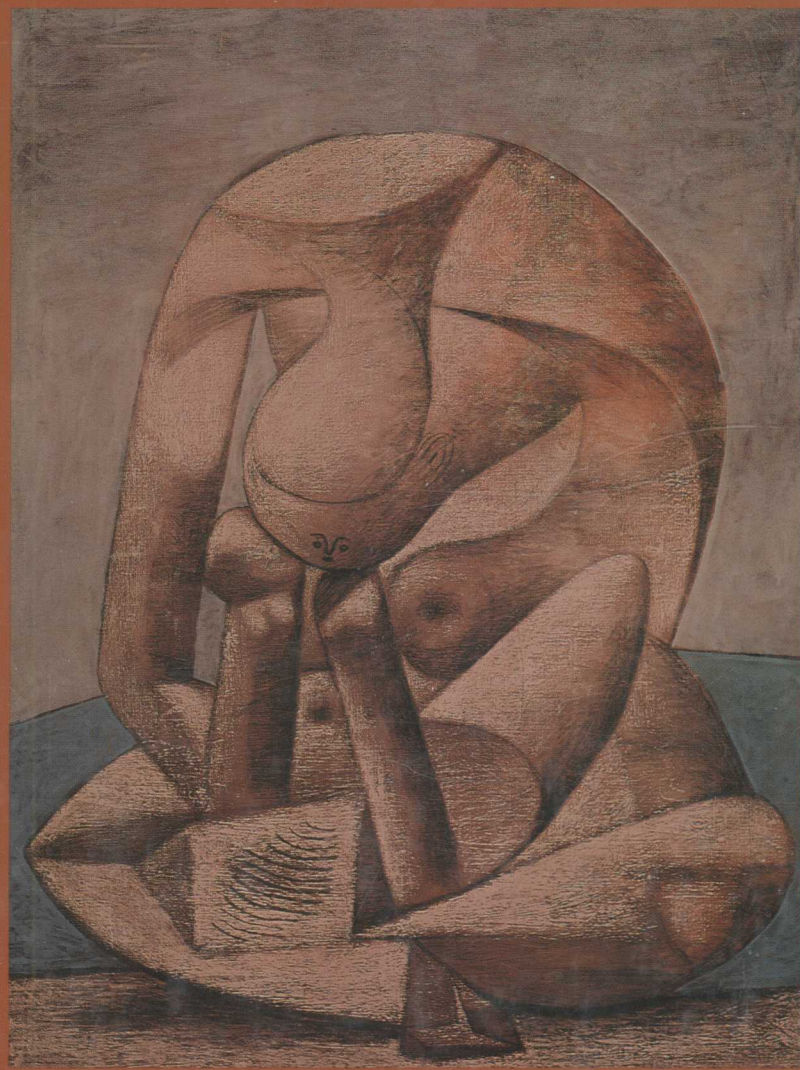


# PSYCHOLOGY



DIANE E. PAPALIA   SALLY WENDKOS OLDS

SECOND EDITION

# PSYCHOLOGY

SECOND  
EDITION

DIANE E.  
PAPALIA

University of Pennsylvania

SALLY  
WENDKOS  
OLDS

McGRAW-HILL  
BOOK  
COMPANY

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AUCKLAND  
BOGOTÁ  
CARACAS

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This book was set in Optima by York Graphic Services, Inc. The editors were Rhona Robbin, James D. Anker, and Susan Gamer; the designer was Joan E. O'Conner; the production supervisor was Diane Renda. The photo editor was Inge King; the bibliographer was Marthe Grice; the permissions editor was Elsa Peterson.

Cover: Pablo Picasso, *Bather with Book*; oil, pastel, and charcoal on canvas, 1937; Collection Musée Picasso, Paris (Art Resource).

Photo of Sally Olds by Thomas Victor.

Acknowledgments appear on pages A 1 to A 4, and on this page by reference.

## PSYCHOLOGY

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4 5 6 7 8 9 0 V N H V N H 9 5 4 3 2

ISBN 0-07-048534-8

Library of Congress Cataloging-in-Publication Data

Papalia, Diane E.  
Psychology.

1. Psychology. I. Olds, Sally  
Wendkos. II. Title.  
BF121.P34 1988 150 87-16998  
ISBN 0-07-048534-8

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**DIANE E. PAPALIA** is a professor who has taught thousands of undergraduates at the University of Wisconsin. She

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**SALLY WENDKOS OLDS** is an award-winning professional writer who has written more than 200 articles in leading

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DIANE E. PAPALIA and SALLY WENDKOS OLDS are coauthors of the extremely successful textbooks *A Child's World* (now in its fourth edition) and *Human Development* (fourth edition scheduled for publication in 1989).

