have to guess why we made particular changes. We hope this support will make the transition from one edition to the next as painless for instructors as possible. You can obtain this description from your Prentice Hall representative or by writing to: Marketing Manager, Psychology, Prentice Hall Publishers, One Lake Street, Upper Saddle River, New Jersey 07458.

Instructor and Student Supplements

Psychology, Seventh Edition's supplements package has gone through extensive revision and refinement to provide you and your students with the best teaching and learning materials, both in print and media formats.

Print and Media Supplements for the Instructor

NEW Instructor's Resource Binder Created by Barbara Brown of Georgia Perimeter College, Kerri Goodwin of Loyola College, and Alan Swinkles of St. Edwards University, this exhaustive collection of resources will appeal to new and experienced instructors alike. Each chapter in the IRB includes the following resources, organized in an easy-to-reference Keyed Chapter Outline: Introducing the Chapter; Learning Objectives; Lecture Suggestions and Discussion Topics; Classroom Activities, Demonstrations, and Exercises; Out-of-Class Assignments and Projects; Multimedia Resources; Video Resources; Transparencies; and Handouts. Designed to make your lectures more effective and to save you preparation time, this comprehensive set of materials gathers together the most effective activities and strategies for teaching your introductory psychology course.

NEW Media Portfolio CD-ROM Included with the Instructor's Resource Binder, this valuable, time-saving supplement provides you with a wealth of teaching resources in one place so that you may customize your lecture notes and media presentations. It includes PowerPoint slides customized for the Seventh Edition, electronic versions of the artwork in the text chapters, electronic versions of the overhead transparencies, and electronic files for the material in the Instructor's Resource Binder and the Test Item File. It also contains clips from Prentice Hall's Video Classics in Psychology CD-ROM, formatted for in-class presentation.

Test Item File Created by Kathleen McGreal of Michigan State University, this test bank contains over 4,500 multiple-choice, true/false, and short-answer essay questions. For each question, there is a reference to the relevant section and page number in the text; a key designating each item as easy, moderate, or difficult; and a descriptor of the question as factual, conceptual, or applied.

Prentice Hall's Custom Test for Windows and Macintosh Now available on one dual-platform CD-ROM, this best-selling test-generating software program includes a gradebook, online network testing capability, and many tools to help you edit and create tests. The program comes with full technical support and telephone "Request a Test" service.

PowerPoint Slides for Psychology, Seventh Edition Created by Krista Forrest of the University of Nebraska at Kearny, these slides highlight the key points covered in the text. They are provided in two versions, one with the chapter graphics and one without, to give you flexibility in preparing your lectures. Available on the *Media Portfolio* CD-ROM or on Prentice Hall's *PsychologyCentral* Web site described below.

NEW Prentice Hall's Introductory Psychology Transparencies, 2002 Designed to be used in large lecture settings, this set of over 130 full-color transparencies includes illustrations from the text as well as images from a variety of other sources. Available in acetate form, online at *PsychologyCentral*, or on the *Media Portfolio* CD-ROM.

NEW PsychologyCentral Web Site at www.prenhall.com/psychology Password protected for instructors' use only, this site allows you online access to all of Prentice Hall's psychology supplements. You'll find a multitude of resources for teaching introductory psychology. From this site you can download any of the key supplements available for *Psychology, Seventh Edition*, including the following: Instructor's Resource Binder, Test Item File, PowerPoint slides, chapter graphics, and electronic versions of the Introductory Psychology Transparencies, 2002. Contact your Prentice Hall representative for the user ID and password to access this site.

Online Course Management with WebCT, BlackBoard or CourseCompass This feature is *free* upon adoption of the text. Instructors interested in using online course management have their choice of options. Each version comes preloaded with text-specific quizzes and tests and can be fully customized for your course. Contact your Prentice Hall representative or visit www.prenhall.com/demo for more information.

Video Resources for Instructors

NEW Prentice Hall Custom Video for Introductory Psychology Adopters can receive this new videotape, which includes five- to eight-minute clips covering all major topics in introductory psychology. The videos have been carefully selected from the *Films for Humanities and Sciences* library, and then edited to provide brief and compelling video content for enhancing your lectures. Contact your local Prentice Hall representative for a full list of video clips on this tape.

