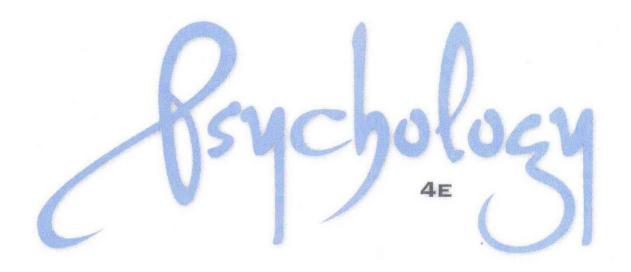


ROBERT J. STERNBERG

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# **ROBERT J. STERNBERG**

YALE UNIVERSITY



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# **ABOUT THE AUTHOR**



Robert J. Sternberg is IBM Professor of Psychology and Education in the department of psychology at Yale University; director of the Yale Center for the Psychology of Abilities, Competences, and Expertise; and president of the American Psychological Association. He graduated summa cum laude, Phi Beta Kappa, from Yale in 1972, receiving honors with excep-

tional distinction in psychology. He received his PhD in psychology from Stanford University in 1975, and holds four honorary doctorates.

Sternberg is a fellow of the American Psychological Association, the American Psychological Society, the Connecticut Psychological Association, the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the Society of Experimental Psychologists. His many awards include several from APA: the Early Career Award; the Boyd R.

McCandless Award of the Division of Developmental Psychology (7); the Farnsworth Award of the Division of Psychology and the Arts (10); and the E. L. Thorndike Award for Career Achievement in Educational Psychology of the Division of Educational Psychology (15). He also received the James McKeen Cattell Award from APS.

Sternberg has served as president of four divisions of APA. He has been editor of the Psychological Bulletin and is currently editor of the APA Review of Books: Contemporary Psychology. He has written or edited roughly 950 refereed publications, most in the fields of intelligence, creativity, wisdom, styles of thinking, and love.

One of Sternberg's great passions is teaching the introductory psychology course, as he has done almost every year since 1980. He has edited a book on the teaching of introductory psychology and been a featured speaker on the subject at many conferences; he frequently contributes to Teaching of Psychology. This textbook grew out of Sternberg's desire to share with students his enthusiasm and passion for the introductory course.

Sternberg has two children, Seth and Sara, and is married to Elena L. Grigorenko.

# A PERSONAL JOURNEY

My interest in introductory psychology began years ago, when I took the course and got a C in it. My work was so mediocre that one day the teacher commented that "there is a famous Sternberg in psychology [Saul Sternberg, a cognitive psychologist now at the University of Pennsylvania], and it looks like there won't be another one." Yet somehow I went on to graduate from college with honors, with exceptional distinction in psychology. I then earned a PhD in psychology from Stanford, and eventually became president of the American Psychological Association. I have taught psychology for many years, in a way that I hope enables every student to excel.

Many years ago, when my career had just begun, another psychologist at Yale asked me to collaborate on an introductory psychology text that would have an evolutionary approach. Committed then (and now) to this perspective, I agreed. Unfortunately, the collaboration ended when my colleague and I discovered that each of us meant something different by "evolution"—she meant biological evolution and I meant intellectual evolution. Some years later, I wrote the first edition of this book, focusing on the evolution of ideas.

The second edition of *Psychology* represented progress in my own thinking by integrating the evolution of organisms and ideas. We can be grateful that humans have evolved biologically to the point where our thinking can evolve as well.

The third edition of *Psychology* reflected the further development of my thinking, particularly as it pertains to teaching. Students need to understand the fundamental flow of ideas—from the mind to the lab to the everyday world and back again.

The fourth edition of *Psychology* offers new pedagogical features and emphasizes the theme of unity in psychological science.

