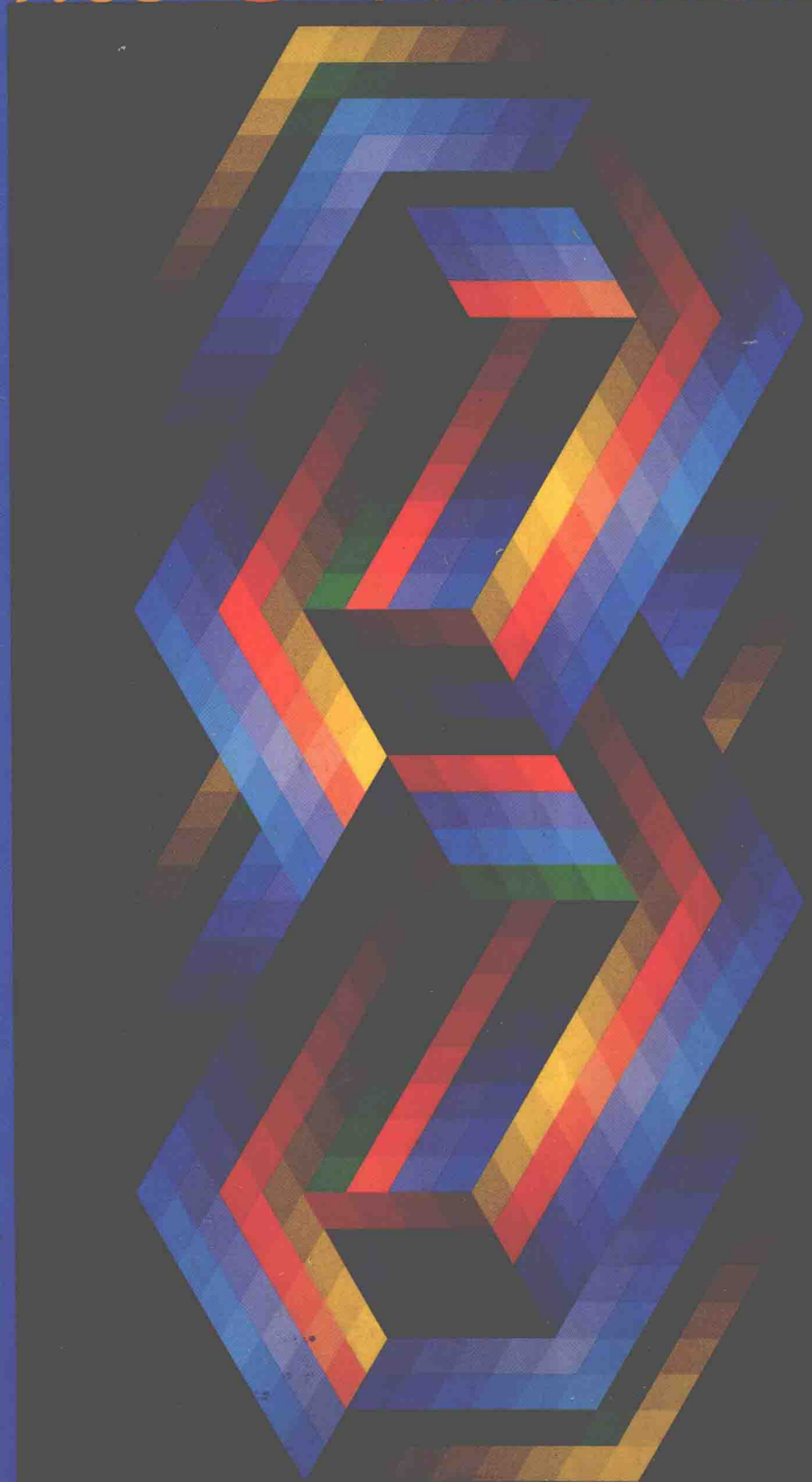


WAYNE WEITEN

PSYCHOLOGY

Briefer Version *Themes & Variations*



FOURTH EDITION

# PSYCHOLOGY

## THEMES AND VARIATIONS BRIEFER VERSION 4TH EDITION

**WAYNE WEITEN**

Santa Clara University



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# TO THE INSTRUCTOR

Psychology is an exciting, dynamic discipline that has grown by leaps and bounds in recent decades. This progress has been reflected in the field's introductory texts, which have grown longer and longer. However, the length of the introductory psychology course generally has not changed. Hence, an increasing number of professors are reporting that they find it difficult to cover the wealth of material found in the typical introductory text. With this reality in mind, I decided to write a briefer version of *Psychology: Themes and Variations* to help meet the needs of those teachers who would like a challenging, but concise, introductory text.

