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INVITATION TO PSYCHOLOGY

SECOND EDITION



**CAROLE WADE
CAROL TAVRIS**

INVITATION TO PSYCHOLOGY

SECOND EDITION



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Psychology textbooks have always had a little problem with length. William James's two-volume classic, *Principles of Psychology* (1890), took him twelve long years to write and weighed in at a hefty 1,393 pages. (And today's students think *they* have it hard!) Just two years after it was published, James followed it with *Psychology, Briefer Course*, which was much shorter, under 500 pages. But James was not happy with his briefer book; in a letter to his publishers, he complained that he had left out "all bibliography and experimental details, all metaphysical subtleties and digressions, all quotations, all humor and pathos, all *interest* in short. . . ." (quoted in Weiten & Wight, 1992).

The great James was probably too hard on himself; he was entirely incapable of writing anything dull or disjointed. Nevertheless, we kept his words in mind as we were working on our own "briefer" introduction to psychology. From the outset, we were guided by a philosophy that we hoped would help us avoid some of the pitfalls of the genre:

1. A brief book should be brief—not only in terms of pages, but in the number of chapters.
2. The book's organization should be appealing and meaningful.
3. Students at all levels need critical-thinking tools for evaluating psychological issues intelligently.
4. Brief or long, a textbook needs to use examples, analogies, lively writing, and a strong narrative sense to pull students into the material and make it meaningful to their lives.
5. Students remember more if they learn actively.
6. Research on culture, gender, and ethnicity is as integral to psychology as is research on the brain, genetics, and hormones.

In the rest of this preface, we describe how we have tried to translate our philosophy about writing this book into reality, and what is new in this second edition.

1. Brevity

Even with a brief textbook consisting of 14 or 15 chapters, instructors often feel hard-pressed to cover the material in a semester or quarter. We decided, therefore, that 13 chapters would be

ideal: enough to cover all the major topics, but few enough to give instructors some breathing room. A 13-chapter book allows you to spend some extra time on topics that students sometimes find difficult, such as the brain; to develop your favorite topics in greater depth; to take time at the beginning of the semester to get to know your students; or to use time at the end of the term to summarize and review.

2. A Meaningful Organization

We wanted the organization of this book to do two things: engage students quickly and provide a logical "scaffolding" for the diverse topics in psychology. The first chapter, which introduces students to the field and to the fundamentals of critical and scientific thinking, is followed by six sections consisting of two chapters each. The title of each section invites the reader to consider how the discipline of psychology can illuminate aspects of his or her own life and provides the reader with a personal frame of reference for assimilating the information:

■ **PART ONE: YOUR SELF** examines major theories of personality (Chapter 2) and development (Chapter 3). These are extremely high-interest topics for students, and will draw them into the course right away. Moreover, starting off with these chapters allows us to avoid redundancy in coverage of the major schools of psychology—biological, learning, cognitive, sociocultural, and psychodynamic. Instead of introducing these perspectives in the first chapter and then having to explain them again in a much later personality chapter, we cover them once, in this section.

■ **PART TWO: YOUR BODY** explores the many ways in which the brain, neurons, and hormones affect psychological functioning (Chapter 4), and the neurological and psychological underpinnings of sensation and perception (Chapter 5).

■ **PART THREE: YOUR MIND** discusses the impressive ways in which human beings think and reason—and why they so often fail to think and reason well (Chapter 6)—and explores the puzzles and paradoxes of memory (Chapter 7).

■ **PART FOUR: YOUR ENVIRONMENT** covers basic principles of learning (Chapter 8) and the impact

of social and cultural contexts on behavior (Chapter 9). Combining learning and social psychology in the same part is a break from convention, but we think it makes wonderful sense, for these two fields share an emphasis on “extrapsychic” factors in behavior.

■ **PART FIVE: YOUR MENTAL HEALTH** reviews the major mental and emotional disorders (Chapter 10) and evaluates the therapies designed to treat them (Chapter 11).

■ **PART SIX: YOUR LIFE** shows how mind, body, and environment influence emotions, stress, and health (Chapter 12) and the fundamental motives that drive people: eating and appetite, love and sex, and work and achievement (Chapter 13).

Naturally, a brief book will not include every topic that might be found in a longer book, but we have tried to retain all of those that are truly essential in an introductory course. In most cases, you will find these topics in the chapters where you expect them to be, but there are a few exceptions. For example, eating disorders are not discussed in the chapter on psychological disorders; instead, we discuss them in the context of psychological, genetic, and cultural factors in eating, overweight, and dieting (Chapter 13). Likewise, because we wanted to limit the book to 13 chapters, we chose not to include a separate chapter on consciousness, but we have not ignored this material; sleep and dreams are discussed in the brain chapter (Chapter 4), hypnosis in the memory chapter (Chapter 6), and drugs in a section on addiction in the disorders chapter (Chapter 10). If at first you do not see a topic that interests you, we urge you to look for it in the table of contents or the index.

3. Critical and Creative Thinking

Since we introduced critical thinking in the first edition of our longer book, in the 1980s, we have been gratified to see its place in the study of psychology grow. Without critical-thinking skills, learning ends at the classroom door.

