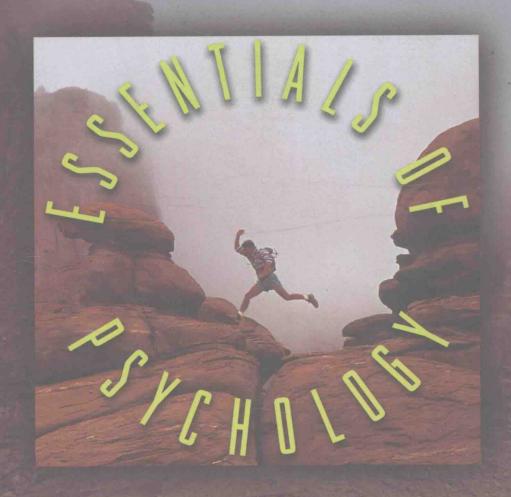
# Josh R. Gerow



Second Edition

SECOND EDITION

# ESSENTIALS OF PSYCHOLOGY

Concepts and Applications

Josh R. Gerow

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Cover Designer: Kay Petronio

Cover Photograph: Tony Demin/Adventure Photo & Film

Photo Researcher: Sandy Schneider

Electronic Production Manager: Christine Pearson Manufacturing Manager: Helene G. Landers

Electronic Page Makeup: Ruttle, Shaw & Wetherill, Inc. Printer and Binder: R. R. Donnelley & Sons Company Cover Printer: New England Book Components, Inc.

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Essentials of Psychology: Concepts and Applications, Second Edition

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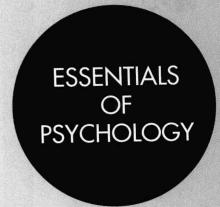
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Library of Congress Cataloging-in-Publication Data

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Gerow, Joshua R.
Essentials of psychology: concepts and applications / Josh R.
Gerow. —2nd ed.
p. cm.
Includes bibliographical references and indexes.
ISBN 0-673-99499-6
1. Psychology. 2. Psychology, Applied. I. Title.
BF121.G428 1996
150—dc20 95-18512
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95 96 97 98 9 8 7 6 5 4 3 2 1



I realize that my name is on the cover of this book, and I am quite willing to take responsibility for this text. I am also willing to acknowledge that writing a textbook is a very collaborative effort. It requires the loving support of family and friends. It requires the skilled craftsmanship of editors, designers, illustrators, and production people. It also requires the thoughtful guidance of colleagues willing to read early manuscript drafts and offer style and content suggestions.

For this text, input from colleagues has been critical. I am convinced that if anyone were to write an introductory psychology textbook that addressed all of the interests and desires of the psychologists who might use it, that text would be well over 2,000 pages long! As authors, we psychologists all seem to have our "favorite topics" that we feel should be included in an introductory text.

The basic idea behind this text was to prepare a brief, inexpensive text that presented the essential concepts of psychology, present them clearly and honestly, and show how these concepts can be applied in everyday life. Hence the title: *Essentials of Psychology: Concepts and Applications.* Another important goal was to build into the text as many features as possible to help the student appreciate and remember those concepts and applications. Although we wanted to build study-learning aids into the book, we wanted to do so in a way that would not interrupt the flow of the text itself. We wanted to avoid "clutter." In this regard, I believe we have succeeded.

Given the success of *Essentials of Psychology*, I am now willing to suggest that there are many fellow teachers of the introductory course in psychology who share our vision of what a truly student-oriented, supportive text can be. Still, there were some changes in the structure of the first edition that seemed called for.

#### What's New for the Second Edition?

If you are familiar with the first edition of this text, you will discover that at a glance almost everything is pretty much as it was in the first edition. We still have 15 chapters and—surprise, surprise—they're still in the same order! There are, of course, several changes that I think are reasonable and, in some cases, downright necessary. First let me mention a few "big" things, then I'll quickly review changes chapter-by-chapter.

The biggest organizational change that you'll notice (if you are familiar with the first edition) is the addition of *Topics* within chapters. I've liked the notion of Topics for a long time now. Mostly what the Topics do, is break down an otherwise lengthy chapter into meaningful segments. The application, of course, is to aid in distributed practice during study. Most

chapters have two Topics, a few have three.

In terms of content, I would mention three additions: (1) Considerable updating of references. In fact, there are nearly 500 new reference citations in this edition, which is quite a few for an "Essentials" text. Of the new references, over half are citations from the 1990s. (2) Much more information on gender-related issues. These additions reflect the good work of a consultant, Dr. Carol Lawton of Indiana-Purdue at Fort Wayne. (3) Much more information on cross-cultural issues. These additions reflect the good work of another consultant, Dr. Richard Brislin, Director of Intercultural Programs, East-West Center, Honolulu. What pleases me about these additions is that they are subtle (I hope), and simply become part of the narrative. Note, for example, the inclusion of Mary Caulkins in the section on Psychology's history in Chapter 1, feminist criticism of Freudian theory in Chapter 10; new material in Chapter 3 on the role of the father in



prenatal development; cross-cultural applications and criticisms of Kohlberg's theory in Chapter 3 and the discussion of social loafing in other cultures in Chapter 14. There are no new headings, chapters, or Topics devoted solely to these issues. I'll now list a change or two for each chapter that I think is significant. You may find other changes more significant than these.