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 often are 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 physiology, 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 our

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. Hence, 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 and my publishers 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, application sections, a didactic illustration program, an integrated running glossary, concept checks, 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 different 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: Our behavior is shaped by our 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—that accurately reflect the research in this area—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.

**UNIFYING THEMES HIGHLIGHTED IN EACH CHAPTER**

Chapter	Theme						
	1 Empiricism	2 Theoretical Diversity	3 Sociohistorical Context	4 Multifactorial Causation	5 Cultural Heritage	6 Heredity and 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 Through Conditioning			●			●	
7. Human Memory				●			●
8. Language and Thought	●				●	●	●
9. Intelligence and Psychological Testing			●		●	●	
10. Motivation and Emotion		●	●	●	●	●	
11. Development Across the Life Span		●	●	●	●	●	
12. Personality: Theory, Research, and Assessment		●	●		●		
13. Stress, Coping, and Health				●			●
14. Psychological Disorders			●	●	●	●	
15. Psychotherapy		●			●		
16. Social Behavior	●				●		●

**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 the readers that their view of the world is not the only legitimate view.

After all seven themes have been introduced in Chapter 1, different sets of themes are discussed 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 "Putting It in Perspective." No effort was made to force every chapter to illustrate a certain number of themes. The themes were allowed to emerge naturally, and I found that two to five surfaced in any given chapter. The accompanying chart shows which themes are highlighted in each chapter.

### **Application Sections**

To reinforce the pragmatic implications of theory and research that are stressed throughout the text, each chapter closes with an Application section that highlights the personal, practical side of psychology. Each Application devotes three to six 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 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 Applications—such as those on finding and reading journal articles and understanding art and illusion—provide topical coverage unusual for an introductory text.

### **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 six summary spreads that combine tabular information, photos, diagrams, and sketches to provide exciting overviews of key ideas in the areas of history, learning, development, 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 9). 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 boldface italics, and the definitions follow in 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 the back of the book) are often illuminating.

### Practice Tests

Each chapter ends with a 15-item multiple-choice Practice Test that should give students a realistic assessment of their mastery of that chapter 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 new 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 all the items from the Test Bank for the third edition (these items do not appear in the main Test Bank for the fourth edition).

In addition to the special features just described, the text includes a variety of more conventional, "tried and true" features as well. The back of the book contains a standard *alphabetical glossary*. Opening *outlines* preview each chapter, and a thorough *review of key ideas* appears at the end of each chapter, along with lists of *key terms* and *key people* (important theorists and researchers). 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 16 chapters, which 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 just 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 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.

As its title indicates, this book is a condensed version of my introductory text, *Psychology: Themes and Variations*. I have reduced the length of the book from 318,000 words to 224,000 words. A study of brief introductory psychology texts (Griggs, Jackson, & Napolitano, 1994) estimated the average length of such texts to be 242,000 words, so this book is shorter than the typical brief text. Indeed, based on the data from the Griggs et al. study, it appears to be one of the shorter of the brief editions currently available.

How was this reduction in size accomplished? It required a great many difficult decisions, but fortunately, I had excellent advice from a team of professors who served as consultants. About one-



third of the reduction came from deleting entire topics, such as psychophysics, mental retardation, blocking in classical conditioning, the human sexual response, and so forth. However, the bulk of the reduction was achieved by compressing and simplifying coverage throughout the book. I carefully scrutinized the parent book sentence by sentence and forced myself to justify the existence of every study, every example, every citation, every phrase. The result is a thoroughly *rewritten* text, rather than one that was *reassembled* through “cut and paste” techniques.

### Changes in the Fourth Edition

A good textbook must evolve with the field of inquiry it covers. Although the professors and students who used the previous editions of this book did not clamor for alterations, there are some changes. In addition to the new pedagogical device that I have already described (the Practice Tests), other changes include the following.

