

Introducing

Psychology

third edition



Schacter / Gilbert / Wegner / Nock

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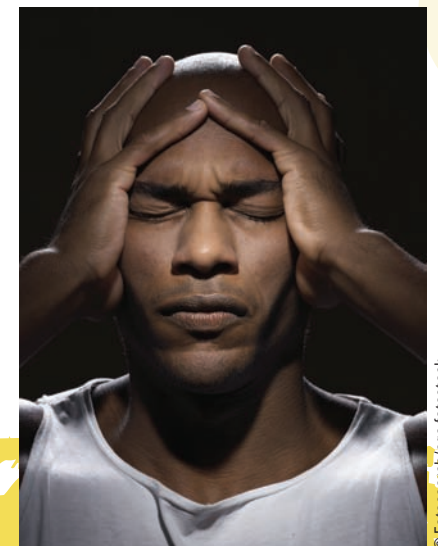
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Introducing Psychology

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Introducing Psychology

THIRD EDITION

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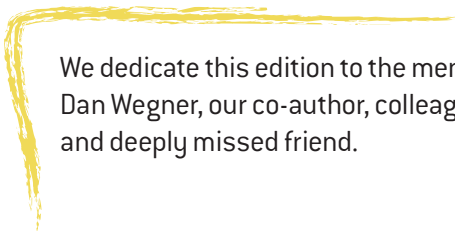
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A decorative yellow brushstroke graphic that starts as a horizontal line, curves down on the left side, and then curves back up to meet the horizontal line on the right side, forming a partial frame around the text.

We dedicate this edition to the memory of
Dan Wegner, our co-author, colleague,
and deeply missed friend.

About the Authors



Daniel Schacter

Daniel Schacter is William R. Kenan, Jr. Professor of Psychology at Harvard University. Dan received his B.A. degree from the University of North Carolina at Chapel Hill. He subsequently developed a keen interest in amnesic disorders associated with various kinds of brain damage. He continued his research and education at the University of Toronto, where he received his Ph.D. in 1981. He taught on the faculty at Toronto for the next six years before joining the psychology department at the University of Arizona in 1987. In 1991, he joined the faculty at Harvard University. His research explores the relation between conscious and unconscious forms of memory, the nature of distortions and errors in remembering, and how we use memory to imagine future events. Many of Schacter's studies are summarized in his 1996 book, *Searching for Memory: The Brain, The Mind, and The Past*, and his 2001 book, *The Seven Sins of Memory: How the Mind Forgets and Remembers*, both winners of the APA's William James Book Award. Schacter has also received a number of awards for teaching and research, including the Harvard-Radcliffe Phi Beta Kappa Teaching Prize, the Warren Medal from the Society of Experimental Psychologists, and the Award for Distinguished Scientific Contributions from the American Psychological Association. In 2013, he was elected to the National Academy of Sciences.



Daniel Gilbert

Daniel Gilbert is Edgar Pierce Professor of Psychology at Harvard University. After attending the Community College of Denver and completing his B.A. from the University of Colorado, Denver, he went on to earn his Ph.D. from Princeton University. From 1985 to 1996, he taught at the University of Texas, Austin, and in 1996, he joined the faculty of Harvard University. He has received the American Psychological Association's Distinguished Scientific Award for an Early Career Contribution to Psychology, the Diener Award for Outstanding Contributions to Social Psychology, and has won teaching awards that include the Phi Beta Kappa Teaching Prize and the Harvard College Professorship. His research focuses on how and how well people think about their emotional reactions to future events. He is the author of the international best seller *Stumbling on Happiness*, which won the Royal Society's General Prize for best popular science book of the year, and he is the co-writer and host of the PBS television series, *This Emotional Life*.



The Family of Daniel Wegner

Daniel Wegner was the John Lindsley Professor of Psychology in Memory of William James at Harvard University. He received his B.S. in 1970 and Ph.D. in 1974, both from Michigan State University. He began his teaching career at Trinity University in San Antonio, Texas, before his appointments at the University of Virginia in 1990 and then Harvard University in 2000. He was a Fellow of the American Academy of Arts and Sciences, and the recipient of the William James Award from the Association for Psychological Science, the Award for Distinguished Scientific Contributions from the American Psychological Association, and the Distinguished Scientist Award from the Society of Experimental Social Psychology. His research focused on thought suppression and mental control, transactive memory in relationships and groups, and the experience of conscious will. His work on thought suppression and consciousness served as the basis of two popular books, *White Bears and Other Unwanted Thoughts* and the *Illusion of Conscious Will*, both of which were named Choice Outstanding Academic Books. He died in 2013.



Nicolas Guervara

Matthew Nock is a Professor of Psychology at Harvard University. Matt received his B.A. from Boston University (1995) and his Ph.D. from Yale University (2003), and he completed his clinical internship at Bellevue Hospital and the New York University Child Study Center (2003). Matt joined the faculty of Harvard University in 2003 and has been there ever since. While an undergraduate, Matt became very interested in the question of why people do things to intentionally harm themselves, and he has been conducting research aimed at answering this question ever since. His research is multidisciplinary in nature and uses a range of methodological approaches (e.g., epidemiologic surveys, laboratory-based experiments, and clinic-based studies) to better understand how these behaviors develop, how to predict them, and how to prevent their occurrence. He has received multiple teaching awards at Harvard and also four early career awards recognizing his research, and in 2011, he was named a MacArthur Fellow.

