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Christopher
Peterson

PSYCHOLOGY

PSYCHOLOGY

A BIOPSYCHOSOCIAL APPROACH

SECOND EDITION

Christopher Peterson
UNIVERSITY OF MICHIGAN



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PSYCHOLOGY

Preface

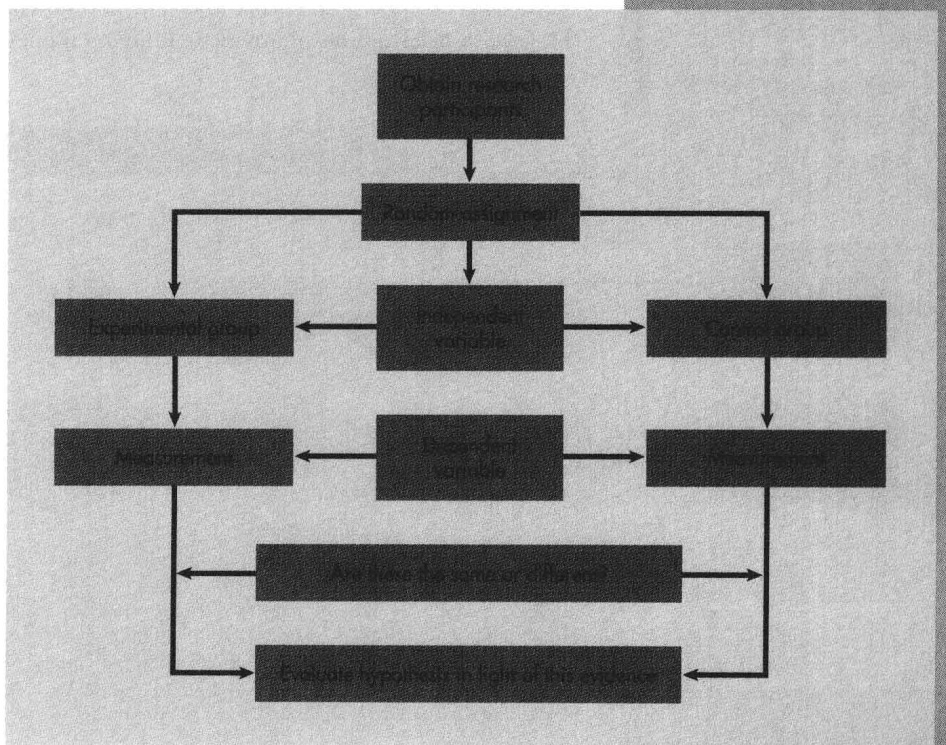
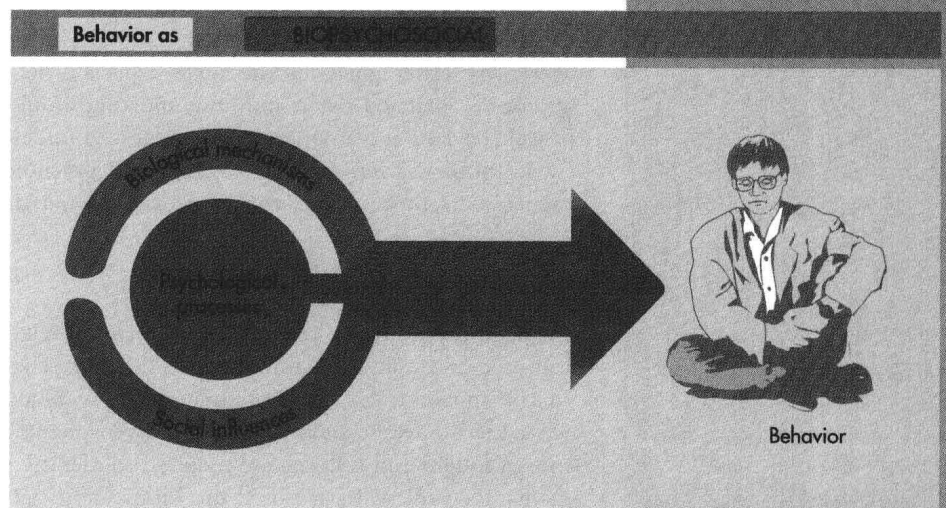
TO THE INSTRUCTOR

I had several goals that I wanted to achieve when I wrote this second edition of *Psychology: A Biopsychosocial Approach*. My first goal was to give students a framework with which to think critically about psychology. I believe psychology can best be understood with the **biopsychosocial approach**—in terms of biological mechanisms, psychological processes, and social influences. I am convinced that this approach captures the essence of psychology today, even more so than when I wrote the first edition of this text some years ago.

The biopsychosocial approach helps make sense of theory, research, and application, as well as accommodate the unity and diversity of psychology. From my discussions with colleagues around the country, I know that many instructors are already using a biopsychosocial approach in their introductory classes. Discussion of evolutionary approaches to behavior, for example, is much more common in college classrooms than it was just five years ago. So too is discussion of how behavior differs across social contrasts like gender, ethnicity, and culture. These movements in the field convinced me to revise this text in the way that I have, just as they have already led so many instructors to change their lectures and discussions. My hope is that instructors will find *Psychology: A Biopsychosocial Approach* a novel text that is organized in a way that already fits how they teach.

PSYCHOLOGY AS A SCIENCE
THE SCIENCE OF PSYCHOLOGY
IS INTRODUCED IN CHAPTER 2
AND REINFORCED THROUGHOUT
THE TEXT.

