

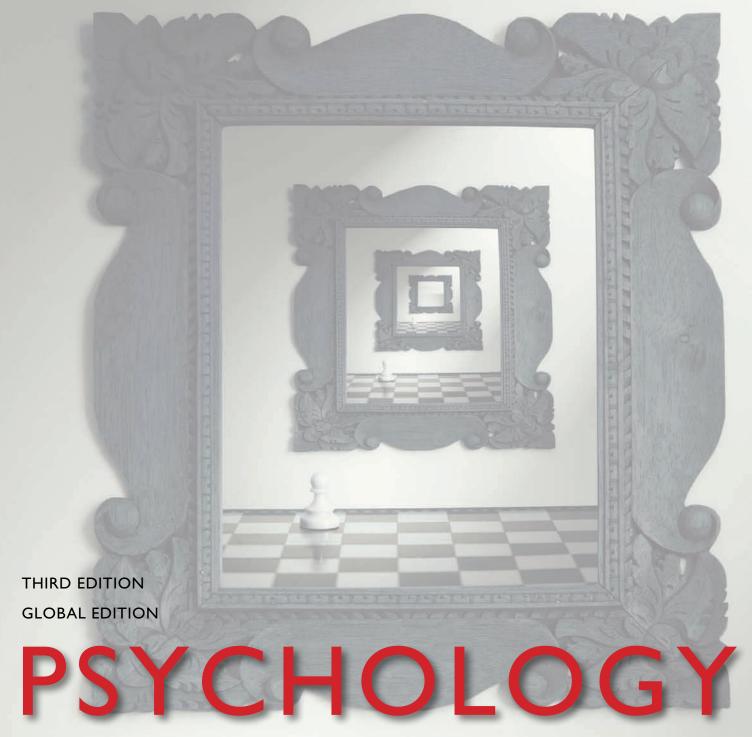
# Psychology

# From Inquiry to Understanding

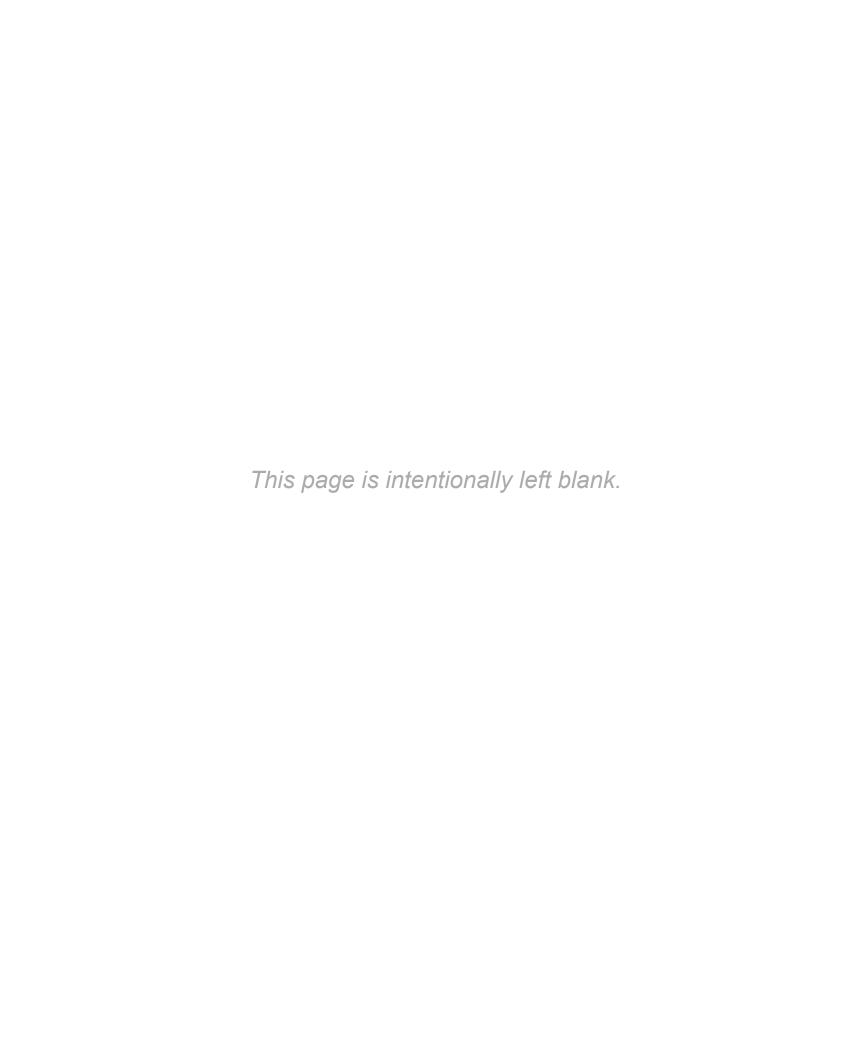
THIRD EDITION

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from inquiry to understanding





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THIRD EDITION
GLOBAL EDITION

# PSYCHOLOGY

from inquiry to understanding

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### **Preface**

"What are infants' earliest memories?" "Does watching violence on TV really teach children to become violent?" "Is human intelligence related to brain size?" "Is it usually dangerous to wake up sleepwalkers?" "Do genes contribute to obesity?" "Is the polygraph test really a 'lie detector'?" "Should we trust most self-help books?"

Every day, our students encounter a host of questions that challenge their understanding of themselves and others. Whether it's from the Internet, YouTube, cable television, radio call-in shows, movies, self-help books, or advice from friends, our students' daily lives are a steady stream of information—and often misinformation—about intelligence testing, parenting, romantic relationships, mental illness, drug abuse, psychotherapy, and scores of other topics. Much of the time, the questions about these issues that most fascinate students are precisely those that psychologists routinely confront in their research, teaching, and practice.

As we begin our study of psychology, it's crucial to understand that we're *all* psychologists. We need to be able to evaluate the bewildering variety of claims from the vast world of popular psychology. Without a framework for evaluating evidence, making sense of these often contradictory findings can be a bewildering task for anyone. It's no surprise that the untrained student can find claims regarding memory- and mood-enhancing drugs, the overprescription of stimulants, the effectiveness of Paxil, and the genetic bases of psychiatric disorders, to name only a few examples, difficult to evaluate. Moreover, it is challenging for those who haven't been taught to think scientifically to make sense of extraordinary psychological claims that lie on the fringes of scientific knowledge, such as extrasensory perception, subliminal persuasion, astrology, alien abductions, lie-detector testing, handwriting analysis, and inkblot tests, among many others. Without a guide for distinguishing good from bad evidence, our students are left to their own devices when it comes to weighing the merits of these claims.