- **Chapter 1**—Added discussion of "scientist-practitioner," and added "No Two People Are Alike" to list of "Themes and Principles."
- **Chapter 2**—Added to discussion of neural threshold, synapses, acetylcholine, and split brain.
- **Chapter 3**—Expanded environmental influences on prenatal development; added a major section of attachment and day care, changed the thrust of section on middle adulthood and managed, somehow, to add 85 new references, 48 from the 1990s.
- **Chapter 4**—Rewrote the opening on basic concepts, and moved pain and pain management to the "Psychology in the Real World" box.
- **Chapter 5**—Addition of cross-cultural materials in sections on depth perception and alcohol use.
- **Chapter 6**—Minor additions to sections on taste aversion, reinforcement in a cultural context, bribery vs. reinforcement, positive and negative punishers, and cognitive maps.
- **Chapter 7**—Added section on eyewitness testimony, added box on repressed memories of child abuse, "equated" retrieval failure with forgetting.
- **Chapter 8**—Added a section on language pragmatics; shortened discussion of psychological tests; expanded discussion on defining intelligence; added box on *The Bell Curve*, IQ, and race.
- **Chapter 9**—Shortened section on sexuality; reworked discussion of relation between emotion and motivation.
- **Chapter 10**—Expanded discussion of the nature of personality, introducing the "person-situation debate"; placed evaluations of theoretical approaches after each rather than together at end; added cultural usefulness of traits in different cultures.
- Chapter 11—Shortened discussion of frustration; reworked section on physiological reactions to stress and Selye's GAS; totally reworked Health Psychology; new section on Why People Die; dropped most of STD discussion, but added to AIDS material and put in box; 54 new references, 36 from the 1990s.
- **Chapter 12**—Changed everything to coincide with DSM-IV, instead of DSM-III-R; rearranged anxiety disorder coverage; added new box on ADHD.
- **Chapter 13**—Reworked history section; adding a few major persons; updated drug therapy; added twenty-five 1990s references.
- **Chapter 14**—Tightened section on attitudes; updated interpersonal attraction section; added new box on violence.
- **Chapter 15**—Much updating in personnel selection section; changed examples in space and territory section; put worker safety issues in a box.

#### **Features of This Text**

Because we see the pedagogical learning aids as so important, we have built a large number into the text itself. They include:

- "Introduction: Using Psychology to Study Psychology" presents procedures for effective how-to-study techniques.
- Chapter "Outlines" provide a quick and easy overview of what is to come.
- Chapter "Previews" describe more fully the material to be covered in the chapter and demonstrate why psychologists care about this material, and why you as a student should care as well.
- Boldface key terms and marginal glossary highlight important terms and concepts; provide definitions in the text, in the margin (to aid review), and again in an end matter glossary.
- "Before You Go On" questions provide a "marker" for distributing one's practice or study time and an opportunity for interim summarizing. Answers are provided in each chapter summary.
- "Psychology in the Real World" boxes describe an application of material in the chapter in real-world situations.
- "Thinking Critically About . . ." sections encourage students to think critically about the information in the chapter and to relate that information to personal experiences.
- The chapter summaries restate the major ideas presented in each chapters in an abbreviated form and provide answers to the "Before You Go On" questions.
- "Practice Tests" and answers provide a final review of material from the chapter in an objective test format as well as examples of what to expect on exams. Answers are provided in annotated form, fostering the learning-review process.

#### **Supplements to Accompany the Text**

Instructor's Resource Kit

by Judi M. Misale, Northeast Missouri State University

ISBN 0673558983

Three-Ring Binder

ISBN 0673558991

This comprehensive manual comes bound in a three-ring binder and includes chapter outlines and learning objectives, lecture enhancements such as biographical profiles, demonstrations, and timelines, and critical thinking exercises for students. Also provided are a comprehensive media guide, APA publications, and additional readings.

Test Bank

by Gary Piggrem, DeVry Institute of Technology

ISBN 0673558991

For each chapter, this resource contains more than 100 fully referenced multiple-choice items and five essay questions.

TestMaster Computerized Test Bank

(TestMaster DOS - ISBN 0673559017)

(TestMaster Mac - ISBN 0673559041)

by Gary Piggrem, DeVry Institute of Technology

Available in both IBM-PC and Mac versions, this computerized test generator allows the instructor to create and tailor tests, as well as edit existing items.

Introductory Transparency Resource Package

ISBN 0673558118

This package includes more than 100 4-color acetates.

Study Guide by Glenda Streetman Smith, North Harris College ISBN 0673999483

Packaged with the text, this invaluable educational aid provides students additional reinforcement of chapter learning objectives and vocabulary. Each chapter contains study tips and more than sixty self-test questions, including multiple-choice, true-false, matching, and fill-in-the-blank items.

#### **Multimedia and Interactive Software**

SuperShell Student Tutorial Software ISBN 0673559009 (IBM) ISBN 0673974855 (Macintosh)

This interactive program provides students with self-paced instruction, including chapter review material, practice exercises, self-tests with immediate correct responses, and individual diagnostic feedback. For IBM-PCs, compatibles, and Macintosh computers.

Journey II Interactive Software

This program involves students in a variety of simulations and experiments on a broad range of topics, including the nervous system and learning development. It is available for IBM and Macintosh users.

CD-ROM

Designed exclusively as presentation software and using state-of-theart technology, this disk links the electronic text to interactive exercises, animations, and video clips. It covers the core concepts in the discipline by applying a game approach to the learning of psychology. James Hilton (University of Michigan) and Charles Perdue (West Virginia State College) were our consultants.

Also available for qualified adopters are a unique array of media items, including three laser discs, electronic transparencies, and videos. Please see your local sales representative for details.

#### **Acknowledgments**

As I said right at the very beginning, it took many many people to put this book together. Here, I get the opportunity to thank them all, but then to do little else but list their names and their professional affiliations. Before I start listing, however, there are three persons who really do deserve special mention. The first is my wife, Nancy, who not only read all of this manuscript (and more than once), and made many helpful suggestions, but who also served as research assistant and co-writer for the new "Psychology in the Real World" boxes—all of which helped enormously. I also need to acknowledge Catherine Woods, the HarperCollins psychology editor who got this project started and who has supported it through its production. My developmental editor for this edition, Ann Kirby, has also been very supportive and most helpful. Among other things, it was to Ann that fell the job of securing input from reviewers and helping me decide what needed to be changed and what could be left alone. Thanks also to Gloria Klaiman, Project Editor; Christine Pearson, Electronic Production Manager; Erica Smith, Editorial Assistant; Diane Wansing, Supplements Editor; and Mark Paluch, Marketing Manager.