THE BIOPSYCHOSOCIAL APPROACH
THE BIOPSYCHOSOCIAL APPROACH
GIVES STUDENTS A FRAMEWORK
WITH WHICH TO THINK CRITICALLY
ABOUT PSYCHOLOGY.



My second goal was to encourage an appreciation and understanding of psychology as a science. Only a small proportion of students in our classes today will themselves become psychologists. However, all of them will encounter ideas from psychology throughout their lives. The newest concepts and findings in psychology are routinely reported in the popular media. Ideas from psychology have spread to literature, to the arts, to other sciences, to health care, and to public policy. If we are to educate today's introductory psychology students properly, then we must give them the tools to evaluate the concepts they will later encounter. I try to emphasize not just the conclusions of research, but also how research is conducted.

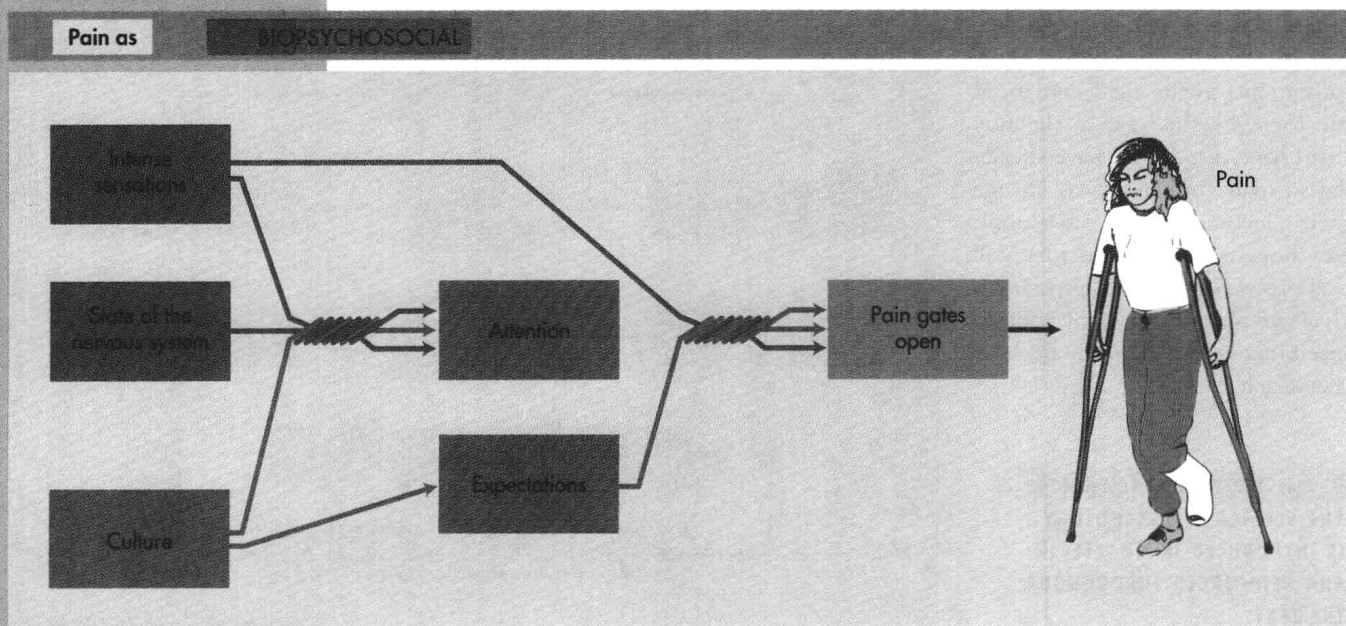
My third goal was to cover the applied fields of psychology in a way that does justice to their importance within the discipline. Many texts segregate applications from their discussions of basic psychology by relegating all mention of applications to brief boxes or postscripts. Such a strategy gives a false view of psychology as it really exists, obscuring the reason why psychology is so important in today's world. In *Psychology: A Biopsychosocial Approach*, applications are an integral part of the story I tell.

My fourth and final goal was to update thoroughly the text's coverage of psychology. Of the 2,600 references, more than 1,200 are to articles, chapters, or books written since 1990. My other goals for the text—especially its incorporation of the biopsychosocial approach—dictated when and how updating should occur. Classic references are frequent as well, because it is important for students to understand that psychology has been shaped by its history. Even when contemporary psychologists disagree with their intellectual predecessors, they use the work of previous generations as their point of departure.

The Biopsychosocial Approach

I explain psychological phenomena in terms of relevant biological mechanisms, psychological processes, and social influences. The biopsychosocial approach is a powerful one that can be applied to all topics of concern in psychology. In some cases, we have a good idea what the biopsychosocial details of a given phenomenon might be; in other cases, much more thought and research are required to identify the appropriate biopsychosocial ingredients. Regardless, I have used the biopsychosocial approach to organize the entire text, both what is known and what needs to be known. Psychology is a diverse field, but the biopsychosocial approach provides a unifying framework.

THE BIOPSYCHOSOCIAL APPROACH
MANY OF THE EXAMPLES IN THE LIST ON P.XXV AND ELSEWHERE IN THE TEXT ARE ILLUSTRATED WITH SIMILAR BIOPSYCHOSOCIAL FIGURES.



Chapter 1 thoroughly introduces the biopsychosocial approach. Each subsequent chapter begins by presenting an overview of how this approach applies to the subject matter of that chapter and concludes by examining a specific topic in biopsychosocial terms. For example, **Chapter 5, Sensation and Perception**, begins by discussing how perception results from an interplay of the neurological mechanisms responsible for sensation, psychological processes such as attention and adaptation level, and culturally provided labels and expectations. It ends by examining pain and pleasure in these same terms.