Our goal in this text, therefore, is to empower student readers of the twenty-first century to apply scientific thinking to the psychology of their everyday lives. By applying scientific thinking—thinking that helps protect us against our tendencies to make mistakes—we can better evaluate claims about both laboratory research and daily life. In the end, we hope that students will emerge with the "psychological smarts," or open-minded skepticism, needed to distinguish psychological misinformation from psychological information. We'll consistently urge students to keep an open mind to new claims, but to insist on evidence. Indeed, our overarching motto is that of space scientist James Oberg (sometimes referred to as "Oberg's dictum"): Keeping an open mind is a virtue, just so long as it is not so open that our brains fall out.

#### What's New In This Edition?

*Psychology: From Inquiry to Understanding* continues its commitment to emphasize the importance of scientific-thinking skills. In the Third Edition, our focus has been to better convey the excitement of psychological science to the reader and to help the reader to connect the dots between inquiry and understanding. In addition, thanks to the ongoing support and feedback from instructors and students of our text, the Third Edition reflects many insightful and innovative updates that we believe enhance the text. Among the key changes made to the Third Edition are the following:

### General Changes

• For the Third Edition, we took great care to revise the narrative throughout to improve flow and to strike a better balance between presenting the value and fun of sound psychological science on the one hand, and the warning signs and dangers of pseudoscience on the other.

- New correlation guide shows how the learning objectives in the text correspond to the latest APA Guidelines for the Undergraduate Psychology Major.
- Updated coverage throughout based on the Fifth Edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*.
- "Your Complete Review System" now features a section called "Further Your Understanding" that directs students to learning apps in MyPsychLab that include new videos, simulations, and writing assessments.
- New online Annotated Instructor's Edition lists the best of our instructor ClassPrep
  resources at the beginning of each eText chapter to help instructors prepare for their
  lectures in a more efficient fashion.
- MyPsychLab icons integrated in the text guide students to the best of our Web-based practice quizzes, tutorials, videos, and simulations that consolidate the knowledge they acquired from the textbook. The icons are not exhaustive—many more resources are available than those highlighted in the text—but they draw attention to some of the most high-interest materials available at www.mypsychlab.com.

#### New Content and Updated Research

- Chapter 1 (Introduction to Psychology) features new coverage of sources of public skepticism of psychology (and why such skepticism is often unwarranted) as well as updated coverage on recent challenges to psychology's scientific status (e.g., the decline effect) and on how psychology is responding to them.
- Chapter 2 (Research Methods in Psychology) includes a new section on Daniel Kahneman's two modes of thinking ("System 1" and "System 2") and a revised discussion of correlation versus causation.
- Chapter 3 (Brain and Behavior) includes new research on oxytocin, a reorganized discussion of the brain, and more case studies and real-life examples throughout.
- Chapter 4 (Sensation, Perception, and Reality) has been fully reorganized so that sensation and perception are discussed separately. The section on ESP now includes coverage of the controversy surrounding recent efforts to replicate Bem's research findings.
- Chapter 5 (States of Consciousness) includes an updated discussion of substance use disorders, reflecting language and categories identified in the *DSM-5*. New or expanded findings or discussion of locked-in syndrome, sleep and dreaming, déjà vu, mystical experiences, hypnosis, and substance use.
- Chapter 6 (Learning and Conditioning) includes a reorganized and updated section on schedules of reinforcement, new research on sleep-assisted learning, and a new table on phobias.
- Chapter 7 (Memory Processes) includes updated coverage on the reconstructive nature of memory and the false memory debate.
- Chapter 8 (Cognition: Thinking, Decision Making, and Language) has been reorganized to begin with thinking and reasoning topics, including coverage of heuristics and biases (formerly in Chapter 2). The section on language and reading has also been reorganized and updated with new research on language acquisition and bilingualism.
- Chapter 9 (Intelligence and Intelligence Testing) includes new research on working memory and intelligence and an updated discussion of how poverty may impact the heritability of intelligence.
- Chapter 10 (Human Development: Childhood, Adolescence, and Adulthood) includes
  updated research and examples regarding gene-environment interaction and physical
  development, more comprehensive explanation of the Strange Situation paradigm as

- a measure of infant attachment, and increased coverage of cross-cultural variability in parenting practices and their impact on child development.
- Chapter 11 (Emotion, Self-Esteem, and Motivation) features updated coverage of challenges to discrete emotion theories and alternative models of emotion.
- Chapter 12 (Stress, Health, and Coping with Stress) includes new research on resilience in the face of stressors, how healthy people can become convinced they are seriously ill, achieving a healthy weight, and complementary and alternative medicine.
- Chapter 13 (Social Psychology and Social Behavior) features expanded coverage of prejudice, including sexual orientation; new research on the psychological effects of social rejection; and new work on persuasion techniques.
- Chapter 14 (Personality: Theories and Assessment) includes updated coverage on cultural influences on personality and on new models of personality structure.
- Chapter 15 (Mental Disorders) has been fully updated based on the DSM-5, and includes revised discussions of disorders and of statistics regarding the epidemiology of mental disorders. The chapter includes new findings concerning hoarding and body dysmorphic disorder, depressive realism, sleep disturbances and dissociation, and autism spectrum disorders. The chapter includes new findings—and controversies—concerning autism, attention deficit disorder, auditory hallucinations, delusions, posttraumatic stress disorder, and major depression and bipolar disorder.
- Chapter 16 (Psychological and Biomedical Therapies) includes new research or expanded discussion of culture and psychotherapy; mindfulness, acceptance, and third wave cognitive-behavioral therapies; virtual reality and cycloserine; placebos; pharmacotherapy; and deep brain stimulation.

#### RULING OUT RIVAL HYPOTHESES ▶

Have important alternative explanations for the findings been excluded?

#### CORRELATION VS. CAUSATION ▶

Can we be sure that A causes B?

#### **FALSIFIABILITY** ▶

Can the claim be disproved?

#### REPLICABILITY >

Can the results be duplicated in other studies?

#### EXTRAORDINARY CLAIMS ▶

Is the evidence as strong as the claim?

#### OCCAM'S RAZOR ▶

Does a simpler explanation fit the data just as well?

#### from inquiry to understanding

#### HOW DO WE RECOGNIZE FACES?

Imagine what it would be like to pass your best friend on the street and not recognize her, or to mistake your date for a complete stranger-or vice-versa! Face recognition is vital to our ability to navigate our social worlds, not to mention follow the plot of a movie containing a slew of characters (Russell et al., 2009). It's a remarkable capacity that we typically take for granted. How can psychological science help to explain our ability to recognize faces?