First, I have greatly increased my coverage of evolutionary psychology, which I have come to regard as a major new theoretical perspective in the field. In the last 4-5 years, evolutionary psychologists have published a great deal of thought-provoking research on an increasingly broad range of topics. I don't always agree with their conclusions, but I could make the same comment about all the major theoretical perspectives in psychology. In any event, the evolutionary perspective is discussed in 12 places in the current edition, with a heavy emphasis on recent research.

Second, you will find a lot of new graphics in this edition. My work on the new ancillary CD-ROM forced me to create many new graphical treatments for concepts that I had never seen illustrated before. Quite a few of these new diagrams and charts have made their way into the text. Overall, there are 61 entirely new or dramatically revised figures and tables, as well as three new two-page summary charts.

Third, 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 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. Of the roughly 2200 references cited in the text, over 550 are new to this edition.

Finally, the biggest change by far is the addition of a completely new ancillary CD-ROM for your

students, *Psyk.trek: A Multimedia Introduction to Psychology*, which I describe in the next section.

### A New CD-ROM—*Psyk.trek: A Multimedia Introduction to Psychology*

I have spent much of the last several years working on a new multimedia supplement for students. *Psyk.trek* is a multifaceted teaching-learning tool that will provide students with new opportunities for active learning and reach out to “visual learners” with greatly increased efficacy. *Psyk.trek* is intended to give students a second pathway to learning much of the content of introductory psychology. Although it does not cover all of the content of the introductory course, I think you will see that a great many key concepts and principles can be explicated *more effectively* in an interactive audio-visual medium than in a textbook.

*Psyk.trek* consists of four components. The main component is a set of 59 *Interactive Learning Modules* that present the core content of psychology in a whole new way. These tutorials include thousands of graphics, hundred of photos, hundreds of animations, approximately four hours of narration, 36 carefully-selected videos, and about 150 uniquely visual concept checks and quizzes. The *Interactive Study Guide for Psychology: Themes and Variations* presents students with over 3000 review questions. Students can take randomly generated multiple-choice tests on the chapters in the textbook until they achieve a prescribed level of mastery. A *Multimedia Glossary* allows students to look up over 800 psychological terms, access hundreds of pronunciations of obscure words, and pull up hundreds of related diagrams, photos, and videos. The *Simulations* allow students to explore complex psychological phenomena in-depth.

The key strength of *Psyk.trek* is its ability to give students new opportunities for active learning outside of the classroom. For example, students can run themselves through re-creations of classic experiments to see the complexities of data collection in action. Or they can play with visual illusions on screen in ways that will make them doubt their own eyes. Or they can stack color filters on screen to demonstrate the nature of subtractive color mixing. *Psyk.trek* is intended to supplement and complement *Psychology: Themes and Variations*. For instance, after reading about operant conditioning in the text, a student can review this material in the interactive study guide, work through three interactive tutorials on

operant principles, watch three videos, including historic footage of B. F. Skinner shaping a rat, and then try to shape Morphy, the virtual rat, in one of the simulations.

### **Other Supplementary Materials**

The teaching/learning package that has been developed to supplement *Psychology: Themes and Variations* also includes many other useful tools. The development of all its parts was carefully coordinated so that they are mutually supported.

### **Study Guide (by Ronald Wasden and Richard Stalling)**

For your students, there is an exceptionally thorough *Study Guide* available to help them master the information in the text. It was written by two of my former professors, Richard Stalling and Ronald Wasden of Bradley University. They have nearly 30 years of experience as a team writing study guides for introductory psychology texts, and their experience is readily apparent in the high-quality materials that they have developed.

The review of key ideas for each chapter is made up of an engaging mixture of matching exercises, fill-in-the-blank items, free-response questions, and programmed learning. Each review is organized around learning objectives that I wrote. The *Study Guide* is closely coordinated with the *Test Bank*, as the same learning objectives guided the construction of the questions in the *Test Bank*. The *Study Guide* also includes a review of key terms, a review of key people, and a self-test for each chapter in the text.

### **Instructor's Resource Book (coordinated by Randolph Smith)**

A talented roster of professors, whose efforts were coordinated by Randolph Smith, made contributions to the *Instructor's Resource Book (IRB)* in their respective areas of expertise. The *IRB* contains a diverse array of materials designed to facilitate efforts to teach the introductory course and includes the following sections.