**TO**

---

**OUR  
FAMILIES**

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Anna Victoria Finlay  
Madeline and Edward  
Papalia  
Edward, Jr., Daphne, Marie,  
and Edward Papalia, III

David Mark Olds  
Nancy and Dorri Olds  
Jennifer, Manfred,  
and Stefan Moebus

whose interest, inspiration,  
confidence, and love  
make it all possible



## PREFACE

**A**side from fulfilling a requirement for a social science course, what is the point of taking a course in introductory psychology? We, the authors of this book, believe that psychology underlies the most important learning we are capable of—finding out more about ourselves and about the people whose lives intersect with ours. Not until people have some basic knowledge of themselves and others can they put any of their other learning to work in an effective way. We believe that every literate person should take at least one course in psychology. In this firm conviction, we have tried to think about the most effective ways to present psychological concepts, both to students for whom this will be the only course

they will take in the subject and to those who will go on to make psychology the basis of their life's work. With this in mind, let's look at what we consider the most important elements of this book.

### OUR AIMS FOR THIS EDITION

It is hard to imagine that anyone could be bored by the study of how people think and behave. Yet basic facts and theories can be presented so drily that they seem remote from the excitement of new discoveries about how people live, how they learn, and how they love. It is also hard to imagine anyone's not stretching his or her horizons through the

study of psychology. On the other hand, the temptation is great to present these topics in a "pop psychology" way that sugarcoats information and fails to give it a meaningful context. In this book we have sought to avoid both these traps, and to make it easier for the student to learn and for the instructor to teach.

First and foremost, we recognize psychology as a science, and throughout this book we treat it as such. We scrutinize research reports to evaluate their findings, and respect theories that meet the rigorous requirements established by scientific seekers after truth.

Our aims for this edition remain the same as for the first edition of this book: to present the basic matter of psychology—its areas of study, its methods, its

findings, and their implications—as clearly as possible, with as much attention as possible to practical value, and with a constant focus on encouraging students to think for themselves as they read. We do not want our readers to accept our words blindly; rather, we want them to learn how to evaluate our biases, as well as those they will encounter elsewhere in life.

What are our biases? First, we're unquestionably prejudiced toward people. While we present information about animal studies when appropriate, we do so primarily to emphasize what they teach us about our own species. (In Chapter 6, for example, we show how the study of animal biology helps us learn about human memory.) Second, we're oriented toward the here and now. While we report the findings of basic research, we always keep our eyes closely focused on the practical applications of the research we cite. (In Chapter 1, we show how students can apply research findings about memory to help them do better in school.) Finally, in recognition of the enormous amount of research going on today, we're closely tuned into the present moment. Again, while we report the classic research and theories that have built the foundations of psychology, we have made special efforts to be up to date, and we have included "cutting edge" studies that were going on even as the book was being set in type. (In Chapter 2, for example, we report evidence about a new drug that shows strong promise of helping patients who are mentally and physically disabled by Alzheimer's disease and who until now have not been able to lead anything like a normal life.)

In our respect for the individual and in our humble awareness of human fallibility (including our own), we don't pretend to know all the answers. While we highlight our own views on ethics and on numerous controversial issues, we leave room for students to search their own consciences to determine the morality of various research projects, to weigh opposing arguments about controversial issues, and to reach their own conclusions. In fact, we encourage this kind of critical thinking in the belief that it will serve students well when they see or hear stories in the media about "breakthrough" discoveries in psychology or talk with people who announce their own pet theories as "scientific facts."

## THE SECOND EDITION

### Organization

This book has seven principal parts. In Part I, "Psychology as a Science," we introduce the student to the goals, history, and methods of psychology. Part II, "Biological Foundations of Behavior," comprises three chapters: Chapter 2, on the biological structures and functions of

the brain and nervous system; Chapter 3, on the mechanisms of sensation and perception; and Chapter 4, on states of consciousness. In Part III, "Learning, Memory, and Cognitive Processes," we include four chapters: Chapter 5 deals with learning, Chapter 6 with memory, Chapter 7 with intelligence, and Chapter 8 with language and thought. The two chapters in Part IV, "Life-Span Developmental Psychology," cover development throughout life, from conception through old age. Chapter 9 discusses the influences of heredity and environment, conception, prenatal development, and physical, intellectual, and social-emotional development in childhood; Chapter 10 deals with these aspects of development from adolescence through old age. Part V, "Motivation, Emotion, and Sexuality" consists of Chapter 11, on motivation and emotion; and Chapter 12, on gender roles and sexuality—relating both these topics to motivation, emotion, and behavior. Part VI, "Personality, Abnormality, and Health," consists of four chapters. Chapter 13 examines theories of personality and ways to measure it, Chapter 14 looks at abnormal psychology, and Chapter 15 describes many ways to treat persons with psychological problems. Then, Chapter 16 examines the new field of health psychology and discusses the links between personality, lifestyle, and both physical and mental health. In the final two chapters of the book—in Part VII, "Social Psychology"—we look at the ways by which people influence and are influenced by others, both in group situations and in intimate relationships. Chapter 17 takes up social influence; Chapter 18 examines attraction and relationships.

The structure of the book offers various options for teaching introductory psychology. As the preceding description shows, all the chapters that are "standard" in most psychology texts have been included: biology and behavior, sensation and perception, learning, memory, motivation and emotion, child development, personality, abnormal psychology, therapy, social influences, and so on. We have also given full-chapter treatment to other high-interest and important topics that are often treated very briefly, if at all, such as health psychology, sexuality and gender roles, intelligence, language and thought, adolescent and adult development, and intimate relationships.

