

fifth edition

PSYCHOLOGY



Bernstein

Clarke-Stewart

Penner

Roy

Wickens

PSYCHOLOGY

FIFTH EDITION

Douglas A. Bernstein

University of South Florida

University of Surrey

Alison Clarke-Stewart

University of California, Irvine

Louis A. Penner

University of South Florida

Edward J. Roy

University of Illinois at Urbana-Champaign

Christopher D. Wickens

University of Illinois at Urbana-Champaign

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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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PREFACE

IN REVISING *Psychology* we have rededicated ourselves to the goals we pursued in the first four editions:

- To explore the full range of psychology, from cell to society, in an eclectic manner as free as possible of 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 students 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 to read.
- To demonstrate that, in spite of its breadth and diversity, psychology is an 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 example of how different types of psychologists benefit from and build on one another's work.

Preparing the Fifth Edition provided us with 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 increase the amount of material on applied psychology without losing the book's emphasis on basic research in psychology. As a result, we have added material relating to applied areas such as industrial/organizational psychology throughout the book, wherever appropriate.

We have also added a new coauthor, Louis Penner of the University of South Florida, to help us with our coverage of personality and social psychology. Lou is an active researcher in these areas; he also teaches introductory psychology, as well as graduate and undergraduate courses in personality and social psychology.

As always, we 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. Approximately one-third of the research citations are new to the Fifth Edition, and we have added the latest information on such topics as

- Methods for evaluating claims for the effectiveness of eye movement desensitization (Chapter 2)
- Techniques for studying the brain (Chapter 3)
- Pheromones in humans (Chapter 4)
- The impact of subliminal stimuli (Chapter 5)
- The effects of punishment on children (Chapter 6)
- Biological bases of memory (Chapter 7)
- Human-computer interactions (Chapter 8)
- How expectancies about alcohol affect behavior (Chapter 9)
- How anxiety can affect test performance (Chapter 10)
- What motivates people to volunteer (Chapter 11)
- Risk and resiliency in children (Chapter 12)
- Psychological reactions to stress (Chapter 13)
- Temperament, personality, and health-related behaviors (Chapter 14)
- The relationship between child abuse and adult dissociative disorders (Chapter 15)
- Empirically validated psychotherapies (Chapter 16)
- Strategies to change attitudes (Chapter 17)
- Environmental factors and aggression (Chapter 18)

The Fifth Edition also contains substantial material on culture and human diversity. Throughout the text students will encounter recent research on multicultural phenomena occurring in North America and around the world. We introduce this multicultural emphasis in Chapter 1, and we follow up on it in other chapters through such topics as

- Selecting human participants for research (Chapter 2)
- Culture, experience, and perception (Chapter 5)
- Classrooms across cultures (Chapter 6)
- Cultural differences in formal reasoning (Chapter 8)
- Knowledge, language, and culture (Chapter 8)
- Bilingualism (Chapter 8)
- Cross-cultural differences in the meaning of words (Chapter 8)
- The impact of stereotypes on mental-ability testing (Chapter 10)
- Ethnic differences in IQ (Chapter 10)
- Flavor, cultural learning, and food selection (Chapter 11)
- Social and cultural factors in sexuality (Chapter 11)
- Cultural and gender differences in achievement motivation (Chapter 11)
- Cultural aspects of emotional expression (Chapter 11)
- Culture and cognitive development (Chapter 12)
- Cultural background and heart disease (Chapter 13)
- Personality, culture, and human development (Chapter 14)

- Ethnic bias in psychodiagnosis (Chapter 15)
- Sociocultural factors in psychological disorders (Chapter 15)
- Gender and cultural differences in depression and suicide (Chapter 15)
- Cultural factors in psychotherapy (Chapter 16)
- Ethnic differences in responses to drug treatment (Chapter 16)
- Cultural differences in attribution (Chapter 17)
- The roots of ethnic stereotyping and prejudice (Chapter 17)
- Cultural factors in social norms (Chapter 18)
- Culture and social loafing (Chapter 18)
- Cultural factors in aggression (Chapter 18)

We also have increased our coverage of behavioral genetics and evolutionary psychology. These topics are introduced in Chapters 1 and 2 and in a revised behavioral genetics appendix. They are also explored wherever appropriate—for example, when we discuss