The Brain Video Series Qualified adopters can select videos from this series of eight, 1-hour programs that blend interviews with world-famous brain scientists and dramatic reenactments of landmark cases in medical history. Programs include

The Enlightened Machine; The Two Brains; Vision and Movement; Madness; Rhythms and Drives; States of Mind; Stress and Emotion; and Learning and Memory. Contact your local representative for more details.

The Discovering Psychology Video Series Qualified adopters can select videos from this series produced in association with the American Psychological Association. The series includes thirteen tapes, each containing two half-hour segments. Contact your local sales representative for a list of videos.

ABC News Videos for Introductory Psychology, Series III Qualified adopters can obtain this selection of segments from ABC's *World News Tonight* with Peter Jennings, *Nightline*, *20/20*, *Prime Time Live*, and *The Health Show*.

Films for the Humanities and Sciences Video Library Qualified adopters can select videos on various topics in psychology from the extensive library of *Films for the Humanities and Sciences*. Contact your local sales representative for a list of videos.

Print and Media Supplements for the Student

Companion Web Site at www.prenhall.com/wade Designed to reinforce student learning, this online study guide allows students to review each chapter's material, take practice tests, research topics for course projects, and more. The *Psychology, Seventh Edition* companion Web site includes the following resources for each chapter: Chapter Objectives; Interactive Lectures; five different types of quizzes that provide immediate, text-specific feedback and coaching comments; WebEssays; WebDestinations; NetSearch; NEW FlashCards; and NEW Live!Psych Media Labs (described below). Access to the *Psychology, Seventh Edition* Web site is free and available to all students.

NEW Live!Psych Media Labs This series of 33 interactive media simulations, animations, and assessments was developed to teach key concepts—often the concepts students find most challenging. Designed to get students to interact with the material and to appeal to different learning styles, these *Live!Psych* Media Labs were created in consultation with psychology instructors and carefully reviewed by a board of experts to ensure accuracy and pedagogical effectiveness. Each *Live!Psych* Media Lab is integrated into the presentation of the text material through the use of the *Live!Psych* icon. Chapter-specific *Live!Psych* Media Labs can be found on the Companion Website at www.prenhall.com/wade. A special thank you goes to Lynne Blesz-Vestal, the content author, and to the members of our *Live!Psych* review board: Kim Ainsworth-Darnell (Georgia State University); Eric J. Chudler (University of Washington); Margaret Gatz (University of Southern California); Karen Hoblit (Victoria Community College); Gail Knapp (Mott Community College); John Krantz (Hanover College); Nancy Simpson (Trident Technical College); and Chuck Slem (California Polytechnic State University, San Luis Obispo).



NEW Video Classics in Psychology CD-ROM: Using the power of video to clarify key concepts presented in the text, this CD-ROM offers original footage of some of the best-known classic experiments in psychology. It shows, among other things, Milgram's obedience study, Watson's Little Albert, Bandura's Bobo doll experiment, Pavlov's dog, and Harlow's monkeys. In addition, students can see interviews with renowned contributors to the field, such as B.F. Skinner, Carl Rogers, and Erik Erikson. Each video is preceded by background information on the importance of the experiment or researcher, and is followed by questions that

connect the video to concepts presented in the text. The *Video Classics in Psychology* CD-ROM can be packaged free with *Psychology, Seventh Edition*. Contact your local sales representative for the value pack ISBN.

NEW Prentice Hall Guide to Evaluating Online Resources: Psychology, 2003 This guide provides students with a hands-on introduction to the Internet, features numerous Web sites related to psychology, and gives students guidelines on how to evaluate online resources. It now comes with *free* access to **ContentSelect**, a customized research database for students of psychology. Created by Prentice Hall and EBSCO, the world leader in online journal subscription management, this site provides students access to many peer-reviewed publications and popular periodicals in psychology.

Study Guide Written by Jody Davis of California State University, Fullerton and Jeffrey Green of Soka University, this student study guide helps students master the core concepts presented in each chapter. Each chapter of the guide includes learning objectives, a brief chapter summary, a preview outline of the text chapter, and three different practice tests.

Mind Matters CD-ROM: Free when packaged with a new text, *Mind Matters* features interactive learning modules on history, methods, biological psychology, learning, memory, sensation and perception. Each module combines text, video, graphics, simulations, games and assessment to reinforce key psychological concepts.

