



PSYCHOLOGY

THEMES AND VARIATIONS

WAYNE WEITEN

10TH EDITION



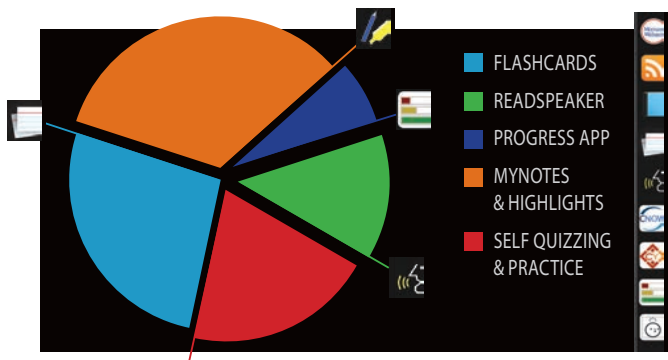
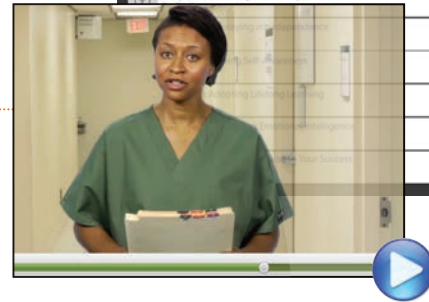
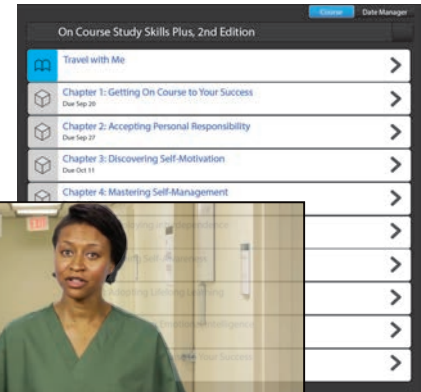
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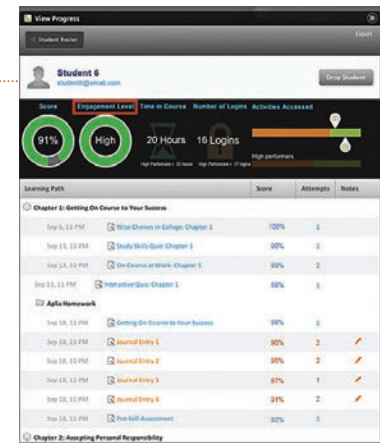


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TENTH EDITION

PSYCHOLOGY

Themes and Variations

Wayne Weiten

University of Nevada, Las Vegas



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Psychology: Themes and Variations,
Tenth Edition
Wayne Weiten

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Beth and T. J., this one is for you

ABOUT THE AUTHOR

Wayne Weiten is a graduate of Bradley University and received his Ph.D. in social psychology from the University of Illinois, Chicago in 1981. He has taught at the College of DuPage and Santa Clara University, and currently teaches at the University of Nevada, Las Vegas. He has received distinguished teaching awards from Division Two of the American Psychological Association (APA) and from the College of DuPage. He is a Fellow of Divisions 1, 2, and 8 of the American Psychological Association and a Fellow of the Midwestern Psychological Association. In 1991, he helped chair the APA National Conference on Enhancing the Quality of Undergraduate Education in Psychology. He is a former President of the Society for the Teaching of Psychology and the Rocky Mountain Psychological Association. In 2006, one of the five national teaching awards given annually by the Society for the Teaching of Psychology was named in his honor. Weiten has conducted research on a wide range of topics, including educational measurement, jury decision making, attribution theory, pressure as a form of stress, and the technology of textbooks. He is also the co-author of *Psychology Applied to Modern Life: Adjustment in the 21st Century* (with Dana S. Dunn and Elizabeth Yost Hammer, Cengage, 2015, 11th ed.). Weiten has created an educational CD-ROM titled *PsykTrek: A Multimedia Introduction to Psychology*, and he recently co-authored a chapter on the Introductory Psychology course for *The Oxford Handbook of Psychology Education* (Weiten & Houska, 2015).

TO THE INSTRUCTOR

If I had to sum up in a single sentence what I hope will distinguish this text, the sentence would be this: I have set out to create a *paradox* instead of a *compromise*.

Let me elaborate. An introductory psychology text must satisfy two disparate audiences: professors and students. Because of the tension between the divergent needs and preferences of these audiences, textbook authors usually indicate that they have attempted to strike a compromise between being theoretical versus practical, comprehensive versus comprehensible, research oriented versus applied, rigorous versus accessible, and so forth. However, I believe that many of these dichotomies are false. As Kurt Lewin once remarked, “What could be more practical than a good theory?” Similarly, is rigorous really the opposite of accessible? Not in my dictionary. I maintain that many of the antagonistic goals that we strive for in our textbooks only *seem* incompatible and that we may not need to make compromises as often as we assume.

In my estimation, a good introductory textbook is a paradox in that it integrates characteristics and goals that appear contradictory. With this in mind, I have endeavored to write a text that is paradoxical in three ways. First, in surveying psychology’s broad range of content, I have tried to show that our interests are characterized by diversity *and* unity. Second, I have emphasized both research *and* application and how they work in harmony. Finally, I have aspired to write a book that is challenging to think about *and* easy to learn from. Let’s take a closer look at these goals.

Goals

1. *To show both the unity and the diversity of psychology’s subject matter.* Students entering an introductory psychology course are often unaware of the immense diversity of subjects studied by psychologists. I find this diversity to be part of psychology’s charm, and throughout the book I highlight the enormous range of questions and issues addressed by psychology. Of course, our diversity proves disconcerting for some students, who see little continuity between such disparate areas of research as neuroscience, motivation, cognition, and abnormal behavior. Indeed, in this era of specialization, even some psychologists express concern about the fragmentation of the field.

However, I believe that there is considerable overlap among the subfields of psychology and that we should emphasize their common core by accenting the connections and similarities among them. Consequently, I portray psychology as an integrated whole rather than as a mosaic of loosely related parts. A principal goal of this text, then, is to highlight the unity in psychology’s intellectual heritage (the themes), as well as the diversity of psychology’s interests and uses (the variations).

2. *To illuminate the process of research and its intimate link to application.* For me, a research-oriented book is not one that bulges with summaries of many studies but one that enhances students’ appreciation of the logic and excitement of empirical inquiry. I want students to appreciate the strengths of the empirical approach and to see scientific psychology as a creative effort to solve intriguing behavioral puzzles. For this reason, the text emphasizes not only *what* we know (and don’t know) but *how* we attempt to find out. It examines methods in some detail and encourages students to adopt the skeptical attitude of a scientist and to think critically about claims regarding behavior.

Learning the virtues of research should not mean that students cannot also satisfy their desire for concrete, personally useful information about the challenges of everyday life. Most researchers believe that psychology has a great deal to offer those outside the field and that psychologists should share the practical implications of their work. In this text, practical insights are carefully qualified and closely tied to data, so that students can see the interdependence of research and application. I find that students come to appreciate

the science of psychology more when they see that worthwhile practical applications are derived from careful research and sound theory.

3. *To make the text challenging to think about and easy to learn from.* Perhaps most of all, I have sought to create a book of ideas rather than a compendium of studies. I consistently emphasize concepts and theories over facts, and I focus on major issues and tough questions that cut across the subfields of psychology (for example, the extent to which behavior is governed by nature, nurture, and their interaction), as opposed to parochial debates (such as the merits of averaging versus adding in impression formation). Challenging students to think also means urging them to confront the complexity and ambiguity of our knowledge. Thus, the text doesn't skirt gray areas, unresolved questions, and theoretical controversies. Instead, readers are encouraged to contemplate open-ended questions, to examine their assumptions about behavior, and to apply psychological concepts to their own lives. My goal is not simply to describe psychology but to stimulate students' intellectual growth.