While we have covered these topics in a way that seems logical to us, we recognize that some instructors may want to organize their courses differently because of personal preference or scheduling requirements. All the chapters are self-contained and can, therefore, be presented in a variety of different sequences. An instructor who chooses to emphasize the developmental-social-personality approach might, then, teach Chapters 1, 5, 6, 7 (optional), and 8 through 18. An instructor who takes more of an experimental-physiological approach could teach Chapters 1 through 7, 9 and 10 (op-

tional), and 11 through 15. Either of these arrangements would provide a course of 13 or 14 chapters, rather than all 18.

## Content

The preceding description of chapter organization provides a brief overview of the subject matter in this edition. It cannot, however, convey the full sweep of its content. Psychology is a dynamic, rapidly growing discipline. Therefore, while retaining the scope, emphasis, and level of the first edition, we have made many significant changes, even though it has been only 3 years since the publication of the first edition. We have updated material whenever new findings or interpretations have been available, reorganized material to make it more effective, and added completely new sections, including two new chapters. Among the important changes are the following:

- *New chapters:* Chapter 12, “Sexuality and Gender Roles,” presents some material that originally appeared in various chapters throughout the first edition, plus some completely new discussions, such as gender differences in communication, psychosexual dysfunctions and their treatment, and a life-span perspective on human sexuality. By focusing on these issues in a single chapter, we are able to highlight the differences between biological sex and socially determined gender roles. We are also better able to trace the relationship between these topics and those treated in the other chapter in Part V, centering on motivation and emotion.

Chapter 16, “Health Psychology,” reflects a major emerging area of interest and research in psychology. It updates material on stress and coping that appeared in the first edition. It also contains completely new material on the relationship between psychology and mental and physical health, including the influences of various lifestyles and habits and the impact of the health care system.

- *New sections:* Among the most important additions to this edition are new sections on ethics in animal research; sex, handedness, and the brain; additional aspects of perception, including perception of biological motion; “flow states”; the use of operant conditioning to encourage use of seat belts; Sternberg’s triarchic theory of intelligence; Gardner’s theory of multiple intelligences; artificial intelligence; stress and resilience in children; the relationship between adolescent thought processes and behavior; cognitive explanations of achievement motivation; Plutchik’s eight primary emotions; controversies relating to emotion; helping the elderly improve intellectual per-

formance; suicide; the borderline personality; seasonal affective disorder (SAD); couples therapy; excerpts from the proposed revision of DSM III; loneliness; power in marriage; and the development of intimate relationships. Throughout the book, descriptions of studies (many new to this edition) help students understand the design and operation of psychological research.

- *New organization:* Several presentations have been reorganized for greater clarity and easier comprehension. Chapter 2, “Biology and Behavior,” is one example of an improved account of challenging material. Material on life-span development is now presented in two chapters instead of the three in the first edition. While some material was deleted—in deference to the limited coverage that can be devoted to developmental issues in an introductory psychology course—the most important classic and new material remains. Attribution theory is now discussed in one chapter rather than two. Practical study tips are now in Chapter 1, so that they can be of maximum help to students (rather than in Chapter 6, “Memory,” as in the first edition).

- *Important revisions:* Throughout the book, numerous sections have been significantly revised and often updated as well. Besides the ones already mentioned, these include creativity (which now includes the work of Amabile); whether apes can learn language; theories of motivation (which has been completely rewritten for ease of understanding); the person-situation controversy; causes of psychological disorders; drug therapies; and why people become committed blood donors.

- *New visual aids:* Many new tables, charts, graphs, and other visual ways of presenting data have been added to supplement presentations in the text.

## Special Features

Several features are new to this edition of *Psychology*.

- Every chapter presents one or more boxes with one of two major thrusts. The “In the Forefront” boxes highlight issues that are important in contemporary psychology because of new interest, new theoretical formulations, or new research findings. They are often controversial and are as current as today’s newspaper, covering such topics as Alzheimer’s disease, legal implications of memory research, developing children’s abilities, family violence, and the mind and the immune system. The “Psychology in Your Life” boxes draw out practical ways to apply research findings in daily life. They cover such topics as preparing for a career in psychology, practical applica-



tion of hypnosis, teaching tricks to an animal, improving memory, becoming more creative, the effect of child-rearing styles on children's behavior, the value of lie detectors, helping to prevent suicide, losing weight, and the possibility of legislating helping behavior.

- Vignettes describing personal experiences in the lives of both authors open every chapter. These introductions—sometimes dramatic, sometimes humorous—capture the reader's interest, lead into the subject matter of the chapter, and present personal glimpses into the authors' lives that are rarely afforded to students.

## REVIEWERS' AND USERS' COMMENTS ON THE BOOK'S SPECIAL FEATURES

One of this book's major strengths, as indicated by academic reviewers who either reviewed the first edition or saw the manuscript of this second edition before publication, is its effective integration of theory, research, and application—as described earlier in the section "Our Aims for This Edition." The consensus of reviewers was that these aspects are integrated here more *consistently* than they are in many other books. Other elements especially noted by reviewers include the book's attention to high-interest and timely topics, its references to "cutting edge" studies as well as to classic ones, and its approach to ethical issues. The writing style has been commended for its clarity, its ability to hold the reader's interest, and its engaging qualities—all elements designed to make both the teaching and the learning of psychology easier and more rewarding.

