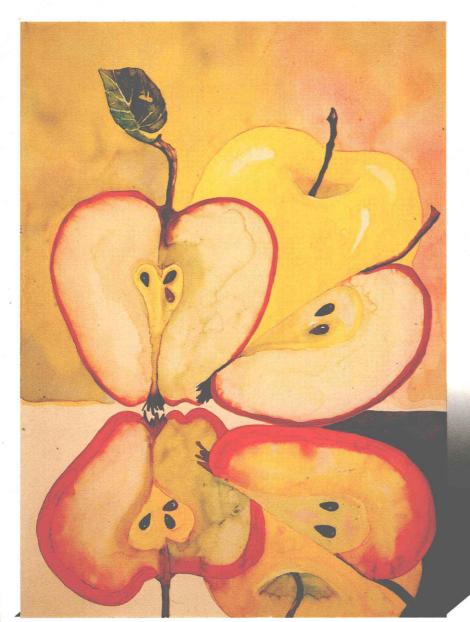
PSYCHOLOGY



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CORE CONCEPTS

Fourth Edition

PSYCHOLOGY CORE CONCEPTS

FOURTH EDITION

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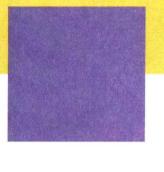
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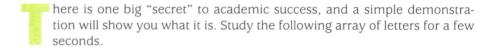
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TO THE STUDENT...





IBMUFOFBICIA

Now, without peeking, write down as many of the letters as you can (in the correct order).

Most people remember about five to seven letters correctly. A few people get them all. How do they do it? They find a pattern. (You may have noticed some familiar initials in the array above: IBM, UFO, FBI, CIA.) Finding the pattern greatly eases the task because the learner can draw on material that is already stored in memory. In this case, all that needs to be remembered are four "chunks" of information.

The same principle applies to material you study for your psychology class. If you try to remember each piece of information as a separate item, you will have a difficult time. But if you instead look for patterns, you will find your task greatly simplified—and much more enjoyable. So, how can you identify the patterns? We, the authors of your text, have developed several learning features that will make meaningful patterns in the material stand out:

▶ **Core Concepts** We have organized each major section of every chapter around a single, clear idea called a Core Concept. For example, one of the four Core Concepts in the "Memory" chapter says:

Human memory is a cognitive system composed of three stages that work together constructively to encode, store, and retrieve information.





Chapter 7
Learn more about making your memory work more efficiently for you by reading Chapter 7.





The Core Concept, then, becomes the central idea around which about 10 pages of material-including several new terms — are organized. As you read the chapter, then, keeping the Core Concept in mind will help you encode the new terms and ideas related to that concept, store them in your memory, and later, retrieve them.

► Key Questions Each Core Concept is introduced by a Key Question that also serves as a main heading in the chapter. Here, for example, is a Key Question from the Memory chapter:





WHY DOES MEMORY SOMETIMES FAIL US?

Key Questions such as this will help you anticipate the most important point, or the Core Concept, in the section. In fact, the Core Concept always provides a brief answer to the Key Question. Think of the Key Question as the high

beams on your car, helping you focus on what lies ahead.



▶ **Psychology in Your Life** Psychology has many connections with events in the news and in everyday life, and we have explored one of these connections at the end of each major section in every chapter. To illustrate, here are some examples from the "Memory" chapter:

Would You Want a Photographic Memory? "Flashbulb" Memories: Where Were You When...? On the Tip of Your Tongue Improving Your Memory with Mnemonics

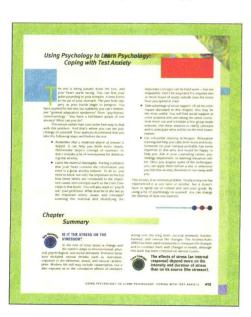
Such connections—practical, down to earth, and interesting—link your reading about psychology with your real-life experiences. They also help you critically evaluate many of the psychological ideas you encounter in the popular press.