Supplementary Texts

Contact your Prentice Hall representative to package any of these supplementary texts with *Psychology, Seventh Edition* at a reduced price:

Psychobabble and Biobunk, Second Edition by Carol Tavris. This expanded and updated collection of opinion essays written for *The Los Angeles Times*, *The New York Times*, *Scientific American*, and other publications encourages debate in the classroom by applying psychological research and the principles of scientific and critical thinking to issues in the news.

Forty Studies that Changed Psychology, Fourth Edition by Roger Hock (Mendocino College). Presenting the seminal research studies that have shaped modern psychological study, this brief supplement provides an overview of the environment that gave rise to each study, its experimental design, its findings, and its impact on current thinking in the discipline.

The Psychology Major: Careers and Strategies for Success by Eric Landrum (Idaho State University), Stephen Davis (Emporia State University), and Terri Landrum (Idaho State University). This 160-page paperback provides valuable information on career options available to psychology majors, tips for improving academic performance, and a guide to the APA style of research reporting.

Experiencing Psychology by Gary Brannigan (State University of New York at Plattsburgh). This hands-on activity book contains 39 active learning experiences corresponding to major topics in psychology to provide students with hands-on experience in “doing” psychology.

How to Think Like a Psychologist: Critical Thinking in Psychology, Second Edition by Donald McBurney (University of Pittsburgh). This unique supplementary text uses a question-answer format to explore some of the most common questions students ask about psychology.

Acknowledgments

Like any other cooperative effort, writing a textbook requires a support team. We are indebted to the following reviewers and consultants, who made many valuable suggestions during the development of this and previous editions of *Psychology*. (Please note that affiliations of some individuals may have changed since they reviewed our book.)

- Benton E. Allen, *Mt. San Antonio College*
 Susan M. Andersen, *University of California, Santa Barbara*
 Lynn R. Anderson, *Wayne State University*
 Emir Andrews, *Memorial University of Newfoundland*
 Richard Anglin, *Oklahoma City Community College*
 Alan Auerbach, *Wilfrid Laurier University*
 Lynn Haller Augsburg, *Morehead State University*
 Harold Babb, *Binghamton University*
 Brian C. Babbitt, *Missouri Southern State College*
 MaryAnn Baenninger, *Trenton State College*
 Patricia Barker, *Schenectady County Community College*
 Ronald K. Barrett, *Loyola Marymount University*
 Allan Basbaum, *University of California, San Francisco*
 Carol Batt, *Sacred Heart University*
 William M. Baum, *University of New Hampshire*
 Gordon Bear, *Ramapo College of New Jersey*
 Peter A. Beckett, *Youngstown State University*
 Bill E. Beckwith, *University of North Dakota*
 Helen Bee, *Madison, Wisconsin*
 David F. Berger, *SUNY at Cortland*
 Michael Bergmire, *Jefferson College*