In this book, too, our goal is to get students to reflect on what they learn, resist leaping to conclusions on the basis of personal experience alone (so tempting in psychological matters), apply rigorous standards of evidence, and listen to competing views. As in our longer book, we introduce eight basic guidelines to critical and creative thinking right away, in the first chapter, and then teach and model these guidelines throughout the book.

We use a critical-thinking icon—a lightbulb—together with a “tab” like the one in the sample on this page—to draw the reader’s attention to some (but not all) of the critical-thinking discussions in the text. The lightbulb and tab are meant to say to students, “Listen up! As you read about this topic, you will need to be especially careful about assumptions, evidence, and conclusions.” The critical-thinking lightbulb also appears in Quick Quizzes (see the discussion of active learning on page xiv) to alert students to quiz items that give them practice in critical thinking.

True critical thinking, we have always maintained, cannot be reduced to a set of rhetorical questions or to a formula for analyzing studies. It is a *process of evaluating claims and ideas, and thus it must be woven into a book’s narrative*. We try to model critical thinking for students in our evaluations not only of popular but unsupported cultural ideas, such as ESP and subliminal perception, but also of popular but unsupported academic ideas, such as Carol Gilligan’s notion that the sexes differ in moral reasoning or Maslow’s

tion. Many psychologists are now lobbying for prescription rights, arguing that they should have access to the full range of treatment possibilities. But they have run into resistance from the medical profession, which argues that even with increased training, psychologists will not be qualified to prescribe medication. Many psychologists too are concerned about the medicalizing of their field and want psychology to remain a distinct alternative to psychiatry (DeNelsky, 1996).

Some Cautions About Drug Treatments.

Without question, drugs have rescued some people from emotional despair, suicide, or years in a mental hospital. They have enabled severely depressed or disturbed people to function and respond to psychotherapy. Although medication cannot magically eliminate people’s problems, it can be a useful first step in treatment. Yet many psychiatrists and drug companies are trumpeting the benefits of medication without informing the public of its limitations, so a few words of caution are in order.

1 *The placebo effect.* New drugs, like new psychotherapies, often promise quick and effective cures. But the **placebo effect** (see Chapter 1) ensures that some people will respond positively to new drugs just because of the enthusiasm surrounding them and their own expectations that the drug will make them feel much better. After a while, when placebo effects decline, many drugs turn out to be neither as effective as promised nor as widely applicable. This has happened repeatedly with each new generation of tranquilizer and is happening again with antidepressants.

(Antonuccio et al., 1994). One meta-analysis considered patients’ ratings beyond the placebo. Another meta-analysis involving more than 75 studies found that 75% of the improvement was due to the placebo effect, and only 25% was due to the drug. Prozac, which has generated a lot of enthusiasm, is no exception (Antonuccio et al., 1994).

2 *High relapse rates.* Many antidepressants have short-acting effects. Their unpleasant side effects often lead people to stop taking them (Kirsch, 1988). Without also learning to deal with their problems, people are likely to relapse (Antonuccio et al., 1994).

3 *Dosage problems.* Many antidepressants find the therapeutic dose enough but not too high. They may be metabolized differently by old people and young people (Willie, 1988). In the United States, he was given an antipsychotic drug for schizophrenia at a high dose for Chinese people.



Thinking Critically
About Drug
Treatments

process of a
treatment that
meets the patient's expectations
rather than
the treatment itself.

TAKING PSYCHOLOGY WITH YOU

Travels Across the Cultural Divide

A French salesman worked for a company that was bought by Americans. When the new American manager ordered him to step up his sales within the next three months, the employee quit in a huff, taking his customers with him. Why? In France, it takes years to develop customers; in family-owned businesses, relationships with customers may span generations. The American wanted instant results, as Americans often do, but the French salesman knew this was impossible and quit. The American view was, "He wasn't up to the job; he's lazy and disloyal, so he stole my customers." The French view was, "There is no point in explaining anything to a person who is so stupid as to think you can acquire loyal customers in three months" (Hall & Hall, 1987).

Both men were committing the fundamental attribution error: assuming that the other person's behavior was due to personality rather than the situation—in this case, a situation governed by cultural rules. Many corporations now realize that such rules are not trivial and that success in a global economy depends on understanding them. You, too, can benefit from the psychological research on culture, whether you plan to do

Or suppose that you are shopping in the Middle East or Latin America, where bargaining on a price is the usual practice. If you are not used to bargaining, the experience is likely to be exasperating—you will not know whether you got taken or got a great buy. On the other hand, if you are from a bargaining culture, you will feel just as exasperated if a seller offers you a flat price. "Where's the fun in this?" you'll say. "The whole human transaction of shopping is gone!" Whichever kind of culture you come from, you may need a "translator" to help you navigate the unfamiliar system. For example, in Los Angeles, a physician we know could not persuade his Iranian patients that office fees are fixed, not negotiable. They kept offering him half, then 60 percent . . . and each time he said "no" they thought he was just taking a hard negotiating position. It took a bicultural relative of the patients to explain the odd American custom of fixed prices for service.