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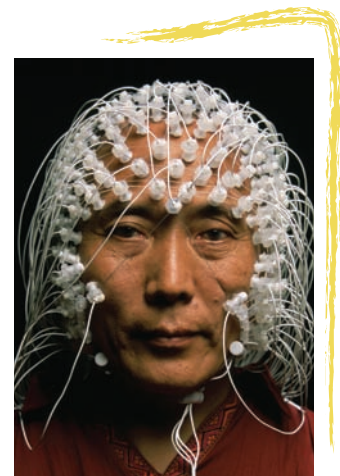
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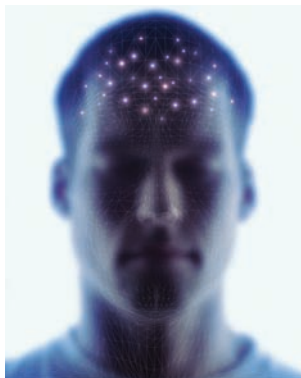
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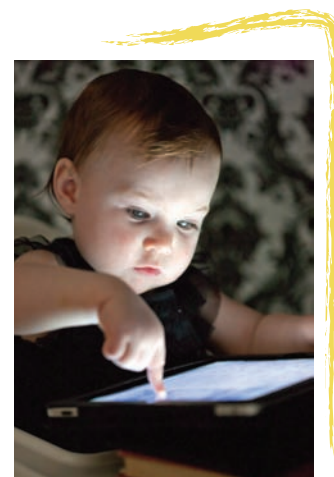
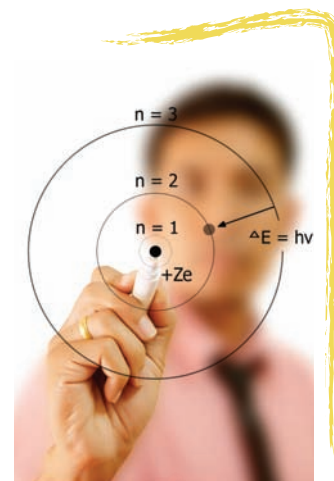
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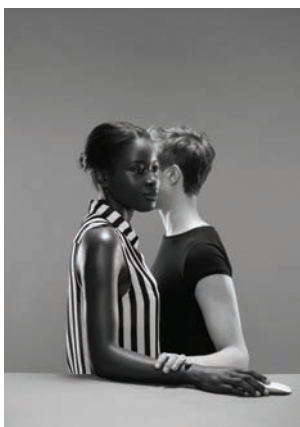
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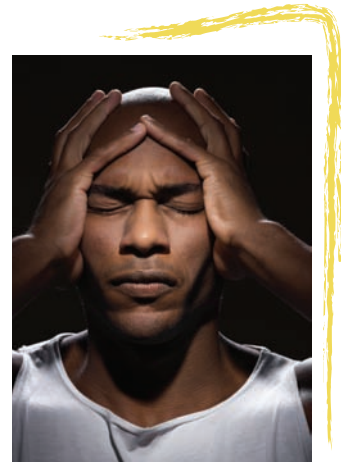
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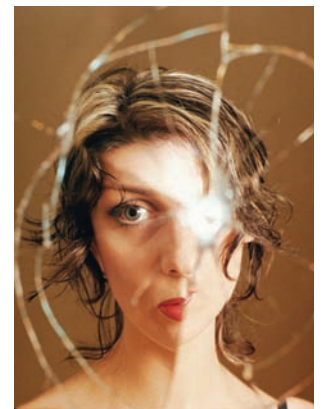
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PREFACE

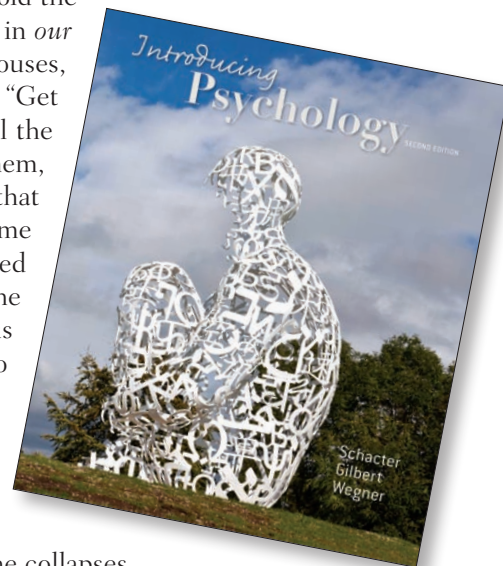
Why are you reading the preface? The book really gets going in about 10 pages, so why are you here instead of there? Are you the kind of person who can't stand the idea of missing something? Are you trying to justify the cost of the book by consuming every word? Did you just open to this page out of habit? Are you starting to think that maybe you made a big mistake?

For as long as we can remember, we've been asking questions like these about ourselves, about our friends, and about anyone else who didn't run away fast enough. Our curiosity about why people think, feel, and act as they do drew each of us into our first psychology course, and though we remember being swept away by the lectures, we don't remember much about our textbooks. That's probably because those textbooks were little more than colorful encyclopedias of facts, names, and dates. Little wonder that we sold them back to the bookstore the moment we finished our final exam.

When we became psychology professors, we did the things that psychology professors often do: we taught classes, we conducted research, and we wore sweater vests long after they stopped being fashionable. We also wrote stuff that people truly enjoyed reading, and that made us wonder why no one had ever written an introductory psychology textbook that students truly enjoyed reading. After all, psychology is the single most interesting subject in the known universe, so why shouldn't a psychology textbook be the single most interesting object in a student's backpack? We couldn't think of a reason, so we sat down and wrote the book that we wished we'd been given as students. The first edition of *Psychology* was published in 2008 and the reaction to it was nothing short of astounding. We'd never written a textbook before so we didn't know exactly what to expect, but never in our wildest dreams did we imagine that we would *win the Pulitzer Prize!*

Which was good, because we didn't. But what did happen was even better: We started getting letters and emails from students all over the country who just wanted to tell us how much they liked reading our book. They liked the content, of course, because as we may have already mentioned, psychology is the single most interesting subject in the known universe. But they also liked the fact that our textbook didn't *sound* like a textbook. It wasn't written in the stodgy voice of the announcer from one of those nature films that we all saw in 7th grade biology ("Behold the sea otter, nature's furry little scavenger"). Rather, it was written in *our* voices—the same voices in which we talk to our students, our spouses, our kids, and our pets (which explains why Chapter 16 is titled "Get Your Paws Off the Couch!"). We made a conscious effort to tell the *story* of psychology—to integrate topics rather than just list them, to illustrate ideas rather than just describe them. We realized that because science is such a complicated and serious business, some teachers might think that a science textbook should be complicated and serious too. We didn't see it that way. We think writing is the art of making complicated things seem simple and making serious things seem fun. The students who sent us nice letters seemed to agree (even if the Pulitzer Prize committee didn't).