However, students can grapple with “the big issues and tough questions” only if they first master the basic concepts and principles of psychology—ideally, with as little struggle as possible. In my writing, I never let myself forget that a textbook is a tool for teaching. Accordingly, I have taken great care to ensure that the book's content, organization, writing, illustrations, and pedagogical aids work in harmony to facilitate instruction and learning.

Admittedly, these goals are ambitious. If you're skeptical, you have every right to be. Let me explain how I have tried to realize the objectives I have outlined.

Special Features

This text has a variety of unusual features, each contributing in its own way to the book's paradoxical nature. These special features include unifying themes, Personal Application sections, Critical Thinking Application sections, a didactic illustration program, an integrated running glossary, Concept Checks, Key Learning Goals, and Practice Tests.

Unifying Themes

Chapter 1 introduces seven key ideas that serve as unifying themes throughout the text. The themes serve several purposes. First, they provide threads of continuity across chapters that help students see the connections among various areas of research in psychology. Second, as the themes evolve over the course of the book, they provide a forum for a relatively sophisticated discussion of enduring issues in psychology thus helping to make this a “book of ideas.” Third, the themes focus a spotlight on a number of basic insights about psychology and its subject matter that should leave lasting impressions on your students. In selecting the themes, the question I asked myself (and other professors) was, “What do I really want students to remember five years from now?” The resulting themes are grouped into two sets.

THEMES RELATED TO PSYCHOLOGY AS A FIELD OF STUDY

Theme 1: Psychology is empirical. This theme is used to enhance the student's appreciation of psychology's scientific nature and to demonstrate the advantages of empiricism over uncritical common sense and speculation. I also use this theme to encourage the reader to adopt a scientist's skeptical attitude and to engage in more critical thinking about information of all kinds.

Theme 2: Psychology is theoretically diverse. Students are often confused by psychology's theoretical pluralism and view it as a weakness. I don't downplay or apologize for our field's theoretical diversity because I honestly believe that it is one of our greatest strengths. Throughout the book, I provide concrete examples of how clashing theories have stimulated productive research, how converging on a question from several perspectives can yield increased understanding, and how competing theories are sometimes reconciled in the end.

Theme 3: Psychology evolves in a sociohistorical context. This theme emphasizes that psychology is embedded in the ebb and flow of everyday life. The text shows how the spirit of the times has often shaped psychology's evolution and how progress in psychology leaves its mark on our society.

THEMES RELATED TO PSYCHOLOGY'S SUBJECT MATTER

Theme 4: Behavior is determined by multiple causes. Throughout the book, I emphasize, and repeatedly illustrate, that behavioral processes are complex and that multifactorial causation is the rule. This theme is used to discourage simplistic, single-cause thinking and to encourage more critical reasoning.

Theme 5: People's behavior is shaped by their cultural heritage. This theme is intended to enhance students' appreciation of how cultural factors moderate psychological processes and how the viewpoint of one's own culture can distort one's interpretation of the behavior of people from other cultures. The discussions that elaborate on this theme do not simply celebrate diversity. They strike a careful balance: accurately reflecting the research in this area while highlighting both cultural variations and similarities in behavior.

Theme 6: Heredity and environment jointly influence behavior. Repeatedly discussing this theme permits me to explore the nature-versus-nurture issue in all its complexity. Over a series of chapters, students gradually learn how biology shapes behavior, how experience shapes behavior, and how scientists estimate the relative importance of each. Along the way, students will gain an in-depth appreciation of what we mean when we say that heredity and environment interact.

Theme 7: Our experience of the world is highly subjective. All of us tend to forget the extent to which we view the world through our own personal lens. This theme is used to explain the principles that underlie the subjectivity of human experience, to clarify its implications, and to repeatedly remind readers that their view of the world is not the only legitimate view.

After introducing all seven themes in Chapter 1, I discuss different sets of themes in each chapter as they are relevant to the subject matter. The connections between a chapter's content and the unifying themes are highlighted in a standard section near the end of the chapter, in which I reflect on the "lessons to be learned" from the chapter. The discussions of the unifying themes are largely confined to these sections, titled "Reflecting on the Chapter's Themes." I have not tried to make every chapter illustrate a certain number of themes. Rather, the themes were allowed to emerge naturally, and I found that two to five surfaced in any given chapter. The chart on page viii shows which themes are highlighted in each chapter. Color-coded icons at the beginning of each chapter and in each "Reflecting on the Chapter's Themes" section indicate the specific themes featured in each chapter.
























































Personal Applications

To reinforce the pragmatic implications of theory and research stressed throughout the text, each chapter includes a Personal Application section that highlights the practical side of psychology. Each Personal Application devotes two to three *pages* of text (rather than the usual box) to a single issue that should be of special interest to many of your students. Although most of the Personal Application sections have a "how to" character, they continue to review studies and summarize data in much the same way as the main body of each chapter. Thus, they portray research and application not as incompatible polarities but as two sides of the same coin. Many of the Personal Applications—such as those on finding and reading journal articles, understanding art and illusion, and improving stress management—provide topical coverage unusual for an introductory text.

Critical Thinking Applications

A great deal of unusual coverage can also be found in the Critical Thinking Applications that follow the Personal Applications. These applications are based on the assumption

Unifying Themes Highlighted in Each Chapter

Chapter	THEME						
	1 Empiricism	2 Theoretical Diversity	3 Sociohistorical Context	4 Multifactorial Causation	5 Cultural Heritage	6 Heredity & Environment	7 Subjectivity of Experience
1. The Evolution of Psychology							
2. The Research Enterprise in Psychology							
3. The Biological Bases of Behavior							
4. Sensation and Perception							
5. Variations in Consciousness							
6. Learning							
7. Human Memory							
8. Cognition and Intelligence							
9. Motivation and Emotion							
10. Human Development Across the Life Span							
11. Personality							
12. Social Behavior							
13. Stress, Coping, and Health							
14. Psychological Disorders							
15. Treatment of Psychological Disorders							

that critical thinking skills can be taught. They do not simply review research controversies, as is typically the case in other introductory texts. Instead, they introduce and model a host of critical thinking skills, such as looking for contradictory evidence or alternative explanations; recognizing anecdotal evidence, circular reasoning, hindsight bias, reification, weak analogies, and false dichotomies; evaluating arguments systematically; and working with cumulative and conjunctive probabilities.

The specific skills discussed in the Critical Thinking Applications are listed in the accompanying table (see page ix), where they are organized into five categories using a taxonomy developed by Halpern (1994). In each chapter, some of these skills are applied to topics and issues related to the chapter's content. For instance, in the chapter that covers drug abuse (Chapter 5), the concept of alcoholism is used to highlight the immense power of definitions and to illustrate how circular reasoning can seem so seductive. Skills that are particularly important may surface in more than one chapter, so students see them applied in a variety of contexts. For example, in Chapter 7 students learn how hindsight bias can contaminate memory, and in Chapter 11 they see how hindsight can distort analyses of personality. Repeated practice across chapters should help students spontaneously recognize the relevance of specific critical thinking skills when they encounter certain types of information.