 Philip J. Bersh, *Temple University*
 Randolph Blake, *Vanderbilt University*
 Richard Bowen, *Loyola University of Chicago*
 Laura L. Bowman, *Kent State University*
 Edward N. Brady, *Belleville Area College*
 Ann Brandt-Williams, *Glendale Community College*
 John R. Braun, *University of Bridgeport*
 Sharon S. Brehm, *SUNY at Binghamton*
 Sylvester Briggs, *Kent State University*
 Gwen Briscoe, *College of Mt. St. Joseph*
 Barbara L. Brown, *Georgia Perimeter College*
 Robert C. Brown, Jr., *Georgia State University*
 Linda L. Brunton, *Columbia State Community College*
 Stephen R. Buchanan, *University of South Carolina, Union*
 Peter R. Burzvnski, *Vincennes University*
 Frank Calabrese, *Community College of Philadelphia*
 Jean Caplan, *Concordia University*
 Bernardo J. Carducci, *Indiana University Southeast*
 Sally S. Carr, *Lakeland Community College*
 Michael Catchpole, *North Island College*
 Paul Chance, *Seaford, Delaware*
 Herbert H. Clark, *Stanford University*
 Job B. Clément, *Daytona Beach Community College*
 Samuel Clement, *Marianopolis College*
 Eva Conrad, *San Bernardino Valley College*
 Richard L. Cook, *University of Colorado*
 Robert Cormack, *New Mexico Institute of Mining and Technology*
 Wendi Cross, *Ohio University*
 David Crystal, *Georgetown University*
 Gaylen Davidson-Podgorny, *Santa Rosa Junior College*
 Robert M. Davis, *Purdue University School of Science, IUPUI*
 Michael William Decker, *University of California, Irvine*
 Geri Anne Dino, *Frostburg State University*
 Thomas Estrella, *Lourdes College*
 Susan H. Evans, *University of Southern California*
 Fred Fahringer, *Southwest Texas State University*
 Ronald Finke, *SUNY at Stony Brook*
 Deborah Finkel, *Indiana University Southeast*
 John H. Flowers, *University of Nebraska Lincoln*
 William F. Ford, *Bucks County Community College*
 Donald G. Forgays, *University of Vermont*
 Sheila Francis, *Creighton University*
 William Rick Fry, *Youngstown University*
 Charles A. Fuller, *University of California, Davis*
 Grace Galliano, *Kennesaw State College*
 Mary Gauvain, *Oregon State University*
 Ron Gerrard, *SUNY at Oswego*
 David Gersh, *Houston Community College*
 Jessica B. Gillooly, *Glendale Community College*
 Margaret Gittis, *Youngstown State University*
 Carlos Goldberg, *Indiana University-Purdue University at Indianapolis*
 Carol Grams, *Orange Coast College*
 Patricia Greenfield, *University of California, Los Angeles*
 Richard A. Griggs, *University of Florida*
 Sarmi Gulgoz, *Auburn University*
 Robert Guttentag, *University of North Carolina, Greensboro*
 Jimmy G. Hale, *McLennan Community College*
 Pryor Hale, *Piedmont Virginia Community College*
 Len Hamilton, *Rutgers University*
 Constance Hammen, *University of California, Los Angeles*
 George Hampton, *University of Houston*
 Eddie Harmon-Jones, *University of Wisconsin, Madison*
 Algea Harrison, *Oakland University*
 Elaine Hatfield, *University of Hawaii*
 Neil Helgeson, *The University of Texas at San Antonio*
 John E. Hesson, *Metropolitan State College*
 Robert Higgins, *Oakland Community College*
 John P. Hostetler, *Albion College*