Once again, feedback from my colleagues had a direct impact on this project. I would like to thank those instructors who served as reviewers on this project through the first and second editions: Allen R. Branum, South Dakota State University; Glenda Brewer, Rose State College; Dan W. Brunworth, Kishwaukee College; Roy Cohen, Mesa Community College; William

H. Curtis, Camden County College; Joseph R. Ferrari, Cazenovia College; Richard Florio, Passaic County Community College; Richard A. Girard, New Hampshire Technical College at Stratham; Phyllis Grilikhes-Maxwell, City College of San Francisco; Michael B. Guyer, John Carrol University; Jim Hail, McLennan Community College; James E. Hart, Edison State Community College; Jeanne Ivy, Tyler Junior College; Stan Kary, St. Louis Community College at Florissant Valley; Christopher Kilmartin, Mary Washington College; David Klein, Stark Technical College; Connie Lanier, Central Piedmont Community College; Denis Laplante, Lambton College; Vivian Leclaire, Community College of Rhode Island; Gloria M. Lewis, Tennessee State University; John F. Lindsay, Jr., Georgia College; Janet Lumpkin, Trinity Valley Community College; Kurt Mahoney, Mesa College; Terry Mason, Niagara College; Judi M. Misale, Northeast Missouri State University; David R. Murphy, Waubonsee Community College; Carrol Perrino, Morgan State University; Gary W. Piggrem, Devry Institute of Technology; Terri Sawyer, Carroll Community College; Jack P. Shilkret, Ann Arundel Community College; Sandra Stuebner, Chandler-Gilbert Community College; Ed Valsi, Oakland Community College; Anthony A. Walsh, Salve Regina University; Marcia Wehr, Santa Fe Community College; Fred W. Whitford, Montana State University; and Cecilia K. Yoder, Oklahoma City Community College.

Josh R. Gerow

# ESSENTIALS OF PSYCHOLOGY

CONCEPTS AND APPLICATIONS Second Edition

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ISBN 0-673-99499-6

With an accessible writing style and an emphasis on developing strong study skills, Gerow's Essentials of Psychology presents a complete survey of introductory psychology for students of all abilities. Historical, cutting-edge, and cross-cultural examples are integrated throughout the text, and current issues and controversies are highlighted in a boxed feature in each chapter. The author presents information in a friendly tone that speaks directly to students, making difficult topics easy to understand. From the new breakdown of chapters into meaningful "topics" to Gerow's "Before You Go On" questions, text and information are organized into manageable chunks that are easier for students to review and retain. The pedagogical program reinforces the learning theme with marginal definitions, summaries tied to the interim questions, critical-thinking questions, and selftests with answers provided. One of the briefest and most inexpensive texts available, every student copy of Essentials of Psychology comes shrinkwrapped with a free study guide.

GETTING THE MOST FROM YOUR TEXTBOOK

#### DON'T READ YOUR TEXTBOOK THE WAY YOU **READ OTHER BOOKS**

Perhaps the most significant insight about textbook study is that it is very different from casual reading. Reading a chapter is not studying a chapter. Studying is a process in which you must become actively and personally in-Studying is a process in which you must become actively aim personally volved. Studying a text requires a great deal more concentration and mental effort than does reading for pleasure. What is the author trying to say? What are the major ideas? What evidence supports those ideas? What are the minor points? How can the material be related to what you already know from personal experience, previous reading, or classroom lectures?

How will this information show up on a test?

There are times when you should look up from the book, pause, and think about what you have just read. You should be able to quickly summarize the material in your own words, which is why Before You Go On questions are included within each chapter of this book. If you cannot answer these questions, there is little point in going further. Go back over the sec-tion you've just read. Speed may be fine, but speed without comprehension

vaste of time. Effective textbook study is a skill that can be learned by anyone, but it will not be learned automatically. It takes hard work and practice to develop textbook study skills. The rewards for your work, however, will be al-

#### MAKE TEXTBOOK STUDY AN ACTIVE PROCESS

There is no doubt that you must be mentally active and alert while studying so you can search, question, and think. This text and its accompanying Study Guide have been designed to facilitate active studying. If you have not done so yet, please go back now and read the section of the Preface titled "Features of this Text."

Underlining or highlighting in textbooks has become a common practice. Unfortunately, it often is misused. The purpose of underlining is to emphasize particular passages of the text so essential points can be reviewed by simply restudying underlined passages. The mistake that many students make is to underline too much: When 80 percent of a page is underlined for emphasis, the remaining 20 percent usually appears more

derimed for emphasis, the Fernanning 20 percent usually appears more striking.

You can increase the value of your textbook for studying by using the margins of the text for your personal notations. Make your text a storehouse of references. Cross-reference textbook material with information in your notes. If it's your book, use it—write in it.

#### PREPARING FOR EXAMS

Few occasions are quite as pleasant as the one you experience when you walk into class to take a big exam fully prepared, confident that you know the material and that you are going to do well. I also know from personal experience just how miserable it feels to face an exam unprepared, doomed before you begin, unable to understand—much less answer—the first question. The key lies in being prepared. Proper preparation for exams helps to furnish the kind of positive reinforcement that education is meant to provide, but it isn't easy. You'll have to schedule your time, test your progress, and engage in continuous, active review

#### STUDY TIPS PROVIDED IN SPECIAL INTRODUCTION TO THE TEXT

The text begins with a host of helpful tips to foster the development of students' study skills. **Numerous strategies for success** are introduced and supported consistently throughout the text to ensure proper comprehension and retention of the material.