The last edition of our book was a hit—so why have we replaced it? Two reasons. First, we got tired of being asked about the guy on the cover. He is gone now, and we're only going to say this one more time: No, we have no idea where his face went, and yes, if you remove all the L's from his torso, he collapses



into a big pie of meta. The second and somewhat more important reason for bringing out a new edition is that things change. Science changes (psychologists know all sorts of things about the mind and the brain that they didn't know just a few years ago), the world changes (when we wrote the second edition, no one had heard of twerking or shot a Vine), and we change (our research and reading give us new perspectives on psychological issues, and our writing and teaching show us new ways to help students learn). With all of these changes happening around us and to us, we felt that our book should change as well.

Changes to the Third Edition

New Focus on Critical Thinking

As sciences uncover new evidence and develop new theories, scientists change their minds. Some of the facts taught in a science course will still be facts a decade later, and others will require qualification or turn out to have just been plain wrong. That's why you need not only to learn the facts, but also how to *think* about facts—how to examine, interrogate, and weigh the evidence that scientists produce. We emphasize this sort of critical thinking throughout our text, of course, but in this edition we have included a new section dedicated entirely to helping you think about the mistakes we humans make when we try to consider evidence (see “Thinking Critically about Evidence” in Chapter 2: Methods in Psychology, page 44). We hope this section will help you learn how to use empirical evidence to develop well-grounded beliefs—not only about psychological science, but also about the stuff of everyday life.

New Section “Learning in the Classroom”

Like other psychology textbooks, the first two editions of our text provided in-depth coverage of many different kinds of learning, ranging from classical conditioning to observational learning. We still do. But strangely enough, the Learning chapters in most psychology texts, including the previous two editions of this text, haven't said much about the very kind of learning that is most relevant to our readers: learning in the classroom. We think that it is about time to change this puzzling state of affairs, and so we have. Chapter 7 now includes a new section cleverly titled “Learning in the Classroom,” page 237, that summarizes some of the exciting recent developments in this area, including evaluation of the most effective study techniques, insights into cognitive illusions that can mislead us into studying ineffectively, research on how to improve attention and learning during lectures, and discussion of the prospects for online learning. The Learning chapter should be relevant to your life as a student, and we've done our best to make it so.

New Research

A textbook should provide a complete tour of the classics, of course, but it should also dance on the cutting edge. We want you to see that psychology is not a museum piece—not just a collection of past events but also of current events—and that this young and evolving science has a place for you if you want it. So we've packed the third edition with information about what's happening in the field today. Not only have we included more than 400 new citations, but we've featured some of the hottest new findings in the “Hot Science” boxes that you'll find in every chapter.

CHAPTER NUMBER

HOT SCIENCE

1	Psychology as a Hub Science, p. 22
2	Do Violent Movies Make Peaceful Streets?, p. 42
3	Epigenetics and the Persisting Effects of Early Experiences, p. 81
4	Music Training: Worth the Time, p. 123
5	The Mind Wanders, p. 141
6	Sleep on It, p. 181
7	Dopamine and Reward Learning in Parkinson's Disease, p. 227
8	The Body of Evidence, p. 255
9	Dumber and Dumber?, p. 304
10	A Statistician in the Crib, p. 321
11	Personality on the Surface, p. 356
12	The Wedding Planner, p. 403
13	Can Discrimination Cause Stress and Illness?, p. 414
14	Optimal Outcome in Autism Spectrum Disorder, p. 466
15	"Rebooting" Psychological Treatment, p. 488

Fully Updated Coverage of *DSM-5*

One area where there has been a lot of new research—and lots of big changes—is in the study of psychological disorders. As you will learn, psychologists use a manual called the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* to make decisions about which behaviors should be formally considered “disordered.” For instance, we all get sad from time to time, but when should extreme sadness be classified as a psychological disorder that should be treated? The *DSM* answers questions like this. After nearly 20 years of using the fourth edition of the *DSM (DSM-IV)*, psychologists now have an updated fifth edition (*DSM-5*), which was just published in 2013. Psychologists have learned a lot about psychological disorders over the past 20 years, and this third edition of our book contains updated information about how psychologists think about, define, and classify psychological disorders.

New Organization

We've also rearranged our table of contents to better fit our changing sense of how psychology is best taught. Specifically, we've moved the chapter on Stress and Health forward so that it now appears before the chapters on Psychological Disorders and Treatment of Psychological Disorders. We think this improves the flow of the book in several ways. First, as you will learn, the experience of stress has a lot to do with interpersonal events and how we respond to them, information that you will have just learned about in the chapters on Personality and Social Psychology. Second, current models of psychological disorders view them as resulting from an interaction between some underlying predisposition (e.g., genetic or otherwise) and stressful life events. Such models will be much more intuitive if you first learn about the body's stress response. Third, this chapter has information about health-promoting behaviors that could come in handy during exam season, and moving the chapter forward ensures you'll learn about them before the end of the semester!

New Other Voices Feature

Long before psychologists appeared on Earth, the human nature business was dominated by poets, playwrights, pundits, philosophers, and several other groups beginning with P. Those folks are still in that business today, and they continue to have deep and original insights into how and why people behave as they do. In this edition, we decided to invite some of them to share their thoughts with you via a new feature that we call “Other Voices.” In several of the chapters, you will find a short essay by individuals who have three critical qualities: (a) They think deeply, (b) they write beautifully, and (c) they know things we don’t. For example, you will find essays by leading journalists David Brooks, Ted Gup, and Tina Rosenberg; essayist and cartoonist Tim Kreider; best-selling novelist Alice Randall; award-winning educators Linda Moore and Robert H. Frank; and renowned legal scholars Gustin Reichbach and Elyn Saks. And just to make sure we aren’t the only psychologists whose voices you hear, we’ve included essays by Tim Wilson, Chris Chabris, Daniel Simons, and Charles Fernyhough. Every one of these amazing people has something important to say about human nature, and we are delighted that they’ve agreed to say it in these pages. Not only do these essays encourage students to think critically about a variety of psychological issues, but they also demonstrate both the relevance of psychology to everyday life and the growing importance of our science in the public forum.