- Gene manipulation research on the causes of Alzheimer's disease (Chapter 3)
- Biopreparedness for learning (Chapter 6)
- Genetic components of intelligence (Chapter 10)
- Genetic components of sexual orientation (Chapter 11)
- Evolutionary explanations of mate selection (Chapter 11)
- Innate expressions of emotion (Chapter 11)
- The genetics of prenatal development (Chapter 12)
- The heritability of personality (Chapter 14)
- Genetic factors in psychological disorders (Chapter 15)
- Evolutionary/genetic explanations for aggression, helping, and altruism (Chapter 18)

CHAPTER ORGANIZATION

We have refrained from grouping the book's eighteen chapters into sections. Indeed, we designed each chapter to be a free-standing unit so that you may assign chapters in any order you wish. For example, many instructors prefer to teach the material on human development relatively late in the course, which is why it appears as Chapter 12 in the Fifth Edition. But that chapter can be comfortably assigned earlier in the course as well.

SPECIAL FEATURES

Psychology contains a number of special features designed to promote efficient learning and students' mastery of the material. Most of the features from previous editions have been revised and enhanced in the Fifth; one feature is new to the Fifth Edition.

Linkages

In our experience, most students enter the introductory course thinking that psychology concerns itself mainly with personality, psychological testing, mental disorders, psychotherapy, and other aspects of clinical psychology. They have little or no idea

of how broad and multifaceted psychology is. Many students are surprised, therefore, when we ask them to read about neuroanatomy, neural communication, the endocrine system, sensory and perceptual processes and principles, prenatal risk factors, and many other topics that they tend to associate with disciplines other than psychology.

We have found that students are better able to appreciate the scope of psychology when they see it not as a laundry list of separate topics but as an interrelated set of subfields, each of which contributes to and benefits from the work going on in all of the others. To help students see these relationships, we have built into the book an integrating tool called "Linkages." There are five elements in the Linkages program:

1. Beginning with Chapter 2, a Linkages diagram presents a set of questions that illustrate three of the ways in which material in the chapter is related to other chapters in the book. For example, the Linkages diagram in Chapter 3, Biological Aspects of Psychology, contains questions that show how biological psychology is related to human development ("How do our brains change as we get older?"), consciousness ("Is there a way to drink alcohol without getting drunk?"), and treatment of psychological disorders ("How do drugs help people who suffer from depression or schizophrenia?").

2. The Linkages diagrams now appear at the end of each chapter rather than at the beginning. We moved them so that the students will be more familiar with the material to which each linkage refers when they encounter this feature. To help students notice the Linkages diagrams and appreciate their purpose, we now provide an explanatory caption with each.

3. The page numbers following each question in the Linkages diagram direct the student to pages that carry further discussion of that question. There, the linking question is repeated in the margin alongside the discussion.

4. One of the questions in each chapter's Linkages diagram is treated more fully in a special section in the chapter entitled, appropriately enough, Linkages.

5. Each chapter contains at least one captioned photo illustrating yet another way in which the content of that chapter is related to the content of another chapter.

The Linkages elements combine with the text narrative to highlight the network of relationships among psychology's subfields. This Linkages program is designed to help students see the "big picture" that is psychology—no matter how many chapters their instructor assigns, or in what sequence.

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 in each chap-

ter 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 2, 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?

All the Thinking Critically sections retained from the Fourth Edition have been extensively revised and updated. Thinking Critically sections new to the Fifth Edition include

- Recovered memories—true or false? (Chapter 7)
- Is marijuana dangerous? (Chapter 9)
- Are some therapies better than others? (Chapter 16)

Focus on Research Methods

This feature, appearing in Chapters 3 through 18, examines the ways in which the research methods described in Chapter 2, Research in Psychology, have been applied to help advance our understanding of some aspect of behavior and mental processes. To make this feature even more accessible, it is now organized around answers to the following questions:

1. What was the researcher's question?
2. How did the researcher answer the question?
3. What did the researcher find?
4. What do the results mean?
5. What do we still need to know?