▶ **Do It Yourself!** We have scattered active-learning demonstrations (such as the one at the beginning of this student preface) throughout the book. Besides being fun, these activities have the serious purpose of illustrating principles discussed in the text. In the Memory chapter, for example, one Do It Yourself! box helps you find the capacity of your short-term memory; another lets you test your "photographic memory" ability.



- P Check Your Understanding and Review Tests Whether you're learning psychology, soccer, or the saxophone, you need feedback on your progress, and that's exactly what you will get from the Check Your Understanding quizzes and the Review Tests. These will let you gauge how well you have mastered the material.
- ► Using Psychology to Learn Psychology In a section near the end of every chapter, we explain how you can apply your new knowledge of psychology to make your studying more effective. For

example, in Chapter 2, "Biopsychology," we tell you how to put your understanding of the brain to work for more efficient learning. Similarly, at the end of the chapter on "Emotion and Motivation," we explain how to use the concept of "flow" to boost your own academic motivation. Thus, Using Psychology to Learn Psychology not only reinforces points that you have studied, it brings the material home with immediate and practical applications to your life in college.



► Chapter Summaries Our summaries are deliberately brief-intended to provide you with an overview of each chapter, showing the patterns instead of the details. One caution: They are not a substitute for reading the chapters! In fact, we recommend that you read the summary both before and after you read the rest of the chapter. Reading the summary before will help you organize the material so that it can be more easily encoded and stored in your memory. And, a perusal of the summary after





reading the chapter will reinforce what you have just learned—easing future retrieval.

▶ If You're Interested Your authors hope that your interest in psychology will give you new eyes with which to look at the world beyond this book. There, you will discover something related to behavior and mental processes nearly everywhere. To pique this interest, every chapter offers a list of relevant, stimulating books and videos that will extend the scope of your learning.

We have built into this text many other learning features, such as the connections arrows, marginal glossary, and the extensive references list (which can be a good resource for term papers). You will learn more about these as you use the book; but if you want more information on the psychological basis of these features, please read the *Preface*.

We have one final suggestion to help you succeed in psychology: While this book is filled with examples to illustrate the most important ideas, you will remember these ideas longer if you generate your own examples as you study. This habit will make the information yours, as well as ours. And so, we wish you a memorable journey through the field we love.

Phil Zimbardo Ann Weber Bob Johnson

SUPPLEMENTS FOR STUDENTS

Grade Aid Workbook with Practice Tests This robust study guide, written by Nancy Mellucci of the Los Angeles Community College District, includes chapter summaries, chapter learning objectives, a collection of activities and exercises, practice tests, and essay questions.

iSearch: Psychology Updated to reflect the most current URLs related to the study of psychology, this easy-to-read guide helps point you in the right direction when looking at the tremendous array of information on the Internet as it relates to psychology. The iSearch also contains your access code to ContentSelect.

Zimbardo/Weber/Johnson Companion Web Site This helpful site contains a wide variety of valuable study tools for each chapter of the textbook, including learning objectives, chapter summaries, interactive online quizzes, learning activities, and Web links to relevant psychology sites to reinforce learning.

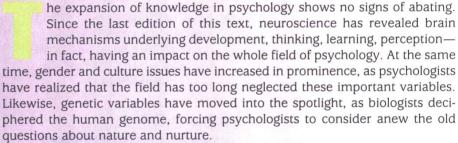
ContentSelect Available to instructors and students using the textbook, ContentSelect Research Database is an online collection of leading scholarly and peer-reviewed journals grouped by discipline. The titles were chosen to reflect as many of the major subject areas in the psychology curriculum as possible. Instructors and students alike have instant access to thousands of full-text articles anywhere and anytime they have an Internet connection.

Evaluating Psychological Information This workbook, *Sharpening Your Critical Thinking Skills*, 3rd edition, developed by James Bell, focuses on helping students evaluate psychological research systematically and improving critical thinking skills.

How to Write Psychology Papers, 2nd edition Les Parrot provides a brief overview for writing APA-style psychology papers, including information on overcoming paper panic, using the Internet, preparing a working reference list, avoiding plagiarism, and using inclusive language.