CHAPTER NUMBER

OTHER VOICES

2	Is Psychology a Science?, p. 50
3	Neuromyths, p. 89
5	A Judge’s Plea for Pot, p. 166
6	Early Memories, p. 202
8	Fat and Happy, p. 263
9	Americans’ Future Has to Be Bilingual, p. 283
10	You Are Going to Die, p. 344
12	91% of All Students Read This Box and Love It, p. 397
13	Freedom to Be Unhealthy?, p. 435
14	Successful and Schizophrenic, p. 463
15	Diagnosis: Human, p. 497

Less Still Is More: A Focus on Core Topics

Every teacher knows that it is easier to prepare an hour-long talk than a five-minute one. It is easy to carry on at great length about things you understand in great depth, but when asked to deliver a concise talk with a time restriction, you have to make hard decisions about what’s important, how it can be conveyed with interest, and how the benefit to the audience can be maximized. These are the same challenges we faced in writing *Psychology*, and even more so in writing this briefer text, *Introducing Psychology*. We found that in a briefer edition, you can’t say all the same things, but you can say them in the same way. For us, that meant retaining the aides, the touches of humor, and the broader story of psychology that is so important to understanding its influence. We have always felt that in presenting psychology to a new audience, we

have to ensure that the stories carry the facts, not vice versa. So, we have stayed true to the approach that so many found appealing in *Psychology*, asking our students to read, engage, think, and (we hope) enjoy their first encounter with psychology.

Additional Student Support

Practice

- *Cue questions* encourage critical thinking and help identify the most important concepts in every major section of the text.
- Research shows that regular, short quizzes improve memory, so a *Key Concept Quiz* follows each major section within the chapters.
- *Bulleted summaries* are included at the end of every chapter to reinforce key concepts and make it easier to study for the test.
- *Critical thinking questions* are offered throughout the chapters within a number of the photo captions, offering the opportunity to apply various concepts.

How do people respond when they know they're being observed?



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Practical Application

What would the facts and concepts of psychology be without real world application? And, culture influences just about everything we do—from how we perceive lines to how long we'll stand in them—and this edition continues to celebrate the rich diversity of human beings both in Culture & Community boxes and throughout the text, as detailed below.

According to the theory of natural selection, inherited characteristics that provide a survival advantage tend to spread throughout the population across generations. Why might sensory adaptation have evolved? What survival benefits might it confer to a predator trying to hunt prey?

CHAPTER NUMBER	THE REAL WORLD
1	The Perils of Procrastination, p. 4
1	Improving Study Skills, p. 6
2	Oddsly Enough, p. 41
3	Brain Plasticity and Sensations in Phantom Limbs, p. 76
4	Multitasking, p. 100
5	Drugs and the Regulation of Consciousness, p. 163
6	Is Google Hurting Our Memories?, p. 192
7	Understanding Drug Overdoses, p. 212
8	Jeet Jet?, p. 261
9	Look Smart, p. 296
10	Walk This Way, p. 326
11	Are There “Male” and “Female” Personalities?, p. 357
12	Making the Move, p. 388
15	Types of Psychotherapists, p. 479

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1	Analytics and Holistic Styles in Western and Eastern Cultures, p. 19
2	Best Place to Fall on Your Face, p. 31
4	Does Culture Influence Change Blindness?, p. 117
7	Are There Cultural Differences in Reinforcers?, p. 220
9	Does Culture Influence Optimism Bias, p. 291
11	Does Your Personality Change According to Which Language You're Speaking?, p. 366
12	Free Parking, p. 395
13	Land of the Free, Home of the ... Stressed?, p. 425
14	What Do Mental Disorders Look Like in Different Parts of the World?, p. 444
15	Treatment of Psychological Disorders around the World, p. 480

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Focus on Learning Outcomes

Teaching with the APA Learning Goals and Outcomes

In an effort to develop greater consensus on goals and learning outcomes for undergraduate education in psychology, the American Psychological Association (APA) created a task force on Undergraduate Psychology Major Competencies to provide a framework for educators. The task force subsequently published comprehensive recommendations in the *APA Guidelines for the Undergraduate Psychology Major*, revised for version 2.0 released in May 2013. These revised guidelines present a rigorous standard for what students should gain from foundational courses and from the psychology major as a whole. They comprise five goals relating to the following:

- Goal 1: Knowledge Base in Psychology
- Goal 2: Scientific Inquiry and Critical Thinking
- Goal 3: Ethical and Social Responsibility in a Diverse World
- Goal 4: Communication
- Goal 5: Professional Development

The intent of the APA Task Force is to provide overarching goals without dictating exactly how students and teachers should achieve them. In that spirit, Worth Publishers offers a wide variety of resources to support students and teachers in achieving the APA outcomes. Most important, a concordance of the content in *Introducing Psychology*, Third Edition, to the APA goals is available for download from the Resources area of LaunchPad at <http://www.macmillanhighered.com/launchpad/schacterbrief3e>. To assist with assessment, all of the items included in the Test Bank to accompany *Introducing Psychology*, Third Edition, are tagged to the relevant outcomes, and in addition, the Instructor's Resources and LaunchPad learning system feature a variety of activities and additional content items that contribute to the APA goals. All of these resources combined offer instructors a powerful set of tools for achieving their course outcomes.

Preparing for the MCAT 2015

From 1977 to 2014, the Medical College Admission Test (MCAT) focused on biology, chemistry, and physics, but starting with the test to be administered in 2015, 25 percent of its questions will cover “Psychological, Social, and Biological Foundations of Behavior,” with most of those questions concerning the psychological science taught in introductory psychology courses. According to the *Preview Guide for the MCAT 2015 Exam*, Second Edition, the addition of this content “recognizes the importance of socio-cultural and behavioral determinants of health and health outcomes.” The psychology material in the new MCAT covers the breadth of topics in this text, and the table below offers a sample of how the topics in this text’s Sensation and Perception chapter correspond precisely to the topics laid out in the *MCAT Preview Guide*. A complete correlation of the MCAT psychology topics with this book’s contents is available for download from the Resources area of LaunchPad at <http://www.macmillanhighered.com/launchpad/schacterbrief3e>. In addition, since the MCAT represents a global standard for assessing the ability to reason about scientific information, the Test Bank for *Introducing Psychology*, Third Edition, features a new set of data-based questions for each chapter that are designed to test students’ quantitative reasoning. These questions are available for preview in LaunchPad.