### **MEMORY**

# 7

# CHAPTER OUTLINES AND NEW "TOPICS" SECTIONS

These handy organizational tools provide a quick overview of the material discussed in each chapter and help students break down information into manageable "chunks." Following Gerow's "learning system" approach, each chapter is divided into two or more self-contained, highly manageable "topics," which make the material especially easy for students to study and review.



PREVIEW

TOPIC 7A—How Can We Describe Human Memory?

Memory as Information

Sensory Memory

Short-Term Memory (STM)

Long-Term Memory (LTM)

PSYCHOLOGY IN THE REAL WORLD: The Retrieval of Repressed Memories of Childhood Trauma

TOPIC 7B—Why We Forget: Factors Affecting Retrieval

How We Measure Retrieval

How We Encode Information

How We Schedule Practice

How We Overcome Interference

A Reminder About Retrieval and Forgetting

THINKING CRITICALLY

CHAPTER SUMMARY
TEST YOURSELF

PREVIEW

#### perception

the cognitive process of selecting, organizing, and interpreting those stimuli provided to us by our senses

#### consciousness

the awareness or perception of the environment and of one's own mental processes Now that we have a general idea of how our senses work, we can move on to consider what happens next as we process information about the world. As we have seen, the psychology of sensation is concerned with how our senses transduce physical energy from the environment into neural energy. **Perception** is concerned with the selection, organization, and interpretation of stimuli. Perception is a complex, active, cognitive process. You can think of these interrelated processes this way: Our senses present us with information about the world, while perception represents that information—other flavored by our motivational states, our emploins, our expectations, and our past experiences. That is, we create our perceptions of reality based on more than just the information provided by our senses.

mation provided by our senses.

Topic 5A begins with the consideration of a question: Given all of the stimuli presented to us by our senses, what factors determine which stimuli export attention to and which stimuli we ignore? Once stimuli are selected for further processing, they are organized into meaningful pieces of information. What factors influence the organization of our perceptions? Once we have these two basic issues resolved, we can move on to deal with two important perceptual matters: the perception of depth and distance, and the perceptual constancies.

Topic 5B takes us to a related set of issues, dealing with matters of human consciousness. **Consciousness** refers to our awareness, or our perception, of the environment and of our own mental processes. To be fully conscious is to be awake, aware, cliert, and attentive. The extent to which we are conscious of ourselves and our environment will influence how—and the extent to which—we can process information. This is why I have chosen to put our discussion of consciousness in this chapter.

## CHAPTER PREVIEWS

A helpful supplement to chapter outlines, these sections provide a more thorough description of all material to be addressed in the chapter and demonstrate the significance of these topics in psychology.

#### 12 THE PSYCHOLOGICAL DISORDERS Types of Mood Disorder ganic basis for the symptoms. MARGINAL major depression GLOSSARIES an extreme of mood character ized by intense sadness, feelings of hopelessness, and a loss of pleasure and interest in nor-The meanings of key terms are mal activities always close at hand thanks to these handy pedagogical aids. dysthymia nably mild, though a reasonably mila, mough chronic disorder of depression associated with low energy and w self-este bipolar disorde a severe mood disorder evi-

denced by unexplainable swings of mood between the

more common depression and

well-being, and an increase in activity level

ne of mood characte an extreme of mood characterized by euphoria, a sense of

MORE ON RODS AND CONES AND WHAT THEY DO

smooth one. At about the 7-minute mark, there is a change in the shape of the curve. This break in the curve is called the rod-cone break. At first—for 6 to 7 minutes—both rods and cones increase their sensitivity (represented by the first part of the curve). But our cones are basically daylight receptors. They are not cut out for seeing in the dark, and after those first few minutes, they have become as sensitive as they are going to get. Rods, on the other hand, keep lowering their threshold, or continue to increase their sensitivity (represented by the part of the curve after the "break").

Now that we've reviewed the nature of light and the eye, the stimulus

and the receptor for vision, we'll end our discussion of vision by examining how our cones provide us with the experience of color.

Before You Go On

Why can we claim that rods and cones provide us with two dif-ferent kinds of visual experience?

#### Color Vision and Color Blindness

Explaining how the eye codes or responds to different intensities of light is not too difficult: High-intensity lights cause more rapid firing of neural impulses than do low-intensity lights. It is also sensible that high-intensity lights stimulate more cells to fire than do lights of low intensity. How the eye codes different wavelengths of light to produce different experiences of hue or color, however, is another story. Here things are not simple at all. There are many theories of color vision, two of which were proposed many years ago. As is often the case with competing theories that try to explain the same phenomenon, both are probably partially correct.

Mood disorders are defined in terms of extremes of mood, depression being the more common of the two extremes. Listed under the classification of mood disorder are several specific disorders, differentiated in terms of such criteria as length of episode, severity, and whether there is a known or-

Major depression is a constellation of symptoms that includes feeling sad, low, and hopeless, coupled with a loss of pleasure or interest in one's usual activities. Associated with major depression are such factors as poor appetite, insomnia, loss of energy, decrease in sexual activity, and feelings worthlessness. At the same time, there is no event or situation that can

reasonably account for the extremeness of the observed depression.

This form of mood disorder is diagnosed about two times m women than in men; during any 6-month period, approximately 6.6 per-cent of women and 3.5 percent of men will have an episode of major de-pression. This ratio of two women to every man developing major depression holds across nationalities and across ethnic groups (Cross-National Collaborative Group, 1992; McGrath et al., 1990). Worldwide, major depression is on the increase, with current incidence at more than 100 million persons (Gotilib, 1992; Weissman & Klerman, 1992). Unfortunately, relion persons (Cotth), 1992; Weissman & Klerman, 1992). Unfortunately, research also tells us that relapse and reoccurrence are common for those who have had a depressive episode (Belsher & Costello, 1988; Klerman, 1990). Major depression seldom occurs in just one episode of illness, but rather is a chronic condition (Frank et al., 1990).