### From Inquiry to Understanding: The Framework in Action

As instructors, we find that students new to psychology tend to learn best when information is presented within a clear, effective, and meaningful framework—one that encourages inquiry along the path to understanding. As part of the inquiry to understanding framework, our pedagogical features and assessment tools work to empower students to develop a more critical eye in understanding the psychological world and their place in it.

#### Thinking Scientifically

In Chapter 1, we introduce readers to the Six Principles of Scientiác Thinking that are the framework for lifelong learning of psychology. Colored arrows appear in the margins whenever the principles are referenced to reinforce these scientific thinking principles in readers' minds. In this way, readers come to understand these principles as key skills for evaluating claims in scientific research and in everyday life.

A new feature for the Third Edition, From Inquiry to Understanding, tells the story of how psychological science has helped to shed light on a longstanding psychological mystery. We begin with a question that many students may have asked at some point prior to their study of psychology, and then we step through the methods and processes used by psychological scientists to gain a better understanding of human behavior and thought.

#### Applications of Scientific Thinking

In keeping with the text's theme, the **Evaluating Claims** feature prompts students to use scientific thinking skills to evaluate claims they are likely to encounter in various forms of media. Answers are provided at the end of the text.

Apply Your Scientific Thinking Skills questions (located at the end of each chapter) invite students to investigate current topics of debate or controversy and use their scientific thinking skills to make informed judgments about them. Rubrics for scoring student responses appear in the Instructor's Resource Manual, making them ideal for outside research and writing assignments.

Each chapter also contains a **PsychoMythology** box focusing in depth on a widespread psychological misconception. In this way, students will come to recognize that their commonsense intuitions about the psychological world are not always correct and that scientific methods are needed to separate accurate from inaccurate claims. Located in the margins of every chapter, Factoids present interesting and surprising facts.

#### Integrated Cultural Content

Wherever relevant, we highlight noteworthy and well-replicated research findings bearing on cultural and ethnic differences. By doing so, students should come to understand that many psychological principles have boundary conditions and that much of scientific psychology focuses as much on differences as commonalities.

Answers are located at the end of the text

#### SLEEP-ASSISTED LEARNING

evaluating **CLAIMS** 

When you think of learning, what's the first thing that pops into your head-textbooks when you mink on nearlings, what is the first timing that pops into your med—excessors, to classrooms, or later-light study search of the classrooms of the classrooms are the classroom and the classroom is the classroom and the classroom and the classroom as th



tions should you ask about how thi

#### psychomythology

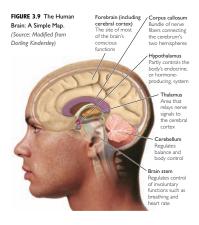
#### ARE SOME PEOPLE LEFT-BRAINED AND OTHERS **RIGHT-BRAINED?**

Despite the great scientific contribution of split-brain studies, the popular notion that people are either "left-brained" or "right-brained" is a misconception (Lilienfeld et al., 2010). According to this myth, left-brained people are scholarly, logical, and analytical, and right-brained people are artistic, creative, and emotional. One Internet blogger tried to explain the differences between people's political beliefs in terms of the left-right brain distinction; conservatives, he claimed, tend to be left-brained and liberals right-brained (Block, 2006). Yet these claims are vast oversimplifications of a small nugget of truth, because research demonstrates that we use both sides of our brain in a complementary way (Corballis, 1999; Hines, 1987). Furthermore, the corpus callosum and other interconnections ensure that both hemispheres are in continual communication.

## A Focus on Meaningful Pedagogy: Helping Students Succeed in Psychology

Our goal of applying scientific thinking to the psychology of everyday life is reflected in the text's pedagogical plan. The features in the text, the end-of-chapter review, our online MyPsychLab resource, and the print and media supplements were designed to help students achieve a mastery of the subject and succeed in the course.

Think About It questions, located at the start of every chapter, highlight some of the common questions that students have about psychology. Together with the Chapter Outline, they also serve to preview the key topics that will be discussed in each chapter. Each chapter is organized around Numbered Learning Objectives, which are listed at the start of each major section. (All instructor supplements are also keyed to these learning objectives.) The end-of-chapter summary and assessment material is also organized around these objectives. Students' understanding of important terminology is enhanced with our on-page Glossary.



**FACT or FICTION?** 

- We can't determine whether the fine distinctions Inuits make among different kinds of snow are a cause or a consequence of the many terms for snow in their language. True / False
- 2. People who speak languages that lack terms for distinguishing colors can't tell these
- The Stroop color-naming task demonstrates that reading is automatic. True / False
- 4. Phonetic decomposition is a straightforward linking of printed letters to phonemes. True / False
- $\textbf{5.} \quad \text{Whole word recognition is the most efficient reading strategy for fluent readers and the} \\$ best way to teach children to read. True / False

Color-coded biological art orients students at both the micro and macro levels as they move throughout the text and forge connections among concepts. Interactive photo captions test students on their scientific-thinking skills and invite them to evaluate whether or not the photo is an accurate depiction of psychological phenomena. Answers appear at the bottom of the page.

At the end of each major topic heading, we provide an Assess Your Knowledge: Fact or Fiction? review of selected material to further reinforce concept comprehension and foster students' ability to distinguish psychological fact from fiction. Throughout the text, MyPsychLab icons direct students to additional online study and review material such as videos, simulations, and practice quizzes and customized study plans.

Your Complete Review System, located at the end of every chapter, includes a summary, quiz questions, and visual activities, all organized by the major chapter sections and tied to chapter learning objectives. Apply Your Scientific Thinking **Principles** questions challenge students to research and evaluate current event topics. Further Your Learning highlights for students three key online learning apps that they can use to deepen their knowledge of chapter material: MyPsychLab Video Series, MyPsychLab Simulations, and MyPsychLab Writing Assessments.

#### Your Complete Review System

How Memory Operates: The Memory Assembly Line (276-288)

#### 7.1 IDENTIFY THE WAYS THAT MEMORIES DO AND DON'T ACCURATELY REFLECT EXPERIENCES.

Memories can be surprisingly accurate over very long periods of time, but tend to be reconstructive rather than reproductive.

- \_\_\_\_\_ is a false but subjectively compelling
- Our memories are far more (reproductive/reconstructive) rather than (reproductive/reconstructive). (p. 278)

#### EXPLAIN THE FUNCTION, SPAN, AND DURATION OF EACH OF THREE MEMORY SYSTEMS.

Sensory memory, short-term memory, and long-term memory are stages of information processing that vary in how much information they hold and for how long they retain it. Short-term memory has a limited span of seven plus or minus two items that can be extended by grouping things into larger, meaningful units called chunks.