- Kenneth I. Howard, *Northwestern University*
 Allen Huffcutt, *Bradley University*
 John Hunsley, *University of Ottawa*
 William G. Iacono, *University of Minnesota*
 David E. Irwin, *University of Illinois*
 Andrew Johnson, *Park University*
 David A. Johnson, *Ohio University*
 James Johnson, *University of North Carolina at Wilmington*
 Robert D. Johnson, *Arkansas State University*
 Timothy P. Johnston, *University of North Carolina at Greensboro*
 Susan Joslyn, *University of Washington*
 Chadwick Karr, *Portland State University*
 Yoshito Kawahara, *San Diego Mesa College*
 William Kelemen, *University of Missouri, St. Louis*
 Michael C. Kennedy, *Allegheny University*
 Geoffrey Keppel, *University of California, Berkeley*
 Harold O. Kiess, *Framingham State College*
 Gary King, *Rose State College*
 Jack Kirschenbaum, *Fullerton College*
 Donald Kline, *University of Calgary*
 Stephen M. Kosslyn, *Harvard University*
 Janet E. Keubli, *St. Louis University*
 Michael J. Lambert, *Brigham Young University*
 George S. Larimer, *West Liberty State College*
 Herbert Leff, *University of Vermont*
 Patricia Lefler, *Lexington Community College*
 S. David Leonard, *University of Georgia*
 Jacqueline Lerner, *Boston College*
 Robert Levy, *Indiana State University*
 Lewis Lieberman, *Columbus College*
 Scott Lilienfeld, *Emory University*
 R. Martin Lobdell, *Pierce College*
 Walter J. Lonner, *Western Washington University*
 Nina Lott, *National University*
 Bonnie Lustigman, *Montclair State College*
 Marlowe Mager, *Stanly Community College*
 James E. Maddux, *George Mason University*
 G. Alan Marlatt, *University of Washington*
 Marc Marschark, *University of North Carolina at Greensboro*
 Monique Martin, *Champlain Regional College*
 Debra Moehle McCallum, *University of Alabama at Birmingham*
 D. F. McCoy, *University of Kentucky*
 C. Sue McCullough, *Texas Woman's University*
 Elizabeth McDonel, *University of Alabama*
 Susanne Wicks McKenzie, *Dawson College*
 Mark B. McKinley, *Lorain County Community College*
 Ronald K. McLaughlin, *Juniata College*
 Frances K. McSweeney, *Washington State University*
 Maty Jo Meadow, *Mankato State University*
 Linda Mealey, *College of St. Benedict*
 Ronald Melzack, *McGill University*
 Dorothy Mercer, *Eastern Kentucky University*
 Laura J. Metallo, *Five Towns College*
 Daniel J. Miller, *Wayne State College*
 Denis Mitchell, *University of Southern California*
 Timothy H. Monk, *University of Pittsburgh Medical Center*
 Maribel Montgomery, *Linn-Benton Community College*
 Douglas G. Mook, *University of Virginia*
 T. Mark Morey, *SUNY College at Oswego*
 Joel Morgovsky, *Brookdale Community College*
 Micah Mukabi, *Essex County College*
 Sarah Murray, *Kwantlen University College, Vancouver*
 James S. Nairne, *University of Texas at Arlington*
 Michael Nash, *University of Tennessee, Knoxville*
 Douglas Navarick, *California State University, Fullerton*
 Robert A. Neimeyer, *University of Memphis*
 Todd Nelson, *California State University, Stanislaus*
 Nora Newcombe, *Temple University*
 Jack Nitschke, *University of Wisconsin, Madison*
 Linda Noble, *Kennesaw State College*
 Keith Oatley, *Ontario Institute for Studies in Education, Toronto*
 Peter Oliver, *University of Hartford*
 Patricia Owen Smith, *Oxford College*
 Elizabeth Weiss Ozorak, *Allegheny College*
 David Page, *Nazareth College*
 M. Carr Payne, Jr., *Georgia Institute of Technology*
 Letitia Anne Peplau, *University of California, Los Angeles*
 Dan G. Perkins, *Richland College*
 Gregory Pezzetti, *Rancho Santiago Community College*
 Robert Plomin, *Institute of Psychiatry, King's College London*
 Wayne Poniewaz, *University of Arkansas, Monticello*
 Debra Poole, *Central Michigan University*
 Paula M. Popovich, *Ohio University*
 Lyman Porter, *University of California, Irvine*
 Robert Prochnow, *St. Cloud State University*
 Janet Proctor, *Purdue University*
 Richard L. Rapson, *University of Hawaii*
 Eric Ravussin, *Obesity Research & Clinical Investigation, Lilly Research Laboratories*
 Reginald L. Razzi, *Uppsala College*
 Sheena Rogers, *University of Wisconsin, Madison*
 Jayne Rose, *Augustana State College*
 Gary Ross-Reynolds, *Nicholls State University*
 Peter J. Rowe, *College of Charleston*
 Gerald Rubin, *Central Virginia Community College*
 Joe Rubinstein, *Purdue University*
 Karen P. Saenz, *Houston Community College, Southeast*
 Nancy Sauerman, *Kirkwood Community College*
 H. R. Schiffman, *Rutgers University*
 Lisa Schneider, *Jefferson Community College*
 Lael Schooler, *Indiana University*
 David A. Schroeder, *University of Arkansas*
 Marvin Schwartz, *University of Cincinnati*
 Shelley Schwartz, *Vanier College*
 Joyce Segreto, *Youngstown State University*
 Kimron Shapiro, *University of Calgary*