Briefly, some of the other discussions of the biopsychosocial approach focus on:

- the contributions to theory and research of individual psychologists (Chapter 2)
- why people age and eventually die (Chapter 3)
- the determinants of sexual orientation (Chapter 4)
- the experience of Haitian zombies (Chapter 6)
- Maslow's hierarchy of motives and Izard's emotion activation systems (Chapter 7)
- Asian versus American elementary education (Chapter 8)
- gender differences in cognition and language (Chapter 9)
- cross-generational effects of the Japanese American internment (Chapter 10)
- Sternberg's triarchic theory of intelligence (Chapter 11)
- gender differences in personality (Chapter 12)
- culture-bound syndromes (Chapter 13)
- cross-cultural and cross-historical approaches to healing (Chapter 14)
- selection and training of professional torturers (Chapter 15)
- shamanism and alternative medicine (Chapter 16)
- psychological mindedness (Chapter 17)

These are some examples of the important and interesting new research that can be more fully explored and explained through the use of the biopsychosocial approach.

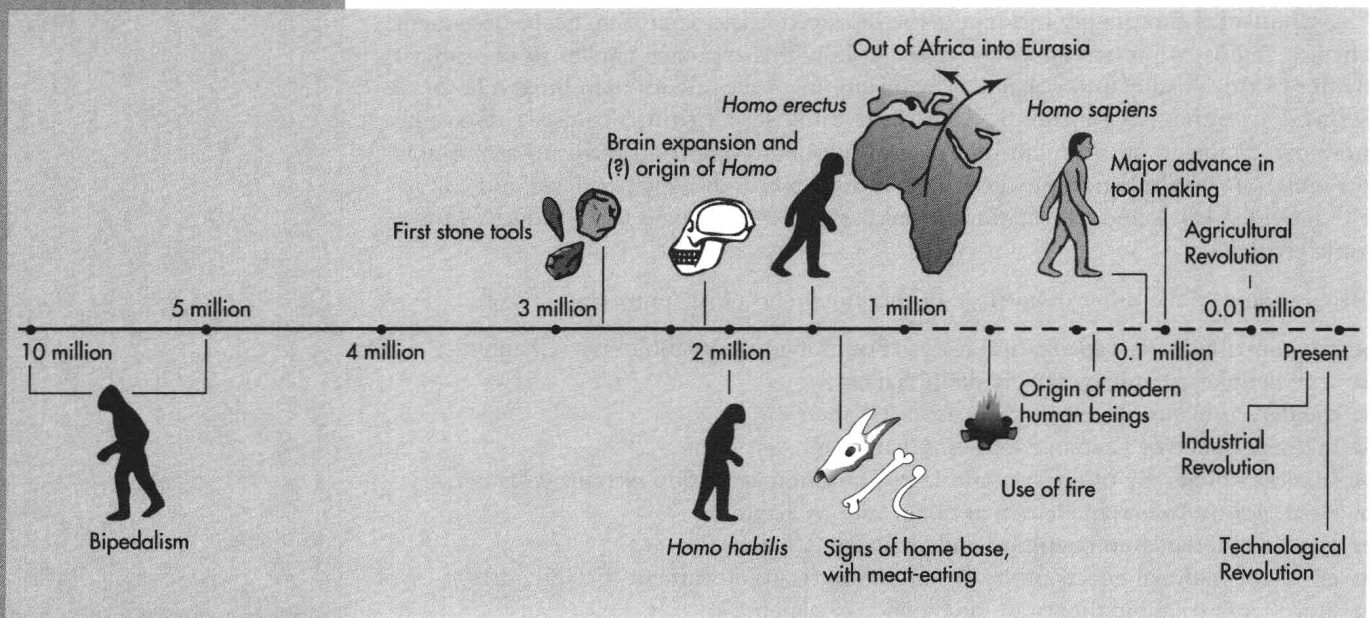
Evolution and Human Diversity

The biopsychosocial approach facilitates coverage of two of the most exciting developments in contemporary psychology: the increasing recognition of the role of biological and evolutionary mechanisms in behavior and the increasing appreciation of the role of culture and history in creating human diversity. At first glance, these new developments may seem at odds with one another—another take on the venerable nature-nurture debate—but a biopsychosocial approach allows them to be united. People are products of evolution and culture; the task of psychologists is not to play one viewpoint off against another, but rather to explain when and how both matter.

Chapter 3, Evolution and Behavior, and subsequent chapters discuss how evolved psychological mechanisms are involved in specific behaviors. For example, different species learn in different ways. These differences make sense when we consider them in terms of what was needed for these species to survive in the situations in which they evolved (Chapter 8, Learning). People in different cultures apparently experience and recognize a set of basic emotions, and again, these make sense in terms of the common survival problems our ancestors had to confront and solve (Chapter 7, Motivation and Emotion).