- 3. The three major systems of memory are measured by , or how long a period of time the system can hold,



- memory. (p. 279)

  wislon. (p. 280)

  memory. (p. 279)

  is a type of sensory memory that applies to
- 7. To extend the span of short-term memory, we organize information into meaningful groupings using a process called \_\_\_\_\_\_\_\_ (p. 283)

#### 7.3 DIFFERENTIATE THE SUBTYPES OF LONG-TERM MEMORY

Explicit memory subtypes include semantic and episodic memory. Implicit memory types include procedural and priming memory.

memory is the process of recalling information intentionally, and \_\_\_\_\_\_ memory is the process of recalling information we don't remember deliberately. (p. 286)

#### (( Listen in MyPsychLab to chapter audio

10. Complete the diagram to show the many subtypes of explicit and implicit memory. (p. 287)



The Three Processes of Memory (288-297)

#### 7.4 IDENTIFY METHODS FOR CONNECTING NEW INFORMATION TO

Mnemonics are memory aids that link new information to familiar knowledge. There are many kinds of mnemonics; they take effort to use but can assist recall.

- II. The three major processes of memory are
- \_\_\_\_\_\_ and \_\_\_\_\_\_ (p. 200)
  \_\_\_\_\_\_ is the process of organizing information in a format that our memories can use. (p. 289)
- 13. If we use the phrase "Every good boy does fine" to remember the names of the lines (E, G, B, D, F) in the treble clef, we're using a(n)



#### 7.5 IDENTIFY THE ROLE THAT SCHEMAS PLAY IN THE STORAGE OF

Schemas equip us with frames of reference for interpreting new situations. Nevertheless, they can sometimes lead to memory

Recall requires generating previously encountered information on our own, whereas recognition simply requires selecting the correct information from an array of choices. How quickly we relearn material previously learned and forgotten provides

Use your scientific thinking skills to answer the following questions, referencing specific scientific thinking principles and common errin reasoning whenever possible.

- In casulating witeriver pixesize.

  1. As we've learned, our memories are often not as accurate as we assume. Think back to an early memory of an event (such as a childhood vacation) that you shared with friends or family. Write down as many details of the memory as you can. Now ask those friends or family emembers to write down their memoris of the explain the differences given what you now know about memory!
- Sometimes people find it difficult to remember phone numbers that they just heard. Search the Internet or consult some books to

#### Further Your Understanding

#### EXTEND YOUR KNOWLEDGE WITH THE MYPSYCHLAB VIDEO SERIES

- Special Topics: When Memory Fails Learn about the famous case of "H. M.," the man whose memory only allowed him to live
- Thinking Like a Psychologist: Police Lineup Learn how stress can affect the accuracy of eyewitness testimony.
- That's Int for Me!: Making It Stick Perform well on tests by learning about study habits and whether "blocking" or "interleaving" is a better method for remembering information long term.

#### EXPERIENCE PSYCHOLOGICAL RESEARCH WITH MYPSYCHLAB

Access these simulations in MyPsychLab. Follow the

- Digit Span Use chunking to increase your working memory capacity and recall series of digits and letters.
- Scrial Position Effect Test the limits of your working memory

# with isss. What Do You Remember? Participate in a survey to discown own and what you remember and the strategies you use to aid long- and short-term memory.

### APPLY YOUR CRITICAL THINKING SKILLS WITH MYPSYCHLAB WRITING ASSESSMENTS

No.scaytENIS
Complete these writing assignments in MyPsychLab.
You are reading your text and studying for an upcoming exam in
psychology, identify and describe each tesp in the process required for
remembering information from your text in order to do well on the
exam. Discuss a strategy for improving memory and provide an example
of how it coal the Joy our on the exam.

### Putting Scientific Thinking to the Test: Innovative and Integrated Supplements

**Psychology: From Inquiry to Understanding** is accompanied by a collection of teaching and learning supplements designed to reinforce the scientific thinking skills from the text. These supplements "put scientific thinking to the test" by reinforcing our framework for evaluating claims and assessing students' ability to think scientifically in a variety of psychological and real-world situations.

#### **Teaching Resources**

The Instructor's Resource Center (www.pearsonglobaleditions.com/Lilienfeld) provides information and the following downloadable supplements.

#### **TEST BANK**

This test bank contains over 3,000 multiple-choice, true/false, matching, short-answer, and essay questions, each referenced to the relevant page in the textbook. All test items are mapped to the chapter learning objectives. An additional feature for the test bank is the inclusion of rationales for the *conceptual and applied* multiple-choice questions. The rationales help instructors to evaluate the questions they are choosing for their tests and give instructors the option to use the rationales as an answer key for their students.

A Total Assessment Guide chapter overview makes creating tests easier by listing all of the test items in an easy-to-reference grid. All multiple-choice questions are categorized as factual, conceptual, or applied, and are correlated to each of the chapter's learning objectives. The Test Bank is available for download.

#### INSTRUCTOR'S RESOURCE MANUAL

The Instructor's Resource Manual includes a detailed Chapter Lecture Outline, list of key terms, learning objectives for each chapter.

#### STANDARD LECTURE POWERPOINT SLIDES

PowerPoint slides with lecture notes, photos, and figures are also available for download.

# PEARSON ASSESSMENT BANK FOR THE APA GUIDELINES FOR THE UNDERGRADUATE PSYCHOLOGY MAJOR 2.0

A unique bank of assessment items allows instructors to assess student progress against the American Psychological Association's (APA) Guidelines for the Undergraduate Psychology Major 2.0 (2013).

#### **APA CORRELATION GUIDE**

This detailed correlation guide, which appears in the Instructor's Manual, shows how the learning outcomes in the text and the test bank questions correspond to the APA Learning Goals and Outcomes.

#### TEST ITEM FILE FOR YOUR LEARNING MANAGEMENT SYSTEM

For instructors who only need the test item file, we offer the complete test item file at www.pearsonglobaleditions.com/Lilienfeld.

#### Online Options for Instructors and Students

The **new MyPsychLab** delivers proven results in helping students succeed, provides engaging experiences that personalize learning, and comes from a trusted partner with educational expertise and a deep commitment to helping students and instructors achieve their goals. MyPsychLab has a wealth of instructor and student resources, including the following:

**MyPsychLab Video Series** is a comprehensive, and cutting edge set of more than 100 original videos clips covering the most recent research, science, and applications across the general



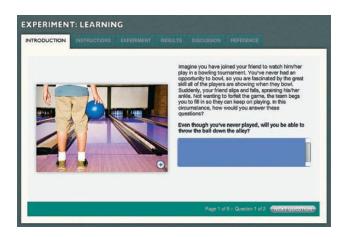
psychology curriculum, many using the latest in film and animation technology. Each 4–6 minute video clip has automatically graded assessment questions tied to it.