## LEARNING AIDS

You'll find in this book a number of basic teaching aids whose value has been demonstrated through experience and research. These include:

- *Part overviews*: At the beginning of each part, an overview provides the rationale for the chapters that follow.
- *Chapter overviews*: At the beginning of each chapter, an outline clearly previews the major topics included in the chapter.
- *Preview questions*: At the beginning of each chapter, a few key questions highlight the most important issues to be addressed.
- *Chapter summaries*: At the end of each chapter, a numbered summary clearly restates the most important points.
- *Highlighting of key terms*: Whenever an important new term is introduced in the text, it is highlighted in

**boldface italic** and defined. These terms are listed at the end of the chapter and appear in both marginal and end-of-book glossaries.

- *"Running" glossary*: All key terms are defined in the margin where they first appear in each part of the book, and some of these definitions are repeated, where appropriate, in subsequent chapters. This gives instructors more latitude in teaching the chapters; instructors can use the order dictated by their own preference.
- *Extensive illustrations*: Since one picture is often worth a thousand words, many of the points in the text are underscored pictorially through carefully selected drawings, graphs, and photographs (many in full color to illustrate important points better and to enhance the reader's enjoyment).
- *Pedagogically sound legends*: The legends for these illustrations also serve a teaching purpose by emphasizing important points made in the text, posing questions calling for students' thought, or bringing in interesting new information.
- *End-of-book glossary*: The extensive glossary at the back of the book repeats the marginal definitions of key terms.
- *Bibliography*: A complete listing of references enables students to evaluate the sources of major statements of fact or theory.
- *Suggested readings*: Annotated lists of recommended readings (classic works or lively contemporary treatments) are provided for students who want to explore issues in greater depth than is possible within these covers.
- *Index*: Separate indexes, by subject and by author, appear at the end of the book.

## SUPPLEMENTARY MATERIALS

An extensive package of newly revised supplementary materials add to the value of this edition as a teaching and learning tool.

- *Study Guide with Readings*, by Virginia Nichols Quinn of Northern Virginia Community College and Jolyne S. Daughtry of California State University, Fresno, includes readings from both professional journals and popular magazines on topics covered in the text. It also includes such standard elements as outlines, objectives, key terms, and concepts; and 800 questions with answers. Questions from the study guide are also available on a computer disk, interactive microcomputer software designed for use by students.

- Two *Test Banks* are available. One, developed by Virginia Quinn to ensure consistency with the Study Guide in level and types of questions, contains 2000 questions keyed to the learning objectives in the Study Guide and the Instructor's Manual. This Test Bank can be used with several computer-generated testing systems. Correct answers and text page references are included for all questions. An alternative Test Bank by James J. Johnson of Illinois State University is also available.
- *Instructor's Manual*, also by James Johnson, includes chapter outlines, learning objectives, key terms and concepts, mini-lectures, demonstrations, short-answer and essay questions, and a media guide. It also has a distinctive "Teaching the Chapter" section for each chapter, which integrates all these elements to assist the instructor.
- *Psychworld*, by John C. Hay of the University of Wisconsin in Milwaukee, is an elaborate, colorful, and intriguing generic software package that contains 14 simulations of classic psychology experiments. Professors can use it in the classroom, and students can use it in a lab. It enables the user to perform such activities as identifying different sections of the brain and varying reinforcement patterns for a pigeon pecking at food.
- *Slides and Transparencies*, three packages from McGraw-Hill, include 100 generic slides (in *The McGraw-Hill Introductory Psychology Slide Set*), 100 generic transparencies (in *The McGraw-Hill Introductory Psychology Overhead Transparency Set*), and 50 transparencies keyed specifically to this book (in *Overhead Transparencies to Accompany Papalia-Olds: Psychology, Second Edition*). Booklets for instructors describe each slide and transparency.
- *McGraw-Hill/CRM Films and videotapes* are also available to adopters.

We hope that we have been able to communicate the excitement we feel about the study of psychology. We want to share this with you, our readers, as much as we want to share any of the concepts, principles, and philosophies contained within these pages. For if we succeed in this, we know we will have enriched your lives as the study of psychology has enriched ours.

## ACKNOWLEDGMENTS

We are indebted to many colleagues and friends whose help was invaluable in the gestation and birth of this book, and in its appearance in this second edition. For contributing their deeply informed expertise in specific subfields, we're grateful to Jason Brandt and Howard Egeth, both at Johns Hopkins University; Robert

Franken, at the University of Calgary; and Howard Hughes, at Dartmouth College (all of whom worked on the original edition). We're also grateful to Paul Wellman, Texas A & M University; Margaret Matlin, State University College of Arts and Science at Geneseo; and Herbert Petri, Towson State University (who helped us with the second edition). We also appreciate the contribution of Virginia Nichols Quinn, Northern Virginia Community College, who wrote the Appendix on statistics for both editions.