- *When in Rome, do as the Romans do—as much as possible.* Most of the things you really need to know about a culture are not to be found in the guidebooks or travelogues. To learn the unspoken rules of a culture,

accept the reality of different customs, but most of us will still feel uncomfortable trying to change our own ways.

- *Avoid stereotyping.* Try not to let your awareness of general cultural differences cause you to overlook individual variations within cultures. During a dreary Boston winter, social psychologist Roger Brown (1986) went to the Bahamas for a vacation. To his surprise, he found the people he met unfriendly, rude, and sullen. He decided that the reason was that Bahamians had to deal with spoiled, demanding foreigners, and he tried out this hypothesis on a cab driver. The cab driver looked at Brown in amazement, smiled cheerfully, and told him that Bahamians don't mind tourists; just *unsmiling* tourists.

And then Brown realized what had been going on. "Not tourists generally, but this tourist, myself, was the cause," he wrote. "Confronted with my unrelaxed wintry Boston face, they had assumed I had no interest in them and had responded non-committally, inexpressively. I had created the Bahamian national character. Everywhere I took my face it sprang into being. So I began smiling a lot,

concept of a motivational hierarchy. Similarly, we try to model the importance of critical thinking and empirical evidence in our coverage of psychological issues that have evoked emotional debate, such as children's eyewitness testimony, multiple personality disorder, "recovered" memories, parental versus peer influence on children, the role of biology in addiction, definitions of racism and sexism, and many others. An emphasis on critical thinking is also integral to the book's new on-line media program (see below); students are not just given links to relevant web sites—they are encouraged to think critically about the material they find there.

4. Liveliness and Relevance

Virginia Woolf once said that fiction is not dropped like a pebble upon the ground, but, like a spider's web, is attached to life at all four corners. The same principle applies to good textbook writing. Authors of texts at all levels have a unique opportunity to combine scholarly rigor and authority with warmth and compassion in

conveying what psychologists know (and still seek to know) about the predicaments and puzzles of life.

The predicaments and puzzles that people care most about, of course, are those that arise in their own lives. **Taking Psychology with You**, a feature that concludes each chapter, draws on research reported in the chapter to tackle practical topics such as living with chronic pain (Chapter 5), becoming more creative (Chapter 6), improving study habits (Chapter 8), getting along with people of other cultures (Chapter 9), and evaluating self-help programs and books (Chapter 11).

However, we also want students to see that psychology can deepen our understanding of events and problems that go beyond the personal. Each chapter therefore begins with a real story from the news—about a 63-year-old woman giving birth, an eyewitness whose mistaken testimony sent a man to prison for 11 years, the apparent rise of "Internet addiction," a child who died during a session of "rebirthing" therapy in Colorado—and asks students how they might think critically about the issues the story raises.

PSYCHOLOGY IN THE NEWS

Age Record Broken as 63-Year-Old Woman Gives Birth

LOS ANGELES, APRIL 10, 1997. A fertility specialist at the University of Southern California has announced that a 63-year-old patient, Arceli Keh, gave birth last year to a healthy baby girl. The child was conceived through in vitro ("test tube") fertilization, with sperm from the woman's 60-year-old husband and an egg donated by a younger woman. Previously, the oldest woman on record to give birth was a 53-year-old Italian woman who had a child in 1994 through the use of similar procedures.

Although the USC infertility program has a policy of rejecting patients over age 55, the California woman lied about her age and did not confess the truth until she was 13 weeks pregnant. The woman's own 86-year-old mother, unaware of her daughter's pregnancy until the delivery, is reportedly



The oldest woman ever to give birth, Arceli Keh, age 63, cuddles her daughter Cynthia.

This **Psychology in the News** feature is not merely a "motivator" to be quickly forgotten; each story is revisited at the end of the chapter, where concepts and findings from the chapter are used to analyze and evaluate the questions raised earlier. We think this device helps promote critical thinking and also helps students appreciate that psychology is indeed "attached to life at all four corners."

5. Active Learning

One of the soundest findings about learning is that you can't just sit there like a flounder while it happens. You have to be actively involved, whether practicing a new skill or encoding new material. In this textbook, we have included several pedagogical features designed to encourage students to become actively involved in what they are reading.

What's Ahead introduces each major section within a chapter. This feature consists of a brief set of questions that are not merely rhetorical but are intended to be provocative or intriguing enough to arouse students' curiosity and draw them into the material: Why do some people get depressed even though they "have it all"? Why are people who are chronically angry and mistrustful their own worst enemy? What's the difference between ordinary techniques of persuasion and the coercive techniques used by cults?

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. This way, students can check their retention and can easily review if they find that they can't answer a question. This feature also has another purpose: Students will gain a sense of how much they are learning about matters of personal and social importance, and will be able to appreciate how much more psychology offers beyond "common sense." Some instructors may want to turn some of these questions into essay or short-answer test items or written assignments.