Dysthymia is the name of the disorder that is essentially a mild case of

major depression. The disorder is chronic, with recurrent pessimism, low energy level, and low self-esteem. Whereas major depression tends to occur in a series of debilitating episodes, dysthymia is a more continuous sense of being depressed and sad.

As with major depression, there is no identifiable event that precipi-

tates the depressed mood of dysthymia. In other words, to feel even over whelmingly depressed upon hearing of the death of a friend is not enough to qualify as a disorder of any sort. From time to time we all feel depression,

but there is usually some sensible reason for our depressed mood.

In bipolar disorder, episodes of depression are interspersed with episodes of mania. This disorder is often referred to as manic depression. Mania is characterized by an elevated mood with feelings of euphoria or irritability. In a manic state one shows an increase in activity, is more talkative than usual, and seems to be able to get by on a lot less sleep than usual. Mania is a condition of mood that cannot be maintained for long. It is just too tiring to stay manic for an extended time. Like depression, mania seldom occurs as an isolated episode. Follow-up studies show that recurrences of manic reactions are common. Relapse is found in approximately 40 percent of patients who have been diagnosed as having a manic episode (Harrow et al, 1990; Tohen et al., 1990). People are rarely ever manic without the interspersed periods of depression. Nearly 2 million Americans are the interspersed periods of depression. presently diagnosed with bipolar disorder.

#### "BEFORE YOU GO ON" QUESTIONS

Strategically located throughout each chapter, these questions offer students a regular opportunity to assess their comprehension of the material. Doubling as interim summaries of the information covered thus far, these questions also serve as markers for distributing practice and study time. Answers to all questions are provided in chapterending summaries.

#### "PSYCHOLOGY IN THE **REAL WORLD" BOXES**

Featured in each chapter, these sections clearly illustrate the material at hand as it occurs in real-world situations. Topics illustrate a diverse range of timely, high-interest applications, such as the effects of divorce, daycare, lie-detection, ESP, consumer psychology, and many others.

#### Blacks, Whites, IQ, and the Bell Curve

That there are significant differences between the IQ test scores of black and white Americans is not a new discovery. It was one of the conclusions drawn from the testing program for Army recruits during the First World War. Since then, many studies have reconfirmed the fact that whites score as many as 15 points higher on tests of general intelligence (IQ) than do blacks. Blacks even earn intelligence (IQ) than do blacks. Blacks even earn lower scores on performance tests and on intelligence tests designed to minimize the influence of one's culture (so-called culture fair tests) (Helms, 1992; Jensen, 1980; Rushton, 1988). There also are data that tell us that Japanese children (between the ages of 6 and 16) score higher on IQ tests—about 11 points on the average—than do American children (Lynn, 1982; 1987). The nagging question, of course, is where do these test score differences come from?

The proposed answers have been very contro-

The proposed answers have been very controversial and involve several possibilities we've touched on before in other contexts: (1) The tests are biased and unfair. IQ tests may reflect the experiences of white Americans to a greater extent than they reflect the lives and experiences of blacks. (2) Differences in IQ scores can be attributed to environmental factors, such as economic or educational opportunities, or the extent to which one is exposed to a wide range of stimuli. (3) Genetic factors are involved that place some groups at a disadvantage. (4) There are cultural differences in motivation and attitudes about perfor-

mance on standardized tests.

Test bias may account for some of the observed Test bias may account for some of the observed differences in IQ scores, but assume for the moment that available techniques for assessing general intelligence are as valid as possible. (Remembering, of course, that even the best and fairest of tests only measures one, or a few, aspects of the various dimensions of intelligence.) What then? Let's concentrate on black-white differences in IQ.

In the 1950s and 1960s, psychologists were confident that most (if not all) of the difference in the average IQ scores of whites and blacks could be accounted for by environmental, sociocultural, and motivational factors. There wasn't much research to suprivational factors. There wasn't much research to suprivational factors. There wasn't much research to suprivational factors.

tivational factors. There wasn't much research to sup-

port the position, but the logic was compelling and it was consistent with prevailing attitudes. Blacks were at a disadvantage on standard IQ tests because they were often denied access to enriching educational opportunities. The lower socioeconomic status deprived many blacks of the sorts of experiences that could raise their IQ scores.

In 1969, Arthur Jensen shocked the scientific

community with an article in the Harvard Educa-tional Review. Jensen argued that there was insuffi-cient evidence to justify the conclusion that the environment alone could produce the observed racial differences in IQ scores. The alternative was obvious to Jensen: the differences were attributable to genetic factors. Many readers took Jensen's claim to mean that blacks are genetically inferior to whites. Jensen said that his argument was meant only as a reason able hypothesis, intended to provoke scientific efforts to explore the possibility (Jensen, 1981).

Perhaps you can imagine the furor created by Jensen's article. Researchers took up the challenge and tried to find convincing evidence that the environment is the cause of lower black IQ scores. After reviewing the body of evidence that resulted from these efforts, one scientist, Brian Mackenzie, wrote: "what is finally clear from such research, therefore, is that environmental factors have not been identified that are sufficient to account for all or even most of the 15-point mean difference in IQ between blacks and whites in the United States. Jensen's conclusion and writes in the Critical states, Jersein so to transmit that half to two-thirds of the gap remains unac-counted for by any proposed combination of envi-ronmental influences is still unrefuted" (1984, p. 1217). What does that mean? Does that mean that 1211). What does that mean: Does that mean that racial differences in IQ are caused by genetic factors? Are blacks genetically less able than whites? Of course not. There is no evidence to support that con-clusion either (Mackintosh, 1986).