MCAT 2015 Category	SGWN, <i>Introducing Psychology</i> , Third Edition, Correlations	
Content Category 6A: Sensing the environment	Section Title or Topic	Page Number
Sensory Processing		
Sensation	Chapter 4: Sensation & Perception	95–130
• Thresholds	Measuring Thresholds	98–99
• Weber’s Law (PSY)	Measuring Thresholds	98–99
• Signal detection theory (PSY)	Signal Detection	99
• Sensory adaptation	Sensory Adaptation	100–101
• Sensory receptors	Sensation & Perception are Distinct Activities	96–101
	Vision I: How the Eyes and Brain Convert Light Waves to Neural Signals	101–103
	Touch	123–124
• Sensory pathways	Pathways for What, Where, and How	108
	Touch	123–124
• Types of sensory receptors	The Body Senses	123–126
	Vision I: How the Eyes and Brain Convert Light Waves to Neural Signals	101
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Structure and function of the eye	The Human Eye	102–104
Visual processing	Vision II: Recognizing What We Perceive	109–117
• Visual pathways in the brain	The Visual Brain	106–108
• Parallel processing (PSY)	The Visual Brain	106–108
• Feature detection (PSY)	The Visual Brain	106–108
Hearing		
Auditory processing	Audition: More Than Meets the Ear	118–122
• Auditory pathways in the brain	Perceiving Pitch	120–121
Sensory reception by hair cells (PSY)	The Human Ear	119–120

MCAT 2015 Category**SGWN, *Introducing Psychology*, Third Edition, Correlations**

Content Category 6A: Sensing the environment	Section Title or Topic	Page Number
Other Senses (PSY, BIO)		
Somatosensation	The Chemical Senses: Adding Flavor	127–130
• Pain perception (PSY)	Pain	124–125
Taste	Taste	129–130
• Taste buds/chemoreceptors that detect specific chemicals	Taste	129–130
Smell	Smell	127–129
• Olfactory cells/chemoreceptors that detect specific chemicals	Smell	127–129
• Olfactory pathways in the brain (BIO)	The Chemical Senses: Adding Flavor	127–130
Kinesthetic sense	Body Position, Movement, Balance	125–126
Vestibular sense	Body Position, Movement, Balance	125–126
Perception		
Perception	Chapter 4 (mentioned throughout)	95–130
• Bottom-up/Top-down processing	Pain	124–125
	Smell	127–129
• Perceptual organization (e.g., depth, form, motion, constancy)	Vision II: Recognizing What We Perceive	109–117
• Gestalt principles	Vision II: Recognizing What We Perceive	109–117

Media and Supplements

LaunchPad with LearningCurve Quizzing

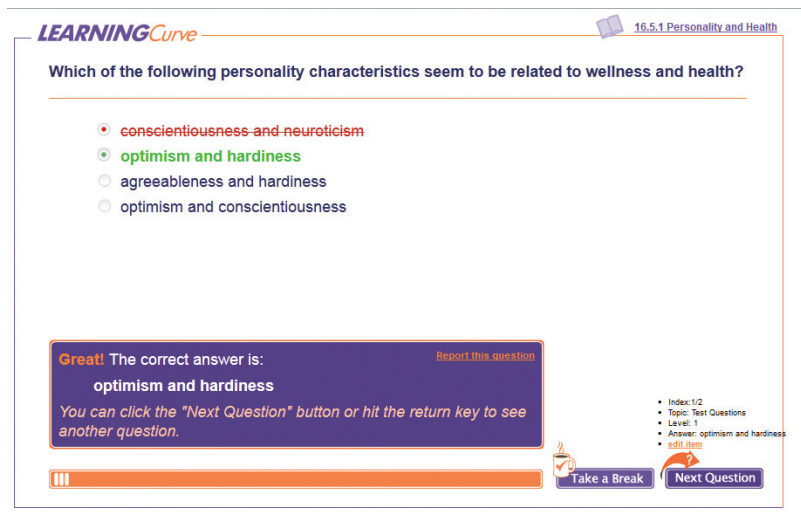
A comprehensive Web resource for teaching and learning psychology

LaunchPad combines Worth Publishers' award-winning media with an innovative platform for easy navigation. For students, it is the ultimate online study guide with rich interactive tutorials, videos, e-Book, and the LearningCurve adaptive quizzing system. For instructors, LaunchPad is a full course space where class documents can be posted, quizzes are easily assigned and graded, and students' progress can be assessed and recorded. Whether you are looking for the most effective study tools or a robust platform for an online course, LaunchPad is a powerful way to enhance your class.

LaunchPad to accompany *Introducing Psychology*, Third Edition, can be previewed and purchased at <http://www.macmillanhigher.com/launchpad/schacterbrief3e>.

Psychology, Third Edition, and LaunchPad can be ordered together with ISBN-10: 1-319-01490-9 / ISBN-13: 978-1-319-01490-2.

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- The **LearningCurve** quizzing system was designed based on the latest findings from learning and memory research. It combines adaptive question selection, immediate and valuable feedback, and a gamelike interface to engage students in a learning experience that is unique to them. Each LearningCurve quiz is fully integrated with other resources in LaunchPad through the Personalized Study Plan, so students will be able to review with Worth's extensive library of videos and activities. And state-of-the-art question analysis reports allow instructors to track the progress of individual students as well as their class as a whole.

- New! **Data Visualization Exercises** offer students practice in understanding and reasoning about data.

In each activity, students interact with a graph or visual display of data and must think like a scientist to answer the accompanying questions. These activities build quantitative reasoning skills and offer a deeper understanding of how science works.