# THE FOURTH EDITION

The goal of *Psychology*, Fourth Edition, is to teach students to think about psychology the way psychologists do. That is, I want them to learn its processes as well as its content. To demonstrate this relationship, biological, cognitive, developmental, social-psychological, and clinical approaches are discussed throughout, both

independently and in terms of their interactions. Psychology advances as a scientific discipline because psychologists integrate ideas from diverse perspectives.

The main theme of this edition is that psychology as a discipline unites many diverse specialties and perspectives. It arose out of my mission as president of the American Psychological Association—to promote the unity of psychology as a whole.

### POINTS OF CONTINUITY

The fourth edition of *Psychology* retains the most successful features of the third edition.

- Psychology is presented as both a natural science and a social science, and their interactions are explored.
- How organisms and ideas develop is emphasized, resulting in a text that is fully rather than partially evolutionary in its approach.
- Multicultural and cross-cultural information helps students understand that various perspectives are an integral part of psychology.
- "Psychology in Everyday Life" boxes show practical ways of applying psychology to everyday life.
- The glossary captures key terms and definitions in one place.
- An appendix illustrates statistical methods by showing students how to survey their classmates and analyze the data.

# **GENERAL CHANGES IN THIS EDITION**

I have made a number of substantial improvements in this revision.

**New title** I dropped the subtitle *In Search of the Human Mind* because for some professors it implied an acceptance of Cartesian dualism, in which mind and body are separate. The book is not intended to promote this particular position, so the subtitle was viewed as misleading by some.

**Reading level** Students will find this edition much easier to read than its predecessors. The level of the previous editions seemed higher in part because some sentences were simply too long and convoluted. I have reviewed every sentence to ensure readability. Additional examples add interest and promote retention of the material under discussion.

Currency This is the most extensively updated edition yet, with about 1000 new references—roughly 50 per chapter—most of them from 2000 and later. Students will learn about the latest theories and research. Classical references remain, however, because students need to understand not only what psychology is today but how it has developed.

New box To extend the main theme of the book, every chapter now includes a box called "Unifying Psychology" to show how psychologists from various disciplines would approach the same topic. The topics themselves are compelling—"The Effects of Sleep Deprivation," "Treatment for Addicted Women," "Learning a Second Language," "Fear and Shyness," "The Social Contagion of Bulimia," "Snipers: The Criminal Mind," and many others.

"In the Lab" box In this feature, which appears in every chapter, practicing psychologists explain how they conduct research, usually by describing particular experiments. Half the essays are new; those that have been retained are thoroughly updated. Professional biographies of the researchers have been added.

**Concept Checks** Self-quizzes are one of the best ways for students to make sure they understand what they have been studying. I have added three multiple-choice questions at the end of every main section to ensure that students comprehend the material. Answers are at the end of the chapter.

Critical thinking As in the third edition, "Think About It" questions are included at the end of each chapter (suggested answers have been moved to the back of the book). Because critical thinking requires a knowledge base that is both broad and deep, 10 multiple-choice "Knowledge Check" questions have been added to the chapter-ending features.

Chapter summaries In the previous editions, chapter summaries reiterated the main points of the chapter without making clear what questions they addressed. Consequently, the questions that follow the main text heads in this edition reappear in the summaries, to help students recognize the subject of each section.

**Highlighted definitions** The in-text key terms and definitions are now set in blue type so students can find them easily when they review the chapters.

Icons indicating evolutionary and cultural content Passages that focus on evolution are marked with a small circled "E"; cross-cultural content with a "C."

Web resources At the end of every chapter, students will find annotated URLs for excellent sites that are of particular relevance to the subjects they have just been reading about. They will also have access to InfoTrac College Edition, an online library of complete articles from a wide variety of journals. They will be directed to the Wadsworth Web site, where they will find many features that are specific to this text and available nowhere else, including tutorials and quizzes.

**CD correlations** Another chapter-ending feature is a list of the corresponding topics on the accompanying CD, *Unifying Psychology*. Students can move smoothly from one medium to another as they study the subjects that are included in both places, but with different kinds of pedagogy.