Just as many were coming to believe that the debate over racial differences in IQ was settling down, the controversy was reignited late in 1994 with the publication of a book, titled *The Bell Curve*. (The bell curve refers to the symmetrical normal curve of IQ

PROJECTIVE TECHNIQUES .

#### THINKING CRITICALLY ABOUT PERSONALITY AND ITS ASSESSMENT

- No matter what its proposals, hypotheses, or predictions, to what ex-tent is it reasonable to assume that a theory of personality can emerge
- from the study and treatment of persons with psychological disorders? Humankind is a unique species. For one thing, it is among the very few that regularly kill their own kind on purpose (in murder or war, for example). How can a personality theory take this aspect of human nature into account? (Freud was one of the few to try.) Is it even possible to employ defense mechanisms consciously, or "on
- Freud proposed his theory of personality near the turn of the century. Now, nearly 100 years later, what might Freud think of his own theory's relevance in today's world?
- Watson and Skinner never proposed a personality theory as such. How do you suppose either of them would have accounted for mental
- How do you suppose clais of mean manning the suppose that of the "Big Five" traits of personality show up in behavior? Can you judge where you fall on each of
- the five proposed dimensions? What are the major problems with the so-called "personality tests" that we find in magazines and newspapers? For that matter, what (if anything) is "wrong" with the little personality test included in the "Psychology in the Real World" box?
- How can one determine the reliability of a test that measures anxiety if we know that anxiety is a characteristic that is itself very unreliable (i.e., sometimes we are more or less anxious than at other times)?
- If you were to take the logic of projective techniques seriously, what could you conclude about someone who viewed all of the inkblots in the Rorschach series and said for each card, "It just looks like an

#### "THINKING CRITICALLY ABOUT..." QUESTIONS

These insightful learning aids encourage students to contemplate each chapter's discussion further by relating the material to their own personal experiences.

#### CHAPTER SUMMARIES

These sections restate and reinforce each chapter's major ideas in abbreviated form and also provide answers to the "Before You Go On" questions located throughout each chapter.

#### SUMMARY

#### TOPIC 9A

#### ISSUES OF MOTIVATION

 How have the concepts of instinct, need, drive, and incentive been used to explain motivated behaviors?

Instincts are complex patterns of behavior that occur in the presence of certain stimuli. Instinct approaches take the position that some complex behavior patterns are unlearned or innate. The concept of instinct has not proven satisfactory in accounting for human behaviors. Needs are shortages of some biological necessity. Deprivation may lead to a need, which gives rise to a drive, which arouses and directs behavior. The relations among deprivation, need, drive, and behavior are often not very straightforward; drives can be more learned than biological. Maslow has proposed that human needs can be placed in a hierarchy, beginning with basic survival needs and ending with a need to self-actualize. Focusing on incentives explains behaviors in terms of goals and outcomes rather than on internal forces. In this sense, we are motivated to reach desired end states. These approaches are not mutually exclusive, and each may be used to explain some types of motivated behavior.

How can the concept of balance or equilibrium be used to help us understand motivated behaviors?

In what way is cognitive dissonance theory based on equilibrium?

Organisms are motivated to reach and maintain a state of balance—a set point level of activity. With homeostasis, we have a general drive to maintain a state of equilibrium among internal physiological processes such as blood pressure, metabolism, and heart rate. Some psychologists argue for a general drive to maintain a balanced state of arousal, with different optimal levels of arousal being best suited for different tasks or situations. Festinger claims that we are motivated to maintain balance among cognitive states, and thereby to reduce cognitive states, and thereby to reduce cognitive disanance.

 Given the concept of homeostasis, how might temperature regulation be thought of as a physiologically based drive?

Temperature regulation can be viewed as a physiological drive because we have a need (thus are driven) to maintain our body temperatures within homeostatic levels. Doing so may involve voluntary as well as involuntary responding.

 List some of the internal and external factors that influence drinking behavior.

We are motivated to drink for several reasons: to relieve dryness in our mouths and throats; to maintain a homeostatic level (monitored by the hypothalamus) of fluid within our bodies; and also as a response to external cues, such as taste, aroma, or appearance. What we drink is often influenced by our learning experiences.

List the internal and external factors that influence eating.

Internal factors include cues mediated by the hypothalamus, which may be responding to stored fat levels, blood sugar levels, or some other indication that our normal homeostatic balance has been disrupted. Associated with this view is the position that body weight is maintained at a given set point by both intake and exercise levels. There is evidence that body size may be determined largely by genetic factors. External factors include the stimulus properties of foods, as well as habit patterns and social pressure.

In what ways is the sex drive a unique physiologically based drive?

(1) Individual survival does not require its satisfaction. (2) The drive involves seeking or creating tension, not relieving tension. (3) It is not fully present at birth, but matures later. (4) The extent to which it is affected by learned or external influences varies from species to species. Like other physiologically-based drives, it does respond to both internal and external stimuli.

What is homosexuality?
 What causes homosexuality?



#### TOPIC 6A

#### **CLASSICAL CONDITIONING**

- 6.1 To say that learning is demonstrated by changes in behavior is to suggest that a) if we cannot remember something, we did not learn it in the first place. b) some changes in behavior do not last very long, or are cyclical. c) the only way we can be sure if someone learned something is to ask him or her. d) learning is an internal process that is inferred from performance.
- 6.2 Which of the following ideas is not found in our definition of learning? a) Changes in behavior due to learning must be relatively permanent. b) Learning involves making good and proper adjustments and adaptations to the environment. c) For changes to be classified as learned, they must result from practice or experience. d) Learning cannot be measured or observed directly.
- 6.3 As Pavlov noted, when we bring a dog to the laboratory, stand him on a table, and ring a bell the first thing we will notice is a) an orienting reflex. b) an unconditioned stimulus. c) habituation or acclimation. d) no response at all.
- 6.4 True or False? Ivan Pavlov won a Nobel Prize for psychology in 1902.
- **6.5** True or False? In a demonstration of classical conditioning, the unconditioned response occurs without any previous learning experience.