This edition of *Psychology* continues to reflect many insightful suggestions which were offered by reviewers of the first edition. Nearly 50 psychologists have provided constructive and thorough evaluations of the current edition. These reviewers, who are affiliated with both two- and four-year institutions, are listed on page xxii.

We deeply appreciate the strong support we have received from our publisher. Rhona Robbin, our editor for both editions, has become a friend not only to both the authors, but also to the readers of this book, who will benefit from her careful attention to detail, her dedication to clarity, and her perceptive questions that continually forced us to re-evaluate our presentation. Susan Gamer gave this project painstakingly careful attention through the production process. Joan O'Connor and the other creative people in the art department produced a striking cover and book design. Inge King found compelling and pedagogically perfect photographs. Elsa Peterson pursued and obtained needed permissions. Joanne Heiser and others at McGraw-Hill helped in ways large and small.

We would also like to express special thanks to two special research assistants—Julie Jensen, a doctoral candidate at the University of Wisconsin; and Martha Seidel, of Port Washington, New York. In addition to their efforts in tracking down innumerable elusive reports, articles, and papers, Julie helped to compile and prepare the bibliography and the glossary, and Martha drew up charts and tables and prepared the manuscript for transmission to our publisher. Both of them cheerfully and enthusiastically assisted in other ways too numerous to list.

This list would not be complete if we didn't acknowledge the continuing encouragement of our husbands, Jonathan Finlay and David Mark Olds. In deference to our deadlines on both editions, they postponed things they wanted to do and did things that needed to be done. In support of our aims, they asked the right questions and made us come up with answers. They knew when to hold our hands and when to make us laugh. Throughout, they were there for us when we needed them, and this book is better for that.

Thank you, one and all. We could not have done it without you!

*Diane E. Papalia*

*Sally Wendkos Olds*

# ACADEMIC

# REVIEWERS

*For their reading of all or part of the manuscript in various stages of development, and for the helpful comments they offered, we thank the people listed below.*

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Sally Wendkos Olds*

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of the Health Sciences  
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Case Western Reserve University  
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# CONTENTS

## IN BRIEF

LIST OF BOXES	xv
PREFACE	xvii

### PART I PSYCHOLOGY AS A SCIENCE 1

1. Introduction to Psychology	3
-------------------------------	---

### PART II BIOLOGICAL FOUNDATIONS OF BEHAVIOR 35

2. Biology and Behavior	37
3. Sensation and Perception	75
4. States of Consciousness	117

### PART III LEARNING, MEMORY, AND COGNITIVE PROCESSES 155

5. Learning	157
6. Memory	191

7. Intelligence	227
8. Language and Thought	267

### PART IV LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY 299

9. Early Development	301
10. Development from Adolescence On	341

### PART V MOTIVATION, EMOTION, AND SEXUALITY 379

11. Motivation and Emotion	381
12. Sexuality and Gender Roles	417

### PART VI PERSONALITY, ABNORMALITY, AND HEALTH 449

13. Theories and Assessment of Personality	451
14. Abnormal Psychology	481
15. Therapy	523
16. Health Psychology	559

### PART VII SOCIAL PSYCHOLOGY 595

17. Social Influence	597
18. Interpersonal Attraction and Relationships	631

APPENDIX: STATISTICS	657
----------------------	-----

GLOSSARY	G 1
BIBLIOGRAPHY	B 1
ACKNOWLEDGMENTS	A 1
NAME INDEX	NI 1
SUBJECT INDEX	SI 1

# CONTENTS

LIST OF BOXES	xv	
PREFACE	xvii	
<b>PART I</b>		
<b>PSYCHOLOGY AS A SCIENCE</b>	<b>1</b>	
<b>CHAPTER 1 INTRODUCTION TO PSYCHOLOGY</b>	<b>3</b>	
What Is Psychology?	5	
What Are the Goals of Psychology?	5	
How This Book Presents the Study of Psychology	7	
We Celebrate the Human Being	7	
We Are Practical	8	
We View Psychology as a Dynamic Science	8	
We Present a Picture of Psychology on a Wide Canvas	8	
<b>How Psychology Has Evolved</b>	<b>8</b>	
A Brief History of Psychology	8	
Schools of Thought in Psychology	10	
Structuralism/Functionalism/Gestalt Psychology/		
Psychoanalysis/Behaviorism/Humanistic		
Psychology/Cognitive Psychology		
<b>Contemporary Psychology</b>	<b>16</b>	
Areas of Specialization in Psychology	16	
Clinical Psychology/Counseling Psychology/		
Personality Psychology/Educational and School		
Psychology/Experimental Psychology/		
Physiological Psychology/Developmental Psychology/Health Psychology/Social Psychology/Psychometrics/Industrial and Organizational Psychology/Engineering Psychology/Some Other Specialties		20
How Psychologists Study Behavior		20
Theories, Hypotheses and Research/Who Takes Part in Psychological Research?/Basic and Applied Research/Research Methods		29
Ethics in Psychological Research		29
<b>PART II</b>		
<b>BIOLOGICAL FOUNDATIONS OF BEHAVIOR</b>		<b>35</b>
<b>CHAPTER 2 BIOLOGY AND BEHAVIOR</b>		<b>37</b>
<b>The Nervous System</b>		<b>40</b>
How the Nervous System Is Studied		40
The Pseudoscience of Phrenology/Surgery: Destroying a Part of the Brain/Electrical and Chemical Stimulation of the Living Brain/Modern Techniques		43
How the Nervous System Works		43
Cells: The Basis of All Behavior/Electrical and Chemical Activity: Keys to Communication/Neurotransmitters: Chemical Messengers		51
Components of the Nervous System		51
An Overview/The Spinal Cord/The Peripheral Nervous System/The Brain		