- *The Instructor's Manual*, by Randolph Smith (Ouachita Baptist University), 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.

- *Strategies for Effective Teaching*, by Joseph Lowman (University of North Carolina), discusses

practical issues such as what to put in a course syllabus, how to handle the first class meeting, how to cope with large classes, and how to train and organize teaching assistants.

- *Films and Videos for Introductory Psychology*, by Russ Watson (College of DuPage), provides a comprehensive, up-to-date critical overview of educational films relevant to the introductory course.

- *The Use of Computers in Teaching Introductory Psychology*, by Susan J. Shapiro and Michael Shapiro (Indiana University-East), offers a thorough listing of the computer simulations that are germane to the introductory course and analyzes many issues related to incorporating computer technology into the classroom.

- *Integrating Writing into Introductory Psychology*, by Jane Jegerski (Elmhurst College), examines the writing-across-the-curriculum movement and provides suggestions and materials for specific writing assignments chapter by chapter.

- *Crossing Borders/Contrasting Behaviors: Using Cross-Cultural Comparisons to Enrich the Introductory Psychology Course*, by G. William Hill and Michael B. Reiner (Kennesaw State University), discusses the movement toward "internationalizing" the curriculum and provides suggestions for lectures, exercises, and assignments that can add a cross-cultural flavor to the introductory course.

- *Using the Internet to Teach Introductory Psychology*, by Michael R. Snyder (University of Alberta), discusses how to work Internet assignments into the introductory course and provides a guide to many psychology-related sites on the World Wide Web.

### **Test Bank (by S. A. Hensch)**

Shirley Hensch (University of Wisconsin Center) has done an excellent job revising the test questions for this edition of the book. The questions are closely tied to the chapter learning objectives and to the lists of key terms and key people found in both the text and the *Study Guide*. Most of the questions are categorized as either factual or conceptual. However, for each chapter there are also a few integrative questions that require students to link, synthesize, and interrelate information from different sections of the chapter. The *Test Bank* also includes a separate section that contains about 600 multiple-choice questions based on the content of *Psyk.trek's Interactive Learning Modules*.

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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 Tom Dorsaneo, who did a fine job pulling it all together. The book design was created by John Odam, who showed remarkable ingenuity and creativity in juggling the conflicting demands of the illustration program. Brian Wenberg did a nice job with the page layouts. Linda Rill handled permissions and photo research with efficiency and enthusiasm, and Jackie Estrada did an excellent job in copyediting the manuscript.

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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 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 will 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 "Putting It in Perspective."

## Application Sections

Also at the end of each chapter you'll find an Application section that shows how psychology is relevant to everyday life. Some of these sections provide concrete advice that could be helpful to you in school, 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 Applications early.

## 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.

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

*Key terms* are identified with **italicized boldface** type to alert you that these are important vocabulary items that are part of psychology's technical language. The key terms are also listed at the end of the chapter.

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 **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 to 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 *Chapter Review* at the end of each chapter provides a thorough summary of the chapter's *key ideas*, a list of *key terms*, and a list of *key people* (important theorists and researchers). It's wise to read over these review materials to make sure you've digested the information in the chapter.

Each chapter ends with a 15-item *Practice Test* that should give you a realistic assessment of your mastery of that chapter and valuable practice taking multiple-choice tests.

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, you may find it easier to look it up in the alphabetical glossary than to backtrack to look for the definition where the term was originally introduced.

### **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 (1982) found that . . ." or (2) when names and dates are provided together within parentheses, as in "In one study (Smith, Miller, & Jones, 1997), 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. The only names you may need to know are the handful listed under Key People in each Chapter Review (unless your instructor mentions a personal favorite that you should know).

In addition to the references, you'll find a *Name Index* and a *Subject Index* in the back of the book. The name index tells you the pages on which various names were cited. It's very helpful if you're looking for the discussion of a particular study and

you know the name(s) of the author(s). And, if the need arises, the subject index allows you to look up the pages on which a specific topic is covered.