**MyPsychLab Writing Assessments** provide students with instant feedback on both content and mechanics, helping to improve their writing and assess their knowledge of important psychological concepts. A collection of conceptual and applied writing prompts corresponding with videos from the MyPsychLab Video Series cover key concepts across the general psychology curriculum.



**MyPsychLab Simulations** allow students to participate in online simulations of virtual classic psychology experiments and research-based inventories, helping to reinforce what they are learning in class and in their book.



**MyPsychLab Brain** is an interactive virtual brain designed to help students better understand neuroanatomy, physiology, and human behavior. Fourteen virtual brain modules bring to life challenging topics.



An audio version of the textbook increases accessibility of the textbook.

A personalized study plan for each student, based on Bloom's Taxonomy, arranges content from lower order thinking—such as remembering and understanding—to higher order thinking—such as applying and analyzing the material. This layered approach promotes better critical thinking skills and helps students succeed in the course and beyond.

Assessment tied to videos, applications, and every chapter enables both instructors and students to track progress and get immediate feedback. With results feeding into a powerful grade book, the assessment program helps instructors identify student challenges early—and find the best resources with which to help them.

**An assignment calendar** allows instructors to assign graded activities with specific deadlines, and measure student progress.

**MyPsychLab and Your Campus Learning Management System** MyPsychLab and text-specific instructor resources such as the test bank are available for integration with a number of Learning Management Systems, including Blackboard. Please contact your Pearson representative to learn more.

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MyPsychLab and text-specific instructor resources such as the test bank are available for integration with a number of Learning Management Systems, including Blackboard, Canvas, D2L, Moodle, and OpenClass. Please contact your Pearson representative to learn more.

#### A Final Word & Thanks

For the authors, writing this book has been a great deal of work, but it's also been a labor of love. When we began this undertaking, we as authors could never have imagined the number of committed, selfless, and enthusiastic colleagues in the psychology community who would join us on this path to making our textbook a reality. During the long months of writing and revising, the feedback and support from fellow instructors, researchers, and students helped keep our energy high and our minds sharp. We stand in awe of their love of the discipline and the enthusiasm and imagination each of these individuals brings to the psychology classroom every day. This text is the culmination of their ongoing support from first to final draft and then subsequent revision, and we are forever grateful to them.

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<sup>\*</sup>This product may not be available in all markets. For more details, please visit www.coursesmart.co.uk or contact your local Pearson representative.

We dedicate this book to Barry Lane Beyerstein (1947–2007), great scholar and valued friend.

My deepest gratitude to David Lykken,
Paul Meehl, Tom Bouchard, Auke Tellegen,
and my other graduate mentors for an
invaluable gift that I will always cherish:
scientific thinking.
—Scott Lilienfeld

To Fern Pritikin Lynn, my heart and my soul.
—Steven Jay Lynn

To DJ, who inspires me every day.

—Laura Namy

To Larry, Lawson, and Ashley.
—Nancy Woolf

#### Our Review Panel

We are indebted to the members of our Review Panel from the Third and previous Editions who evaluated chapters and provided expert analysis on critical topic areas. Others served on an advisory council, participated in focus groups, conducted usability studies, ran class testing of chapters, and attended our faculty forums for the text. Their input proved invaluable to us, and we thank them for it.

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**Scott O. Lilienfeld** received his B.A. in psychology from Cornell University in 1982 and his Ph.D. in clinical psychology from the University of Minnesota in 1990. He completed his clinical internship at Western Psychiatric Institute and Clinic in Pittsburgh, Pennsylvania, from 1986 to 1987. He was Assistant Professor in the Department of Psychology at SUNY Albany from 1990 to 1994 and now is Professor of Psychology at Emory University. He is a Fellow of the Association of Psychological Science and was the recipient of the 1998 David Shakow Award from Division 12 (Clinical Psychology) of the American Psychological Association for Early Career Contributions to Clinical Psychology. Most recently, he had received the James McKeen Cattell Award from the Association for Psychological Science for outstanding career contributions to applied psychology. Dr. Lilienfeld is a past president of the Society for a Science of Clinical Psychology within Division 12 and is current president of the Society for the Scientific Study of Psychopathy. He is the founder and editor of the Scientific Review of Mental Health Practice, Associate Editor of the Journal of Abnormal Psychology, and a regular columnist for the Scientific American Mind magazine. He has authored or coauthored seven books and over 300 journal articles and chapters. Dr. Lilienfeld has also been a participant in Emory University's "Great Teachers" lecturer series, as well as the Distinguished Speaker for the Psi Chi Honor Society at the American Psychological Association and numerous other national conventions.

Steven Jay Lynn received his B.A. in psychology from the University of Michigan and his Ph.D. in clinical psychology from Indiana University. He completed an NIMH Postdoctoral Fellowship at Lafayette Clinic, Detroit, Michigan, in 1976 and is now Distinguished Professor of Psychology at Binghamton University (SUNY), where he is the director of the Psychological Clinic. Dr. Lynn is a fellow of numerous professional organizations, including the American Psychological Association and the American Psychological Society, and he was the recipient of the Chancellor's Award of the State University of New York

for Scholarship and Creative Activities. Dr. Lynn has authored or edited 19 books and more than 300 other publications, and was named on a list of "Top Producers of Scholarly Publications in Clinical Psychology Ph.D. Programs" (2000–2004/Stewart, Wu, & Roberts, 2007, *Journal of Clinical Psychology*). Dr. Lynn is the founder and editor of *Psychology of Consciousness: Theory, Research, and Practice* (APA), and he has served on 11 other editorial boards, including the *Journal of Abnormal Psychology*. Dr. Lynn's research has been supported by the National Institute of Mental Health and the Ohio Department of Mental Health.

Laura L. Namy received her B.A. in philosophy and psychology from Indiana University in 1993 and her doctorate in cognitive psychology at Northwestern University in 1998. She is now Associate Professor of Psychology and Core Faculty in Linguistics at Emory University. At Emory, she is Director of the Emory Child Study Center and Associate Director of the Center for Mind, Brain, and Culture. Her research focuses on the origins and development of verbal and nonverbal symbol use in young children, sound symbolism in natural language, and the role of comparison in conceptual development.