Other discussions of the evolutionary basis of behavior include:

- the evolution of the brain (Chapter 4)
- the fit between sensory systems and the niche of a species (Chapter 5)
- the capacity for consciousness (Chapter 6)
- attachment of infants to their caretakers (Chapter 10)
- multiple intelligences (Chapter 11)
- why personality differences exist (Chapter 12)

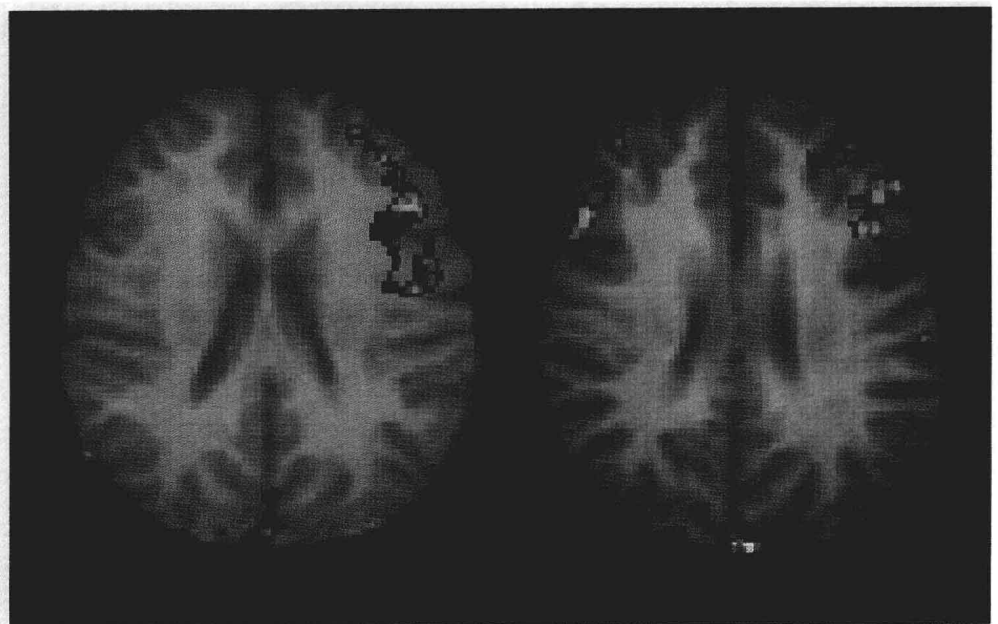


EVOLUTION AND HUMAN BEHAVIOR
 BESIDES THE FULL CHAPTER ON
 EVOLUTION AND HUMAN
 BEHAVIOR, EACH CHAPTER DIS-
 CUSSES HOW EVOLVED PSYCHOLOG-
 ICAL MECHANISMS ARE INVOLVED
 IN SPECIFIC BEHAVIORS.

- why psychopathology exists (Chapter 13)
- biomedical therapies (Chapter 14)
- the pervasiveness of social influence (Chapter 15)
- why and how physical health declines (Chapter 16)
- product design (Chapter 17)

The text also covers examples of what is now known about behavior across lines of gender, culture, and ethnicity. For example, what differences exist between the brains of men and women, and do these differences have any consequences for behavior? See **Chapter 5, Sensation and Perception**. Other discussions of gender differences include:

GENDER, CULTURE, AND ETHNICITY
 EVERY CHAPTER HAS INTEGRATED
 EXAMPLES AND DISCUSSIONS OF
 GENDER, CULTURE, AND ETHNICITY.
 ON THE LEFT IS A MALE'S BRAIN,
 AND ON THE RIGHT IS A FEMALE'S
 BRAIN. BOTH ARE ENGAGED IN THE
 SAME TASK. THE FEMALE'S BRAIN
 SHOWS ACTIVITY ON BOTH SIDES,
 SUGGESTING THAT SKILLS ARE DIS-
 TRIBUTED MORE EQUALLY BETWEEN
 THE TWO HEMISPHERES FOR
 FEMALES THAN FOR MALES.



- mate selection (Chapter 3)
- sensory system thresholds (Chapter 5)
- substance abuse (Chapter 6)
- emotional experience and expression (Chapter 7)
- conditioning and modeling (Chapter 8)
- cognition and language (Chapter 9)
- socialization of infants and children (Chapter 10)
- types of intelligence (Chapter 11)
- personality traits (Chapter 12)
- prevalence of different psychopathologies (Chapter 13)
- therapist effectiveness (Chapter 14)
- extent of social influence (Chapter 15)
- mortality and morbidity (Chapter 16)
- meaning of work and reasons for retirement (Chapter 17)

Doing Research

Other texts point out that psychology is a science but then offer conclusions without describing exactly how they were reached. **Chapter 2** focuses on research and every subsequent chapter has *Doing Research*, a specific section that discusses how studies are conducted in a given area. In **Chapter 3**, *Doing Evolution Research* addresses how psychologists use the fossil record to understand human evolution. To encourage critical thinking by students, I also note the limitations of this strategy. Indeed, one of the recurring points I make about research is that all methods have drawbacks. My intent is not to dismiss research but to convey the excitement involved in the ongoing attempts to make conclusions more valid.

Some examples of studies discussed in the *Doing Research* feature include:

- imaging techniques to study the brain (Chapter 4)
- psychophysics techniques to study sensation and perception (Chapter 5)
- introspective reports to study consciousness (Chapter 6)
- projective tests to study motives and emotions (Chapter 7)
- experiments with animals to study learning (Chapter 8)
- artificial intelligence to study cognition (Chapter 9)
- cross-sectional and longitudinal designs to study development (Chapter 10)
- group-administered tests to study intelligence (Chapter 11)
- experience sampling to study personality (Chapter 12)
- research diagnostic criteria to study psychopathology (Chapter 13)
- outcome research to study the effectiveness of psychotherapy (Chapter 14)
- deception experiments to study social influence (Chapter 15)

Table 4.3 Neuropsychological Research Techniques

Technique	Strategy
Lesions and ablations	Damage or destroy parts of the nervous system and determine the consequences
Electrical stimulation	Stimulate the nervous system with electricity and determine the consequences
Chemical stimulation	Stimulate the nervous system with chemicals and determine the consequences
Electrical recording	Record electrical activity in the brain during different activities
Imaging	Take pictures of brain structures and/or functions during different activities
Computer modeling	Simulate functioning of the nervous system with a computer program and compare the consequences with what actually happens