# CHAPTER-BY-CHAPTER CHANGES

### CHAPTER 1

- New coverage of female and minority contributions to psychology
- Abbreviated material on the very early history of psychology, which is not of much interest to many modern students (e.g., detailed discussion of Hippocrates)
- New material on the importance of theory to psychology
- Simplified section on Skinner highlights major concepts
- New material on molecular genetics
- New discussion of forensic psychology, political psychology, and positive psychology

### CHAPTER 2

- Ethics section expanded to increase coverage of IRBs
- Reorganized material on experimental methods and causal inference
- New examples of experimental methods
- New cultural material (for example, children who may not do well in school may be gifted interpreters for their non-English-speaking parents, based on Valdes's work)
- Expanded section on critical thinking

### CHAPTER 3

- Additional material on spinal-cord injury
- More material on Phineas Gage, a case that seems to interest all students
- New table on neurotransmitters
- Section on specific neurotransmitters moved to follow the discussion of nerve conduction in general

- Emphasis that the terms "left-brained" and "rightbrained" are metaphorical rather than scientific
- New material on fMRI
- New section distinguishing evolutionary psychology from biological evolution

# CHAPTER 4

- Addition of optimal foraging theory as an example of how evolution shapes our interactions with the environment
- New material on the deterioration with age of eye functioning; includes macular degeneration
- New material on the role of perception in mate choice
- Expanded discussion of how the opponentprocess and trichromatic theories of color vision can be reconciled

### CHAPTER 5

- Further coverage of the hallucinogenic drug Ecstasy
- New section on the Stroop effect
- New material on priming and unconscious stereotypes
- New section on blindsight
- Updated table on common dreams of college students
- New material on the reliability of courtroom testimony by witnesses who have been hypnotized
- New material on the relation of thinking to drinking

#### CHAPTER 6

- Reorganized to improve comprehension
- New material on the concrete shaping of behavior
- New material on how behavioral interventions can reduce aggression

# CHAPTER 7

- New section on autobiographical memory
- New section on memory distortions
- New material on eyewitness testimony
- Updating to reflect Baddeley's expanded theory of working memory
- New material on the functioning of the amygdala

# CHAPTER 8

- New material on brain mechanisms in children's language learning
- New material on children's learning of language across cultures
- New discussion of Clark's principles of conventionality and contrast
- New discussion of the sunk-cost fallacy
- New discussion of the "take-the-best" heuristic
- New discussion of the false-consensus effect

#### CHAPTER 9

- Update on work relating working memory to general intelligence
- Update on new physiological work on the relation of brain size to IQ
- Update on evolutionary theories of intelligence
- Enhanced material relating culture to intelligence
- Updated discussion of emotional intelligence
- Additional material on teaching for intelligence
- Update on the effects of the environment on intellectual skills

# CHAPTER 10

- New material on the effects of the environment on cognitive development, including family variables
- Clarified exposition of Piaget's theory
- New material on concept development
- New material on the theory of mind

#### CHAPTER 11

- New material on the fundamental nature of socioemotional development, including the notion of critical periods
- New material on extended families and their effects
- New material on positive and negative emotions in emotional development
- New material on the effects of labeling and selffulfilling prophecy
- New material on sex differences in psychosexual development
- New material on the effects of caregiving on socioemotional development
- New material on the NICHD Study of Early Child Care
- New material on resilience

#### CHAPTER 12

- New obesity statistics from the CDC
- Discussion of a study on the effects of media images on dieters and non-dieters
- New statistics on changes in sexual behavior with age
- New material on sexual jealousy in men and women
- New material on men's and women's perceptions of date rape
- New research showing that people living in miserable circumstances can find happiness
- New research showing that trained professionals (including psychologists) can detect lying
- New section on death and dying