### **Psyk.trek: A Multimedia Introduction to Psychology**

*Psyk.trek* is a new multimedia CD-ROM I have developed to accompany this textbook. It is an enormously powerful learning tool that can enhance your understanding of many complex processes and theories, provide you with an alternative way to assimilate many crucial concepts, and add a little more fun to your journey through introductory psychology. *Psyk.trek* has been designed to supplement and complement your textbook. I strongly encourage you to use it. The CD icons that you will find in many of the headings in the upcoming chapters refer to the content of *Psyk.trek*. An icon indicates that the textbook topic referred to in the heading is covered in the Interactive Learning Modules or Simulations found on *Psyk.trek*. The relevant simulations are listed to the left of the icons (Sim1, Sim2, and so forth) and the relevant Interactive Learning Modules are listed to the right of the icons (1a, 1b, 1c, and so forth).

### **A Word About the Study Guide**

A *Study Guide* is available to accompany this text. It was written by two of my former professors, who introduced me to psychology years ago. They have done a great job of organizing review materials to help you master the information in the book. I suggest that you seriously consider using it to help you study.

### **A Final Word**

I'm very 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 (Wadsworth Publishing Company, 10 Davis Drive, Belmont, California, 94002). 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*

# WHAT SHOULD INTRODUCTORY PSYCHOLOGY STUDENTS KNOW ABOUT THE INTERNET?

by Vincent W. Hevern, Le Moyne College

After dinner one night Wayne Weiten, the author of this textbook, challenged me: Using no more than three pages, could I tell introductory psychology students the most important things they need to know about the Internet? Wait a minute, I thought, that's tough! I've been using the Net intensively for more than four years in teaching and research with undergraduates, so I know there's an awful lot to talk about. But, after a couple of days I decided to accept his challenge. So, I'm going to share with you here what I believe to be the really important stuff about the Internet ("the Net")—information that should make your life as a student easier and, in the end, help you to learn even more about the fascinating world of psychology.

## General Comments About the Internet

We now know that something of a fundamental change in the way people exchange ideas and information took place around the time many of you were beginning junior high or high school. For over 20 years, the Internet had been the tool of a relatively small group of lab scientists communicating mostly with each other. Suddenly, in the mid-1990s, the Net began to expand rapidly beyond the research laboratory. It first reached tens and then hundreds of millions of people as vast numbers of computers, large and small, were interconnected to form what is often called *cyberspace*. In the 21st century, learning to navigate the Internet will become as crucial as learning to read or to write—most of us will probably use the Net in some form at work or at home for the rest of our lives.

So, what are some basic notions necessary to understanding the Internet and how it works? Let me propose briefly eight crucial ideas.

1. *The goal of the Internet is communication—the rapid exchange of information—between people separated from each other.* Electronic mail (e-mail) and the World Wide Web (WWW, or just "the Web") are currently the two most important ways of communicating in cyberspace, even though the Net also uses other formats to do so.

2. *Every piece of information on the Net—every Web page, every graphic, every movie or sound, every e-mail*

*box—has a unique, short, and structured address called a URL (or uniform resource locator).* Take, for example, the URL for the online Psychology Textbook Catalogue of the publisher of this book:

[http://psychology.wadsworth.com/psych\\_dis.html](http://psychology.wadsworth.com/psych_dis.html)

This example shows all three elements of a URL: (a) To the left of the double forward slashes (//) is the *protocol* that tells the Net *how* to transfer the information. Here it is *http*: which means "use hypertext transfer protocol"—the most frequent protocol on the Net (b) To the right of the double slashes up to the first forward slash (/) is the *domain name* that indicates *which computer* on the Net to get the information from. Here the name of the computer is "psychology.wadsworth.com." (c) Finally, everything after the first forward slash is called the *pathway*, which indicates where the information is located within that particular computer. Here the pathway consists of the location "psych\_dis.html."

3. *The foundation of the Web rests on hypertext links ("hyperlinks"), which are contained within documents (or "Web pages") displayed online.* A hyperlink is a highlighted word, phrase, or graphic image within an onscreen document that refers to some other document or Web page elsewhere. Part of every hyperlink on a computer screen includes the URL for the document that is hidden from view but stored within the computer displaying the document. Users can easily move from one document to another on screen because of hypertext links and their URLs.

4. *The last element of the domain name (the "domain" itself) indicates what type of organization sponsors the link.* Four important domains are *.com* (commercial businesses), *.edu* (colleges and universities), *.gov* (governmental agencies), and *.org* (nonprofit organizations).