- **An interactive e-Book** allows students to highlight, bookmark, and make their own notes, just as they would with a printed textbook. Google-style searching and in-text glossary definitions make the text ready for the digital age.
- **Concept Practice**, created by award-winning multimedia author Thomas Ludwig (Hope College), helps students solidify their understanding of key concepts. With these in-depth tutorials, students explore a variety of important topics, often in an experimental context, in the role of either researcher or subject. Tutorials combine animations, video, illustrations, and self-assessment.
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- **Investigations** offer an interactive lab experience that fortifies the most important concepts and content of introductory psychology. In these activities, students participate in classic and contemporary experiments, generating real data, and they review the broader implications of those findings. A virtual host makes this a truly interactive experience.
- **The Scientific American Newsfeed** delivers weekly articles, podcasts, and news briefs on the very latest developments in psychology from the first name in popular science journalism.
- **Deep integration** is available between LaunchPad products and Blackboard, Brightspace by D2L, Canvas, and Moodle. These deep integrations offer educators single sign-on and gradebook sync now with auto refresh. Also, these

best-in-class integrations offer deep linking to all Macmillan digital content at the chapter and asset level, giving professors ultimate flexibility and customization capability within their LMS.

Additional Student Supplements

- The **CourseSmart e-Book** offers the complete text of *Introducing Psychology*, Third Edition, in an easy-to-use format. Students can choose to purchase the CourseSmart e-Book as an online subscription or download it to a personal computer or a portable media player, such as a smartphone or iPad. The CourseSmart e-Book for *Introducing Psychology*, Third Edition, can be previewed and purchased at www.coursesmart.com.
- ***Pursuing Human Strengths: A Positive Psychology Guide*** by Martin Bolt of Calvin College is a perfect way to introduce students to the amazing field of positive psychology as well as to allow them to discover their own personal strengths.
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- Worth Publishers supports multiple Course Management Systems with enhanced cartridges for upload into Blackboard, Canvas, Angel, Brightspace by D2L, Sakai, and Moodle. Cartridges are provided free upon adoption of *Introducing Psychology*, Third Edition, and can be downloaded from Worth's online catalog at www.worthpublishers.com. Deep integration is also available between LaunchPad products and Blackboard, Brightspace by D2L, Canvas, and Moodle. These deep integrations offer educators single sign-on and gradebook sync now with auto refresh.

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Psychology, 3rd Ed. & *Scientific American* Reader
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Psychology, 3rd Ed. & *Psychology and the Real World*
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Assessment

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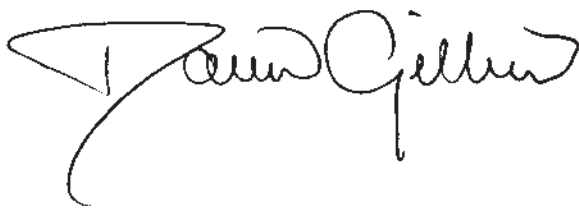
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Daniel L. Schacter



Daniel T. Gilbert



Matthew Nock

Cambridge, 2014



1

🕒 **Psychology's Roots: The Path to a Science of Mind**

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From the Brain to the Mind: The French Connection

Structuralism: From Physiology to Psychology

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The Growing Role of Women and Minorities

What Psychologists Do: Research Careers

The Variety of Career Paths

HOT SCIENCE Psychology as a Hub Science

Psychology: Evolution of a Science

A lot was happening in 1860. Abraham Lincoln had just been elected president of the United States, the Pony Express had just begun to deliver mail between Missouri and California, and a woman named Anne Kellogg had just given birth to a child who would one day grow up to invent the cornflake. But none of this mattered very much to William James (1842–1910), a brilliant but taciturn 18-year-old who loved philosophy, science, art, and music, but who had no idea what to do with his life. Like many young people faced with similar decisions, William decided to do something in which he had little interest but of which his family heartily approved: He decided to become a doctor. Alas, within a few months after arriving at Harvard Medical School, he found himself depressed and uninspired. So he put his medical studies on hold and took off for Europe, where he learned about a new field that was using modern, scientific methods to answer age-old questions about human nature. That field was called *psychology* (from a combination of the Greek *psyche* [soul] and *logos* [to study]). Excited about this new discipline, William returned to America, finished his medical degree, and became a professor at Harvard University, where he devoted the rest of his life to philosophy and psychology. His landmark book, *The Principles of Psychology*, is still widely read today and remains one of the field's most important and influential works (James, 1890).

Throughout his youth, William James (1842–1910) seemed seriously mixed up. He began college as a chemistry major, then switched to anatomy, and then traveled to Europe, where he became interested in the new science of psychology. Luckily for us, he stuck with it for a while.



Left to right: William James from various correspondence and photograph album, 1885–1925. MS-Am. 1082. (118) 46; Photograph Library, Harvard University

psychology The scientific study of mind and behavior.

mind The private inner experience of perceptions, thoughts, memories, and feelings.

behavior Observable actions of human beings and nonhuman animals.

Keith Jarrett is a virtuoso who has been playing piano for more than 60 years. Compared to the brain regions of a novice, those that control Jarrett's fingers are relatively *less* active when he plays.



Jacques Munch/AP/Getty Images

Emotions allow us to react quickly to potentially dangerous events. For example, fear leads many animals to freeze so that their enemies can't see them—as it did these young women who were touring a “haunted house” in Niagara Falls.



CB2/ZOBWEN.com/Newscom

Psychology is the scientific study of mind and behavior. The **mind** refers to the private inner experience of perceptions, thoughts, memories, and feelings, an ever-flowing stream of consciousness. **Behavior** refers to observable actions of human beings and nonhuman animals, the things that we do in the world—by ourselves or with others. As you will see in the chapters to come, psychology is an attempt to use scientific methods to address fundamental questions about mind and behavior that have puzzled people for millennia. The answers to these questions would have astonished William James. Let's take a look at three key examples:

1. Where does the mind come from?

For thousands of years, philosophers tried to understand how the objective, physical world of the body was related to the subjective, psychological world of the mind. Today, psychologists know that all of our subjective experiences arise from the electrical and chemical activities of our brains. As you will see throughout this book, some of the most exciting developments in psychological research focus on how our perceptions, thoughts, memories, and feelings are related to activity in the brain. Psychologists and neuroscientists are using new technologies to explore this relationship in ways that would have seemed like science fiction only 20 years ago.