Quick Quizzes have been retained and adapted from our longer text because of their track record in promoting active learning. These periodic self-tests encourage students to check their progress while they are reading and to go back and



QUICK QUIZ

- A. Name the independent and dependent variables in studies designed to answer the following questions:
 1. Whether sleeping after learning a poem improves memory for the poem
 2. Whether the presence of other people affects a person's willingness to help someone in distress
 3. Whether people get agitated from listening to heavy-metal music
- B. On a talk show, Dr. Blitznik announces a fabulous new program: Chocolate Immersion Therapy. "People who spend one day a week doing nothing but eating chocolate are soon cured of eating disorders, depression, drug abuse, and poor study habits," claims Dr. Blitznik. What should you find out about C.I.T. before signing up?



research shows that people who go through C.I.T. are better than those in a control group who did not have the therapy. How were they assigned to the therapy and no-therapy groups? Did the person running the experiment know who was getting C.I.T., and who was not? How long did the "cures" last? Has the research been replicated?



review if necessary. The quizzes do more than 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 entertaining examples in order to motivate students to test themselves.

As mentioned earlier, many of the quizzes also include critical-thinking questions, identified by the lightbulb symbol. They 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? If a woman's job performance is declining, what else besides low achievement might be the reason? How should a critical consumer evaluate some expert's claim that health is entirely a matter of "mind over matter"? Although we offer some possible responses to such questions, most of them do not have a single correct answer, and students may be able to come up with some valid, well-reasoned answers that differ from our own.

Get Involved exercises provide an entertaining approach to active learning. Some consist of quick demonstrations (e.g., swing a flashlight in a dark closet to see how images remain briefly in sensory memory); some are simple mini-studies (e.g., violate a social norm and see what happens); and

some help students relate course material to their own lives (e.g., list the extrinsic and intrinsic reinforcers that might be involved in a diverse array of activities, from studying to prayer). Instructors may want to assign some of these exercises to the entire class and then discuss the results and what they mean.

Other pedagogical features include **graphic illustrations** of complex concepts; **summary tables**; a **running glossary** that defines boldfaced technical terms on the pages where they occur for handy reference and study; a **cumulative glossary** at the back of the book; a list of **key terms** at the end of each chapter with page numbers so that students can find the sections where the terms are covered; **chapter outlines**; and **chapter summaries** in paragraph form to help students review major concepts.

6. Coverage of Human Diversity

When the first edition of our longer textbook came out, some considered our goal of mainstreaming issues of gender, ethnicity, and culture into introductory psychology quite radical—either a sop to political correctness or a fluffy and superficial fad in psychology. 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 raise relevant studies and issues about

work for you?)

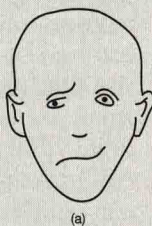
Facial expressions are important clues to a person's emotions, but they are only part of the emotional picture. Even Ekman, who has been studying them for years, concludes, "There is obviously emotion without facial expression and facial expression without emotion." Later we will see that culture and circumstance play an

The two cerebral hemispheres also play different roles in the experience of positive and negative emotions (Davidson, 1992). Regions of the left hemisphere appear to be specialized for positive emotions such as happiness, whereas regions of the right hemisphere are specialized for negative emotions such as fear and sadness. People with damage to the left hemisphere sometimes experience

GET INVOLVED

TURN ON YOUR RIGHT HEMISPHERE

These faces have expressions of happiness on one side and sadness on the other. Look at the nose of each face; which face looks happier? Which face looks sadder?



You are likely to see face (b) as the happier one and face (a) as the sadder one. The likely reason is that in most people the left side of a picture is processed by the right side of the brain, where recognition of emotional expression primarily occurs (Oatley & Jenkins, 1996).

gender and culture in the main body of the text, and we continue to do so. Are there sex differences in the brain? This controversial and fascinating issue belongs in the brain chapter (Chapter 4). Do people from all cultures experience and express emotion the same way, and do women and men differ in “emotionality”? These topics belong in the emotion chapter (Chapter 12). In addition, Chapter 9, “Behavior in Social and Cultural Context,” highlights the sociocultural perspective in psychology and includes an extended discussion of ethnic identity, ethnocentrism, prejudice, and cross-cultural relations.

We include important findings on gender differences—and similarities—in our discussions of many psychological topics, including (among others) adolescent development, the brain, social norms and roles, depression, eating disorders and body-image problems (in both sexes), emotion, socialization, hormones, love, menopause and menstruation, moral reasoning, object-relations theories of personality development, pain, weight and dieting, and work motivation. And of course we consider not only differences and similarities

in sexuality—in biology, attitudes, motives, orientation, scripts, and “drive”—but also the evolutionary, psychological, and cultural theories that have been proposed to explain those differences and similarities.

Similarly, we discuss findings on culture and ethnicity to show how a cultural level of analysis helps us better understand group differences in addiction rates, emotional disorders such as anxiety and panic, the diagnosis of mental disorder, behavioral rules and norms for such “personality” traits as cleanliness and risk-taking, conversational distance, notions of time, sexual attitudes and behavior, the effectiveness of medication and psychotherapy for various disorders, the display of emotion, IQ scores, attitudes about the ideal body and how those attitudes affect physical and psychological health, and cognitive processes such as moral reasoning and the fundamental attribution error. We discuss cultural influences on universal human processes such as infant development, attachment and bonding, the “Big Five” personality traits, language, perception, memory, taste preferences, cognitive development, self-identity, and performance in school. And we discuss cultural universals such as ethnocentrism, prejudice, ethnic identity, stereotyping, and group conflict, as well as findings from social psychology and cross-cultural psychology about ways that groups in conflict might resolve their differences or at least learn to live with them.