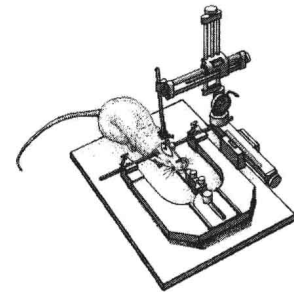
DOING Neuropsychology RESEARCH

Neuropsychologists face a daunting task. As you have seen, the nervous system is incredibly complex, and the details of its functioning reside at a microscopic level. Research strategies are indirect, allowing inferences but rarely direct views. Investigators have devised various approaches to aid these inferences (see Table 4.3), and the results described in the previous sections of this chapter reflect their ingenuity.

Lesion and Ablation Techniques

Lesion and ablation studies provide an important way to see how damage to the nervous system is linked to subsequent behavior. A **lesion** is a wound or injury to a particular part of the brain or nervous system; an **ablation** is the complete destruction or removal of some structure. Lesions and ablations may be deliberately created by researchers working with animals, or they may be studied as they naturally occur in accidents and illnesses.

In order to make a lesion in the intended part of the brain, a researcher places an animal in a device like this one that holds the animal's head still and allows a lesion to be made in a specific location.



DOING NEUROPSYCHOLOGICAL RESEARCH
DOING RESEARCH IS FOUND IN EVERY
CHAPTER, DISCUSSING HOW STUDIES ARE
CONDUCTED IN A GIVEN AREA.

- surveys to study risk factors for illness (Chapter 16)
- field experiments to study applications of psychology (Chapter 17)

These research discussions are intended to be general, accessible, and critical.

Application

Specific chapters are devoted to applications such as **Chapter 14, Therapy**, **Chapter 16, Physical Health and Illness**, and **Chapter 17, Industrial-Organizational and Other Applied Psychologies**. Incorporated into virtually all other chapters are discussions of other applications. What do psychologists know about ways of reducing prejudice and discrimination (Chapter 15, Social Cognition and Social Influence)? How can we help people cope with stress (Chapter 16, Physical Health and Illness)?

Here is a sample of the other applications on focus:

- rehabilitation following brain damage (Chapter 4)
- method acting (Chapter 7)
- classroom education (Chapter 8)
- the improvement of everyday memory (Chapter 9)
- the creation of “intelligent” machines (Chapter 9)
- the improvement of everyday problem solving (Chapter 9)
- the psychological effects of day care (Chapter 10)
- the psychological effects of divorce (Chapter 10)
- intelligence testing (Chapter 11)
- personality assessment (Chapter 12)
- psychiatric diagnosis (Chapter 13)
- advertising (Chapter 17)
- athletic performance (Chapter 17)
- the insanity plea (Chapter 17)

As I have already mentioned, discussion of these and other applications is integrated with the text, not set aside in boxes or postscripts.

Unique Chapters

Organizational innovations that followed from my goals for the text include: **Chapter 2, Research in Psychology**, which is devoted to research and incorporates both statistics and research ethics into the text. Many other texts relegate statistics to an appendix, and some ignore ethics altogether. Both topics matter and need to be discussed in the context of research.

Chapter 3, Evolution and Behavior, is devoted to evolution and behavior. Other texts cover evolution in a few pages, as an afterthought to consideration of the nervous system, but evolutionary ideas can shed light on the whole of psychology. Given the importance of such fields as sociobiology and evolutionary psychology, students need to be introduced to evolutionary ideas in a thorough way that encourages appropriate appreciation and skepticism.

Psychology: A Biopsychosocial Approach gives expanded coverage of applied psychology and includes two chapters not found in many other texts. **Chapter 16, Physical Health and Illness**, is devoted to health psychology, and **Chapter 17, Industrial-Organizational and Other Applied Psychologies**, focuses on industrial-organizational psychology. Also included in **Chapter 17** are discussions of applied fields such as engineering psychology, consumer psychology, environmental psychology, and sports psychology.



APPLICATION IN PSYCHOLOGY
AN EXAMPLE OF AN INTEGRATED APPLICATION IS THIS SHAMAN. SHAMANS VIEW PHYSICAL PROBLEMS AS STEMMING FROM SPIRITUAL DIFFICULTIES. HERE IS A MEXICAN-AMERICAN CURANDERA.

The Pedagogical System

In *Psychology: A Biopsychosocial Approach*, pedagogical techniques were chosen because they reinforced the goals of the text. The most important part of this system is the deliberate presentation of theory, research, and application in a consistent way across chapters, as I have already noted. As students move from one chapter to another, they will find the strategy of coverage increasingly familiar.

