

PSYCHOLOGY

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SECOND EDITION

Second Edition

PSYCHOLOGY

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*To the researchers, past and present,
whose work embodies psychology today,
and to the students who will follow
in their footsteps to shape the psychology
of tomorrow.*

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In revising *Psychology* we have rededicated ourselves to the goals we pursued when we wrote the First Edition:

- To explore the full range of psychology, from cell to society, in an eclectic manner as free as possible from theoretical bias.
- To balance our need to explain the content of psychology with an emphasis on the doing of psychology, through a blend of conceptual discussion and description of research studies.
- To foster scientific attitudes and to help our readers learn to think critically by examining the ways that psychologists have solved, or failed to solve, fascinating puzzles of behavior and mental processes.
- To produce a text that, without oversimplifying psychology, is clear, accessible, and enjoyable for students to read—even spiced now and again with humor.
- To demonstrate that, in spite of its diversity, psychology is a notably integrated discipline in which each subfield is linked to other subfields by common interests and overarching research questions. The productive cross-fertilization among social, clinical, and biological psychologists in researching health and illness is just one recent example of how different types of psychologists benefit from and build on one another's work.

Responses from faculty and students who used the First Edition indicate that we achieved what we set out to do. In preparing the Second Edition we sought new ways to do justice to our goals.

We sought to respond to the needs of instructors who wanted us to reduce or expand coverage of various topics. For example, many instructors asked us to expand our coverage of adolescent and adult development in Chapter 2. We did so, and a more rounded picture of life-span development was the result.

We also sought to strike an ideal balance between classic and current research. The important historic findings of psychological research are here, but so is coverage of much recent work. More than a third of the research citations are new to the Second Edition, and we have added the latest information on such topics as:

- Day care (Chapter 2)
- Alzheimer's disease, Parkinson's disease, and mood disorders (Chapter 3)
- Biological effects of alcohol (Chapter 5)
- The role of emotion in forgetting, and the biological bases of memory (Chapter 8)
- Artificial intelligence (Chapter 9)
- Neural networks (Chapter 9)
- Creativity (Chapter 10)
- Panic and fear (Chapter 11)
- The "big five" theory of personality (Chapter 14)
- Cognitive behavior therapy (Chapter 16)
- The cognitive bases of prejudice (Chapter 17)

We wanted as well to present research findings as conclusions drawn from studies that are not infallible. Part of teaching students to think critically is to have them examine the limitations and flaws in the studies presented to them by authorities, and on this point we did not compromise.

We have also taken pains to draw attention to ethical considerations in psychology. These considerations are introduced in Chapter 1, and examined at other points throughout the text. One example occurs in Chapter 16, on Treatment of Psychological Disorders, where we discuss patients' rights; another is found in Chapter 18, in relation to Milgram's obedience research.

We have incorporated in the text frequent references to practical applications of psychological research. For example, in Chapter 5, on perception, we discuss psychology's contribution to aviation safety and present new material on the design of traffic circles. In a new discussion in Chapter 7 we examine the learning of everyday skills, such as driving a car or operating a computer. Chapter 8, Memory, proved an appropriate context for the discussion of courtroom behavior as well as an opportunity for students to improve their study skills and exam-taking techniques.

As in the First Edition, we have placed most of our discussion of historical events and trends into the chapter contexts where they are relevant, rather than attempting detailed coverage of psychology's history in Chapter 1.

Organization of the Text

No consensus exists on exactly what chapter sequence will present psychology to students in the most logical and comprehensible manner. Like other teachers, we have a preferred outline, and it is reflected in our table of contents. Rather than impose our sequence on your teaching, however, we have refrained from grouping the chapters into sections. Indeed, we designed each chapter to be a freestanding unit so that you may assign chapters in any order you wish.

We begin in Chapter 1 with an overview of the nature of psychology, a summary of the research and other activities associated with the various subfields within psychology, and a description of some of the research methods psychologists use. Then, to begin surveying the field, we move to Chapter 2, Human Development, where we show the reader how the principles and

processes studied in each subfield come together across the human being's life span. Many instructors who followed our chapter organization in the First Edition found, as we have, that preceding physiology with human development had a salutary effect on their students. Again, however, if you wish to assign the development chapter out of sequence you may do so comfortably.