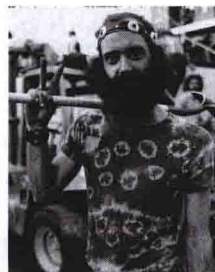
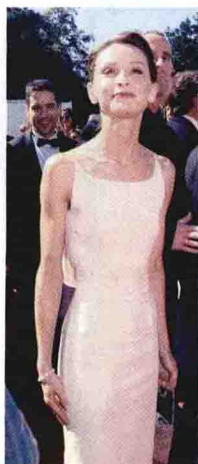
A book’s coverage of gender and culture, however, cannot be adequately assessed solely in terms of the number of times group differences and characteristics are mentioned. There are hundreds of gender and cultural differences that, though reliable, are trivial and do not warrant space in an introductory textbook. We would rather devote space to in-depth discussions of issues where differences between the sexes or between ethnic groups really matter. For example, it is not enough to say, in passing, that women are more likely than men to seek treatment for depression, or that Japanese schoolchildren have higher math scores than American children, without explaining why these differences might exist. Mainstreaming gender and culture also means discussing the larger controversies that these sensitive topics invariably produce. Do men and women differ in the nature of the “sex drive,” and how should we assess evolutionary and cultural explanations of gender differences in sexuality and love? (See Chapter 13.) What, exactly, do we mean when we say someone is “racist” or “sexist”—is this a matter of unconscious attitudes, conscious beliefs, or actual behavior? (See Chapter 9.)

most of the men were heavily muscled were laborers and farmers, so being physically strong and muscular was a sign of being working class. In the past decade, pressures have increased for middle-class men to be “fit,” highly toned, and strong (Bordo, 2000).

Why did these changes occur? One explanation is that white men and women associate overweight, in either sex, with softness, laziness, and weakness (Crandall & Martinez, 1996). In particular, the curvy, big-breasted female body is associated in people’s minds with femininity, nur-

mothers—such as actress Marilyn Monroe. In the 1920s and between the 1970s and the present, bright, ambitious women have tried to look boyishly thin and muscular in order to avoid appearing “soft,” feminine, and dumb (Silverstein & Perlick, 1995; Silverstein, Peterson, & Perdue,

Should a woman be voluptuous and curvy or slim as a reed? Should a man be thin and unmuscular or strong and buff? Genes and evolution cannot explain cultural changes in attitudes toward the ideal body. During the 1950s, actresses like Diana Dors embodied the post-war ideal: curvy, buxom, and “womanly.” Today, many women struggle to look like Calista Flockhart: skinny, angular, and boyish. Men, too, have been caught up in body-image mania. The hippie ideal of the 1960s is a far cry from the muscular, macho standards of the ideal man in the 2000s.



What's New in this Edition?

In this second edition of *Invitation to Psychology*, we have retained the first edition's basic approach, organization, and pedagogy. Many of its features have been tested by time and student reaction; students and instructors like them.

Any new edition, however, offers its authors and publisher an opportunity to expand and improve a book's features. For the second edition of *Invitation to Psychology*, Prentice Hall has created a smashing new on-line **media program**, accessed through the book's website: **www.prenhall.com/wade**. Marginal icons throughout the text direct students to web links related to the material, video clips, simulations and animations of figures and tables, readings, activities, and an on-line study guide—all intended to promote active learning and stimulate intellectual curiosity.

A new edition also permits authors to streamline language, cast a fresh eye on the internal organization of chapters, and replace dated examples or

stories with more current ones. This we have done. And of course, we have carefully updated material throughout the book with cutting-edge research and critical discussions of current issues, as users of our books have come to expect. Here are just a few examples from each chapter.

■ **CHAPTER 1 (WHAT IS PSYCHOLOGY?):** We clarified two of our critical-thinking guidelines and added a discussion of why control groups are crucial in nonexperimental as well as experimental studies.

■ **CHAPTER 2 (THEORIES OF PERSONALITY):** We reorganized the section on temperaments; modified and sharpened the section on evaluating genetic theories of personality; and added findings on regional variations in cultural expectations regarding personality traits.

■ **CHAPTER 3 (DEVELOPMENT OVER THE LIFE SPAN):** We made significant changes in the organization of this chapter. We also added important new material, including, for example, a discussion of parental versus peer influence on children's development and recent research questioning Ainsworth's explanation for differing attachment styles in children.

■ **CHAPTER 4 (NEURONS, HORMONES, AND THE BRAIN):** We updated and expanded our discussion of the exciting research on precursor cells and neurogenesis; added a description of functional MRI; and added research showing the effects of experience on the brains of musicians, cab drivers, and bilingual persons.

■ **CHAPTER 5 (SENSATION AND PERCEPTION):** We added several recent studies and significantly reorganized the discussion of pain, which now includes material on Ronald Melzack's neuromatrix theory.