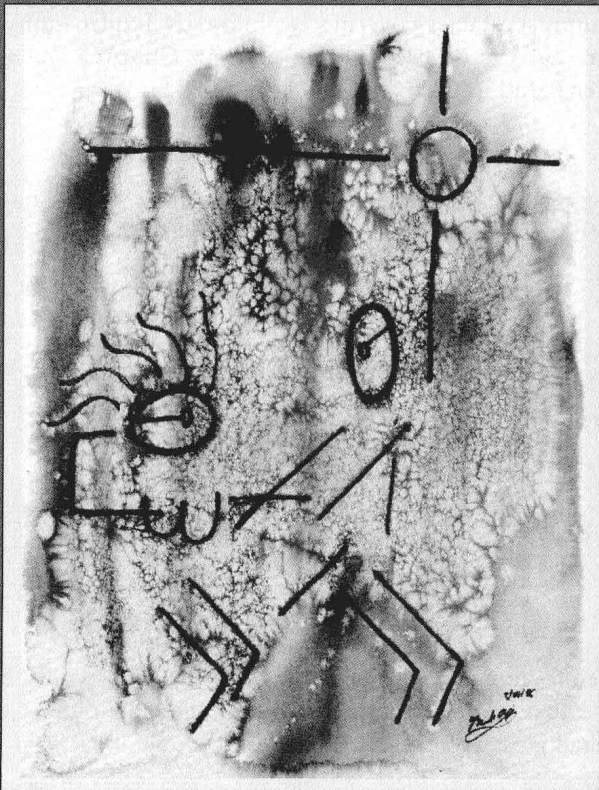
Here are some of the specific pedagogical techniques featured in each chapter. Some are standard, and some are unique to this text and follow from its biopsychosocial approach:

■ **Chapter Opening Outlines.** It is helpful to call these outlines to the attention of your students as a way for them to understand the internal structuring of chapters and the relative space devoted to different topics.

■ **Chapter Opening Vignettes.** Each chapter begins with a vignette that highlights the concerns of the chapter. These vignettes are of high interest and should draw students into the chapter. I refer to each vignette throughout the relevant chapters. For example, **Chapter 15, Social Cognition and Social Influence**, begins with the story of Rodney King and the rioting in Los Angeles that followed the acquittal of the police officers who beat him. References to this vignette are then made when the chapter discusses causal attributions, obedience, and conformity.

CHAPTER OPENING PEDAGOGY
A CHAPTER OPENING TABLE OF
CONTENTS AND VIGNETTE
DRAW THE STUDENT INTO THE
CHAPTER CONTENT.

CHAPTER 15



Understanding Social Cognition and Social Influence: Definition and Explanation

Social Cognition Determines Social Influence
Evolutionary Explanations of Social Behavior
The Diversity of Social Settings

History of Social Psychology

Doing Social Psychology Research

Deception Experiments
Surveys

Social Cognition

Content Versus Processes of Social Cognition
General Principles of Social Cognition
Social Description
Social Explanation
Social Prediction
Is Social Cognition Special?

Individual Behavior in a Group Context

Conformity
Obedience to Authority
The Loss of Self: Deindividuation and Pseudo-Role
Merges
Social Influence as Biopsychosocial

Prejudice and Discrimination

Origin of Attitudes
Attitudes and Behavior
Attitude Change

Helping

Determinants of Prosocial Behavior
The Bystander Dilemma

Attraction

Affiliation
Liking
Friendship and Love

Group Processes

Social Loafing
Groupthink
Group Polarization
Leadership

Social Processes in a Biopsychosocial Context

Social Cognition and Social Influence

On March 3, 1991, Rodney King unwillingly participated in one of the most frequently viewed incidents ever captured on film. On that day, King, a black male, was stopped for a traffic violation by Los Angeles police officers. A passerby with a video camera captured the beating to which King was then subjected. Two officers, who were white, repeatedly hit King with their nightsticks for more than two minutes, even after he had fallen to the ground. Another officer, also white, kicked him several times. According to King's testimony later, the officers made racial slurs while beating him. King suffered numerous injuries, among them a broken leg, a shattered cheekbone, and a ruptured eye socket.

The police officers were subsequently charged with using excessive force, and when on April 29, 1992, a jury found them innocent, widescale rioting erupted in Los Angeles, resulting in \$1 billion in property damages. Businesses owned by Korean Americans were frequent targets of the mostly black rioters. The riots also produced numerous injuries. For example, Reginald Denny, a white truck driver, was dragged from his vehicle and severely beaten by several black men.

UNDERSTANDING SOCIAL COGNITION AND SOCIAL INFLUENCE: DEFINITION AND EXPLANATION

The field of psychology that is concerned with people as social beings is **social psychology**: "an attempt to understand and explain how the thought, feeling, and behavior of individuals are influenced by the actual,

■ **Overview: A Biopsychosocial Context.** Following the chapter opening vignette, each chapter provides a brief overview of the topics on focus. Typically, important definitions are provided along with a sketch of how the biopsychosocial approach is brought to bear in the chapter. For example, **Chapter 5, Sensation and Perception**, defines some basic terms and concepts and then sketches the philosophical debate between rationalism and empiricism, explaining how the biopsychosocial approach helps resolve the debate.

■ **Stop and Think Questions.** Students should do more than plunge relentlessly through a chapter, a highlighter in hand and an eye on the clock. They should pause and reflect on what they have read. These Stop and Think questions appear after each major section in the text. Some of the questions are straightforward, intended to provide a quick check for the student to assess how well he or she has learned important terms and concepts. Others are more probing and require critical thinking. Answers to the Stop and Think questions are located at the end of the text.

STOP AND THINK QUESTIONS
STOP AND THINK QUESTIONS
APPEAR AFTER EACH MAJOR
SECTION TO PROVIDE STUDENTS
WITH A CONCEPT
CHECK.

Stop and Think

- 1 How can a researcher demonstrate an instinct?
- 2 Are there motives that do not have a corresponding physiological need?
- 3 Think of an example from your everyday life of a motive that is well explained in cognitive terms.

■ **Summary Tables.** I have created Summary Tables for every chapter. These summary tables help students to synthesize and to assimilate large chunks of information. There are, for example, Summary Tables covering Evolutionary Explanations of Human Behavior in **Chapter 3**, Approaches to Emotion in **Chapter 7**, and Psychodynamic Approaches After Freud in Chapter 12.