Taxonomy of Skills Covered in the Critical Thinking Applications

Verbal Reasoning and Argument Analysis Skills	
Understanding the way definitions shape how people think about issues	Chapter 5
Identifying the source of definitions	Chapter 5
Avoiding the nominal fallacy in working with definitions and labels	Chapter 5
Understanding the elements of an argument	Chapter 9
Recognizing and avoiding common fallacies, such as irrelevant reasons, circular reasoning, slippery slope reasoning, weak analogies, and false dichotomies	Chapters 9 and 10
Evaluating arguments systematically	Chapter 9
Understanding how Pavlovian conditioning can be used to manipulate emotions	Chapter 6
Developing the ability to detect conditioning procedures used in the media	Chapter 6
Recognizing social influence strategies	Chapter 12
Judging the credibility of an information source	Chapter 12
Skills in Thinking as Hypothesis Testing	
Looking for alternative explanations for findings and events	Chapters 1 and 10
Looking for contradictory evidence	Chapters 1 and 3
Recognizing the limitations of anecdotal evidence	Chapters 2 and 15
Understanding the need to seek disconfirming evidence	Chapter 7
Understanding the limitations of correlational evidence	Chapters 10 and 13
Understanding the limitations of statistical significance	Chapter 13
Recognizing situations in which placebo effects might occur	Chapter 15
Skills in Working with Likelihood and Uncertainty	
Utilizing base rates in making predictions and evaluating probabilities	Chapter 13
Understanding cumulative probabilities	Chapter 14
Understanding conjunctive probabilities	Chapter 14
Understanding the limitations of the representativeness heuristic	Chapters 8 and 14
Understanding the limitations of the availability heuristic	Chapters 8 and 14
Recognizing situations in which regression toward the mean may occur	Chapter 15
Understanding the limits of extrapolation	Chapter 3
Decision-Making and Problem-Solving Skills	
Recognizing framing effects	Chapter 8
Understanding loss aversion	Chapter 8
Using evidence-based decision making	Chapter 2
Recognizing the bias in hindsight analysis	Chapters 7 and 11
Seeking information to reduce uncertainty	Chapter 13
Making risk-benefit assessments	Chapter 13
Generating and evaluating alternative courses of action	Chapter 13
Recognizing overconfidence in human cognition	Chapter 7
Understanding the limitations and fallibility of human memory	Chapter 7
Understanding how contrast effects can influence judgments and decisions	Chapter 4
Recognizing when extreme comparitors are being used	Chapter 4

Reality Checks

Each chapter includes three or four Reality Checks, which address common misconceptions related to psychology and provide direct refutations of the misinformation. These Reality Checks are sprinkled throughout the chapters, appearing adjacent to the relevant material. Examples of misconceptions that are dispelled include the myth that B. F. Skinner raised his daughter in a Skinner box, which led to her becoming severely disturbed (Chapter 1); the notion that people use only 10% of their brains (Chapter 3); the assumption that people who are color blind see the world in black and white (Chapter 4); and the idea that it is dangerous to awaken someone who is sleepwalking (Chapter 5).

Most of the misconceptions covered in these Reality Checks were addressed in previous editions, but not with direct refutations. In other words, accurate information was provided on the issues, but usually without explicitly stating the misconception and providing a rebuttal. Why the change in strategy? The impetus was a fascinating article in *Teaching of Psychology* by Patricia Kowalski and Annette Taylor (2009). This article summarized evidence that students typically come into introductory psychology with a variety of misconceptions and that, for the most part, they tend to leave the course with their misconceptions intact. To see if this problem could be ameliorated, they tested the impact of direct refutations on students' misconceptions in the introductory course. Their data suggested that explicit repudiations of erroneous ideas reduce students' misconceptions more effectively than the simple provision of correct information. With that evidence in mind, I decided to craft this feature that explicitly confronts and disputes common fallacies that range from oversimplified to profoundly inaccurate. Because the Reality Checks mostly supplement the normal coverage in the text, I chose to keep them concise. For the most part, they can be found in the margins of the pages.

A Didactic Illustration Program

When I first outlined my plans for this text, I indicated that I wanted every aspect of the illustration program to have a genuine didactic purpose and that I wanted to be deeply involved in its development. In retrospect, I had no idea what I was getting myself into, but it has been a rewarding learning experience. In any event, I have been intimately involved in planning every detail of the illustration program. I have endeavored to create a program of figures, diagrams, photos, and tables that work hand in hand with the prose to strengthen and clarify the main points in the text.

The most obvious results of our didactic approach to illustration are the Illustrated Overviews that combine tabular information, photos, diagrams, and sketches to provide exciting overviews of key ideas in the areas of methods, sensation and perception, learning, personality theory, psychopathology, and psychotherapy. But I hope you will also notice the subtleties of the illustration program. For instance, diagrams of important concepts (conditioning, synaptic transmission, EEGs, experimental design, and so forth) are often repeated in several chapters (with variations) to highlight connections among research areas and to enhance students' mastery of key ideas. Numerous easy-to-understand graphs of research results underscore psychology's foundation in research, and photos and diagrams often bolster each other (for example, see the treatment of classical conditioning in Chapter 6). Color is used carefully as an organizational device, and visual schematics help simplify hard-to-visualize concepts (see, for instance, the figure explaining reaction range for intelligence in Chapter 8). All of these efforts have gone toward the service of one master: the desire to make this an inviting book that is easy to learn from.

Integrated Running Glossary

An introductory text should place great emphasis on acquainting students with psychology's technical language—not for the sake of jargon, but because a great many of our key terms are also our cornerstone concepts (for example, *independent variable*, *reliability*, and *cognitive dissonance*). This text handles terminology with a running glossary embedded in the prose itself. The terms are set off in **blue boldface italics**, and the definitions

follow in **blue, boldface roman type**. This approach retains the two advantages of a conventional running glossary: vocabulary items are made salient, and their definitions are readily accessible. However, it does so without interrupting the flow of discourse, while eliminating redundancy between text matter and marginal entries.

Concept Checks

To help students assess their mastery of important ideas, Concept Checks are sprinkled throughout the book. In keeping with my goal of making this a book of ideas, the Concept Checks challenge students to apply ideas instead of testing rote memory. For example, in Chapter 6 the reader is asked to analyze realistic examples of conditioning and identify conditioned stimuli and responses, reinforcers, and schedules of reinforcement. Many of the Concept Checks require the reader to put together ideas introduced in different sections of the chapter. For instance, in Chapter 4 students are asked to identify parallels between vision and hearing. Some of the Concept Checks are quite challenging, but students find them engaging, and they report that the answers (available in Appendix A in the back of the book) are often illuminating.

Key Learning Goals

To help students organize, assimilate, and remember important ideas, each major section of every chapter begins with a succinct set of Key Learning Goals. The Key Learning Goals are found adjacent to the level-one headings that begin each major section. The Key Learning Goals are thought-provoking learning objectives that should help students focus on the key issues in each section.

Practice Tests

In addition to the answers to the Concept Checks, Appendix A at the back of the book includes a Practice Test for each chapter in the text. These twelve-item multiple-choice Practice Tests should give students realistic assessments of their mastery of specific chapters and valuable practice taking the type of test that many of them will face in the classroom (if the instructor uses the Test Bank). This feature grew out of some research that I conducted on students' use of textbook pedagogical devices (see Weiten, Guadagno, & Beck, 1996). This research indicated that students pay scant attention to some standard pedagogical devices. When I grilled my students to gain a better understanding of this finding, it quickly became apparent that students are very pragmatic about pedagogy. Essentially, their refrain was "We want study aids that will help us pass the next test." With this mandate in mind, I devised the Practice Tests. They should be useful, as I took most of the items from Test Banks for previous editions.

In addition to the special features just described, the text includes a variety of more conventional, tried-and-true features. The back of the book contains a standard *alphabetical glossary*. Opening *outlines* preview each chapter, I make frequent use of *italics for emphasis*, and I depend on *frequent headings* to maximize organizational clarity. The preface for students describes these pedagogical devices in more detail.

Content

The text is divided into 15 chapters that follow a traditional ordering. The chapters are not grouped into sections or parts, primarily because such groupings can limit your options if you want to reorganize the order of topics. The chapters are written in a way that facilitates organizational flexibility, as I always assumed that some chapters might be omitted or presented in a different order.

The topical coverage in the text is relatively conventional, but there are some subtle departures from the norm. For instance, Chapter 1 presents a relatively "meaty" discussion of the evolution of ideas in psychology. This coverage of history lays the foundation for many of the crucial ideas emphasized in subsequent chapters. The historical perspective is also

my way of reaching out to the students who find that psychology isn't what they expected it to be. If we want students to contemplate the mysteries of behavior, we must begin by clearing up the biggest mysteries of them all: "Where did these rats, statistics, synapses, and genes come from; what could they possibly have in common; and why doesn't this course bear any resemblance to what I anticipated?" I use history as a vehicle to explain how psychology evolved into its modern form and why misconceptions about its nature are so common.