5. *The Internet is too large for any one individual to know all the important resources that can be found there.* Users, even experienced ones, often need help to find what they're looking for. In the chapters ahead, you will find many recommended Web sites that I have carefully selected based on their quality and their suitability for undergradu-



ates. In making these selections, I emphasized quality over quantity and strived to send you to excellent gateway sites that are rich in links to related sites. I hope these suggested Web links help you begin to explore the field of psychology on the Internet.

6. *URLs are relatively unstable.* Many Web sites are moved or changed each year, and new computer systems are installed to replace older ones. Thus, links or URLs that are good one day may be useless the next. That is why we have relegated the URLs for our recommended Web sites to an Appendix (C) found in the back of this book. If you want to check out a recommended Web site, we suggest that you do so through the *Psychology: Themes and Variations* home page at the Wadsworth Psychology Study Center Web site (<http://psychology.wadsworth.com>). Links to all of the recommended Web sites will be maintained there, and the Wadsworth Webmaster will periodically update the URLs.

7. *The Web is a worldwide democracy on which anyone can post materials. Hence, the quality of information found online varies tremendously.* Some material is first-rate, up-to-date, and backed up by good research and professional judgment. But a great deal of information online is junk—based on poor or invalid research and filled with many errors. Frankly, some sites are downright wacky, and others are run by hucksters and hatemongers. Thus, users need to learn to tell the difference between reputable and disreputable Web resources.

8. *Knowledge has a monetary value.* Although the Internet started out as a noncommercial enterprise where almost everything was free, things have changed swiftly. Owners of knowledge (the holders of commercial “copyrights”) usually expect to be paid for sharing what they own over the Net. Thus, many commercial businesses, such as the publishers of academic journals or books, either do *not* make journal articles available online for free or expect users to pay some type of fee for accessing their materials. Cognizant of this problem, the publisher of this text has entered into an agreement with a major online resource for magazine and journal articles and other types of information called *InfoTrac*. Your text may have come bundled with a four-month subscription to *InfoTrac*, which provides easy access to full-text versions of thousands of periodicals. If you received an *InfoTrac* subscription with this book, it would be wise to take advantage of this valuable resource.

## Suggestions for Action

In light of these ideas, how might you approach the Internet? What should you do to make the most of your time online? Let's review some general suggestions for exploring the Internet.

1. *Learn to navigate the Net before you get an assignment requiring you to do so.* If you've never used the Net before, start now to get a feel for it. Consider doing what lots of students do: Ask a friend who knows the Net to work with you directly so you can quickly get personal experience in cyberspace. What if you “hate” computers or they make you uncomfortable? Recent research has shown that students' fears of using computers tend to diminish once they get some practical experience in the course of a single semester.

2. *Learn how the software browser on your computer works.* The two most popular Web browser programs, Netscape Navigator and Microsoft Internet Explorer, are filled with many simple tricks and helpful shortcuts. Ask your friends or the computer consultants at school. Learning the tricks makes Net-based research much easier. (Hint: Find out what happens when you hold down the right-hand mouse button on a PC or the whole button on a Mac once you have the cursor on top of a hyperlink.)

3. *Get to know the different types of online help to find resources on the Web.* These aids currently fall into three general categories: (a) General guides or directories such as Yahoo! ([www.yahoo.com](http://www.yahoo.com)) are similar to the Yellow Pages for telephones. You ask the online guide to show you what's listed in its directory under a category heading you supply. (b) *Search engines* such as AltaVista ([www.altavista.com](http://www.altavista.com)) or Hotbot ([www.hotbot.com](http://www.hotbot.com)), and *meta-search engines* such as Metacrawler ([www.metacrawler.com](http://www.metacrawler.com)) are huge databases that generally collect the names and URLs of millions of pages on the Net along with many lines of text from these pages. They can be searched by keywords or phrases and provide ranked listings of Web pages that contain the search target words or phrases. (c) *Expert Subject Guides* such as Russ Dewey's *PsychWeb* ([www.psychwww.com](http://www.psychwww.com)) or Jeffrey Browndyke's *Neuropsychology Central* ([www.premier.net/~cogito/neuropsy.html](http://www.premier.net/~cogito/neuropsy.html)) provide links to online resources in more narrow or specific fields. Volunteer specialists who claim to be experts on the topic of the guide select the links.

4. *Check very carefully everything you type online because even the slightest error in spelling a URL or an e-mail address will cause a failure to retrieve the Web*