PREFACE



Cognitive psychologists, too, have been busy expanding the frontiers of knowledge about, for example, implicit memory, concept learning, and cognitive development. But they have been pressured by their colleagues working on "hot" cognition to recognize the role of emotion in memory and thinking. Meanwhile, on the clinical front, psychologists have been accumulating evidence for psychological therapies of demonstrable effectiveness—some of which challenge the hegemony of Prozac and Valium.

And, of course, the terrorist attacks of September 11, 2001, have refocused our attention on the origins of aggression and violence.

The problem for writers of psychology texts is this: How can we include the exciting new developments in the field and still acquaint students with the classic studies, historical trends, and multiple perspectives of the field—and, at the same time, keep the size of the book within manageable proportions? For this 4th edition of *Psychology: Core Concepts*, your authors have had to make difficult choices. We hope you will agree with our selections and deletions—although please remember that you may introduce additional material to students and emphasize favorite topics if you feel we have slighted them.

But as teachers, we realize that the problem for students is not just one of sheer volume and information overload; it is also a problem of meaningfulness. With this in mind, we have again found inspiration in a classic study of chess players. As you may recall, Adrian de Groot (1965) and his colleagues



(Chase & Simon, 1973) showed that experts did no better than novices at remembering the locations of pieces on a chess board when the pieces were placed at random. Only when the patterns made sense—because they represented positions that would be found in real games—did the experts show an advantage. Clearly, meaningful patterns are easier to remember than random arrangements.

In applying this finding to *Psychology: Core Concepts*, 4th edition, our goal has been to help students take the first steps toward expertise by showing them meaningful patterns that occur throughout the field of psychology. The pedagogical features of this text help us achieve this goal:

► Core Concepts We have organized the major sections of every chapter around a single, clear idea that we call a Core Concept. Here is an example from the chapter on "Sensation and Perception":

The brain senses the world indirectly because the sense organs selectively convert stimulation into the language of the nervous system: neural impulses.

To borrow an old saying, the Core Concepts become the "forest," while the details of the chapter become the "trees."

► Key Questions The main headings in each chapter appear in question form, as in this example, which introduces the Core Concept shown above:

HOW DOES STIMULATION BECOME SENSATION?



This question helps students anticipate and focus on the most important point: the Core Concept, which is the brief answer to the Key Question. Both the Key Questions and the Core Concepts later reappear as organizing features of the **Chapter Summary**.



▶ Psychology in Your Life Psychology has many connections with every-day life and students' interests. We explore one of these connections at the end of each main division of every chapter. Here are some examples:

Emotional Differences between Men and Women Depend on Culture The Origins of Sexual Orientation A Critical Look at "Learning Styles" Side Effects of Psychoactive Drugs These connections make psychology come alive. They also promote critical thinking by helping students evaluate some of the pop psychology they encounter in the media.

▶ **Do it Yourself!** These active-learning boxes offer simple and effective demonstrations of principles discussed in the text. Many are borrowed from demonstrations we use in our own classrooms. They include, among other topics, locating the blind spot, demonstrating mental set, finding the capacity of working memory, checking one's locus of control, wrestling with IQ test items, and second-guessing a surprising social psychology experiment.



▶ Using Psychology to Learn Psychology In a special section of every chapter, we explain how some aspect of the chapter applies to studying and learning. For example, in the context of biopsychology, we show students how to put their knowledge of the brain to work for more efficient learning. And in the discussion of thinking, students learn how the psychology of expertise (as in de Groot's studies of chess masters) applies to their mastery of the concepts in psychology. Thus, Using Psychology to Learn Psychology not only reinforces points that students have studied, it brings the material home with

immediate and practical applications to their college lives.

► Connection arrows As you saw in the previous paragraph, important topics in other chapters are often cross-referenced with an arrow in the margin, used in place of the phrase, "as we will see in Chapter X." An explanatory note accompanies these icons, to give the reader a quick preview of the discussion to be found in the referenced chapter. We intend this feature to convey the sense of psychology as a "web" of interconnecting ideas.