I also devote an entire chapter (Chapter 2) to the scientific enterprise—not just the mechanics of research methods but also the logic behind them. I believe that an appreciation of the nature of empirical evidence can contribute greatly to improving students' critical thinking skills. Ten years from now, many of the "facts" reported in this book will have changed, but an understanding of the methods of science will remain invaluable. An introductory psychology course, by itself, isn't going to make a student think like a scientist, but I can't think of a better place to start the process.

Changes in the Tenth Edition

A good textbook must evolve with the field of inquiry it covers, as well as new directions in higher education. Although the professors and students who used the first nine editions of this book did not clamor for alterations, there are some changes. First and foremost, this book represents a blended version of the full-length and briefer versions that preceded it. The last decade has seen a pronounced trend toward greater brevity in textbooks in psychology (Weiten & Houska, 2015), as well as many other fields. This trend is not limited to undergraduate texts, as I have also witnessed it in the medical textbooks that I often consult on topics such as neuroscience, sleep, pediatrics, and psychiatry. This new emphasis on brevity made the retention of separate versions of different length unnecessary. Hence, in writing the tenth edition of this book, I used the previous briefer version as the starting point. However, in many places I was able to further condense the coverage from the briefer version, allowing me to import a variety of topics that formerly appeared only in the full-length version. So, the result is something more than just the next edition of the briefer version. Rather, it is a fusion of the two previous versions, although its length (in words) is very close to recent editions of the briefer version.

You will also find a variety of other changes in this edition. The graphic design of the text has been refreshed and improved in a variety of ways. We have strived for a cleaner, less cluttered look. In the line art, we have increased the use of color-coded text, and wherever possible, we have replaced drawings of humans with actual photos that are integrated into our graphics and diagrams. And we have worked to increase the pedagogical value of the photos by pairing each one with an explanatory caption and eliminating photos that were largely decorative. We have also refreshed the treatments of the level-one headings and the Concept Checks. At the end of each chapter, we have replaced the Reviews of Key Learning Goals—which were conventional, narrative summaries—with more conceptual and concise Concept Charts. The Chapter Concept Charts are color-coded, hierarchically organized overviews that create "snapshots" of the chapters that allow students to quickly see the relationships between ideas and sections.

Of course, the book has been thoroughly updated to reflect recent advances in the field. One of the exciting things about psychology is that it is not a stagnant discipline. It continues to move forward at what seems a faster and faster pace. This progress has necessitated a host of specific content changes that you'll find sprinkled throughout the chapters. Also reflecting this progress, more than 1200 of the reference citations in the book are new to this edition. Following is a partial list of specific changes in each chapter. These changes are presented in relation to the ninth edition of the briefer version, so the list includes various topics imported from the ninth edition of the full-length version.

Chapter 1: The Evolution of Psychology

- Updated discussion of pathological gambling in the chapter-opening vignette
- Expanded discussion of William James's contributions
- Expanded coverage of the contributions of humanistic psychology
- New discussion of the role of newly invented computers in the cognitive revolution
- New data on how many students embrace flawed models of how they learn and remember
- New discussion of how students overestimate their ability to multitask while studying
- Revised discussion of the value of text highlighting in the coverage of study skills
- New research on how surfing the Internet in class undermines academic performance
- Coverage of gender differences in spatial skills in the Critical Thinking Application includes new analysis attributing such differences to males' higher testosterone levels
- Coverage of gender differences in spatial skills in the Critical Thinking Application features new study that failed to find gender disparities on a naturalistic wayfinding task

Chapter 2: The Research Enterprise in Psychology

- New example of steps in a scientific investigation using an interesting study of how the color red leads men to view women as more attractive and sexually desirable
- Added discussion of how manipulating two or more variables in an experiment can permit the detection of interactions between variables
- New example of naturalistic observation focuses on how larger plate sizes lead to increased eating at real-world buffets
- Another new example of naturalistic observation profiles a study of how depression affects everyday social behavior
- New example of case-study research evaluating anxiety and depressive disorders as risk factors for dementia
- New discussion of how clinicians sometimes publish individual case histories to share insights regarding effective treatment
- New example of survey research focusing on trends in tobacco use among American high school students
- Another new example of survey research describes a Danish study on age trends in the experience of hangovers after binge drinking
- New discussion of how placebo effects amplify the effects of genuine drugs
- New coverage of proposed method for evaluating the ethical acceptability of animal studies

Chapter 3: The Biological Bases of Behavior

- New information on axons' patterns of myelination
- New data on the number of neurons versus glial cells in the human brain
- Updated coverage of glial cells' role in nervous system signaling
- New coverage of how glial cells may contribute to various diseases
- New estimate of the number of neurons in the human brain
- New study of how LSAT preparation results in changes in brain structure
- New research on brain plasticity finds structural changes in the brains of taxi drivers who master the layout of London
- New brain-imaging studies of hemispheric lateralization, including findings that highlight the extensive and dynamic nature of interhemispheric communication
- New study suggests that exceptional connectivity between the right and left hemispheres may have contributed to Albert Einstein's brilliance
- New studies relating oxytocin to relationship fidelity in men, and fathers' engagement with their infant children
- New data on oxytocin and personality, and susceptibility to deception
- New coverage of genetic mapping
- New discussion of "missing heritability" in molecular genetics research
- New data debunking the notion that people are left-brained or right-brained
- New findings on how musical training may change the architecture of the brain and provide cognitive benefits late in life

Chapter 4: Sensation and Perception

- New information on how dilation of the pupils is an indicator of interest in something
- Revised estimate of the number of rods and cones in the retina
- New discussion of whether face-detector cells are devoted exclusively to facial recognition
- New discussion of individual differences in facial recognition ability
- Added coverage of how people have a tendency to see what they want to see
- New research on inattention blindness
- Section on visual illusions now includes discussion of the Ames room
- New coverage of auditory localization
- New coverage of the perception of flavor and the role of smell in this process
- New data on the number of odors humans can distinguish
- Added discussion of how humans perform poorly in odor identification tasks
- New discussion of the prevalence and cost of chronic pain in America
- New research demonstrating the role of endorphins in pain relief
- New discussion of sensory integration of stimulus inputs
- Streamlined Application on art and illusion

Chapter 5: Variations in Consciousness

- New coverage of the typical contents of conscious experience
- New data on the extent to which our minds wander from the task at hand
- Coverage of sleep stages follows revised guidelines of the American Academy of Sleep Medicine scoring system
- New data on gender and age-related changes in sleep architecture
- New data on the degree to which drowsy driving increases accident risk
- New findings on how sleep enhances complicated decision making and problem solving
- New research on the link between sleep duration and academic performance
- New data on how insomnia is related to increases in a remarkable diversity of health problems
- Startling new findings on how the use of sleep medication is associated with elevated mortality
- New graphic depicting the vicious circle of dependence on sleeping pills
- Coverage of narcolepsy includes discussion of how it is caused by dysregulation of REM sleep due to loss of orexin neurons in the hypothalamus
- New data on the prevalence of sleep apnea and its mortality risk and effects on cognitive functioning
- New findings on the prevalence of somnambulism
- New graphic showing sleep stages where sleepwalking and REM behavior disorder occur
- Expanded discussion of the risk for injuries among sleepwalkers
- Updated description of Cartwright's problem-solving/mood-regulation view of dreaming
- New findings on how meditation is associated with decreases in anxiety and negative emotions and increases in empathy and well-being
- New discussion of how meditation is used as an adjunct in treatment of depression, anxiety disorders, and chronic pain
- New discussion of the reformulation of OxyContin to make it less susceptible to abuse
- New discussion of binge drinking among college students and associated problems
- New data relating binge drinking to impaired neural functioning in the adolescent brain
- New findings on the extent to which excessive drinking is related to elevated mortality
- New graphic on stimulant drugs and neurotransmitter activity
- New discussion of marijuana use in relation to attention, learning, and memory
- New research on the extent to which marijuana intoxication impairs driving
- Expanded discussion of the importance of sound sleep hygiene in facilitating quality sleep
- New discussion of the use of melatonin and alcohol for their sedative properties
- New data supporting the assertion that everyone dreams even if they do not remember their dreams
- New data on individual differences in the likelihood of dream recall
- New data on the prevalence of alcohol-related deaths due to accidents and other acute incidents
- New data on alcohol and chronic diseases