Examples of these Focus on Research Methods sections include the use of case-study methods to track the problem-solving methods that led to the invention of the airplane (Chapter 8, Cognition and Language), the use of experiments to study attention (Chapter 5, Perception), learned helplessness (Chapter 6, Learning), the development of physical knowledge (Chapter 12, Human Development), and attribution (Chapter 17, Social Cognition). Other sections illustrate the use of quasi-experimental, survey, longitudinal, and laboratory analogue designs. All of the Focus on Research Methods sections retained from the Fourth Edition were revised and updated and several new ones were added. A full list of topics appears on pp. xv–xvi.

Behavioral Genetics Appendix

This feature is designed to amplify the coverage of behavioral genetics methodology that is introduced in Chapter 2, Research

in Psychology. The appendix includes a section on the basic principles of genetics and heredity, a brief history of genetic research in psychology, a discussion of what it means to say that genes influence behavior, and an analysis of what behavioral genetics research can—and cannot—tell us about the origins of such human attributes as intelligence, personality, and mental disorders.

In Review Charts

In Review charts summarize 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.

Key Terms

A feature new to the Fifth Edition is the presentation of Key Terms at the end of each chapter. This list of all the boldfaced terms in each chapter is designed to help students to review, and to be sure they understand, the most important concepts and terms in each chapter. These terms and their definitions also appear in the glossary at the end of the book.

TEACHING AND LEARNING SUPPORT PACKAGE

Many useful materials have been developed to support *Psychology*. Designed to enhance the teaching and learning experience, they are well integrated with the text and include some of the latest technologies. Several components are new to this edition.

Annotated Instructor's Edition

To help instructors coordinate the many print, software, and video supplements available with the text, an Annotated Instructor's Edition shows which materials apply to the content on every page of the student text. These materials include learning objectives, test questions, discussion and lecture ideas, handouts, active learning and critical thinking activities from the *Study Guide*, videodisc segments and stills, lecture starter videos, overhead transparencies and PowerPoint® images, as well as three psychology readers.

Print Ancillaries

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 a number of colleagues who have worked with him over the years at the University of Illinois psychology department, you will find an especially high level of coordination between the textbook and these supplements. All three are unified by a shared set of learning objectives, and all three have been revised and enhanced for the Fifth Edition.

Test Bank The *Test Bank*, by David Spurlock, Sandra S. Goss, and Douglas A. Bernstein, contains more than 3,000 multiple-choice items plus three essay questions for each chapter of the text. Half of the multiple-choice questions are new; in all others, the response alternatives have been scrambled. All multiple-choice items are keyed to pages in the textbook and to the learning objectives listed in the *Instructor's Resource Manual* and *Study Guide*. In addition, questions that ask students to apply their knowledge of the concepts are distinguished from those that require factual recall. More than 1,600 questions have already been class-tested with between 500 and 2,500 students and are accompanied by graphs indicating the question's discriminative power and 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 The *Instructor's Resource Manual*, by Joel I. Shenker, Sandra S. Goss, and Douglas A. Bernstein, contains for each chapter a complete set of learning objectives, detailed chapter outlines, suggested readings, and numerous specific teaching aids—many of them new to the Fifth Edition—including ideas for discussion, class activities, research focus sections, and the accompanying handouts. It also contains sections on pedagogical strategies such as how to implement active learning and critical thinking techniques and how to make full use of the Linkages and research focus supplements. In addition, it contains material geared towards teachers of large introductory courses, such as a section on classroom management and the administration of large multi-section courses.

Study Guide The *Study Guide*, by Linda Lebie, Amanda Allman, and Douglas A. Bernstein, 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, plus a fill-in-the-blank test, learning objectives, a concepts and exercises section that shows students how to apply their knowledge of psychology to everyday issues and concerns, a critical thinking exercise, and personal learning activities. In addition, each chapter concludes with a two-part self-quiz consisting of forty 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, and quiz analysis tables enable students to track patterns to their wrong answers, either by topic or by type of question—definition, comprehension, or application.

Succeed in College! *Succeed in College!* is a skills-building booklet containing selected chapters from Walter Pauk's best-selling study skills text *How to Study in College*. This booklet, which offers time-tested advice on notetaking, test-taking, and other topics, as well as a newly revised section on careers in psychology by John P. Fiore, can be shrink-wrapped free of charge with new copies of the student text.