How Memories Are Stored in the Brain	216	Insight and Problem Solving	288
Where Memories Are Stored in the Brain	218	How Insight Works/Insight and Intelligence	
<b>Memory Disorders</b>	<b>218</b>	<b>Creativity</b>	<b>290</b>
Organic Amnesia	219	Measuring Creativity	290
Psychogenic Amnesia	221	Creativity and Intelligence	291
Theories of Amnesia	221	Influences on Creativity	291
Encoding/Consolidation/Retrieval		What Makes People Creative?/Implications for Education and Child Rearing/Implications for Creativity in Adults	
<b>Exceptional Memories</b>	<b>221</b>		
<b>CHAPTER 7 INTELLIGENCE</b>	<b>227</b>	<b>PART IV</b>	
<b>What Is Intelligence?</b>	<b>229</b>	<b>LIFE-SPAN DEVELOPMENTAL PSYCHOLOGY</b>	<b>299</b>
Defining Intelligence	229	<b>CHAPTER 9 EARLY DEVELOPMENT</b>	<b>301</b>
Theories of Intelligence	229	<b>How We Study Development</b>	<b>303</b>
Psychometric Approach/Two New Approaches/		Research Methods	303
Piagetian Approach		Cross-Sectional Method/Longitudinal Method/	
<b>Intelligence Testing</b>	<b>236</b>	Cross-Sequential Method	
A Historical Overview	236	Influences on Development	304
Early Contributors/Alfred Binet/Deviation IQ/		Normative and Nonnormative Influences/Heredit	
Subsequent Tests		and Environment	
Intelligence Testing Today	238	<b>Origins: Prenatal Development</b>	<b>310</b>
Developing Tests/Tests in Use Today/What's		Stages of Prenatal Development	310
Right—or Wrong—With Intelligence Testing?		Hazards of the Prenatal Environment	311
<b>Influences on Intelligence</b>	<b>253</b>	Maternal Nutrition/Maternal Illness/Maternal Drug	
Heredit	253	Intake/Risks Associated with the Father	
Twin Studies/Adoption Studies		<b>The Body: Early Physical Development</b>	<b>313</b>
Environment	255	At the Beginning	313
Social Environment/Family Environment/Nutrition		Growth	314
Birth Order	257	Motor Development	315
Sex	258	How Maturation and Deprivation Affect Physical	
<b>Extremes of Intelligence</b>	<b>258</b>	Development	316
The Intellectually Gifted	258	<b>The Mind: Early Cognitive Development</b>	<b>317</b>
The Mentally Retarded	261	Piaget: A Theory of Cognitive Development	317
<b>CHAPTER 8 LANGUAGE AND THOUGHT</b>	<b>267</b>	Sensorimotor Stage (Birth to 2 Years)/	
<b>Language</b>	<b>269</b>	Preoperational Stage (2 to 7 Years)/Concrete	
Studying Language	269	Operations Stage (7 to 12 Years)/Formal	
Some Basic Definitions/How Psychologists Study		Operations Stage (12 Years and Older)	
Language Abilities		Learning	320
Learning a Language	271	Learning in Infancy/Later Learning	
How Children Learn a Language/Theories about		Memory	321
Language Aquisition		Memory in Infancy/Memory in Childhood	
Three Controversies in Linguistics	277	<b>The Psyche: Early Emotional and Social</b>	
Controversy 1: Is There a Critical Period for		<b>Development</b>	<b>322</b>
Acquiring Language?/Controversy 2: Does		Erikson: A Theory of Psychosocial Development	323
Thought Structure Language, or Does Language		Crisis 1: Basic Trust versus Basic Mistrust	
Structure Thought?/Controversy 3: Can Animals		(Birth to 12–18 Months)/Crisis 2: Autonomy versus	
Learn Language?		Shame and Doubt (12 to 18 Months to 3 Years)/	
<b>Formation of Concepts</b>	<b>281</b>	Crisis 3: Initiative versus Guilt (3 to 6 Years)/	
Well-Defined Concepts	282	Crisis 4: Industry versus Inferiority (6 Years to	
Ill-Defined Concepts	282	Puberty)	
What Are Ill-Defined Concepts?/Aspects of Ill-		Emotional Expression in Early Life	324
Defined Concepts		Expressing Emotions/The Timing	
<b>Problem Solving</b>	<b>285</b>	of Emotional Expression	
Theories about Problem Solving	285	Temperament	327
Learning Theory/Gestalt Theory/Information-		Attachment	327
Processing Theory		Mother-Child Attachment/Father-Child	
Stages of Problem Solving	286	Attachment/Sibling Attachment	
Stage 1: Preparation/Stage 2: Production/Stage 3:		Identification	335
Evaluation		Getting Along with Peers	336