Chapter 6: Learning

- New coverage of studies of evaluative conditioning
- New discussion of theoretical issues related to evaluative conditioning
- New discussion of how the renewal effect in classical conditioning makes it difficult to extinguish troublesome phobias
- Expanded discussion of stimulus generalization, with added graphic
- New coverage of how panic disorder may be due to overly broad stimulus generalization
- New coverage of the renewal effect in operant conditioning and the context-dependent nature of operant extinction
- Added coverage of “robotats” trained through shaping and the use of remote-controlled discriminative stimuli
- New discussion of how corporal punishment remains commonplace in spite of evidence on its negative effects
- New naturalistic observation study of physical punishment in the home, which shows that it is routinely used in anger, not used as a last resort, not limited to major offenses, and not very effective
- Added graphic on possible causality underlying the correlation between reliance on physical punishment and increased aggressiveness in children
- Added coverage of Tolman’s classic work on latent learning and cognitive maps
- New findings on how exposure to media violence distorts subjects’ perceptions of aggressive acts in everyday life
- New discussion of whether the effects of media violence on aggression are weak effects
- New coverage of the benefits that can be derived from playing video games

Chapter 7: Human Memory

- New coverage of research suggesting that the people who multitask the most tend to be the least adept at it
- New data on mind-wandering in relation to working memory capacity
- New evidence of flashbulb memories for positive events
- Added coverage of how knowledge is represented in memory
- Added coverage of semantic networks in memory storage
- New data on the portion of people who believe that memory operates like pulling up a mental videotape
- New research shows that the misinformation effect can distort basic factual knowledge as well as personal memories
- New example of how forgetting is functional in making room for new memories
- New coverage of theory that asserts that decay does occur in long-term memory
- New large-sample study documenting the creation of false memories for fabricated political events
- New research on the process of reconsolidation
- New theory that neurogenesis may contribute to forgetting
- Expanded description of episodic versus semantic memory
- Expanded description of the distinction between retrospective and prospective memory
- New discussion of how prospective memory failures can have disastrous effects in the workplace
- New findings on test-enhanced learning
- Expanded discussion of the eyewitness post-identification feedback effect
- New data on how often faulty eyewitness testimony contributes to wrongful convictions

Chapter 8: Cognition and Intelligence

- New section on theories of language acquisition, with new graphic
- New research suggesting that the human brain is wired for learning language
- New section on bilingualism and the pace of language development
- New section on how bilingualism affects cognitive processes
- New coverage of the linguistic relativity hypothesis
- New coverage of how language affects the perception of colors
- New research on the cause of functional fixedness and how it can be overcome
- Expanded discussion of why mental sets occur and how they are not necessarily bad

- New discussion of the concept of insight and whether insights emerge suddenly or incrementally
- New mention of how changing the representation of problems contributes to insight and creativity
- New research on factors influencing the likelihood of choice overload
- New brain-imaging research on the deliberation-without-attention effect
- Expanded discussion of complexities in dual-process theories
- New graphic on laypersons' conceptions of intelligence
- Expanded discussion of issues with heritability estimates
- New molecular genetics research that estimates the heritability of intelligence in an entirely new way
- New discussion of the failure to find specific genes that govern intelligence
- Expanded discussion of how socioeconomic disadvantage contributes to cultural disparities in IQ scores
- Expanded description of Sternberg's theory of successful intelligence
- New research on how living abroad enhances creativity
- New Critical Thinking Application on pitfalls in reasoning about decisions
- New coverage of framing effects, with a graphic

Chapter 9: Motivation and Emotion

- New research on how the quantity of food served affects the amount eaten
- New discussion of stress-induced eating
- New coverage of the prevalence and health consequences of obesity
- New coverage of evolutionary explanations of rising obesity
- New coverage of the causes of obesity
- Two new graphics on the genetics and medical consequences of obesity
- New material on gender disparities in the use of pornography, self-stimulation, and extramarital sex
- New research on gender differences in interest in casual sex
- New data on how gender disparities in mating preferences may be shaped by culture
- Updated data on the prevalence of homosexuality
- New discussion of how the belief that the vast majority of people are either straight or gay is a misleading oversimplification
- Updated data on genetic factors and sexual orientation
- New material on the ramifications of high need for achievement in the world of work
- New discussion of how people experience mixed emotions
- Expanded explanation of why our affective forecasting is often inaccurate
- New graphic depicting the results of a study on affective forecasting
- New research and theory on the role of the amygdala in the regulation of fear
- New graphic provides overview of the facial-feedback hypothesis
- New evidence favoring the facial-feedback hypothesis from a study of Botox and depression
- New critique of the notion that facial expressions of emotions transcend culture
- New discussion of how subjective well-being is predictive of important life outcomes
- New research on materialism and subjective well-being
- New research on how spending on experiences rather than material goods, and on others rather than oneself, are associated with greater happiness
- New discussion of religiosity and happiness
- Revised discussion of marital status and happiness emphasizing the importance of relationship satisfaction

Chapter 10: Human Development Across the Life Span

- Updated data on the age of viability
- New graphic on highlights of fetal development
- New findings on the effects of maternal stress on prenatal development
- New research on how children learn to walk
- New coverage of how physical growth in early childhood occurs in sudden bursts of growth
- New coverage of the effects of day care on attachment
- New findings on how parental responsiveness influences variations in the pace of language development

- New discussion of the importance of vocabulary growth
- Streamlined coverage of cognitive development
- New coverage of disparities in Vygotsky's and Piaget's theories of cognitive development
- New discussion of the importance of private speech in Vygotsky's theory
- New research on infants' apparently innate understanding of what is edible
- Added graphic on relations between age and stages of moral reasoning
- New discussion of Haidt's view that moral reasoning is often used to rationalize moral intuitions
- New research relating adolescent risk-taking to the brain's early-maturing reward system overpowering the late-maturing prefrontal cortex
- New research linking identity confusion to maladaptive behavioral outcomes
- Added graphic on emerging adulthood as a stage marked by feeling between adolescence and adulthood
- Revised overview of research on the stability of personality in adulthood
- New discussion of the influence of optimism in adjusting to new roles in marriage
- New data and graphic on how the division of housework between husbands and wives has changed over the years
- New findings on whether relationship satisfaction declines after the transition to parenthood
- New data and graphic on how the prevalence of chronic diseases climbs with age
- New discussion of psychological factors that have protective value in diminishing the deleterious effects of aging on physical health
- New findings suggesting that the erosion of cognitive speed may begin in people's mid-twenties
- New discussion of attitudes about death and dying
- New coverage of the work of Kübler-Ross on reactions to bereavement
- New discussion of cultural variations in dealing with bereavement
- New coverage of various patterns of grieving
- Revised coverage of gender differences in relational/verbal aggression

Chapter 11: Personality

- New coverage of how factor analysis is used in personality research
- New data on correlates of agreeableness and openness to experience
- New coverage of repressive coping style in discussion of psychoanalytic theory
- New findings relating reaction formation to homophobia
- New discussion of defense mechanisms and mental health
- New research relating reduced reliance on defense mechanisms to progress in therapy
- New graphic depicting Jung's concept of the collective unconscious
- New discussion of Adler's concept of overcompensation
- New discussion of Adler's emphasis on social context and birth order
- Expanded critique of Freudian theory
- New graphic on the operant view of personality development
- New research on the correlates of self-efficacy
- New research supporting a key tenet of Maslow's hierarchy of needs
- New graphic summarizing twin studies of the Big Five personality traits
- New discussion of genetic mapping in relation to specific personality traits
- New research testing evolutionary analyses of the origins of individual differences in extraversion
- New research relating narcissism to empathy and consumer preferences
- New research showing that narcissism is more prevalent in upper social classes
- New research on narcissism and entrepreneurial activity
- New research showing the upside and downside of narcissism as it relates to leadership
- New coverage of the distinction between grandiose narcissism and vulnerable narcissism
- Revised assessment of the cross-cultural universality of the five-factor model
- New data on the inaccuracy of perceptions of national character
- New discussion of the public exposure of the Rorschach inkblots on the Internet
- New discussion of how hindsight bias leads to single-cause thinking and overconfidence in analyzing decisions that went awry