### CHAPTER 13

- Three new concept-summary tables
- New research showing that likeability affects memory

- New research linking self-perception theory to PMS
- New research on self-handicapping in women with regard to math
- New material on self-serving bias
- New research on how impressions of negative relatives generalize across their families
- New research showing that confirmation bias is stronger when information is presented sequentially instead of all at once
- New research showing that self-fulfilling prophecy occurs at organizational levels as well as individually
- New material on impression formation in family members of criminals
- New research showing that chickens, like humans, respond most favorably to attractive human faces!
- New material on the effects of equity in relationships

#### CHAPTER 14

- New material on Nisbett's recent work on Eastern versus Western ways of thinking and interacting
- New material on students in classrooms and social loafing
- New material on Wood and Eagly's (2002) theory of sex differences in conformity and adaptive behavior
- New material on studies of conformity in the United States and Japan
- New discussion of a study comparing how children in the United States and Japan relate to other children (for example, with regard to exclusionary behavior in social groups)
- New section on evil and hatred, considering work by Staub, Baumeister, and others

# CHAPTER 15

- New discussion of the relationship between culture and personality
- Addition of relational theories
- Revised discussion of the humanistic approach, to make it evaluative rather than pejorative
- New material on the use of Eysenck's theory to predict health outcomes
- New material on the influence of culture on whether achievement is viewed as primarily individual or group-based
- New material on relational theories as an extension of object-relations theories
- New material showing that smokers who score high on neuroticism tend to be more susceptible to heart disease
- New material on Saucier and Goldberg's extension of the Big Five
- New biological material showing that asymmetries in ear-drum temperatures predict individual differences in personality and behavior

### CHAPTER 16

- New discussion of the affective model of selfesteem as it pertains to mental health
- Clarification of the diasthesis-stress model
- Clarification that the DSM is continually under revision
- New examples of compulsions
- New explanation of the two main forms of bipolar disorder, and of its treatment
- Updated statistics on suicide and related phenomena
- New discussion of attempted suicide
- New material on evolutionary interpretations of schizophrenia
- New material on the affective theory of self-esteem
- Updated statistics on suicide
- Evidence that stress increases the likelihood of schizophrenia symptoms in susceptible people
- Discussion of an evolutionary view of schizophrenia

### CHAPTER 17

- Discussion of Torrey and Miller study showing that mental illness has been widespread for at least 250 years
- Mention of new SSRI drugs
- Note that benzodiazapines affect driving much as alcohol does
- Discussion of religious cults and charismatic groups administering "psychotherapy"
- Further data on the success of 12-step programs as therapy
- Inclusion of A. Lazarus on the importance of temperamental compatibility to success in marriage
- New material on the effects of deinstitutionalization
- New note that the name of a type of therapy does not necessarily describe what actually happens in sessions
- New explanation that the effectiveness of a certain kind of therapy depends in part on the client's personality

# CHAPTER 18

- Added material on the effects of stress on health and marital adjustment
- Added material on Type A personality
- Added material on patients' preference for patientcentered medical practitioners
- New statistics on hospital admissions and their causes
- New material on SARS
- Updating of Holmes-Rahe SRRS stressor statistics
- Updated data on causes of death

# **ANCILLARIES**

Instructor's Resource Manual Prepared by Benjamin R. Walker, Georgetown University. The Instructor's Resource Manual contains a resource integration guide, learning objectives, brief chapter outlines, detailed chapter outlines with additional activities and discussion topics, additional lecture topics, Internet activities, InfoTrac search terms and exercises, additional readings, video suggestions, annotated Web links, and approximately 10 projects/written assignments to enhance critical thinking in every chapter of the book. (0-534-61814-6)

Test Bank Prepared by Melvyn B. King, State University of New York, Cortland, and Debra E. Clark. For every chapter of the text, the Test Bank contains approximately 180 multiple-choice items (two-thirds conceptual, one-third factual), and approximately 45 essay questions (several based on the new "Unifying Psychology" boxes). Fifteen multiple-choice items per chapter, marked with "WWW," are available as online student quizzes. (0-534-61815-4). The Test Bank is also available in ExamView® electronic format. (0-534-61816-2).