Nancy J. Woolf received her B.S. in psychobiology at UCLA in 1978 and her Ph.D. in neuroscience at UCLA School of Medicine in 1983. She is Adjunct Professor in the Department of Psychology at UCLA. Her specialization is behavioral neuroscience, and her research spans the organization of acetylcholine systems, neural plasticity, memory, neural degeneration, Alzheimer's disease, and consciousness. In 1990 she won the Colby Prize from the Sigma Kappa Foundation, awarded for her achievements in scientific research in Alzheimer's disease. In 2002 she received the Academic Advancement Program Faculty Recognition Award. She also received a Distinguished Teaching Award from the Psychology Department at UCLA in 2008. Dr. Woolf is currently on the editorial boards of Science and Consciousness Review and Journal of Nanoneuroscience.

# **APA** Correlation

PA Learning Outcomes and Objectives	Text Learning Objectives and Features	MyPsychLab Videos, Simulations and Assessments
OAL I: Scientific Inquiry and Critical Thinking		
nderstand scientific reasoning and problem so	olving, including effective research methods.	
I Use scientific reasoning to interpret behavio	or	MyPsychLab Video Series
la Identify basic biological, psychological, and social omponents of behavioral explanations (e.g., inferences, oservations, operational definitions, interpretations)	Learning Objectives: 3.7 Chapter 12: From Inquiry to Understanding: Morgellon's Disease	Basics: Scientific Research Methods  Thinking Like a Psychologist: Thinking Critically The Pre-Frontal Cortex:The Good, the Badand the Criminal Evolutionary Psychology—Why We Do the Things We Do Can Smells Alter Mood and Behavior? The Uses and Limitations of Hypnosis Police Line-Up Babies by Design Speaking One's Mind Intelligence Tests and Success Predicting Future Emotion and Desire Measuring Personality Personality and Health Assessing Treatment Effectiveness  In the Real World: Neurotransmitters Taking Control of Our Genes Pain Management Sleep, Memory, and Learning
.1b Use psychology concepts to explain personal experiences and recognize the potential for flaws in chavioral explanations based on simplistic, personal eories	Learning Objectives: 3.9, 16.13, 16.14 Chapter 3: Psychomythology: Are Some People Left-Brained and Others Right-Brained?, Chapter 14: Evaluating Claims: Online Personality Tests	
Ic Use an appropriate level of complexity to interpret Phavior and mental processes	Learning Objectives: 3.11, 16.12 Chapter 4: Psychomythology: Psychic Healing of Chronic Pain	
Id Ask relevant questions to gather more information bout behavioral claims	Learning Objectives: 5.7, 13.10, 16.10, 16.11 Think About It, Apply Your Scientific Thinking Skills, Fact or Fiction?, Chapter 1: Thinking Scientifically, Chapter 4: Evaluating Claims: Subliminal Persuasion, Chapter 6: From Inquiry to Understanding: Why Are We Superstitious?, Chapter 10: Evaluating Claims: Anti-Aging Treatments, Chapter 16: From Inquiry to Understanding: Why Can Ineffective Therapies Appear to be Helpful?, Chapter 16: Evaluating Claims: Psychotherapy	
le Describe common fallacies in thinking (e.g., onfirmation bias, post hoc explanations, implying ausation from correlation) that impair accurate onclusions and predictions	Learning Objectives: 1.2, 1.5, 1.6 Think About It, Apply Your Scientific Thinking Skills, Chapter 6: Evaluating Claims: Sleep-Assisted Learning, Chapter 10: Psychomythology: The Mozart Effect	
2 Demonstrate psychology information litera	The Memories We Don't Want Changing Your Mind	
2a Read and summarize general ideas and conclusions om psychological sources accurately	Learning Objectives: 6.12 Chapter 1: Psychomythology: The Hot Hand: Reality or Illusion?	Eating Disorders Putting Popular Personality Assessments to the Test Sexual Problems and Dysfunction Reducing Stress, Improving Health Cognitive Behavioral Therapy  What's In It for Me?: The Myth of Multitasking Perceptual Magic in Art and Movies Altered States of Consciousness How to Make Healthier Choices Making It Stick Making Choices How Resilient Are You?
2b Describe what kinds of additional information eyond personal experience are acceptable in eveloping behavioral explanations (i.e., popular press eports vs. scientific findings)	Learning Objectives: 1.4, 2.11 Chapter 1: Evaluating Claims: Health Benefits of Fruits and Vegetables, Chapter 9: Evaluating Claims: IQ Boosters	
2c Identify and navigate psychology databases and the legitimate sources of psychology information	Learning Objectives: 1.3 Chapter 7: Evaluating Claims: Memory Boosters	
2d Articulate criteria for identifying objective sources psychology information	Learning Objectives: 2.9, 4.15 Chapter 1: From Inquiry to Understanding: Why Do We Perceive Patterns Even When They Don't Exist?	
2e Interpret simple graphs and statistical findings	Learning Objectives: 2.3 Factoids, Throughout Chapters Within Text	
1.3 Engage in innovative and integrative thinking and problem-solving		Meeting Our Needs Psychological Resilience
3a Recognize and describe well-defined problems	Learning Objectives: 4.12 Chapter 8: Psychomythology: Do Twins Have Their Own Language?	The Challenge of Quitting Bad Health Hab Finding a Therapist if You Need One