Chapter 12: Social Behavior

- Expanded coverage of the attractiveness stereotype and its relation to perceptions of personality and job success
- New discussion of the consequences of the attractiveness stereotype for unattractive individuals
- New coverage of how people draw inferences about others based on instant reactions to their faces
- New data on perceptions of competence based on facial features and political success
- New discussion of how Weiner's model of attribution can shed light on people's explanations for poverty
- New discussion of how liberals and conservatives make different attributions for poverty
- New data on Protestantism and the fundamental attribution error
- Expanded discussion of the matching hypothesis
- Updated coverage regarding trends in the erosion of passionate love
- New findings on attachment anxiety and problems in intimate relationships
- New discussion of the assumption that arranged marriages are less successful than those based on romantic love
- New coverage of how Facebook usage relates to loneliness and other aspects of well-being
- New discussion of how online matching sites have changed the landscape of dating and mating
- New research showing a lower percentage of marital breakups in relationships formed online as opposed to offline
- New discussion of why women's waist-to-hip ratio is an aspect of physical attractiveness that transcends culture
- New research examining whether evolutionary hypotheses regarding gender differences in mating preferences hold up in speed-dating situations
- New evolutionary research on how menstrual cycles influence women's mating preferences and strategies
- New evolutionary research on how men use conspicuous consumption to signal wealth and success to potential mating partners
- New discussion of how men tend to overestimate women's sexual interest, whereas women tend to underestimate men's sexual interest
- New research linking implicit attitudes to real-world behavior
- New discussion of the tendency for people to see others as more conforming than themselves
- New coverage of normative versus informational influence as factors contributing to conformity
- New discussion of the factors that promoted high levels of obedience in Milgram's classic study
- New coverage of whether Milgram's study reflects blind obedience and whether it can really explain the Holocaust
- New critique of the Stanford Prison Simulation
- New research on group polarization and groupthink
- New discussion of how racially based stereotypes can lead people to see a weapon that is not really there
- New coverage of how modern prejudice often involves unintentional, inconspicuous microaggressions
- New discussion of how negative stereotypes can be used to justify discrimination
- New analysis suggesting that ingroup favoritism fosters more discrimination than outgroup hostility

Chapter 13: Stress, Coping, and Health

- New findings on physical and mental health problems in the aftermath of natural disasters
- New research on hassles as a form of stress and mortality
- New data linking emotional reactivity to stress to mood disorders ten years later
- New research on stress, materialism, and compulsive shopping
- Expanded coverage of the subtypes and symptoms of Internet addiction
- New coverage of the prevalence of Internet addiction and its association with other psychological symptoms
- New discussion of how healthful coping responses may or may not be effective

- New research on how outbursts of anger temporarily increase one's risk for a heart attack
- New findings on the association between social isolation and health
- New research on the surprising benefits of weak social ties
- New findings suggesting that the link between optimism and health transcends culture
- Expanded discussion of why conscientiousness promotes health and longevity
- New discussion of the relationship between social class and health
- New research on how one's stress mindset affects one's response to stress
- New evidence linking moderate levels of adversity to future resilience
- New data linking exercise to reduced vulnerability to Alzheimer's disease
- New data linking humor to health

Chapter 14: Psychological Disorders

- Expanded discussion of how the stigma of mental illness is a source of stress and an impediment to treatment
- New discussion of the exponential growth of the DSM system and its tendency to medicalize everyday problems
- New discussion of how people with generalized anxiety disorder hope their worry will prepare them for the worst and its association with physical health problems
- Agoraphobia covered as an independent disorder rather than a complication of panic disorder
- Added explanation of why multiple personality disorder was renamed dissociative identity disorder
- Revised explanation of sociocognitive views of dissociative identity disorder
- New clarification that not all individuals with bipolar illness experience episodes of depression
- Revised data on the prevalence and course of depression
- New data relating severity of depression and sense of hopelessness to suicidality
- New table on suicide prevention
- New coverage of hormonal factors in the etiology of depression
- Added discussion of excessive reassurance seeking as social factor in depression
- New coverage of stormy social relations as a source of stress generation in the etiology of depression
- New discussion of how stress becomes progressively less of a factor as people go through more recurrences of episodes of depression
- New discussion of how and why schizophrenia subtypes were discarded in DSM-5
- New tabular overview of positive and negative symptoms in schizophrenia
- New coverage of brain overgrowth as etiological factor in autism spectrum disorder
- New section on personality disorders, including a table describing all ten DSM-5 personality disorder diagnoses
- New coverage of antisocial personality disorder, narcissistic personality disorder, and borderline personality disorder
- New discussion of the etiology of personality disorders
- Coverage of eating disorders condensed and moved into the main body of the chapter
- Revised data on the prevalence of various eating disorders
- New mention of peer influence and history of child abuse as etiological factors in eating disorders
- New research on the importance of early life stress in increasing the risk for a wide variety of adult-onset disorders many years later
- New research on genetic and neurobiological overlap among depression, bipolar disorder, schizophrenia, and autism
- New Personal Application on legal issues related to psychological disorders
- New discussion of the insanity defense and misconceptions about its use
- New coverage of involuntary commitment and problems in predicting dangerousness

Chapter 15: Treatment of Psychological Disorders

- New findings on the importance of empathy and unconditional positive regard to therapeutic climate
- New graphic on improvement in therapy over time

- New coverage of common factors as an explanation for the beneficial effects of therapy
- New empirical effort to partition the variance in therapeutic outcomes to quantify the influence of common factors
- New data on prescription trends for antianxiety, antipsychotic, antidepressant, and mood-stabilizing drugs
- New discussion of long-acting, injectable antipsychotic medications
- Revised coverage of the side effects of SSRI antidepressants
- New data on antidepressants, suicide, and the FDA warnings
- New coverage of how the medicalization of psychological disorders has undermined the provision of psychotherapy
- New data on the availability and use of ECT
- New findings on relapse rates after ECT treatment
- New research on ECT and autobiographical memory loss
- New research on the effect of ethnic matching between therapist and client
- New discussion of the need to expand the delivery of clinical services to reduce the number of people who go untreated
- New discussion of how therapy can be delivered via videoconferencing and telephone
- New coverage of computerized treatments delivered via the Internet
- New data on psychiatric readmission rates
- New discussion of how the homeless mentally ill are often incarcerated, meaning that the revolving door problem refers not only to psychiatric facilities, but also to jails and prisons
- New discussion of a recent *JAMA* opinion piece arguing for a rollback of deinstitutionalization policies

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Other Supplementary Materials

The teaching/learning package that has been developed to supplement *Psychology: Themes and Variations* includes many other useful tools for instructors. The development of all supplements for this text have been carefully coordinated so that they are mutually supportive.

Instructor's Resource Manual (by Randolph A. Smith)

The *Instructor's Resource Manual (IRM)* was developed under the guidance of Randolph Smith, the former editor of the journal *Teaching of Psychology*. It contains a wealth of detailed suggestions for lecture topics, class demonstrations, exercises, discussion questions, and suggested readings organized around the content of each chapter in the text. Instructors will appreciate how this array of materials facilitates efforts to teach the introductory course.

Test Bank (by Jeff Holmes)

A large, diversified, and carefully constructed *Test Bank* accompanies this text. The questions are closely tied and tagged to each chapter's Key Learning Goals. The items are categorized using a simplified Bloom's taxonomy as (a) understand, (b) apply, and (c) think critically. Data on item difficulty are included for many questions. These tags can be used to sort and filter to help instructors find the questions they need. For this edition, Jeff Holmes of Ithaca College carefully scrutinized every item for quality before he even began the update to accommodate the revised content of the text. To keep item quality high, we decided to keep the items per chapter at a manageable number. It is quicker, easier, and more efficient to select test questions from a reasonable number of items than to sift through hundreds and hundreds of items, which inevitably include superficial variations on the same questions.