Internet Guide for Psychology Houghton Mifflin's *Internet Guide for Psychology*, by David Mahony of St. John's

University, is available at no cost to students who purchase *Psychology*. This handy manual introduces students to electronic mail, discussion groups, Usenet newsgroups, the World Wide Web, APA reference style for the Internet, and more, and it provides students with step-by-step exercises and a wealth of addresses and sites relevant to psychology.

Introductory Psychology Readers *Psychology in Context: Voices and Perspectives*, Second Edition, by David N. Sattler and Virginia Shabatay, contains engaging first-person narratives and essays keyed to major psychological concepts. Coursewise Publishing offers two readers by Laura Freberg. *Perspectives: Introductory Psychology* comprises recent articles relating to key topics in introductory psychology courses, and *Stand! Introductory Psychology* contains articles that explore contending ideas and opinions relating to fundamental issues in introductory psychology courses.

Electronic and Video Ancillaries

In keeping with the technological needs of today's campus, we provide the following electronic and video supplements to *Psychology*:

Power Presentation Manager Software This powerful program allows instructors to create exciting and well-organized classroom presentations. It provides line art, tables, lecture outlines, preplanned PowerPoint® presentations, and access to *The Psychology Show* videodisc material. Instructors can also add their own PowerPoint® slides and presentations to the overhead transparency images and textbook outlines provided, as well as access their own text and image files.

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

PsychAbilities PsychAbilities is a “hands-on, minds-on” Web site dedicated to facilitating the learning and teaching of introductory psychology. PsychAbilities offers instructors and students access to current events and contemporary issues in psychology, interactive activities, practice tests, teaching materials, and more.

The Psychology Show Houghton Mifflin's video supplement for introductory psychology is available in both videodisc and videotape formats to qualified adopters. Containing nineteen motion segments plus nearly 100 still images, *The Psychology Show* is designed to expand on text coverage and to stimulate class discussion through the length of the course. An accompanying instructor's guide offers information on each motion segment and still image and provides bar codes for videodisc use.

Lecture Starter Video and Guide The Lecture Starter Video contains a series of high-interest, concise segments that instructors can use to begin a class meeting or change to a new topic. The accompanying guide briefly describes each segment, indicates concepts that can be addressed using each segment, and offers suggestions on how to use each segment.

Transparencies The accompanying transparency set contains more than 150 full-color images from both the text and sources outside the text.

Other Multimedia Offerings A range of videos, CD-ROMs, and other multimedia materials relevant to psychology are available free to qualified adopters. Houghton Mifflin sales representatives have further details.

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Many people provided us with the help, criticism, and encouragement we needed to create the Fifth Edition.

Once again we must thank Katie Steele, who got the project off the ground in 1983 by encouraging us to stop talking about this book and start writing it.

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The process of creating the Fifth Edition was greatly facilitated by the work of many dedicated people in the College Division at Houghton Mifflin Company. From the sales representatives and sales managers who told us of faculty members' suggestions for improvement to the marketing staff who developed innovative ways of telling our colleagues about the changes we have made, it seems that everyone in the division had a hand in shaping and improving the Fifth Edition. Several people deserve special thanks, however. Former sponsoring editor David Lee, senior associate editor Jane Knetzger, and editor-in-chief Kathi Prancan gave us invaluable advice about structural, pedagogical, and content changes for the new edition, and Jane, especially, acted as the project's main shepherd. When Jane took maternity leave, Marianne Stepanian ably filled in for her. Joanne Tinsley, our developmental editor, applied her editorial expertise and disciplined approach to helping us create this manuscript. She suggested changes based on reviewers' comments and our own goals, and she kept these suggestions and goals in mind as, chapter by chapter, she worked diligently to find ever better ways to organize the book and clarify its content. Janet Young, the project editor, contributed her considerable organizational skills and a dedication to excellence that was matched by a wonderfully helpful and cooperative demeanor. We also wish to thank Charlotte Miller for her stellar work in the creation and updating of the art program for the Fifth Edition; and Naomi Kornhauser for her creativity in developing new photo ideas and for her diligence in selecting and locating them. And a great big thank-you goes to Christine Arden for once again doing an outstanding job of copyediting the manuscript and to Elaine Kehoe for her copyediting help on the final chapters. Thanks also to Barbara Price and Nasya Laymon, who checked and rechecked each stage of proof to ensure its typographical accuracy. Without these people, and those who worked with them, this revision simply could not have happened. Finally, we want to express our deepest appreciation to our families and friends. Once again, their love saw us through an exhilarating but demanding period of our lives. They endured our hours at the computer, missed meals, postponed vacations, and occasional irritability during the creation of the First Edition of this book, and they had to suffer all over again during the lengthy process of revising it once more. Their faith in us is more important than they realize, and we will cherish it forever.