Other notable aspects of the text's organization:

- Unlike some other texts, we devote separate chapters to motivation; emotion; and stress, coping, and health (Chapters 11, 12, and 13). This enables us to cover these areas in the depth they deserve and, in particular, to present a detailed discussion of stress, one of the major subjects of psychological research during the past decade.
- We devote two separate but related chapters to social psychology (Chapters 17 and 18).
- We cover the methods of psychological research initially in Chapter 1, and we deepen that coverage with a statistics appendix that covers inferential as well as descriptive statistics. The appendix facilitates the learning of difficult concepts by focusing on a single research study throughout.

Users of the First Edition may wish to note that we have not changed the sequencing of chapters, or added or deleted chapters, in this revision. We have, however, improved the internal organization of several chapters in the book, including

- Chapter 2 on human development, where, for example, we have presented Piaget's developmental stages in a more coherent form.
- Chapter 7 on learning, in which we have added a new section on teaching and training of human skills.
- Chapters 17 and 18, the first of which is now focused on social cognition and the second on social interaction.

Special Features

Psychology contains a number of special features designed to promote efficient learning and students' mastery of the material. Some of the features from the First Edition have been revised and enhanced in the Second Edition, and some are new.

Linkages

We have built into the book an integrating tool called Linkages, which highlights some of the relationships among the various subfields in psychology. In the Second Edition, this tool has been considerably improved for ease and efficiency of use. It consists of four parts:

1. In the first few pages of each chapter, a linkage diagram (Linkages: An Overview), reconceived for the Second Edition, illustrates ways that the chapter sheds light on questions arising in other chapters and how material in other chapters helps illuminate questions raised in the current one. Each diagram carries a caption that discusses some of these linkages. The page numbers following each linking question direct the student to pages that carry further discussion of that question. (An appendix that carried these page numbers in the First Edition has been dropped from this edition.)

2. To further reinforce the linkages concept as the student reads through each chapter, each linking question is repeated in the margin of the page where the discussion appears.
3. One such discussion always appears near the end of the chapter in a linkages section that addresses at length a particularly timely or provocative question previously raised in that chapter's linkage diagram.
4. Also new to the Second Edition, each chapter contains at least one captioned photo that illustrates how the content of the chapter is related to that of another chapter.

By establishing ties between chapters, the Linkages material combines with the text narrative to highlight the network of relationships among psychology's subareas. However, the Linkages program does not require that you follow our text's chapter sequence.

Highlights

We have chosen not to employ any "boxed" material in the text. When we wish to emphasize a topic, we have placed it in a Highlight, a section that follows logically and directly from the narrative. These Highlights, analogous to a magnifying glass placed over particular topics in each chapter, allow the reader to examine selected topics in detail without being distracted from the chapter's narrative flow.

Thinking Critically

A new section in each chapter is called Thinking Critically. We try throughout the book to describe research on psychological phenomena in a way that reveals the logic of the scientific enterprise, that identifies possible flaws in design or interpretation, and that leaves room for more questions and further research. In other words, we try to display critical thinking processes. The Thinking Critically sections are designed to make these processes more explicit and accessible by providing a framework for analyzing evidence before drawing conclusions. The framework is built around five questions that the reader should find useful in analyzing not only studies in psychology but other forms of communication as well. These questions, first introduced when we discuss the importance of critical thinking in Chapter 1, are

1. What am I being asked to believe or accept?
2. What evidence is available to support the assertion?
3. Are there alternative ways of interpreting the evidence?
4. What additional evidence would help to evaluate the alternatives?
5. What conclusions are most reasonable?

Thinking Critically sections examine, for example, whether day care harms the emotional development of infants (Chapter 2), whether people can perceive what cannot be sensed (Chapter 5), whether IQ tests are unfairly biased against certain groups (Chapter 10), and other controversial issues. Like the Highlights, these sections are not boxed off from the main narrative.

In Review Charts

Also new to the Second Edition, In Review charts summarize key information in a convenient tabular format. We have placed two or three In Review charts strategically in each chapter to help students synthesize and assimilate large

chunks of information—for example, on drug effects, key elements of personality theories, and stress responses and mediators.

Future Directions

Each chapter concludes with Future Directions, a section intended to excite and inform students about new trends. Here we offer our views on the directions that theory, research, and applications will take in future years. We also suggest courses that an interested student could take in psychology and other disciplines to learn more about the chapter's topic.

Chapter Summaries

These summaries have been reconfigured in the Second Edition to reflect more clearly the heading structure of each chapter. The chapters' key terms are now integrated into the summaries rather than set off as a separate list. These terms are defined in the glossary.