The next three items involve the following situation:
A dog is exposed to the sound of a bell until it comes
to ignore it. Now, soon after the bell is sounded, a
shock is delivered to the front left paw of the dog.
When it is shocked, the dog quickly lifts its foot. This
procedure is repeated 12 times.

- 6.6 What is likely to be the response when the bell is sounded now? a) A UCS will occur, b) A UCR will occur, c) A CR will occur, d) Nothing will happen.
- 6.7 In this example of conditioning, the UCR is and the CR is \_\_\_\_ a) shock; foot withdrawal. b) shock; a bell. c) a bell; an orienting reflex. d) foot withdrawal; foot withdrawal.
- 6.8 If the bell were sounded alone (no more shock) for a few dozen presentations, what is likely to occur? a) extinction. b) generalization. c) acquisition. d) spontaneous recovery.
- 6.9 Which process is essentially the opposite of generalization? a) discrimination. b) reinforcement. c) acquisition. d) habituation.
- 6.10 Although each of these responses or behaviors is learned, which most clearly results from classical conditioning 2 al typing or keyboard skills. b) feeling relief at realizing that a class period is about over. c) understanding the difference between a CS and a UCS. d) speaking the language you do rather than a different one.
- 6.11 With "Little Albert" as their subject, John Watson and Rosalie Rayner demonstrated each of the following except a) generalization. b) classical conditioning, c) extinction. d) a learned and unlearned stimulus for fear.
- 6.12 A stimulus will serve as a most effective CS if a) it is repeatedly presented after the presentation of the UCS. b) it naturally produces an orienting reflex. c) its presentation reliably predicts the UCS. d) it is repeatedly paired with an appropriate CR.
- 6.13 Taste aversion studies a) work with rats, but not with dogs or people. b) show us an application of classical conditioning. c) demonstrate that CS-UCS intervals may be quite long. d) explain why most children prefer sweet-tasting foods.

# PRACTICE TESTS WITHIN THE BODY OF EACH CHAPTER

Designed as a review of each chapter's material, these sections feature objective, open-ended questions incorporated within the text. They enable students to quickly and easily test their comprehension and retention of the material as they go through it while also providing examples of what students can expect to find on exams.

# EXPANDED COVERAGE OF MULTICULTURAL AND CROSS-CULTURAL ISSUES

Featured throughout the text, numerous research studies and references back-up the discussion of increasingly important cultural issues while illustrating the broadening scope of psychology's reach. Cultural bias is also specifically addressed.

another. On the other hand, as theories they offer little more than description. To say that someone acted in a certain way "because he is introverted" doesn't really explain his action. It functions merely as a label. Even with the Big Five traits, disagreement about how to specifically define the most basic traits that describe personality remains.

The basic relevance or value of personality traits varies across cultures. Traits are seen as reasonable and sensible to peoples of Western cultures, where people are viewed as individual actors and where knowing about the characteristics of those individual actors would be helpful. If people are viewed in terms of their long-term membership in a group or a collective (as they are in collectivistic cultures such as those found in Asia, Africa, and South America), then their individual characteristics will be of less interest than their roles, duties, responsibilities, and group loyalties, for example. (Miller, 1984; Shwedler & Sullivan, 1993).

So, as we might have predicted, when we try to evaluate the different theories of personality, there are no winners or losers. Each approach has its shortcomings, but each adds something to our appreciation of the concept of human personality.

#### 1 WHAT PSYCHOLOGISTS DO

animals to psychology—again reflecting the influence of Darwin. One of the most popular textbooks of this era was *The Animal Mind* by Margaret Floy Washburn (1871–1939), the first woman to be awarded a Ph.D. in psychology. Published in 1908, the book addressed animal consciousness and intelligence. In fact, one characteristic of functionalism was its willingness to be open to a wide range of topics—so long as they were in some way related to mental life, or adaptation, or had practical application. We can trace child, abnormal, educational, social, and industrial psychology to early functionalism.

early functionalism.

In those early days of psychology, societal pressures were such that getting a graduate level education was exceedingly difficult for women, no matter how able or bright they were (Furumoto, 8x Scarborough, 1986; Scarborough & Furumoto, 1987). Still, one woman, Mary Calkins (1863–1930), so impressed William James that he allowed her into his classes even though Harvard would not let her formally enroll. Nor would Harvard award her a Ph.D.—for which she had met all cademic requirements. Mary Calkins went on to do significant experimental work on human learning and memory, and in 1905 was the first woman to be elected president of the American Psychological Association (Madigan & O'Hara, 1992).

# INCREASED COVERAGE OF GENDER ISSUES

A host of highly relevant gender issues are incorporated within the chapters. Coverage includes historical contributions by women psychologists and the significance of maternal stress.

## ACCESSIBLE WRITING STYLE

Employing a friendly tone that speaks directly to students, the author presents information in an especially nonintimidating manner. This makes difficult topics notably easier to understand.

Experiments with split-brain patients confirm that speech production is a left hemisphere function in a great majority of people. Suppose you have your hands behind your back. I place a house key in your left hand, and ask you to tell me what it is. Your left hand feels the key. Impulses travel up your left arm, up your spinal cord, and cross over to your right cerebral hemisphere—remember cross-laterality. You can readily tell me that the object in your hand is a key because your brain is intact. Your right hemisphere passes the information about the key to your left hemisphere, and your left hemisphere directs you to say, "It's a key." Now suppose that your corpus callosum is severed (that you are a split-brain subject). Now you cannot answer my question, even though you understand it perfectly. Why not? Your right brain knows that the object in your left hand is a key, but without a corpus callosum, it has no way to inform the left hemisphere, where your speech center is located. You would be able to point out the key from among other objects placed before you, under the direction of the right cerebral hemisphere. Once your eyes saw you do so, they would communicate that information to your left hemisphere, and now it too would know, and tell us, what your right hemisphere knew all along.