D. A. B.
A. C.-S.
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E. J. R.
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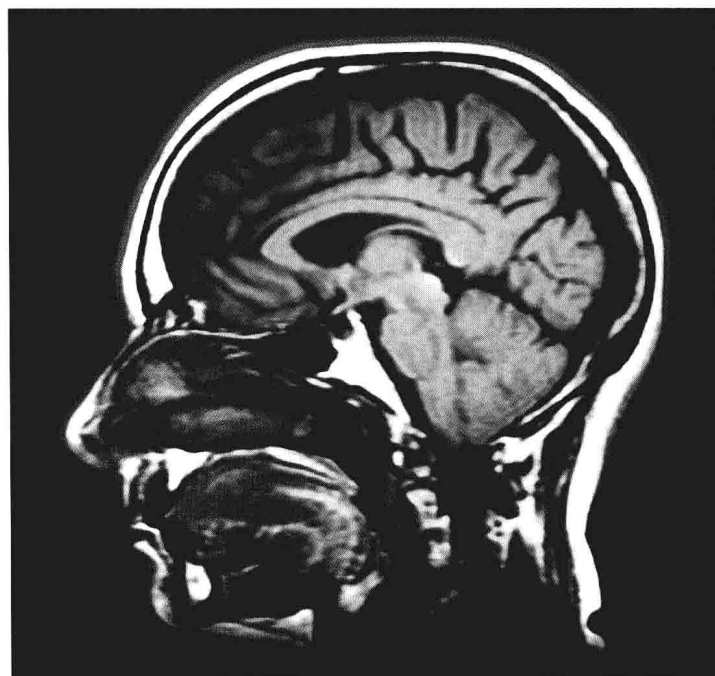
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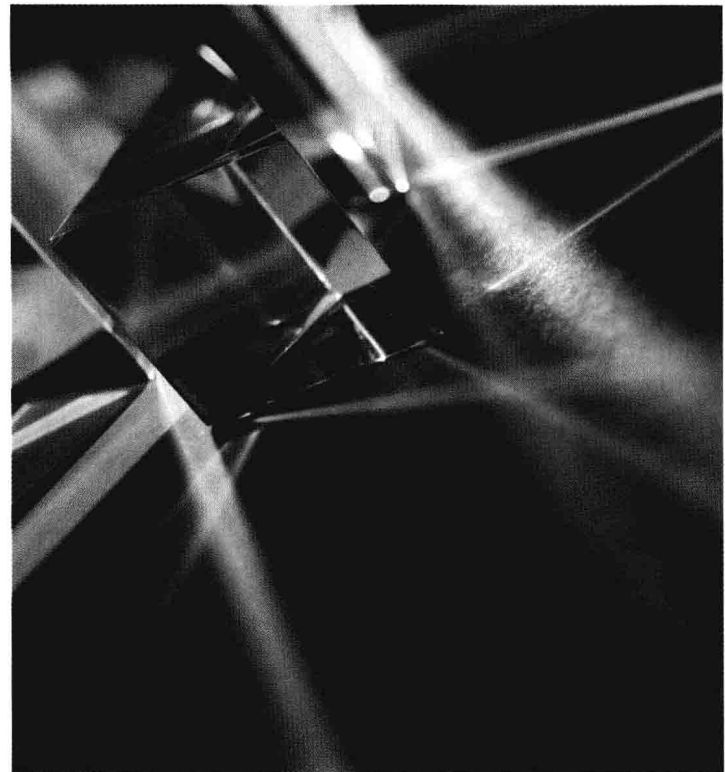