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	logy Major Version 2.0	MyPsychLab Videos, Simulations and	
APA Learning Outcomes and Objectives	Text Learning Objectives and Features	Assessments	
I.3c Describe the consequences of problem-solving attempts		MyPsychLab Simulations Implicit Association Test: Cats and Dogs	
1.4 Interpret, design and conduct basic psychological research		Hemispheric Specialization	
I.4a Describe research methods used by psychologists ncluding their respective advantages and disadvantages	Learning Objectives: 2.1, 2.2, 3.8, 5.6, 9.3	Ambiguous Figures Weber's Law Müller-Lyer Illusion Learning Digit Span Serial Position Effect Depth of Processing Mental Rotation Selective Attention Stroop Effect Implicit Association Test: Food IPIP Neo Personality Inventory	
I.4b Discuss the value of experimental design (i.e., controlled comparisons) in justifying cause-effect relationships	Learning Objectives: 2.4		
I.4c Define and explain the purpose of key research concepts that characterize psychological research (e.g., hypothesis, operational definition)	Chapter 2: From Inquiry to Understanding: How Do Placebos Work?		
I.4d Replicate or design and conduct simple scientific studies (e.g., correlational or two-factor) to confirm a hypothesis based on operational definitions			
I.4e Explain why conclusions in psychological projects must be both reliable and valid	Learning Objectives: 14.10, 14.11 Chapter 14: Psychomythology: How accurate is Criminal Profiling?		
I.4f Explain why quantitative analysis is relevant for scientific problem solving	Learning Objectives: 7.6		
I.4g Describe the fundamental principles of research design	Learning Objectives: 9.5		
1.5 Incorporate sociocultural factors in scientific	inquiry		
I.5a Relate examples of how a researcher's value system, sociocultural characteristics, and historical context influence the development of scientific inquiry on psychological questions	Learning Objectives: 2.1 Chapter 5: Psychomythology: Age Regression and Past Lives, Chapter 6: Psychomythology: Are We What We Eat?		
1.5b Analyze potential challenges related to sociocultural factors in a given research study	Learning Objectives: 8.1		
1.5c Describe how individual and sociocultural differences can influence the applicability/generalizability of research findings	Learning Objectives: 7.7, 14.12		
1.5d Identify under what conditions research findings can be appropriately generalized	Learning Objectives: 2.8 Chapter 2: Psychomythology: Laboratory Research Doesn't Apply to the Real World, Right?		
GOAL 2: Ethical and Social Responsibility			
Develop ethically and socially responsible behavi	ors for professional and personal settings.		
2.1 Apply ethical standards to psychological scien	nce and practice	MyPsychLab Video Series	
2.1a Describe key regulations in the APA Ethics Code for protection of human or nonhuman research participants	Learning Objectives: 2.5 Chapter 15: Evaluating Claims: Online Tests for Mental Disorders	<b>Special Topics:</b> Ethics and Psychological Research	
2.1b Identify obvious violations of ethical standards in psychological contexts	Learning Objectives: 13.5 Chapter 11: Psychomythology: Is Truth Serum Really a Truth Serum?	Thinking Like a Psychologist: Physical Punishment—You Decide! Sexual Orientation Changing Attitudes and Behaviors	
2.1c Discuss relevant ethical issues that reflect principles in the APA Code of Ethics	Learning Objectives: 2.6, 7.13, 11.4		
2.1d Define the role of the institutional review board		In the Real World: Speed Dating Resolving Conflict	
2.2 Promote values that build trust and enhance interpersonal relationships			
2.2a Describe the need for positive personal values (e.g., integrity, benevolence, honesty, respect for human dignity) in building strong relationships with others	Learning Objectives: 11.12, 11.13	Socialization Are Stereotypes and Prejudices Inevitable? How Am I being Influenced?	
2.2b Treat others with civility	Learning Objectives: 11.3	Learning Aggression	
2.2c Explain how individual differences, social identity, and world view may influence beliefs, values, and interaction with others and vice versa	Learning Objectives: 13.1, 13.2 Chapter 15: Psychomythology: The Insanity Defense: Free Will Versus Determinism	What's In It for Me?: Identity The Dating Game Attraction	
2.2d Maintain high standards for academic integrity, including honor code requirements		Persuasion	
2.3 Adopt values that build community at local, national, and global levels		MyPsychLab Simulations Participating in a Research Survey	
and it the per variable tribute training desired and its carry,		Participating in a Research Survey Implicit Association Test: Sexuality Implicit Association Test: Prejudice	

		MyPsychLab Videos, Simulations and
APA Learning Outcomes and Objectives	Text Learning Objectives and Features	Assessments
2.3b Recognize potential for prejudice and discrimination in oneself and others	Learning Objectives: 9.4, 15.2, 15.3	
2.3c Explain how psychology can promote civic, social, and global outcomes that benefit others	Learning Objectives: 8.1, 8.2, 12.2, 13.6, 16.7	
2.3d Describe psychology-related issues of global concern (e.g., poverty, health, migration, human rights, international conflict, sustainability)	Learning Objectives: 9.8, 10.3, 10.11, 12.7, 14.1, 15.11, 15.12 Chapter 8: From Inquiry to Understanding: Why Do We Worry About the Wrong Things?, Chapter 14: From Inquiry to Understanding: Where is the Environmental Influence on Personality?	
2.3e Articulate psychology's role in developing, designing, and disseminating public policy		
2.3f Accept opportunity to serve others through civic engagement, including volunteer service	Learning Objectives: 8.4	
GOAL 3: Communication		
Demonstrate competence in written, oral, and argument.	interpersonal communication skills and be able	e to develop and present a scientific
3.I Demonstrate effective writing in multiple fo	armats	MyPsychlah Writing Assignments
3.1a Express ideas in written formats that reflect basic psychological concepts and principles	Learning Objectives: 3.4 Assess Your Knowledge, Your Complete Review System, Apply Your Scientific Thinking Skills, Further Your Understanding	MyPsychLab Writing Assignments Diagnosing Anxiety Designing an Experiment Parts of the Brain on Pizza Night Musical Talent as a Heritable Trait The Gestalt Perspective Effects of Sleep Deprivation in College Operant Conditing and Weight Loss Memory and Study Strategies Describing Thinking Patterns with Piaget's Theory of Cognitive Development Mental Sets and Studying a Foreign Languag Exploring Gardner's Types of Intelligence Describing Theories of Emotion Describing Theories of Personality Comparing Gender Concepts Analyzing Stress Assessing Work Environments and Motivation Discussing Prejudice and Discrimination Considering Schizophrenia Comparing Psychotherapy Approaches
3.1b Recognize writing content and format differ based on purpose (e.g., blogs, memos, journal articles) and audience		
3.1c Use generally accepted grammar	Apply Your Scientific Thinking Skills, Further Your Understanding	
3.1d Describe how writing using APA writing style is different from regular writing or writing in other conventions		
3.1e Recognize and develop overall organization (e.g., beginning, development, ending) that fits the purpose		
<ol> <li>If Interpret quantitative data displayed in statistics, graphs, and tables, including statistical symbols in research reports</li> </ol>	Learning Objectives: 2.7, 16.6 Apply Your Scientific Thinking Skills, Further Your Understanding, Throughout Chapters Within Text	
3.1g Use expert feedback to revise writing of a single draft		
3.2 Exhibit effective presentation skills in multi	ple formats	
3.2a Construct plausible oral argument based on a psychological study		
3.2b Deliver brief presentations within appropriate constraints (e.g., time limit, appropriate to audience)	Apply Your Scientific Thinking Skills, Further Your Understanding	
3.2c Describe effective delivery characteristics of professional oral performance	Apply Your Scientific Thinking Skills, Further Your Understanding	
3.2d Incorporate appropriate visual support		
3.2e Pose questions about psychological content	Learning Objectives: 9.12 Chapter 4: From Inquiry to Understanding: How Does Magic Work?, Chapter 5: From Inquiry to Understanding: Do We Experience Déjà Vu?, Chapter 11: From Inquiry to Understanding: Why Do We Cry?	
3.3 Interact Effectively with Others		
3.3a Identify key message elements in communication through careful listening		
3.3b Recognize that culture, values, and biases may produce misunderstandings in communication	Learning Objectives: 9.7	
3.3c Attend to language and nonverbal cues to interpret meaning		