■ **CHAPTER 6 (THINKING AND INTELLIGENCE):** We revised the section on culture and testing, deleting some material but adding a discussion of stereotype threat; added recent criticisms of the "intelligences" approach; and added recent findings on numerical abilities in nonhuman primates.

■ **CHAPTER 7 (MEMORY):** We revised and updated the section on children's eyewitness memory, devoting considerable space to this topic because of its social and legal relevance, and because research on this topic shows the important role that psychological research can play in real life; and we replaced the short section on motivated forgetting with a longer discussion on psychogenic amnesia and the controversy over repression.



the word dendrite means "little tree" in Greek. Dendrites act like antennas, receiving messages from as many as 10,000 other nerve cells and transmitting these messages toward the cell body. The **cell body**, which is shaped roughly like a sphere or a pyramid, contains the biochemical machinery for keeping the neuron alive. As we will see later, it also determines whether the neuron should "fire"—that is, transmit a message to other neurons—based on the inputs from other neurons. The **axon** (from the Greek for "axle") transmits messages away from the cell body to other neurons or to muscle or gland cells. Axons commonly divide at the end into branches, called *axon terminals*. In adult human beings, axons vary from only 4 thousandths of an inch to a few feet in length. Dendrites and axons give each neuron a double role: As one researcher put it, a neuron is first a catcher, then a batter (Gazzaniga, 1988).

Many axons, especially the larger ones, are insulated by a surrounding layer of fatty material called the **myelin sheath**, which is made up of glial cells. This covering is divided into segments that make it look a little like a string of link sausages (see Figure 4.5 again). One purpose of the myelin sheath is to prevent signals in adjacent cells from interfering with each other. Another, as we will see shortly, is to speed up the conduction of neural impulses. In individuals with multiple sclerosis, loss of myelin causes erratic nerve signals, leading to loss of sensation, weakness or paralysis, lack of coordination, or vision problems.

In the peripheral nervous system, the fibers of individual neurons (axons and sometimes dendrites) are collected together in bundles called **nerves**, rather like the lines in a telephone cable.

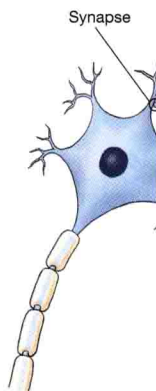


Figure 4.5
The Structure of a Neuron
Incoming neural impulses are transmitted to the cell body.

The human body has one nerve from each body, and the other nerves enter or leave pairs that are in direct contact with the brain. The human body has one nerve from each body, and the other nerves enter or leave pairs that are in direct contact with the brain. The human body has one nerve from each body, and the other nerves enter or leave pairs that are in direct contact with the brain.

■ **CHAPTER 8 (LEARNING):** We deleted the discussion of classical conditioning's role in drug tolerance and withdrawal, which involves compensatory responses and thus is difficult for introductory students to grasp. Instead, we now discuss the role of classical conditioning in reactions to medical treatments—both misery and relief. We also revised our discussion of punishment to include research on the effectiveness of consistent punishment in reducing recidivism in young criminals.

■ **CHAPTER 9 (BEHAVIOR IN SOCIAL AND CULTURAL CONTEXT):** This chapter contains major organizational changes, along with new research on deindividuation, the difference between hostile and “benevolent” sexism, and implicit measures of prejudice.

■ **CHAPTER 10 (PSYCHOLOGICAL DISORDERS):** We strengthened our critical discussion of the Rorschach because of new research questioning much of its reliability and validity; added research on antisocial personality disorder (including a study of APD-like behavior in chimpanzees); and added research supporting the view that addiction can be the result as well as the cause of drug abuse.

■ **CHAPTER 11 (APPROACHES TO TREATMENT AND THERAPY):** We updated and expanded our discussion of the “scientist-practitioner gap”; added a critical discussion of the growing alliance between researchers and pharmaceutical companies that fund their work; and updated the list of problems for which cognitive and behavioral therapies are the treatments of choice.

■ **CHAPTER 12 (EMOTIONS, STRESS, AND HEALTH):** We reorganized and updated the section on stressors that affect the body; added research on how locus of control affects health; and added work on the benefits of overcoming adversity.

■ **CHAPTER 13 (THE MAJOR MOTIVES OF LIFE):** We revised and updated much of the material in this chapter, in our discussions of male and female sexuality, biological theories of sexual orientation, and the genetics, psychology, and culture of weight and body shape. In the latter section, we added new research that questions set-point theory, which cannot account for the worldwide obesity epidemic. We discuss the role of cultural norms in determining the “ideal body,” and the risks to health when that ideal is either too thin or obese. And we have added new studies suggesting that North American men are succumbing to body image problems, too.

A more complete list of additions, deletions, and changes is available from your Prentice Hall representative.

Invitation to Psychology, Second Edition, also contains a brand-new art program. We have replaced graphic illustrations with those found in our longer book, which are pedagogically clearer. We are especially delighted with the new anatomical art, which was prepared by exceptional artists who are also physicians; they really know what they are doing! We think you will find their anatomical drawings to be colorful, accurate, and, above all, student-friendly.