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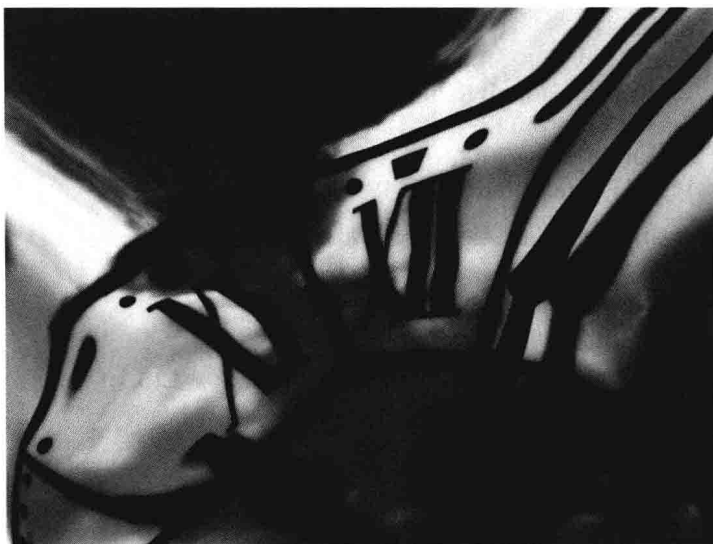
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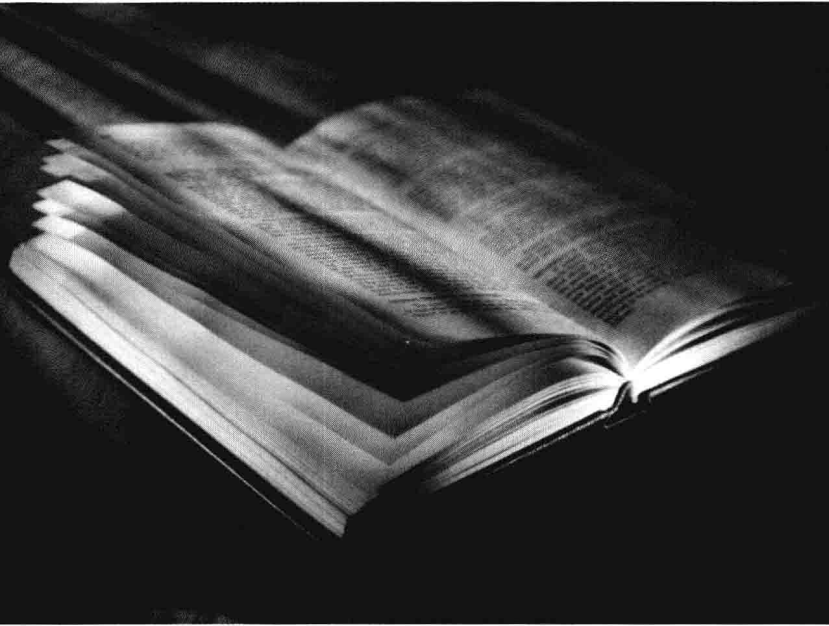
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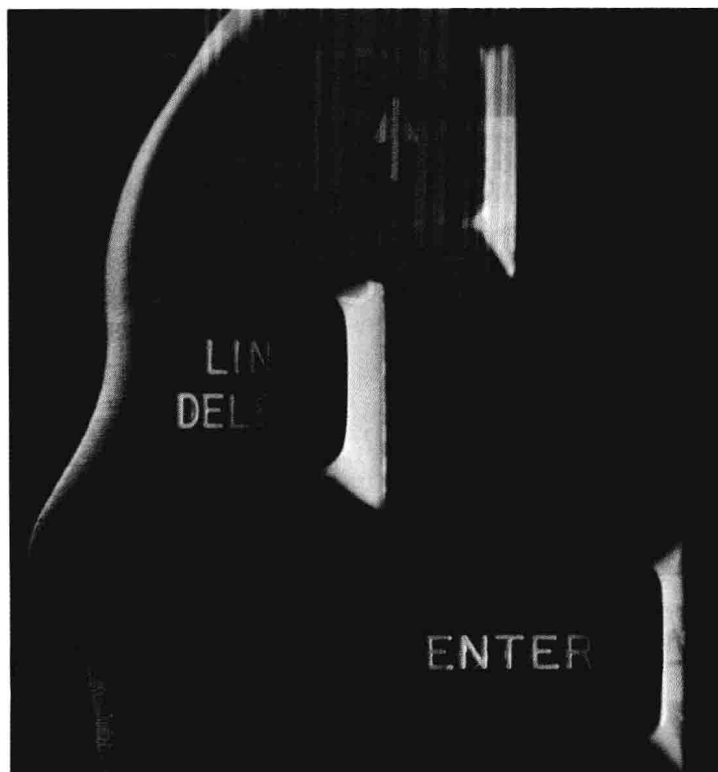