Phillip R. Shaver, *University of California, Davis*
 Arthur Shimamura, *University of California, Berkeley*
 Susan A. Shodahl, *San Bernardino Valley College*
 Dale Simmons, *Oregon State University*
 Art Skibbe, *Appalachian State University*
 William P. Smotherman, *SUNY at Binghamton*
 Samuel Snyder, *North Carolina State University*
 Barbara A. Spellman, *University of Texas at Austin*
 Larry R. Squire, *University of California, San Diego*
 Granville L. Sydnor, *San Jacinto College North*
 Tina Stern, *Georgia Perimeter College*
 A. Stirling, *John Abbott College*
 Milton E. Strauss, *Johns Hopkins University*
 Judith Sugar, *Colorado State University*
 Shelley E. Taylor, *University of California, Los Angeles*
 Andrew Kurt Thaw, *Millsaps College*
 Dennis C. Turk, *University of Washington*

Barbara Turpin, *Southwest Missouri State University*
 Ronald J. Venhorst, *Kean College of New Jersey*
 Wayne A. Viney, *Colorado State University*
 Benjamin Wallace, *Cleveland State University*
 Phyllis Walrad, *Macomb Community College*
 Charles R. Walsmith, *Bellevue Community College*
 Phillip Wann, *Missouri Western State College*
 Thomas J. Weatherly, *DeKalb College-Central Campus*
 Mary Wellman, *Rhode Island University*
 Gary L. Wells, *University of Alberta*
 Warner Wilson, *Wright State University*
 Loren Wingblade, *Jackson Community College*
 Judith K. Winters, *DeKalb College*
 Rita S. Wolpert, *Caldwell College*
 James M. Wood, *University of Texas at El Paso*
 Phyllis Zee, *Northwestern University Medical School*

We are also grateful to the many talented and hardworking people who were involved in planning and producing this edition of *Psychology*. Our special thanks go to our inspiring and skilled senior acquisitions editor, Jennifer Gilliland, and to development editor Leslie Carr for their enormously helpful and insightful editorial suggestions during this revision. Editorial assistant Nicole Girrback made our lives so much easier, thanks to her meticulous attention to detail and speedy response to all our requests. And our heartfelt appreciation to our calm and brilliantly organized production editor, Maureen Richardson, for so accurately and efficiently coordinating the book's many elements (including its authors) through production. We also thank executive marketing manager Sheryl Adams and psychology marketing manager Jeff Hester for their innovative contributions to the launching of this edition.

We are beholden to the art and production team at Prentice Hall for creating this beautiful edition. Our special thanks to art director Ximena Tamvakopoulos, interior designer Tom Nery, and electronic artist Maria Piper for their artistic contributions to the overall appearance of the book. Photo researcher Barbara Salz earned our undying gratitude because of her genius at finding knockout photographs and cartoons. We would like to applaud our copy editors Kathryn Beck and Kathryn Graehl for their guidance with our prose, and permissions specialist Tracy Metivier for her quick and efficient handling of all permission-related matters. And our special kudos to Connie Blacker and her formatting team at TSI Graphics, who did the layouts with their usual unsurpassed care and attention to quality.

Finally, our thanks and affection to Jennifer Bass, daughter of the late Saul Bass, for permission to use the stunning cover image created by her father, who designed the award-winning covers and distinctive look of our textbook.

Most of all, we once again thank our patient partners, Howard Williams and Ronan O'Casey, who from the first edition to this one have bolstered us with their love, sense of humor, and good cheer as we battled deadlines.

We have enjoyed writing this book, and we hope you will enjoy reading and using it. Your questions, comments, and reactions on earlier editions helped us make many improvements. Please let us hear from you.

Carole Wade

Carol Tavris

To the Student

If you are reading this introduction, you are starting your introductory psychology course on the right foot. It is always a good idea to get a general picture of what you are about to read before charging forward.

Our goal in writing this book is to guide you to think critically and imaginatively about psychological issues, and to help you apply what you learn to your own life and the world around you. We ourselves have never gotten over our initial excitement about psychology, and we have done everything we can think of to make the field as absorbing for you as it is for us. However, what you bring to this book is as important as what we have written—we can pitch ideas to you, but you have to step up to the plate to connect with them. This text will remain only a collection of pages with ink on them unless you choose to read actively.

Getting Involved

To encourage you to read and study actively, we have included some special features.

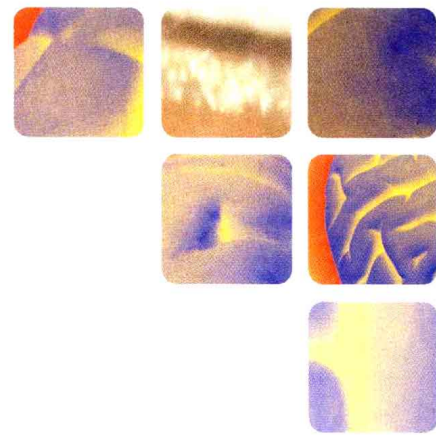
In the first chapter, we will introduce you to the basic guidelines of **critical and creative thinking**—the principles we hope will help you learn the difference between unsupported claims or “psychobabble” and good, scientific reasoning. The identifying symbol for critical thinking is a lightbulb, like the one in the margin. Throughout the book, some (but not all) of our **critical-thinking discussions** are signaled by a “signpost” in the margin that includes this lightbulb and one of the critical-thinking guidelines. We will be telling you about many lively and passionate debates in psychology—over gender differences, psychotherapy, memory, multiple personality disorder, and many other topics—and we hope our coverage of these debates will increase your involvement with the ongoing discoveries of psychology.