<b>CHAPTER 10 DEVELOPMENT FROM ADOLESCENCE ON</b>	<b>341</b>	<i>Arousal/How Arousal Affects Performance/Effects of Sensory Deprivation/Boredom</i>	
<b>Adolescence</b>	<b>343</b>	<b>Emotion</b>	<b>405</b>
Physical Development: Physiological Changes	344	Classifying Emotions	405
Cognitive Development: Formal Operations and Moral Reasoning	344	Theories of Emotion	406
<i>Piaget's Formal Operations Stage (11–12 years to Adulthood)/Moral Development</i>		<i>James-Lange Theory: Feelings Are Physical/ Cannon-Bard Theory: Feelings Are Cognitive/ Schachter-Singer Theory: Emotions Depend on Double Cognitive Labeling/Facial-Feedback Theory: Facial Expressions Lead to Emotions</i>	
Personality and Social Development: The Search for Identity	347	Questions About Emotion	410
<i>Erikson's Crisis 5: Identity versus Role Confusion (Puberty to Young Adulthood)/"Adolescent Rebellion": Fact or Myth?/Work and Careers</i>		<i>Are Emotions Inborn?/Which Comes First— Thinking or Feeling?</i>	
<b>Early and Middle Adulthood</b>	<b>353</b>	Cognitive-Chemical Interactions in Emotion	412
Physical Development: Continuity and Change	354		
<i>Health/Midlife Changes</i>		<b>CHAPTER 12 SEXUALITY AND GENDER ROLES</b>	<b>417</b>
Cognitive Development: Intellectual Growth or Stagnation?	356	<b>Gender and Gender Identity</b>	<b>419</b>
Personality and Social Development: Theories and Issues	357	Sex and Gender Differences	419
<i>Theoretical Approaches/Two Psychosocial Issues of Early and Middle Adulthood</i>		<i>How do Males and Females Differ?/Why Do Males and Females Differ?/How Do Ideas about Gender Affect Our Lives?</i>	
<b>Late Adulthood</b>	<b>363</b>	Theories of Gender Identity	428
Physical Development: Health and Aging	364	<i>Social-Learning Theory/Cognitive-Developmental Theory</i>	
<i>Theories of Aging/Sensory Functioning in Old Age/Psychomotor Abilities/Health</i>		Gender Identity Disorders	429
Cognitive Development: Is Decline Inevitable?	367	<i>Gender Identity Disorder of Childhood/ Transsexualism</i>	
Personality and Social Development: Successful Aging	368	<b>Sexuality</b>	<b>430</b>
<i>Psychosocial Theories/Retirement</i>		Physiology of Human Sexual Response	430
<b>Death and Mourning: An Important Aspect of Development</b>	<b>372</b>	<i>Sexual Response Cycle/Arousal of Sexual Desire</i>	
Attitudes toward Death and Dying	372	A Life-Span Perspective on Human Sexuality	434
Dealing with Death	372	<i>Childhood/Adolescence/Young Adulthood/Middle Adulthood/Late Adulthood</i>	
<i>Accepting One's Own Death/Facing the Death of a Loved One/Widowhood</i>		Sexual Orientation: Heterosexuality and Homosexuality	440
		Psychosexual Problems and Their Treatment	441
		<i>Psychosexual Dysfunctions/Paraphilias/Sex Therapy</i>	
<b>PART V</b>			
<b>MOTIVATION, EMOTION, AND SEXUALITY</b>	<b>379</b>	<b>PART VI</b>	
<b>CHAPTER 11 MOTIVATION AND EMOTION</b>	<b>381</b>	<b>PERSONALITY, ABNORMALITY, AND HEALTH</b>	<b>449</b>
<b>Determinants of Motivation and Emotion</b>	<b>383</b>	<b>CHAPTER 13 THEORIES AND ASSESSMENT OF PERSONALITY</b>	<b>451</b>
<b>Motivation</b>	<b>384</b>	<b>Theories of Personality Development</b>	<b>453</b>
Theories of Motivation	384	Psychoanalytic Approaches	454
<i>Instinct Theories/Drive Theories/Opponent-Process Theory: Sensory Stimulation/Abraham Maslow's Theory: Hierarchy of Needs/ Cognitive Theories</i>		<i>Classical Psychoanalytic Theory: Sigmund Freud/ Analytic Psychology: Carl Jung/Individual Psychology: Alfred Adler/Cultural Psychology: Karen Horney/Psychosocial Theory: Erik H. Erikson</i>	
Hunger and Eating	388	Humanistic Approaches	464
<i>How the Body Regulates Hunger/Why We Eat the Way We Do</i>		<i>Self-Actualization Theory: Abraham H. Maslow/ Person-Centered Theory: Carl Rogers</i>	
Aggression	392	Environmental (or Learning) Approaches	466
<i>Do We Inherit a Tendency toward Aggression?/Is There a Biological Basis for Aggression?/What Triggers Aggression?/How Do We Learn to Be Aggressive?</i>		<i>Radical Behaviorism: B.F. Skinner/Social-Learning Theory: Albert Bandura</i>	
Achievement	396	Trait Approaches	467
Arousal, Curiosity, and Boredom	400	<i>Psychology of the Individual: Gordon W. Allport/ Factor Theory: Raymond B. Cattell</i>	
<i>How We Become Aroused/How We Feel about</i>			