SUMMARY TABLE
SUMMARY TABLES APPEAR IN
EVERY CHAPTER TO HELP
STUDENTS SYNTHESIZE AND
ASSIMILATE LARGE CHUNKS
OF INFORMATION.

Table 3.2 Summary: Evolutionary Explanations of Human Behavior

Approach	Key emphasis
Social Darwinism	"Evolution" of societies as a whole
Comparative psychology	Comparisons and contrasts across species
Ethology	Behavior in the natural environments
Behavior genetics	Genetic influences on individual differences
Sociobiology	Complex social behavior
Evolutionary psychology	Evolved psychological mechanisms

■ **Marginal Glossary.** To reinforce the way psychologists use specific words, key terms appear in boldface in the text. These terms, along with their definitions, are repeated in the margins. An overall glossary appears at the end of the book.

■ **Topics in a Biopsychosocial Context.** Each chapter concludes with a section that examines a specific topic from a biopsychosocial approach. I have tried to choose topics that are provocative. For example, **Chapter 6, Consciousness**, closes with a discussion of Haitian zombies; **Chapter 12, Personality**, discusses gender differences in traits; and **Chapter 16, Health Psychology**, addresses shamanism and alternative medicine. The intent of these and other closing discussions is to reinforce the use of the biopsychosocial approach throughout the chapter.

I have also illustrated the biopsychosocial approach with figures throughout the text. These figures have a recurring color scheme that visually represents the biological mechanisms, psychological processes, and social influences needed to fully explain certain behavior.

■ **Summary.** The summary is a bulleted list organized under headings that correspond to the major sections of the chapter. This will help students as they preview and review a given chapter.

■ **Key Terms.** The boldface terms introduced in the chapter are listed at the end of the chapter, along with relevant page numbers. These appear in the order they were introduced in the chapter and provide another summary of the chapter's content, this time in terms of the key concepts. Again, these should be helpful to your students as they try to take away the major message of a chapter or study for an exam.

TOPICS IN A BIOPSYCHOSOCIAL CONTEXT

EACH CHAPTER CONCLUDES WITH TOPICS IN A BIOPSYCHOSOCIAL CONTEXT TO REINFORCE CHAPTER CONTENT.

PERSONALITY IN A BIOPSYCHOSOCIAL CONTEXT

To study people in their entirety, personality psychologists have drawn on broad perspectives—specifically, psychodynamic, trait, phenomenological, and social learning approaches. Each approach emphasizes different components of personality, and all are in principle compatible.

Indeed, recent theoretical extensions of each approach usually acknowledge the importance of other approaches. For example:

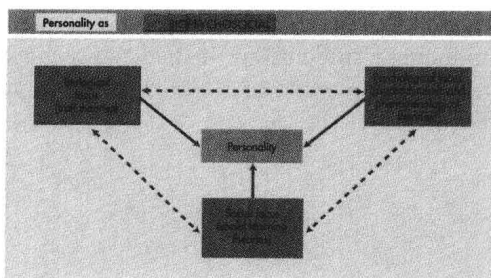
- Biologically minded theorists have attempted to specify the neurological basis for Freudian concepts (Gaillard, 1992; Katz, 1991; Thompson, Baxter, & Schwartz, 1992; Zuelzer & Maas, 1994).
- Contemporary object relations theorists stress the importance of people's thoughts and beliefs about the social environment (Westen, 1991).
- Trait theorists are interested in the specific settings where traits are (or are not) displayed (Van heck, Perugini, Caprara, & Froger, 1994).
- Phenomenological theorists recognize that at least some of the cognitive processes giving rise to personality exist outside conscious awareness (Kihlstrom, 1990).
- Social learning theorists now attempt to describe the idiosyncratic ways in which a person interprets situations (Shoda, Mischel, & Wright, 1993, 1994).

As these integrative attempts continue, a biopsychosocial perspective on personality will result.

Gender and Personality: Theory and Evidence

Let me conclude by examining a question of scientific and popular interest: Do men and women have different personalities? Psychodynamic theories, particularly Freud's original account, usually posit broad gender differences because men and women take different routes through the stages of psychosexual development. Trait theories expect to find gender differences in characteristics reflecting evolved psychological mechanisms related to reproduction. Phenomenological and social learning theories are neutral with regard to gender differences: Men and women may or may not have different personalities, depending on the circumstances they have encountered that lead to characteristic thoughts and habits (Bussey & Bandura, 1992).

Figure 12.1
Personality as Biopsychosocial. Although most theories of personality acknowledge its biopsychosocial nature, these theories have traditionally emphasized one particular aspect of personality and its determinants. Trait theories focus on biological aspects of personality, psychodynamic theories and phenomenological theories focus on psychological aspects (motivation and emotion in the first case and cognition in the second case), and social learning theories focus on social aspects.



Ancillaries For the Instructor

Instructor's Resource Manual. Written by Margaret F. Lynch of San Francisco State University, the Instructor's Resource Manual (IRM) contains a wealth of teaching aids for each chapter: chapter outlines, lecture supplements, classroom demonstrations, critical thinking exercises, mini-experiments, self-test exercises, suggestions for additional readings, and an extensive guide to audiovisual materials. The IRM comes in a three-ring binder for easy reproduction of student handouts; the binder can also serve as a storage unit for collecting favorite lecture supplements and teaching materials.