The Supplements Package For the Instructor

Instructor's Resource Manual

Prepared by Virginia Diehl of Western Illinois University, this manual contains a wealth of material to help you plan and manage your course, including: “teacher-to-teacher” discussions, chapter learning objectives and outlines, detailed lecture suggestions and ideas, demonstrations and activities, review and critical-thinking exercises, handout masters, transparency suggestions, and video and media resources for each chapter.

Test Item File

Prepared by Cathleen McGreal of Kalamazoo College, this test bank contains over 3,000 multiple-choice, true/false, short-answer, and essay questions that test factual, applied, and conceptual knowledge.

Prentice Hall Test Manager

One of the most popular test-generating software programs on the market, Test Manager is available in Windows and Macintosh formats and contains a Gradebook, Online Network Testing, and many tools to help you edit and create tests. The program comes with full technical support and telephone “Request a Test” service.

Prentice Hall's Introductory Psychology Transparencies, Series V

Designed in large-type format for lecture settings, these full-color overhead transparencies add visual appeal to your lectures by augmenting the visuals in the text with a variety of new illustrations.

Powerpoint Slides and Online Graphics Archive

Available in the Faculty Module of the Premium Companion Website, each chapter's art has been digitized and is available for download into any presentation software. Powerpoint lectures for each chapter are also available for download.

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ABC News Videos for Introductory Psychology, Series III consists of segments from ABC Nightly News with Peter Jennings, Nightline, 20/20, Prime Time Live, and The Health Show.

The Alliance Series: The Annenberg/CPB Collection is the most extensive collection of professionally produced videos available with any introductory psychology textbook. Selections include videos in the following Annenberg series: The Brain, The Brain Teaching Modules, Discovering Psychology, The Mind, and The Mind Teaching Modules.

Films for the Humanities and Sciences A wealth of videos from the extensive library of Film for the Humanities and Sciences, on a variety of topics in psychology, are available to qualified adopters. Contact your local Prentice Hall representative for a list of videos.

Media Support for *Invitation to Psychology, Second Edition*

Both professors and students will find many useful resources in the media program accompanying this text.

www.prenhall.com/wade
Premium Companion Website

Every new book comes with FREE access to this extensive online study resource, prepared by Lynne Blesz-Vestal, Ph.D. Designed to reinforce each chapter's main concepts, this site includes extensive online support and information—simulations, activities, weblinks, videos, readings, and quizzes. These features are keyed to specific material and are identified by icons throughout the text.

The online Study Guide portion of the site allows students to review each chapter's material,

take practice tests, research topics for course projects, and more. Professors should visit the Faculty Module of the site to download electronic versions of the Instructor's Resource Manual, Powerpoint Slides for each chapter, and an Online Graphics Archive.

Video Classics in Psychology

Using the power of video to clarify key concepts presented in each chapter of *Invitation to Psychology*, Second Edition, this CD-ROM includes many of the best-known classic experiments and interviews with renowned contributors to the field of psychology. It includes clips of Milgram's obedience study, the visual cliff, Little Albert, Pavlov's dog, Harlow's monkeys, and Bandura's bo-bo doll study, to name a few, and conversations with Skinner, Lorenz, Piaget, Erikson, Jung, and Hilgard. The CD-ROM is packaged FREE with each new text, and it works in conjunction with the Premium Companion Website.

ContentSelect Research Database

Prentice Hall and EBSCO, the world leader in online journal subscription management, have developed a customized research database for students of psychology. This database provides free and unlimited access to the text of over 75 peer-reviewed psychology publications. You can access this research database by going to the *Invitation to Psychology*, Second Edition Premium Companion Website and clicking on the ContentSelect button.

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.

Online Course Management

For professors interested in using the Internet and online course management in their courses, Prentice Hall offers fully customizable online courses in WebCT, BlackBoard, and Pearson's Course Compass powered by BlackBoard to accompany this textbook. Contact your local Prentice Hall representative or visit www.prenhall.com/demo for more information.

For the Student

Study Guide

Written by Sherri Jackson of Jacksonville University and Richard Griggs of University of Florida, this student workbook helps students master the core concepts in each chapter. Every study-guide chapter contains chapter overviews, guided-review exercises, key terms, quizzes, sample answers for the “What’s Ahead” questions from the text, and multiple-choice practice tests.

Psychology on the Internet: Evaluating Online Resources

This hands-on Internet tutorial features Web sites related to psychology and general information about using the Internet for research. This supplement is available FREE when packaged with the text and helps students capitalize on all the resources that the World Wide Web has to offer.

Supplementary Textbooks Available for Packaging

The following workbooks and supplementary textbooks are available in specially discounted packages with the textbook or as stand-alone supplements:

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 of Mendocino College presents forty seminal research studies that have shaped modern psychological study. This paperback supplement provides an overview of each ground-breaking study, its findings, the impact these findings have had on current thinking in the discipline, and the most notable extensions and follow-up studies.

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

The Psychology Major: Career and Strategies for Success by Eric Landrum, Idaho State University, Stephen Davis, Emporia State University, and Terri Landrum, Idaho State University. This brief 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, SUNY, Plattsburg. This hands-on activity book contains 39 active-learning experiences corresponding to major topics in psychology to provide students experience in “doing” psychology.