Before each major section in a chapter, a feature called **What's Ahead** lists some preview questions designed to stir your curiosity and give you an overview of what the section will cover. For example: Why does paying children for good grades sometimes backfire? Do people remember better when they're hypnotized? Do men and women differ in the ability to love? When you finish the chapter, you will encounter these questions again, under the heading **Looking Back**. Use this list as a self-test; if you can't answer a question, you can go to the page indicated after the question and review the material.

Each chapter also contains several **Get Involved** exercises, entertaining little experiments or explorations you can do that relate to what you are reading about. In Chapter 3, for instance, you can find out immediately whether you are genetically disposed to cross your right thumb over your left or vice versa when you clasp your hands together; and in Chapter 11 you can find out how your own thoughts affect your emotions. Some of these exercises take only a minute; others are “mini-studies” that you can do by observing or interviewing others.

Every chapter contains several **Quick Quizzes** that permit you to test your understanding and retention of what you have just read and give you practice in applying the material to examples. Do not let the word “quiz” give you a sinking feeling. These quizzes are for your practical use and, we hope, for your enjoyment. When you have trouble with a question, do not go on; pause right then and there, review what you have read, and then try again.



Some of the Quick Quizzes contain a *critical-thinking item*, denoted by the light-bulb symbol. The answers we give for these items are only suggestions; feel free to come up with different ones. Quick Quizzes containing critical-thinking questions are not really so quick, because they ask you to reflect on what you have read and to apply the guidelines to critical thinking that are introduced in Chapter 1. But if you take the time to respond thoughtfully to them, we think you will learn more and become a more sophisticated user of psychology.

At the end of each chapter, a feature called **Taking Psychology with You** draws on research to suggest ways you can apply what you have learned to everyday problems and concerns, such as how to improve your memory or get a better night's sleep, as well as more urgent ones, such as how to live with chronic pain or help a friend who seems suicidal. The very last "Taking Psychology with You," at the end of the book, is an **Epilogue** that shows how you might integrate and use the findings and theories you have read about to solve problems in your own relationships.

How to Study

In our years of teaching, we have found that certain study strategies can vastly improve learning, and so we offer the following suggestions. (Reading Chapter 7, on learning, and Chapter 10, on memory, will also be helpful.)

Before you even start the book, we suggest you read the Table of Contents to get an overall view of the book's organization and coverage. Likewise, before starting a chapter, read the chapter title and outline to get an idea of what is in store. Browse through the chapter, looking at the pictures and reading the headings.

Do not try to read the text the same way you might read a novel, taking in large chunks at a sitting. To get the most from your studying, we recommend that you read only a part of each chapter at a time.

Instead of simply reading silently, nodding along saying "hmmmm" to yourself, try to restate what you have read in your own words at the end of each major section. Some people find it helpful to write down main points. Others prefer to recite them aloud to someone else, or even to a patient pet. Do not count on getting by with just one reading of a chapter. Most people need to go through the material at least twice, and then revisit the main points several times before an exam. Special tables called **Reviews** will help you summarize, integrate, and compare psychological theories and approaches discussed in the chapter.

When you have finished a chapter, read the **Summary**. Use the list of **Key Terms** at the end of each chapter as a checklist. Try to define and discuss each term to see how well you understand and remember it. If you need to check your recall, the page number that follows each term refers you to the term's first mention in the chapter. Finally, go over the **Looking Back** questions to be sure you can answer them.

Important new terms in this textbook are printed in **boldface** and are defined in the margin of the page on which they appear, or on the facing page. The **marginal glossary** permits you to find all key terms and concepts easily, and will help you when you study for exams. A complete glossary appears at the end of the book.

The **Study Guide** for this book, available at your bookstore, is an excellent resource. It contains review material, exercises, and practice tests to help you understand and apply the concepts in the book.

If you are assigned a term project or a report, you may need to track down some references we provide or do further reading. Throughout the book, all studies and theories include *citations* in parentheses, like this: (Aardvark and Zebra, 2002). A