Along with the unique features of this book, discussed above, the new edition of *Psychology: Core Concepts* offers the content and pedagogy you would expect from any outstanding introductory psychology text:

- ▶ Marginal glossaries In this 4th edition of *Psychology: Core Concepts*, the most important terms again appear in **bold face**, with glossary definitions in the margin. Then, at the end of the book, a comprehensive Glossary section gathers the terms and definitions from each chapter.
- ▶ Check Your Understanding and Chapter Review Tests Reviewers have told us that they want a book that promotes active reader involvement. The 4th edition of *Psychology: Core Concepts* does this in many ways. One of the most important for student learning is the Check Your Understanding feature, which offers a brief quiz at the end of each main chapter section. We have written these quizzes so that they reinforce specific information from





Connection

Chapter 8
Expert knowledge is organized into elaborate schemas



the chapters as well as the more abstract concepts. Accordingly, some questions call for simple *recall*, while others call for deeper *analysis* or *application* of material. In addition, at least one question in each Check Your Understanding quiz is aimed squarely at the Core Concept of the section. Similarly, the Review Test at the end of each chapter helps students assess their overall retention and understanding of the material.

- ▶ **Chapter Summaries** The goal of our Chapter Summaries, organized around the Key Questions and Core Concepts of the chapters, is to provide students with a brief overview of the chapter—rather than a précis that can be read as a substitute. We hope that professors will advise students to peruse the chapter summary both *before* and *after* reading the chapter.
- ▶ **Culture and Gender** Nearly every chapter brings in a culture- or gender-related concept. We have not trivialized this material by setting it aside in special boxes. Rather, culture and gender have been fully integrated with psychology in the running text.

Finally, this edition of *Psychology: Core Concepts* addresses the timely problems of aggression, violence, and terrorism from multiple perspectives, including biopsychology, social learning, and cognitive psychology. Then, in the social psychology chapter, we bring this material together. There we suggest that psychology can offer valuable insights into the problem of terrorism and the issues that surround it.

We think you will like the introduction to psychology presented in this book—both the content and the pedagogical features. After all, it's a text that uses well-grounded principles of psychology to teach psychology.

Instructor's Supplementals

The following supplements will also enhance teaching and learning for you and your students:

Instructor's Manual Written by Anita Rosenfield of Yavapai Community College, this helpful teaching companion includes chapter outlines, summaries, experiments and demonstrations, lecture launchers, class activities, and plenty of teaching tips and course organization material.

Test Bank David Baskind of Delta College has provided a new, updated question test bank available in both print and computerized formats. The Test Bank for the 4th edition of *Psychology: Core Concepts* offers a new article by Kay Burke, as well as 150 questions per chapter, including multiple choice, true-false, short answer, and essay questions.

Allyn & Bacon Test Manager—Computerized Test Bank (Available for Windows and Macintosh; DOS disk available on request): Allyn & Bacon Test Manager is an integrated suite of testing and assessment tools for Windows and Macintosh. You can use Test Manager to create professional-looking exams in just minutes by building tests from the existing database of questions, editing questions, or adding your own. Course management features include a class roster, gradebook, and item analysis. Test Manager also has everything you need to create and administer online tests. For first-time users, there is a guided tour of the entire Test Manager system and screen wizards to walk you through each area.

Allyn & Bacon Transparencies for Introductory Psychology, 2001 (0–205–32168–2) A full set of color acetate transparencies is available to enhance classroom lectures and discussions.

PowerPoint Presentation (CD-ROM) This book-specific presentation provides detailed outlines of key points for each chapter supported by charts, graphs, diagrams, and other visuals from the textbook. Resources from the

Zimbardo/Weber/Johnson Companion Web site are also integrated for easy access to the Web site from your classroom.