Online PowerPoint® Lecture Slide Decks

These are designed to facilitate an instructor's use of PowerPoint in lectures. Slides are provided for each chapter; they contain main concepts with figures, graphics, and tables to visually illustrate main points from the text. The Notes section of the slide provides guidelines and text references to support lecture preparation. Slides have been designed to be easily modifiable so instructors are able to customize them with their own materials.

ACKNOWLEDGMENTS

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The challenge of meeting a difficult schedule in producing this book was undertaken by a talented team of people coordinated by Joan Keyes, who did a superb job of pulling it all together. Credit for coordination of the text design goes to Vernon Boes, who was very creative in building on the previous design. Jude Berman did an outstanding job in copyediting the manuscript. Over the years, Fred Harwin and Carol Zuber-Mallison have made stellar contributions to the artwork.

A number of psychologists deserve thanks for the contributions they made to this book. I am grateful to Diane Halpern for her work on the Critical Thinking Applications; to Susan Koger and Britain Scott for crafting a compelling online appendix on sustainability; to Rick Stalling and Ron Wasden for their work on previous editions of the *Study Guide*; to Jeff Holmes for his revision of the *Test Bank*; to Randy Smith for his work on the *Instructor's Resource Manual*; to Harry Upshaw, Larry Wrightsman, Shari Diamond, Rick Stalling, and Claire Etaugh for their help and guidance over the years; and to the chapter consultants listed on page xxiii and the reviewers listed on pages xxiv-xxvi, who provided insightful and constructive critiques of various portions of the manuscript.

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My greatest debt is to my wife, Beth Traylor, who has been a steady source of emotional sustenance while enduring the rigors of her medical career, and to my son T. J., for making dad laugh all the time.

Wayne Weiten

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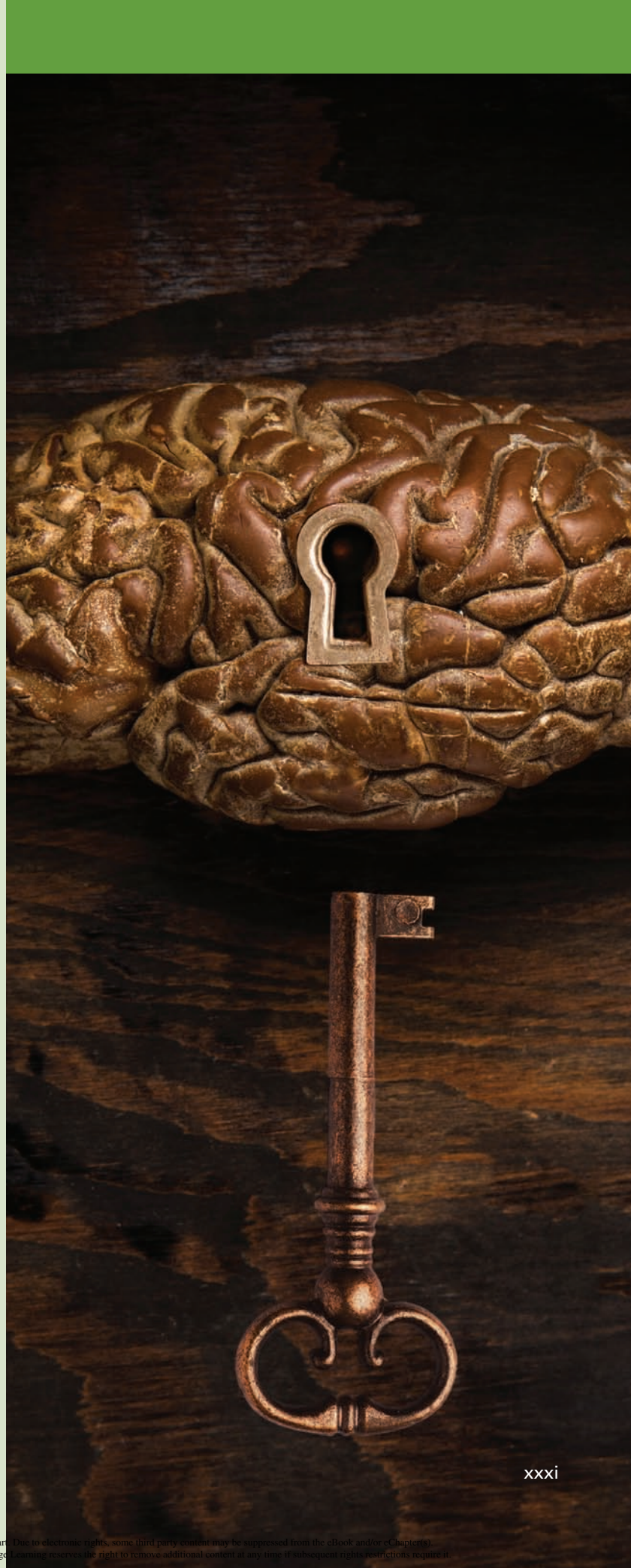
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TO THE STUDENT

Welcome to your introductory psychology textbook. In most college courses, students spend more time with their textbooks than with their professors, so it helps if students like their textbooks. Making textbooks likable, however, is a tricky proposition. By its very nature, a textbook must introduce students to many complicated concepts, ideas, and theories. If it doesn't, it isn't much of a textbook, and instructors won't choose to use it. Nevertheless, in writing this book I've tried to make it as likable as possible without compromising the academic content that your instructor demands. I've especially tried to keep in mind your need for a clear, well-organized presentation that makes the important material stand out and yet is interesting to read. Above all else, I hope you find this book's content challenging to think about and easy to learn from.

Before you plunge into your first chapter, let me introduce you to the book's key features. Becoming familiar with how the book works will help you to get more out of it.

Key Features

You're about to embark on a journey into a new domain of ideas. Your text includes some important features that are intended to highlight certain aspects of psychology's landscape.

Unifying Themes

To help you make sense of a complex and diverse field of study, I introduce seven themes in Chapter 1 that reappear in a number of variations as we move from chapter to chapter. These unifying themes are meant to provoke thought about important issues and to highlight the connections between chapters. They are discussed at the end of each chapter in a section called "Reflecting on the Chapter's Themes." Icons for the specific themes covered in a chapter appear in these sections (as well as at the beginning of the chapters) to help make the book's thematic structure more prominent.

Personal Applications

Toward the end of each chapter, you'll find a Personal Application section that shows how psychology is relevant to everyday life. Some of these sections provide concrete, practical advice that could be helpful to you in your educational endeavors, such as those on improving academic performance, improving everyday memory, and achieving self-control. So, you may want to jump ahead and read some of these Personal Applications early.

Critical Thinking Applications

Each Personal Application is followed by a two-page Critical Thinking Application that teaches and models basic critical thinking skills. I think you will find that these sections are refreshing and interesting. Like the Personal Applications, they are part of the text's basic content and should be read unless you are told otherwise by your instructor. Although the "facts" of psychology will gradually change after you take this course (thanks to scientific progress), the critical thinking skills modeled in these sections should prove valuable for many years to come.

Reality Checks

Students typically come into the introductory psychology course with a variety of misconceptions. To foster a more accurate picture of psychology, each chapter includes three or four Reality Checks, which address common misconceptions related to psychology and provide direct refutations of the misinformation. These Reality Checks are sprinkled throughout the chapters, appearing adjacent to the relevant material. Examples of

popular misconceptions that are dispelled include the myth that B. F. Skinner raised his daughter in a Skinner box, which led to her becoming severely disturbed (Chapter 1); the notion that people use only 10% of their brains (Chapter 3); the assumption that people who are color blind see the world in black and white (Chapter 4); and the idea that it is dangerous to awaken someone who is sleepwalking (Chapter 5). This text feature is based on recent research suggesting that explicit repudiations of erroneous ideas reduce students' misconceptions more effectively than the simple provision of correct information (Kowalski & Taylor, 2009). For the most part, the Reality Checks can be found in the margins of the pages, but they are a critical component of the text's educational material.

Learning Aids

This text contains a great deal of information. A number of learning aids have been incorporated into the book to help you digest it all.