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Dysphoria Disorder (IDDD, under consideration for the next DSM).

We hope that you will enjoy reading and using *Invitation to Psychology*, and that your students will find it a true invitation to the field we love. We welcome your reactions, experiences using it, and suggestions for improvements or for teaching from it.

—Carole Wade

—Carol Tavris

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

Our goal in 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 at 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. The more involved you are in your own learning, the more successful the book and your course will be, and the more enjoyable, too.

Getting Involved

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

- Every chapter opens with **Psychology in the News**, an actual story from the media related to issues that will be discussed in the chapter. *Do not skip these stories!* We return to them at the end of the chapter, to show you how findings from psychology might help you understand each story in particular and others like it that you will encounter. How do you feel about a 63-year-old woman who gives birth to a baby? Why would star athletes who could easily attract consenting sexual partners nonetheless commit date rape? What motivates a man to recover from cancer and go on to win the Tour de France bicycle race? As you read the chapter, try to link its findings and ideas to the opening story and come up with your own insights. If you do this, you will find that studying psychology will not only help you with your own problems and goals, but will also increase your understanding of the world around you.

- Each chapter contains several **Get Involved** exercises, entertaining little experiments or explorations you can do that demonstrate what you are reading about. In Chapter 2, for instance, you get to see where you fall on an inventory of basic per-

sonality traits, and in Chapter 11, we will show you how your own thoughts affect your moods. Some Get Involved exercises take only a minute; others are “mini-studies” that you can do by observing or interviewing others.

- Before each major section, a feature called **What’s Ahead** lists some preview questions to stir your curiosity and indicate what that section will cover. For example: Why does paying children for good grades sometimes backfire? Do people remember better when they’re hypnotized? What do psychologists think is the “sexist sex organ”? 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, go to the page indicated after the question and review the material.

- In Chapter 1, we will introduce you to the basic guidelines of **critical and creative thinking**—the principles we hope will help you distinguish unsupported claims or “psychobabble” from good, scientific reasoning. The identifying icon for critical thinking is a lightbulb. Throughout the book, some (but not all) of our critical-thinking discussions are signaled in the text by a small tab that includes the lightbulb and the topic being critically examined, like the one shown here. We will be telling you about many lively and passionate debates in psychology—about sex and gender differences, therapy, 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.

- Every chapter contains several **Quick Quizzes** that test your understanding, retention, and ability to apply what you have read 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 lightbulb symbol. The answers we give for these items are only suggestions; feel free to come up with different ones.



Quick Quizzes containing critical-thinking items are not really so quick, because they ask you to reflect on what you have read and to apply the guidelines to critical thinking described in Chapter 1. But if you take the time to respond thoughtfully to them, we think you will become more engaged with the material, 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 boost your motivation, improve your memory, and become more creative) as well as more serious ones, such as how to live with chronic pain or help a friend who seems suicidal.

■ Throughout each chapter you will find **media icons** directing you to on-line activities, quizzes, simulations, videos, web sites, and readings that will reinforce your learning and help you do well in your course. First read the chapter; then, to get to these features, simply go to **www.prenhall.com/wade**, using the access code provided when you purchased your new book.

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 memory, and Chapter 8, on learning, will also be helpful.)

■ Before starting the book, read *Contents at a Glance* (p. v) to get an overall view of the book's organization. Before starting a chapter, read the chapter title and major headings to get an idea of what is in store. Browse through the chapter, looking at the pictures and reading the rest of the headings.

■ Do not read the text as 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 main points aloud to someone else—or even into a tape recorder. 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 review the main points several times before an exam.

■ When you have finished a chapter, read the **Summary**. Some students tell us they find it useful to write down their own summaries first, then compare them with the book's. Use the list of **Key Terms** at the end of each chapter as a checklist. Try to define and discuss each term in the list to see how well you understand and remember it. If you need to review a term, a page number is given to tell you where it is first mentioned in the chapter. Finally, review 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 these terms and concepts easily, and will help you when you study for exams. A complete glossary also appears at the end of the book.

■ The **Study Guide** for this book, available at your bookstore, is an excellent learning resource. It contains review materials, 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 or do further reading. Throughout the book, discussions of studies and theories include *citations* that look like this: (Aardvark & Zebra, 2001). A citation tells you who the authors of a book or paper are and when their work was published. The full reference can then be looked up in the alphabetical **Bibliography** at the end of the book. At the back of the book you will also find a *Name Index* and a *Subject Index*. The name index lists the name of every author cited and the pages where each person's work is discussed. If you remember the name of a psychologist but not where he or she was mentioned, look up the name in the name index. The subject index lists all the major topics mentioned in the book. If you want to review material on, say, depression, you can look up "depression" in the subject index and find each place it is mentioned.

We have done our utmost to convey our own enthusiasm about psychology, but, in the end, it is your efforts as much as ours that will determine whether you find psychology to be exciting or boring, and whether the field will make a difference in your own life. This book is our way of inviting you into the world of psychology. Our warmest welcome!

—Carole Wade

—Carol Tavis