- Allyn & Bacon Digital Media Archive CD-ROM for Psychology, 3.0 Version (0–205-34963–3) Allyn & Bacon provides an array of media products to help liven up your classroom presentations. The Digital Media Archive provides charts, graphs, tables, and figures electronically on one cross-platform CD-ROM. The Digital Media Archive also provides video and audio clips along with the electronic images that can be easily integrated into your lectures. This helpful resource extends the coverage found on the Zimbardo/Weber/Johnson PowerPoint Presentation CD-ROM.
- Allyn & Bacon Mind Matters CD-ROM (0–205–32179–8) This student CD-ROM features in-depth units on the history of psychology, research methodology, biopsychology, learning, memory, sensation and perception, social psychology, and development. Each unit includes self-contained modules that cover core psychological concepts through a combination of text, graphics, humor, activities, and extensive assessment.
- Allyn & Bacon Mind Matters Faculty Guide (0-205-38141-3) This helpful instructor resource offers detailed overviews of each unit of the CD-ROM supplemented by additional test questions and chapter-by-chapter references correlating content from the CD-ROM with Allyn & Bacon introductory psychology textbooks. This in-depth guide makes it easy to integrate the Allyn & Bacon Mind Matters CD-ROM into your syllabus.
- Pearson Course Management System The PearsonCMS enables professors to easily create password-protected online courses and empowers professors to manage their courses in many ways. Each course Web site contains the content of the highly popular and successful Allyn & Bacon Companion Web site along with an integrated syllabus. Each site is PIN activated and password protected. PearsonCMS has been created in collaboration with the higher education community at every stage of its development. Please contact your Allyn & Bacon publisher's representative for more details.
- Allyn & Bacon Video Library A wide variety of videos are available upon adoption of Zimbardo/Weber/Johnson *Psychology: Core Concepts,* 4th edition. Please contact your local Allyn & Bacon publisher's representative for more details.

A NOTE OF THANKS

Nobody ever realizes the magnitude of the task when taking on a textbook-writing project. Rebecca Pascal, our Acquisitions Editor, deftly guided us through this Byzantine process.

The vision confronted reality under the guidance of Susan Messer, our Developmental Editor, whose instincts were (we have said before, and will say again) always right. Susan did the difficult job of making our prose smooth and clear. She always let us know when it was good, and she was masterful at giving helpful and tactful suggestions when it was not.

The job of making the manuscript into a book fell to Joe Sweeney, Senior Editorial-Production Administrator, and Margaret Pinette, our Puckish copyeditor, in whom we met a stickler for style with a great sense of humor. We think they did an outstanding job— as did our tireless photo researcher, the tenacious Sarah Evertson, who had the class and brass to get photos from even the most reluctant of sources.

We are sure that none of the above would be offended if we reserve our deepest thanks for our spouses and closest colleagues. Phil thanks his wonderful wife, Christina Maslach, for her endless inspiration and for modeling

what is best in academic psychology. He also acknowledges his appreciation to John Boyd for his constant research and teaching support, as well as to Jackie Wagner, whose passion for life is infectious, and whose dedication to always getting it "right" is so admirable.

Ann thanks her long-suffering spouse, John Quigley, for always and readily encouraging her efforts and assuring her that she's "the best." It will surprise no one who knows her that Ann also thanks her six cats and one perfect dog for their abiding, accepting love and for providing perspective and acceptance, no matter what. She also would like to thank her students and colleagues in the Department of Psychology at UNC Asheville for providing feedback, input, and inspiration of the teaching profession as well as the minutia of composing a book—lessons, examples, gimmicks, and especially ideas and images that don't work and so have to be deleted before the manuscript ever sees the light of publication!

Bob is grateful to his spouse and friend, Michelle, who put up with long conversations on topics psychological, Bob's undone household chores, and much gratification delayed—mostly without complaint. She has been a well-spring of understanding and loving support. His thanks, too, go to Rebecca, their daughter, who has taught him the practical side of developmental psychology—and now, much to her own astonishment, possesses a graduate degree in psychology.

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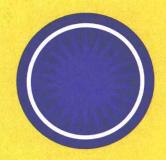
Chris Robin, Madisonville Community College



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