Ancillary Package

Accompanying this book are, among other ancillaries, a *Test Bank*, an *Instructor's Resource Manual*, and a *Study Guide*. Because these items were prepared by the lead author and his colleagues in the University of Illinois psychology department, you will find an especially high level of coordination between the textbook and these supplements. All three are additionally unified in the Second Edition by a shared set of learning objectives.

Test Bank (by Graeme McGufficke, Sandra S. Goss, and Douglas A. Bernstein)

The *Test Bank* contains more than 3,000 multiple-choice items (165 per chapter plus 35 on statistics) and three to five essay questions for each chapter of the text. All multiple-choice items are keyed to the learning objectives listed in the *Instructor's Resource Manual* and *Study Guide*. Approximately 1,000 questions have already been class-tested and are accompanied by graphs indicating the question's discriminative power, level of difficulty, the percentage of students who chose each response, and the relationship between students' performance on a given item and their overall performance on the test in which the item appeared.

Instructor's Resource Manual (by Sandra S. Goss and Douglas A. Bernstein)

The *Instructor's Resource Manual* contains a complete set of lecture outlines and learning objectives. The revised version of this manual contains nearly one hundred specific teaching aids—most of them new to the Second Edition—including handouts, demonstrations, and classroom exercises. It also contains other material that will be useful to teachers of large introductory courses, such as a section on classroom management and administration of large multisection courses, and a discussion of careers in psychology that instructors may want to distribute to students.

Study Guide (by Bridget Schoppert, Marcia Graber, and Douglas A. Bernstein)

The *Study Guide* employs numerous techniques that help students to learn. Each chapter contains a detailed outline, a key terms section that presents fresh examples and aids to remembering, learning objectives, and a "Concepts and Exercises" section that shows students how to apply their knowledge of psychology to everyday issues and concerns. In addition, each chapter concludes with a two-part self-quiz consisting of thirty multiple-choice questions. An answer key tells the student not only which response is correct but also why each of the other choices is wrong. The revised *Study Guide* also includes a write-in quiz for each chapter.

Other Ancillaries Available to Adopters

The *Test Bank*, *Instructor's Resource Manual*, and *Study Guide* are also available to adopters on disk for use on microcomputers.

The computerized *Test Bank* allows instructors to generate exams and to integrate their own test items with those on the disk.

The detailed lecture outlines that appear in the *Instructor's Resource Manual* are also available on disk in a generic ASCII-code version. This format allows instructors to use standard word-processing software to integrate their own lecture notes and ideas into the text lectures.

The computerized *Study Guide* is an interactive program that gives students feedback on incorrect as well as on correct answers.

These additional software items are available to adopters:

- Computer simulations that illustrate intriguing phenomena and recreate important experiments
- *Linkages*, HyperCard-based software that allows students to explore the linked sections of the textbook systematically and efficiently
- *Flash Card*, a new ancillary that helps students to master the technical vocabulary of psychology

Also offered to adopters are two sets of transparencies, available as well in slide form. One set contains more than 100 images from the text, most in full color; the other set provides 50 images from outside the text. Finally, a range of videocassettes containing films on topics in psychology is available on adoption of a minimum number of books.

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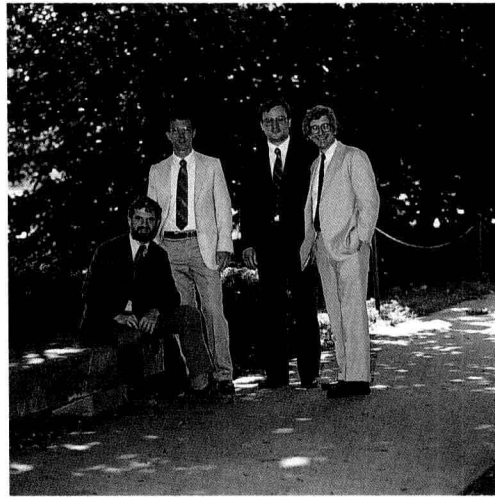
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*Left to right: Christopher D. Wickens,
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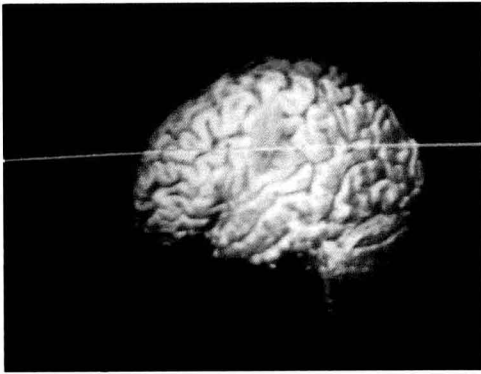
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