A major task of the left hemisphere, then, is the production of speech. But before we on any further, we need to pause and caution against overing

A major task of the left hemisphere, then, is the production of speech. But before we go any further, we need to pause and caution against overinterpretation. When results from split-brain studies were first made known, many people—psychologists and nonpsychologists alike—rushed to premature conclusions. We now believe that virtually no behavior, virtually no mental process, is the simple and single product of just one hemisphere (e.g., Hellige, 1990). It is more reasonable to say that one hemisphere dominates the other, or is the primary processing area for certain actions. For example, the left hemisphere is dominant in the perception and interpretation of speech. But some language processing seems to be primarily the responsibility of the right hemisphere. The right hemisphere is more involved in the processing of common phrases and cliches such as "How do you do?" or "Have a nice day!" (Kempler & Van Lancker, 1987).

responsibility of the right hemisphere. The right hemisphere is more involved in the processing of common phrases and cliches such as "How do you do?" or "Have a nice day!" (Kempler & Van Lancker, 1987).

Being careful not to overinterpret, what are some of the activities processed primarily in one hemisphere or the other? We've seen that the left hemisphere can be given credit for most of our language skills, and given our reliance on language, that's no small matter. Simple arithmetic tasks of calculation also seem to be primarily a left brain function. Indeed, the left hemisphere is often credited with the processing of information in an analytical, one-piece-at-a-time sort of way, although the data here are a bit tenuous (Hellige, 1990, p. 59).





Although we must be careful not to overgeneralize, we may say that a major task of the left cerebral hemisphere is the use of language (as in working a crossword puzzle). A major task of the right cerebral hemisphere is the appreciation of spatial relations (as in working on a jigsaw puzzle).

#### 4 SENSORY PROCESSES

#### PSYCHOLOGY IN THE REAL WORLD

#### Pain and Its Management

What is pain? What causes the experience of pain? Each of us knows what a pain pain can be, yet it is often difficult to find the exact words to adequately describe our pain to others (Verillo, 1975). Pain can be useful. It can alert us to problems occurring within our bodies so appropriate action can be taken. It is the experience of pain that prompts more than 80 percent of all visits to the doctor's office (Turk, 1994).

tion can be taken. It is the experience of pain that prompts more than 80 percent of all visits to the doctor's office (Turk, 1994).

Many stimuli can cause pain. Too much light, strong pressures on the skin, loud sounds, and even very "hot" spices can result in our experiencing pain. But as we all know, the stimulus for pain need not be intense. In the right circumstances, even a light pinprick can be painful. Our skin has many receptors for pain, but pain receptors can also be found deep inside our bodies; consider stomachaches, back pain, and headaches. Pain is experienced in our brains, and the thalamus seems to play an important role, (Groves & Rebec, 1992, p. 265). On the other hand, pain is the only "sense" for which we can find no one specific center in the cerebral cortex.

One theory of pain claims that pain is experienced in the brain, not in the periphery, and that a gate-control mechanism (high in the spinal cord) acts to block pain messages by "closing the gate" so that pain messages never get to the brain for processing (Melzack & Wall, 1965; Melzack, 1973). A cognitive-behavioral theory of pain also suggests that certal mechanisms are important, noting that the experience of pain is influenced by a person's attitudes, cognitions, and behaviors (Turk, 1994).

Even without a full understanding of how pain

Even without a full understanding of how pain is sensed, there are techniques that can be used to minimize or manage the experience of pain. If pain is really experienced in the brain, what sorts of things can we do to keep pain messages from reaching those brain centers?

Drug therapy can be a choice for pain management. Opiates, such as morphine, when administered systemically, are believed to inhibit pain messages at the level of the spinal cord, as well as at the specific site, or source, of the pain (Basbaum & Levine, 1991; Clinton, 1992; Randall, 1993; Richmond et al., 1993). Hypnosis and cognitive self-control (trying very

Hypnosis and cognitive self-control (trying very hard to convince yourself that the pain you're experiencing is not really that bad and will go away) are effective in lessening the experience of pain (Litt, 1988; MeLsack, 1978).

1988; Melzack, 1973).

That psychological processes can inhibit pain is also reinforced by data on placebo effects. A placebo is a substance (often in pill form) a person believes will be useful in treating some symptom, such as pain. When people are given a placebo they believe will alleviate pain, painkilling endorphins are released in the brain and effectively keep pain-carrying impulses from reaching the brain (Levine, et al., 1979). This placebo effect is particularly strong when the health care provider is prestigious and demonstrates empathy and a positive attitude about the placebo (Turner et al., 1994).

Another process that works to ease the feeling of pain, particularly pain from or near the surface of the skin, is called counterirritation. The idea is to forcefully (but not painfully, of course) stimulate an area of the body near the location of the pain. Dentists have discovered that rubbing the gum near the spot of a novacaine injection significantly reduces the patient's experience of the pain of the needle.

patient's experience of the pain of the needle.

The ancient Eastern practice of acupuncture
can also be effective in the treatment of pain. We
don't know yet why acupuncture works as well as it
does. There are cases where it doesn't work well at all,
but these usually involve patients who are skeptics,
which suggests that one of the benefits of acupuncture is its placebo effect. As many as 12 million

#### CUTTING-EDGE RESEARCH

Over 500 new references—most from the 1990s—supplement the material and paint a vivid and detailed picture of the current state of psychology.

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# BRIEF