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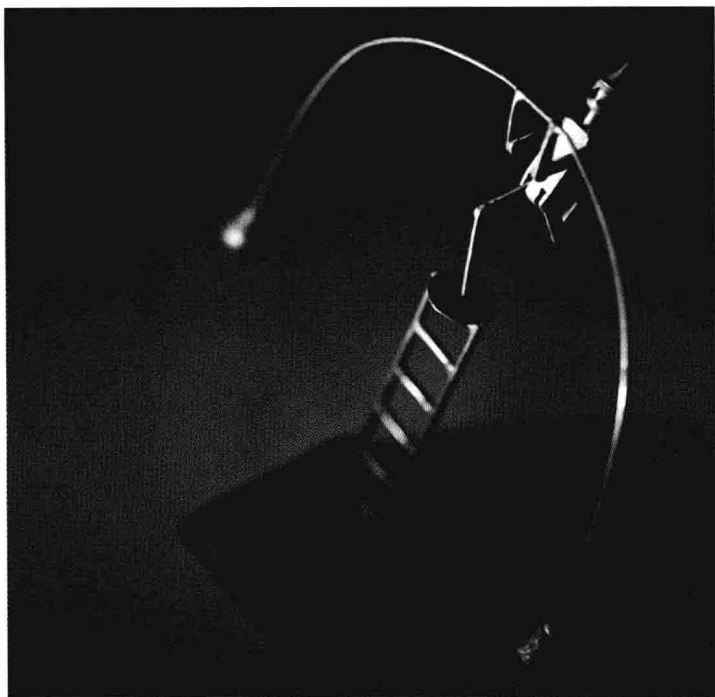
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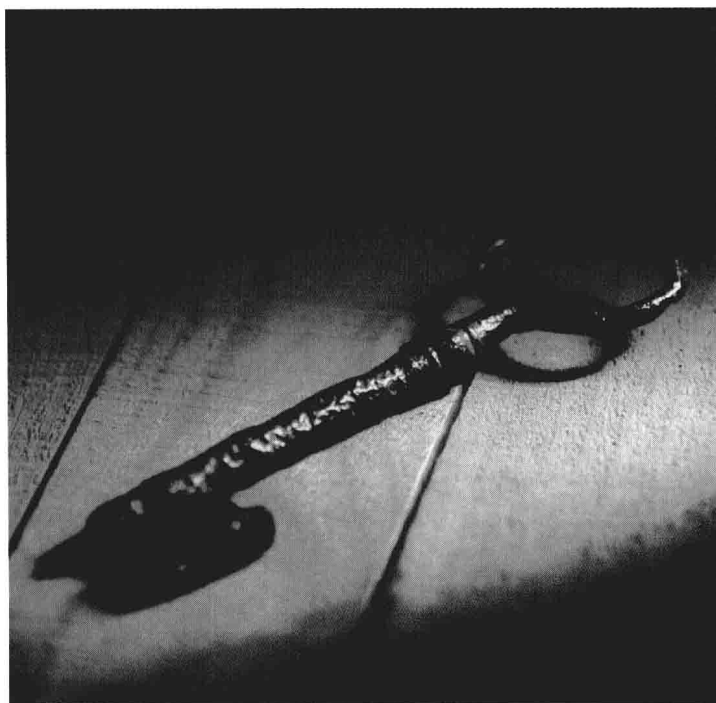
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