An *outline* at the beginning of each chapter provides you with an overview of the topics covered in that chapter. Think of the outlines as road maps, and bear in mind that it's easier to reach a destination if you know where you're going.

Headings serve as road signs in your journey through each chapter. Four levels of headings are used to make it easy to see the organization of each chapter.

Key Learning Goals, found at the beginning of major sections, can help you focus on the important issues in the material you are about to read.

Chapter Concept Charts, found at the end of the chapters, are detailed summaries of each chapter's key ideas. They provide color-coded, hierarchically organized overviews that create "snapshots" of the chapters that allow you to quickly see the relationships between ideas and sections. It's wise to read over these review materials to make sure you've digested the information in the chapter.

Italics (without boldface) are used liberally throughout the text to emphasize crucial points.

Key terms are identified with **italicized blue boldface** type to alert you that these are important vocabulary items that are part of psychology's technical language.

An *integrated running glossary* provides an on-the-spot definition of each key term as it's introduced in the text. These formal definitions are printed in **blue boldface** type. Becoming familiar with psychology's terminology is an essential part of learning about the field. The integrated running glossary should make this learning process easier.

Concept Checks are sprinkled throughout the chapters to let you test your mastery of important ideas. Generally, they ask you to integrate or organize a number of key ideas, or to apply ideas to real-world situations. Although they're meant to be engaging and fun, they do check conceptual *understanding*, and some are challenging. But if you get stuck, don't worry; the answers (and explanations, where they're needed) are in the back of the book in Appendix A.

Illustrations in the text are important elements in your complete learning package. Some illustrations provide enlightening diagrams of complicated concepts; others furnish examples that help flesh out ideas or provide concise overviews of research results. Careful attention to the tables and figures in the book will help you understand the material discussed in the text.

A twelve-item *Practice Test* is provided for each chapter that should give you a realistic assessment of your mastery of that chapter and valuable practice in taking multiple-choice tests. These Practice Tests are found in Appendix A.

An *alphabetical glossary* is provided in the back of the book. Most key terms are formally defined in the integrated running glossary only when they are first introduced. So if you run into a technical term a second time and can't remember its meaning, it may be easier to look it up in the alphabetical glossary.

MindTap™ for Psychology: Themes and Variations

Psychology: Themes and Variations is also available as a digital course in MindTap. In its digital version, the book is integrated into a unique learning path of activities that foster increased comprehension and efficiency. It empowers you with tools developed to help you do your best work—consistently. In MindTap, course material is seamlessly integrated with videos, activities, apps, and more.

- MindTap delivers real-world relevance with activities and assignments designed to help you build critical thinking and analytical skills that can be applied to other courses and to your professional lives.
- MindTap serves as a single destination for all course materials, so you stay organized and efficient, and have the necessary tools to master the content.
- MindTap shows you where you stand at all times—both individually and compared to the highest performers in the class. This information helps to motivate and empower performance.

A Few Footnotes

Psychology textbooks customarily identify the studies, theoretical treatises, books, and articles that information comes from. These *citations* occur (1) when names are followed by a date in parentheses, as in “Smith (2014) found that . . .” or (2) when names and dates are provided together within parentheses, as in “In one study (Burke, Martinez, & Jones, 2008), the researchers attempted to . . .” All of the cited publications are listed by author in the alphabetized *References* section in the back of the book. The citations and references are a necessary part of a book’s scholarly and scientific foundation. Practically speaking, however, you’ll probably want to glide right over them as you read. You definitely don’t need to memorize the names and dates.

A Final Word

I’m pleased to be a part of your first journey into the world of psychology, and I sincerely hope that you’ll find the book as thought provoking and as easy to learn from as I’ve tried to make it. If you have any comments or advice on the book, please write to me in care of the publisher (Cengage Learning, 500 Terry A. Francois Boulevard, Second Floor, San Francisco, CA 94158). You can be sure I’ll pay careful attention to your feedback. Finally, let me wish you good luck. I hope you enjoy your course and learn a great deal.

Wayne Weiten

CHAPTER 1

THE EVOLUTION OF PSYCHOLOGY

- 1.1 Psychology's Early History
- 1.2 Psychology's Modern History
- 1.3 Psychology Today: Vigorous and Diversified
- 1.4 Seven Unifying Themes
- 1.5 PERSONAL APPLICATION **Improving Academic Performance**
- 1.6 CRITICAL THINKING APPLICATION **Developing Critical Thinking Skills: An Introduction**

[Chapter Concept Chart](#)

Themes in this Chapter



Empiricism



Theoretical Diversity



Sociohistorical Context



Multifactorial Causation



Cultural Heritage



Heredity & Environment



Subjectivity of Experience

André Schulze/Moment Open/Getty Images

What is psychology? Why is it worth your time to study? Let me approach these questions by sharing a couple of stories with you.

In 2005, Greg Hogan, a college sophomore, briefly achieved national notoriety when he was arrested for a crime. Greg wasn't anybody's idea of a likely criminal. He was the son of a Baptist minister and the president of his class. He played cello in the university orchestra. He even worked part-time in the chaplain's office. So it shocked everybody who knew Greg when police arrested him at his fraternity house for bank robbery.

It seems that Greg had faked having a gun and made away with over \$2800 from a local bank. His reason? Over a period of months he had lost \$5000 playing poker on the Internet. His lawyer said Greg's gambling habit had become "an addiction" (Dissell, 2005; McLoughlin & Paquet, 2005).

Greg eventually entered a clinic for treatment of his gambling problem. In a way, he was lucky—at least he got help. Moshe Pergament, a 19-year-old community college student in Long Island, New York, wasn't so fortunate. Moshe was shot to death after brandishing a gun at a police officer. The gun turned out to be plastic. On the front seat of his car was a note that began, "Officer, it was a plan. I'm sorry to get you involved. I just needed to die." Moshe had just lost \$6000 betting on the World Series. His death was what people in law enforcement call "suicide by cop" (Lindsay & Lester, 2004).

These stories are at the extreme edge of a trend that concerns many public officials and mental health professionals: The popularity of gambling—from lotteries to sports betting to online poker—is booming, especially among the young (D. F. Jacobs, 2004). College students seem to be leading the way. To some observers, gambling on college campuses has become an "epidemic." Student bookies on some campuses make tens of thousands of dollars a year taking sports bets from other students. Television shows such as *The World Series of Poker* are marketed squarely at college-student audiences. Poker sites on the web invite students to win their tuition by gambling online.

For most people, gambling is a relatively harmless—if sometimes expensive—pastime. However, estimates suggest that 5%–6% of teens and young adults develop serious problems with gambling—roughly double the rate observed for older adults (D. F. Jacobs, 2004; Moore et al., 2013; Sassen, Kraus, & Bühringer, 2011). The enormous growth of pathological gambling among young people raises a number of questions. Is gambling dangerous? Can it really be addictive? What is an



The perplexing problem of pathological gambling, which has increased dramatically among college students in recent years, raises a variety of complicated questions. As you will see throughout this text, psychologists investigate an endless variety of interesting questions.

addiction, anyway? If pathological gamblers abuse drugs or commit crimes, is gambling the cause of their troubles, or is it a symptom of a deeper problem? Perhaps most critically of all, why do some people become pathological gamblers while the great majority do not? Every day millions of people in the United States play the lottery, bet on sports, or visit casinos without apparent harm. Yet others can't seem to stop gambling until they have lost everything—their savings, their jobs, their homes, and their self-respect. Why? What causes such perplexing, self-destructive behavior?

Psychology is about questions like these. More generally, psychology is about understanding *all* the things we do. All of us wonder sometimes about the reasons underlying people's behavior—why it's hard to diet, why we procrastinate about studying, why we fall in love with one person rather than another. We wonder why some people are outgoing while others are shy. We wonder why we sometimes do things that we know will bring us pain and anguish, whether it's clinging to a destructive relationship or losing our tuition money in a game of Texas Hold 'Em. The study of psychology is about all these things, and infinitely more.

Many of psychology's questions have implications for people's everyday lives. For me, this is one