For example, the technique known as *functional magnetic resonance imaging* (fMRI) allows scientists to scan a brain to determine which parts are active when a person reads a word, sees a face, learns a new skill, or remembers a personal experience. In a recent study, the brains of both professional and novice pianists were scanned as they made complex finger movements, like those involved in piano playing. The results showed that professional pianists have *less* activity than novices in the parts of the brain that guide these finger movements (Krings et al., 2000). This finding suggests that extensive practice at the piano changes the brains of professional pianists and that the regions controlling finger movements operate more efficiently for them than they do for novices. You'll learn more about how the brain learns in the Memory and Learning chapters, and you'll see in the coming chapters how studies using fMRI and related techniques are beginning to transform many different areas of psychology.

2. What is the mind for?

Human beings are animals, and like all animals, they must survive and reproduce. Minds help us accomplish those goals. For example, the ability to sense and perceive allows us to recognize our families, see predators before they see us, and avoid stumbling into oncoming traffic. Our linguistic abilities allow us to organize our thoughts and communicate them to others. Our ability to remember allows us to avoid solving the same problems every time we encounter them. Our capacity for emotion allows us to react quickly to events that have life or death significance. The list goes on, but the point is that each of these psychological processes serves a purpose or, as William James would have said, each “has a function.” That function becomes quite obvious the moment the process stops working. Consider, for example, the function of emotions.

Elliot was a middle-aged husband and father with a good job when his doctor discovered a tumor in the middle of his brain (Damasio, 1994). Surgery to remove the tumor both saved his life and ruined it. Why? Because after the surgery, Elliot had a hard time making decisions. He couldn't prioritize tasks at work because he couldn't decide what to do first. Eventually, this problem led to his being fired, which led to a series of risky business ventures, which led to bankruptcy. His wife divorced him, he married again, and his second wife divorced him too.

Why was Elliot unable to make decisions after having brain surgery? After all, his intelligence was intact, and his ability to speak, think, and solve logical problems was every bit as sharp as ever. The problem, it turned out, was that Elliot was no longer able to experience emotions

because the surgery to remove the tumor disrupted a part of Elliot's brain tucked deep in the frontal lobes that plays a role in emotional experience (for further discussion of Elliot, see Chapter 9). For example, he didn't experience anger when his boss gave him the pink slip, anxiety when he risked his life savings, or sorrow when his wives packed up and left. Most of us have wished from time to time that we could be as stoic and unflappable as that; after all, who needs anxiety, sorrow, and anger? The answer is that we all do.

3. *Why does the mind fail?*

The mind is an amazing machine that can do many things quickly and well. We can guide a car through heavy traffic while talking to the person sitting next to us while keeping our eye out for the restaurant while listening to music. But like all machines that do many things at once, the mind occasionally makes mistakes. Consider these entries from the diaries of people who volunteered to keep track of all the mistakes they made in an ordinary day (Reason & Mycielska, 1982, pp. 70–73):

- I meant to get my car out, but as I passed the back porch on my way to the garage, I stopped to put on my boots and gardening jacket as if to work in the yard.
- I put some money into a machine to get a stamp. When the stamp appeared, I took it and said, "Thank you."
- On leaving the room to go to the kitchen, I turned the light off, although several people were there.

These mistakes are familiar and amusing, but they are also potentially useful clues about the way the mind works. For example, the person who bought a stamp said, "Thank you," but she did not say, "How do I find the subway?" The person said the wrong thing but did not say just *any* wrong thing: rather, the comment was simply wrong in that particular context (when buying stamps from a machine), but it would have been right in another (when buying stamps from a person). This tells us something quite interesting about the mind—namely, that it relies on well-learned habits that it executes without fully considering the context. The mind's mistakes are interesting to a psychologist primarily because they tell us so much about how the mind operates. (See the Real World box on procrastination).

nativism The philosophical view that certain kinds of knowledge are innate or inborn.

Mistakes can teach us a lot about how people think . . . or fail to think, as the case may be.



AP Photo/Kalamazoo Gazette, Jill McLane Baker

Psychology's Roots: The Path to a Science of Mind

Psychology is a young science. William James once noted that "[t]he first lecture in psychology that I ever heard was the first I ever gave" (quoted in Perry, 1996, p. 228). Of course, that doesn't mean no one had ever thought about human nature before psychology came along. For more than 2,000 years, philosophers have thought deeply and carefully about many of the issues with which modern psychology is concerned.

Psychology's Ancestors: The Great Philosophers

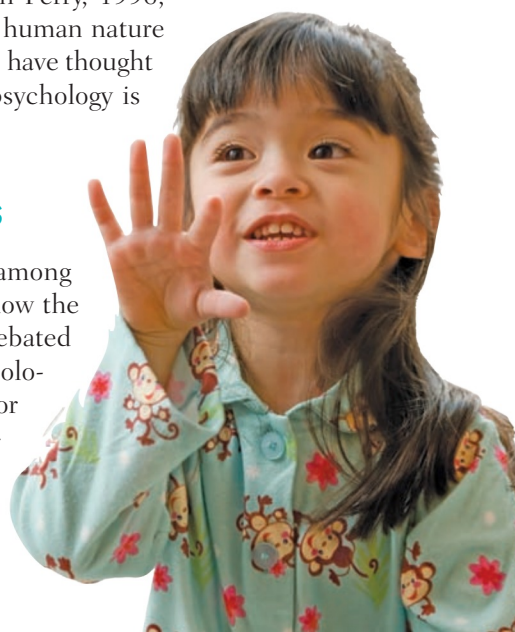
Plato (428 BCE–347 BCE) and Aristotle (384 BCE–322 BCE) were among the first philosophers to struggle with fundamental questions about how the mind works (Robinson, 1995). They and other Greek philosophers debated



What fundamental question has puzzled philosophers for millennia?

many of the questions that psychologists continue to debate today. For example, Plato was a strong proponent of **nativism**, the view that certain kinds of knowledge are innate or inborn. Aristotle, on the

How do young children learn about the world? Plato believed that certain kinds of knowledge are innate, whereas Aristotle believed that the mind is a blank slate on which experiences are written.