<b>Testing Personality</b>	<b>472</b>	Is a Particular Therapy Best for a Particular Problem?	553
Types of Personality Tests	473	Is a Combination of Therapies Better Than a Single Therapy?	554
Objective Tests/Projective Tests/Interview Techniques		Is There a Common Denominator for All Therapies?	554
Ethics of Personality Testing	477		
<b>CHAPTER 14 ABNORMAL PSYCHOLOGY</b>	<b>481</b>	<b>CHAPTER 16 HEALTH PSYCHOLOGY</b>	<b>559</b>
<b>Approaches to Abnormal Psychology</b>	<b>483</b>	<b>What Is Health Psychology?</b>	<b>561</b>
What Is Abnormal?	483	<b>Stress</b>	<b>562</b>
Ways of Looking At Abnormal Behavior: Models	484	What Is Stress?	563
Moral Model/Medical Model/Psychoanalytic Model/Behavioral Model/Other Models		Reacting to Stress	563
How Common Is Abnormality?	488	Physiological and Cognitive Aspects of Stress/ Stress and Development/Stress and Life Events	
<b>Measuring and Diagnosing Abnormality</b>	<b>490</b>	Coping with Stress	570
Problems and Issues	490	Personality/Social Support/Specific Coping Techniques	
DSM III	491	Living with Stress	575
<b>Types of Abnormality</b>	<b>494</b>	<b>Wellness and Health Practices</b>	<b>575</b>
Anxiety Disorders	494	Influences on Health Practices	576
Form of Anxiety Disorders/Causes of Anxiety Disorders		Social Factors/Sociological Factors/Environmental Factors/Emotional Factors/Cognitive Factors/ Physical Factors	
Somatoform Disorders	499	How Health Habits Can Affect Wellness	577
What Are Somatoform Disorders?/Causes of Somatoform Disorders		Diet/Exercise/Use of Tobacco/Use of Alcohol/ Other Practices	
Dissociative Disorders	500	Intervention: Promoting Good Health Practices	584
Forms of Dissociative Disorders/Causes of Dissociative Disorders		Public Health Programs/Changing Social Norms/ School Programs/Individual Approaches/ Self-Help Groups	
Affective Disorders: Depression and Mania	501		
Depression/Mania (Bipolar Disorder)/Causes of Affective Disorders		<b>Illness</b>	<b>587</b>
Suicide	507	Two Major Health Problems	587
Who Are the People Most Likely to Take Their Own Lives?/What Makes People Resort to Suicide?		Heart Disease/Cancer	
Personality Disorders	511	Health Care and the Patient-Practitioner Relationship	589
What Is a Personality Disorder?/The Antisocial Personality			
Schizophrenic Disorders	513		
Symptoms of Schizophrenia/Course of Schizophrenia/Causes of Schizophrenic Disorders: Current Perspectives		<b>PART VII</b>	
		<b>SOCIAL PSYCHOLOGY</b>	<b>595</b>
<b>CHAPTER 15 THERAPY</b>	<b>523</b>	<b>CHAPTER 17 SOCIAL INFLUENCE</b>	<b>597</b>
<b>Who Undergoes Therapy?</b>	<b>525</b>	<b>People in Groups</b>	<b>599</b>
<b>Who Provides Therapy?</b>	<b>525</b>	Norms and Roles: Defining Our Place in the Group	599
<b>What Forms Does Therapy Take?</b>	<b>526</b>	What Are Roles?/How Much of Our Behavior Is Determined by Norms and Roles?	
Psychotherapy	527	Conformity and Groupthink: Why We Go Along with the Group	602
Dynamic Therapies/Humanistic Therapies/ Behavior Therapies/Group and Family Approaches/Brief Therapies		Conformity/Groupthink	
Medical Therapy	540	Obedience: Why We Comply with Demands of Authority Figures	606
Psychosurgery/Electroconvulsive Therapy/Drug Treatments		Milgram's Studies/Critiques of Milgram's Studies	
Environmental Therapy	547	<b>Altruism</b>	<b>608</b>
Institutionalization/Deinstitutionalization		When Do We Help Others?	609
<b>Evaluating the Various Therapies</b>	<b>550</b>	Factors Affecting Altruism/Predicting Altruistic Behavior	
Is Therapy Better Than No Therapy?	550	Why Do We Help Others?	611
Is Any One Therapy "Best"?	551	We Inherit a Tendency to Be Altruistic/We Learn to Be Altruistic/Being Altruistic Makes Us Feel Good	
Psychotherapy versus Drug Therapy/ Psychoanalytically Oriented Therapy versus Behavior Therapy		How Can We Encourage Altruism?	614