Test Bank. The Test Bank is particularly appropriate for this second edition because it was written by the author, Christopher Peterson. The Test Bank features an assortment of multiple-choice, short-answer, true/false, and essay items that test applied, factual, and conceptual knowledge. Items are referenced by chapter, topic, skill, and text page.

TestMaster Computerized Testing System. This flexible, easy-to-master computer test bank includes all of the test items in the Test Bank. The Testmaster software allows you to edit existing questions and add your own items. Tests can be printed in several different formats and can include figures, such as graphs and tables. TestMaster is available in Macintosh and IBM-compatible formats.

Lecture Shell. The chapter outlines of the entire text are available on disk for use in creating your own lecture outlines.

Transparencies. A new Introductory Psychology Transparency Package contains 200 full-color acetates designed to accompany the text. The package features many transparencies specifically designed for large lecture halls.

Other Media. Fully updated CD-ROM, laserdiscs, electronic transparencies, presentation software, and videos are also available to qualified adopters of *Psychology: A Biopsychosocial Approach*, Second Edition. Please contact your Longman sales representative for more information.

Ancillaries For the Student

Study Guide. Written by Todd Zakrajsek, Southern Oregon State College, this manual has been extensively updated to reflect the new coverage in the second edition. It includes learning objectives, chapter outlines, critical thinking questions that illustrate concepts in the text, three sets of practice tests with suggested answers, key-term reviews, and a How to Study section.

Biopsychosocial Workbook and Practice Tests. Written by the author of the text and the Test Bank, this ancillary is designed to help students to think critically about the biopsychosocial approach and to prepare for exams. The workbook consists of a series of behavioral phenomena that involve biological mechanisms, psychological processes, and social influences; students are helped to see how these are involved in each example. The practice tests consist of 20 or more multiple-choice questions per chapter, with annotated answers.

Interactive Media for the Student

SuperShell Computerized Tutorial. Created by Carolyn Meyer, Lake Sumter Community College, this interactive program helps students learn important psychological facts and concepts through drill and practice exercises and diagnostic feedback. SuperShell provides immediate correct answers and the text page numbers on which the material is discussed. A running score of the student's performance is maintained on the screen throughout the session. SuperShell is available for both Macintosh and IBM-compatible computers.

Journey II. Students are guided through a concept-building tour of the experimental method, the nervous system, learning, development, and psychological assessment with this program, developed by Intentional Educations. Each module is self-contained and comes complete with step-by-step pedagogy. This program is available in Macintosh and IBM-compatible formats.

Acknowledgments

Texts have histories in which particular people figure prominently, and *Psychology: A Biopsychosocial Approach* is no exception. My efforts would have amounted to little without the assistance of many other people. The editors at Longman who worked with me throughout this revision helped me articulate my goals and then achieve them. Special thanks need to be conveyed to editorial assistants Jennifer Wingertzahn and Karen Helfrich; to designer Sally Steele, for creating a look that fits the text's message; to photo researcher Julie Tesser, for her help in choosing apt illustrations; to production editor Elinor Stapleton, for her attention to detail; to copyeditor Roberta A. Winston, for maintaining yet improving my style of writing; and to marketing manager Mark Paluch, for seeing to it that instructors noticed the products of my labor.

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TO THE STUDENT

Perhaps your introductory psychology course should come with a warning label:

CAUTION: YOU MAY BECOME VERY INTERESTED IN THIS FIELD AND BE PERMANENTLY CHANGED AS A RESULT.

Years ago, as an engineering student, I took an introductory psychology course as an elective and found psychology so interesting that I changed my major and the rest of my life as well. Even if you do not become as smitten as I did, you probably already find psychology interesting. My challenge in writing this introductory text is to inform you about psychology while maintaining your interest. Here is some advice about how you might read each chapter so that you take away from it the major ideas and the important details:

- First, look at the outline that begins each chapter. It is organized in terms of the main headings of the chapter. These outlines provide a “big picture” into which you should be able to fit specific ideas.
- Next, read the summary at the end of each chapter; again, it is organized in terms of the chapter’s main headings.
- Scan the list of key terms at the end of the chapter so that you will be alert to these important concepts when they are discussed.
- Next, read the chapter itself, taking time along the way to reflect on what you encounter. Each chapter begins with a vignette that I hope you find interesting. Nonetheless, the purpose of these vignettes is not entertainment. Rather, each has been chosen to be a vivid example of the topics discussed in the chapter, and so read the vignette with this purpose in mind.
- As you read the chapter, pay special attention to the terms that appear throughout in boldface print. These are important concepts that you need to master. They are defined in the margin right next to where they first appear, as well as in an alphabetized glossary at the end of the book.
- Try to answer the Stop and Think questions at the end of sections in the chapter. These cover some of the important concepts in the chapter and are similar to the questions you will be asked on actual exams. Answers are located at the end of the book.

Now do all of this again and again, until your understanding matches your interest.

You should also keep in mind that I introduce you to psychology by using a point of view called the biopsychosocial approach. In making sense of any given topic—from sensation to learning to intelligence to therapy to prejudice—one should specify the roles played by biological mechanisms, psychological processes, and social influences. Psychologists and people in general have often approached the explanation of behavior in either-or-terms, playing one type of explanation off against other types. In many if not all cases, the more reasonable strategy is to combine explanations, and a biopsychosocial approach does just this.

This text uses the biopsychosocial approach from start to finish. The very first chapter introduces the approach in detail, and every subsequent chapter explains how it illuminates specific topics. In particular, the biopsychosocial approach provides a way to think about two of the most interesting aspects of contemporary psychology: evolution and human diversity.