		MyPsychLab Videos, Simulations and
PA Learning Outcomes and Objectives	Text Learning Objectives and Features	Assessments
.3d Ask questions to capture additional detail	Apply Your Scientific Thinking Skills, Further Your Understanding, Fact or Fiction?, Chapter 9: From Inquiry to Understanding: Why Smart People Believe Strange Things	
3.3e Respond appropriately to electronic		
GOAL 4: Professional Development		
Apply psychology-specific content and skills, effectors support occupational planning and pursuit.	ective self-reflection, project management skil	ls, teamwork skills and career preparat
4.1 Apply psychological content and skills to pro	fessional work	MyPsychLab Simulations
4.1a Recognize the value and application of research and problem-solving skills in providing evidence beyond opersonal opinion to support proposed solutions	Learning Objectives: 4.14	Which Sense Do You Use? Do You Fly or Fight? What Altered States Have You Experienced Are Dreams Meaningful? What Drugs Have You Used? What Drugs Have You Used? What Do You Remember? What Do You Remember? What Has Your Father Done for You? What is Creativity? What is Intelligence? How To Deal with Your Emotions? What Motivates You? What Has Shaped Your Personality? How Does Gender Affect You? Will This Survey Stress You Out? Could You Be a Hero? Are You Normal? How Do You Take Care of Your Mental Health?
4.1b Identify range of possible factors that influence beliefs and conclusions	Learning Objectives: 10.2	
4.1c Expect to deal with differing opinions and personalities in the college environment	Learning Objectives:     .	
4.1d Describe how psychology's content applies to ousiness, healthcare, educational, and other workplace settings	Learning Objectives: 6.9, 6.10, 7.10 Chapter 7: Psychomythology: Smart Pills	
4.1e Recognize and describe broad applications of information literacy skills obtained in the osychology major		
4.If Describe how ethical principles of psychology have relevance to non-psychology settings	Learning Objectives: 8.9	
4.2 Exhibit self-efficacy and self-regulation		
4.2a Recognize the link between effort and achievement	Learning Objectives: 8.12 Chapter 13: Evaluating Claims: Work From Home Jobs	
4.2b Accurately self-assess performance quality by adhering to external standards (e.g., rubric criteria, teacher expectations)		
4.2c Incorporate feedback from educators and mentors to change performance		
4.2d Describe self-regulation strategies (e.g., reflection, time management)	Chapter 8: Evaluating Claims: Speed-Reading Courses	
4.3 Refine project management skills		
4.3a Follow instructions, including timely delivery, in response to project criteria		
4.3b Identify appropriate resources and constraints that may influence project completion		
4.3c Anticipate where potential problems can hinder successful project completion	Learning Objectives: 12.4	
4.3d Describe the processes and strategies necessary to develop a project to fulfill its intended purpose		
4.4 Enhance teamwork capacity		
4.4aCollaborate successfully on small group classroom assignments		
4.4b Recognize the potential for developing stronger solutions through shared problem-solving	Chapter 13: Psychomythology: Is Brainstorming in Groups a Good Way to Generate Ideas?	
4.4c Articulate problems that develop when working with teams	Learning Objectives: 13.4	
4.4d Assess one's strengths and weaknesses in performance as a project team member	Learning Objectives: 13.8	

PA Learning Outcomes and Objectives	Text Learning Objectives and Features	MyPsychLab Videos, Simulations and Assessments
4f Describe the importance of working effectively in verse environments		
.5 Develop meaningful professional direction fo	r life after graduation	
5a Describe the types of academic experiences and dvanced course choices that will best shape career eadiness	Learning Objectives: 4.11, 11.6, 16.1, 16.2 Chapter 10: From Inquiry to Understanding: Why is Science Difficult?	
5b Articulate the skills sets desired by employers who re people with psychology backgrounds		
5c Recognize the importance of having a mentor		
5d Describe how a curriculum vitae or resume is used odcument the skills expected by employers		
5e Recognize how rapid social change influences ehavior and affects one's value in the workplace		
OAL 5: Knowledge Base in Psychology		
emonstrate fundamental knowledge and comp ndings to discuss how psychological principles a	orehension of major concepts, theoretical pers apply to behavioral problems.	pectives, historical trends, and empirica
I Describe key concepts, principles, and overa	rching themes in psychology	MyPsychLab Video Series
Ia Use basic psychological terminology, concepts, and leories in psychology to explain behavior and mental rocesses	Learning Objectives: 1.7, 3.5, 3.10, 4.9, 6.2, 6.4, 7.1, 7.2, 7.3, 8.5, 9.1, 9.2, 9.6, 10.4, 10.5, 10.6, 11.9, 11.10, 12.1, 13.9, 15.1, 15.4	The Big Picture: Asking the Tough Questions How to Answer Psychological Questions My Brain Made Me Do It Genes, Evolution, and Human Behavior Taking in the World Around Us States of Consciousness What Does It Mean to Learn? The Woman Who Cannot Forget Different Perspectives on the World I Am, Therefore I Think What is Intelligence? Motivation and Emotion
Ib Explain why psychology is a science with the primary bjectives of describing, understanding, predicting, and ontrolling behavior and mental processes	Learning Objectives: 1.1, 3.1, 3.2, 3.3, 4.5, 4.7, 5.2, 5.9, 7.8, 7.9, 11.8 Chapter 13: From Inquiry to Understanding: Why Are Yawns Contagious?	
Ic Interpret behavior and mental processes at an opportunity	Learning Objectives: 4.1, 4.3, 4.4, 4.6, 8.11	
Id Recognize the power of the context in shaping onclusions about individual behavior	Learning Objectives: 4.14	
le Identify fields other than psychology that address ehavioral concerns	Learning Objectives: 6.11, 10.10 Chapter 5: Evaluating Claims: Dream Interpretations	
5.2 Develop a working knowledge of the content domains of psychology		What is Personality?
5.2a Identify key characteristics of major content domains in psychology (e.g., cognition and learning, developmental, biological, and sociocultural)	Learning Objectives: 5.3, 6.1, 6.5, 7.5, 8.6, 8.7, 10.7, 10.8, 15.5, 15.6, 15.7, 15.8, 15.9, 15.10, 16.8, 16.9	The Power of Sex Health Psychology The Social World What Does it Mean to Have a Mental Disorder?
		Basics: Diverse Perspectives

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