Multimedia Manager Prepared by Lonnie Yandell, Belmont University. This one-stop lecture tool makes it easy to assemble, edit, publish, and deliver custom lectures for your course, using Microsoft® PowerPoint®. The Multimedia Manager lets you combine text-specific lecture outlines, art, video, animations from the CD-ROM, and Web features with your own material—culminating in a powerful, personalized, media-enhanced presentation. (0-534-61817-0)

Study Guide Prepared by Jada Kearns, Valencia Community College, East Campus. Each chapter of the Study Guide contains a chapter review, learning objectives, and multiple-choice and fill-in questions for each main-text section. Other features include "Can You Put It All Together?" a section with matching, labeling, and short-answer questions, "Think About It," a section with one creative, one analytical, and one practical essay question, and a "Progress Test" that offers multiple-choice questions that cover the entire text chapter. (0-534-61813-8)

WebTutor Advantage on WebCT and Black-board WebTutor Advantage is a complete course management system and communication tool. Ready to use as soon as you log in, WebTutor is pre-loaded with text-specific content organized by chapter, including animations, video clips, practice quizzes, and more. Customize in any way you choose—from up-

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Audiovisual aids: lab simulations, animations, and videos that make difficult concepts less intimidating. Engaging interactive content: assessments and learning games that encourage mastery. (WebCT: 0-534-61819-7; Blackboard: 0-534-61818-9)

MyCourse 2.1 This versatile course management system lets you quickly create a course-specific Web site. MyCourse includes pre- and post-test quizzes prepared by James Haugh, Rowan University. It allows you to attach or load your syllabus, assign your own materials, track and report student progress, create individual performance grade books, and more. MyCourse requires no pincodes. Contact your Thomson representative if you are interested in using this useful tool. Not available separately.

Unifying Psychology CD-ROM This textspecific CD contains more than 150 modules, including videos, animations, virtual reality reviews, matching, unit quizzing, and interactive activities. The two-CD set includes:

- Quizzes prepared by Chris Hakala, Western New England College, and critical thinking questions for each chapter, all of which can be emailed or printed.
- 34 pairs of interactive "Identify/Puzzle" modules, in which definition screens ("Identify") are followed by Jeopardy-like puzzle screens ("Puzzle").
- 43 QuickTime animations, mostly rendered in 3D. Sixteen animations include a Spanish language audio tract.
- 7 QuickTime Virtual Reality interactive movies. In these, students can manipulate and explore objects in 3D space—for example, a neuron or a brain.
- 37 interactive activities, including sections on the parts of a research study, descriptive statistics, parts of the neuron, brain structure and function, structure and function of the eye, visual perception, and more.

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### FOURTH EDITION

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Anthony Hermann, Kalamazoo College G. Christian Jernstedt, Dartmouth College David McDonald, University of Missouri Paul Merritt, The George Washington University Dianne Moran, Benedictine University Teresa Polenski, West Liberty State College Paula Shear, University of Cincinnati Benjamin Walker, Georgetown University Nancy Woolf, University of California, Los Angeles

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Marites F. Pinon, Southwest Texas State University

Michael Renner, West Chester University Gloria Scheff, Broward Community College Peggy Skinner, South Plains College Holly R. Straub, University of South Dakota Holly A. Taylor, Tufts University Donna Thompson, Midland College Spencer Thompson, University of Texas—Permian Basin

Frank J. Vattano, Colorado State University
Matthew Westra, Longview Community College
Judith Wheat, James Madison University
Burrton G. Woodruff, Butler University
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Robert J. Sternberg



CHAPTER 1

# WHAT IS PSYCHOLOGY?

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