Geo Martinez/Feature Pics

The Real World

The Perils of Procrastination

William James understood that the human mind and human behavior are fascinating in part because they are not error free. Let's consider a malfunction that can have significant consequences in your own life: procrastination.

At one time or another, most of us have avoided carrying out a task or we have put it off to a later time. The task may be unpleasant, difficult, or just less entertaining than other things we could be doing at the moment. For college students, procrastination can affect a range of academic activities, such as writing a term paper or preparing for a test.

Some procrastinators defend the practice by claiming that they tend to work best under pressure or by noting that as long as a task gets done, it doesn't matter all that much if it is completed just before the deadline. Is there any merit to such claims, or are they just feeble excuses for counterproductive behavior?

A study of 60 undergraduate psychology college students provided some intriguing answers (Tice & Baumeister, 1997). At the beginning of the semester, the instructor announced a due date for the term paper and told students that if they could not meet the date, they would receive an extension to a later date. About a month later, students completed a scale that measures tendencies toward procrastination. At that same time and then again during the last week of class, students recorded health symptoms and levels of stress that they had experienced during the past week.

Students who scored high on the procrastination scale tended to turn in their papers late. One month into the semester, these procrastinators reported less stress and fewer symptoms of physical illness than did nonprocrastinators.

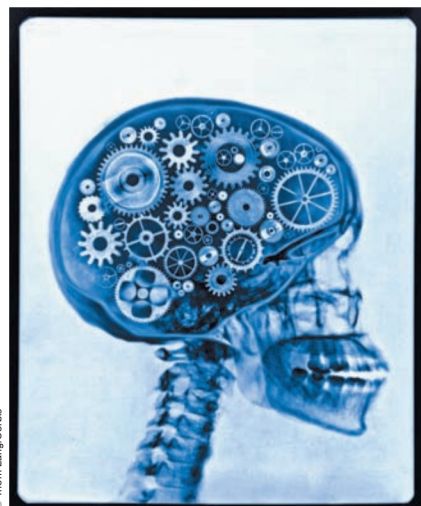
But at the end of the semester, the procrastinators reported more stress and more health symptoms than did the nonprocrastinators, and the procrastinators also reported more visits to the health center. The procrastinators also received lower grades on their papers and on course exams. More recent studies have found that higher levels of procrastination are associated with

poorer academic performance (Moon & Illingworth, 2005) and higher levels of psychological distress (Rice, Richardson, & Clark, 2012). Therefore, in addition to making use of the tips provided in the Real World box on improving study skills (p. 6), you would be wise to avoid procrastination in this course and others.



philosophical empiricism The view that all knowledge is acquired through experience.

Rene Descartes believed that the physical body was a container for the non-physical thing called the mind. Centuries later, the philosopher Gilbert Ryle (1949) argued that Descartes was wrong, that there is no “ghost in the machine,” and that all mental activity is simply the result of the physical activity of the brain. Most modern scientists reject Descartes’s “dualism” and embrace Ryle’s “scientific materialism.”



© Thom Lang/Corbis

other hand, believed that the child's mind was a “blank slate” on which only experience could write, and he was a strong proponent of what we now call **philosophical empiricism**, *the view that all knowledge is acquired through experience*. Interestingly, the debate between these two great thinkers is still alive today as modern psychologists work to understand the roles that “nature” and “nurture” play in determining our thoughts, feelings, and actions. The main difference is that whereas Plato and Aristotle were quite good at formulating positions, they couldn't settle their debates because they had no objective means of testing those positions. As you will see in the Methods chapter, the ability to devise a theory and then test it is the cornerstone of the scientific approach that separates psychology and philosophy.

From the Brain to the Mind: The French Connection

We all know that the brain and the body are physical objects that we can see and touch; we also know that the subjective contents of our minds—our perceptions, thoughts, and feelings—are not visible or tangible. Inner experience is perfectly real, but where in the world is it? French philosopher René Descartes (1596–1650) argued that body and mind are fundamentally different things—that the body is made of a material substance, whereas the mind (or soul) is made of an immaterial or spiritual substance. But if the mind and the body are different things made of different substances, then how do they interact? How does the mind tell the body to put its foot forward, and when the body steps on a rusty nail, why does the mind say, “Ouch!”? This is the problem of *dualism*, or how mental activity can be reconciled and coordinated with physical behavior.

These kinds of questions proved to be difficult to answer, and the British philosopher Thomas Hobbes (1588–1679) argued that the reason they were difficult is that they were defective questions to begin with. The mind and body aren't different things at all, he claimed. Rather, the mind *is* what the brain *does*. From Hobbes's perspective,

looking for a “place” where the mind meets the body is like looking for the place where heat and fire meet. It sounds like a sensible question only if you don’t think too much about it! The best support for Hobbes’s view came centuries later, when physicians discovered that specific changes in the brain led to specific changes in the mind. For example, the French surgeon Paul Broca (1824–1880) worked with a patient known as Monsieur Leborgne, who had suffered damage to a small part of the left side of the brain (now known as *Broca’s area*). Leborgne was virtually unable to speak and could utter only the single syllable “tan.” And yet, he understood everything that was said to him and was able to communicate using gestures. Broca had the crucial insight that damage to a specific part of the brain impaired a specific psychological function, demonstrating clearly that our mental lives are the products of the physical workings of one of the body’s major organs: the brain. This may seem obvious to you now, but it was a radical idea in the 19th century when most people believed, as Descartes had, that the mind and the body are different things made of different substances and obeying different rules.

How did work involving patients with brain damage help demonstrate the relationship between mind and brain?

Structuralism: From Physiology to Psychology

In an 1867 letter to a friend, William James wrote, “It seems to me that perhaps the time has come for psychology to begin to be a science. Helmholtz and a man called Wundt at Heidelberg are working at it.” So who were these guys?

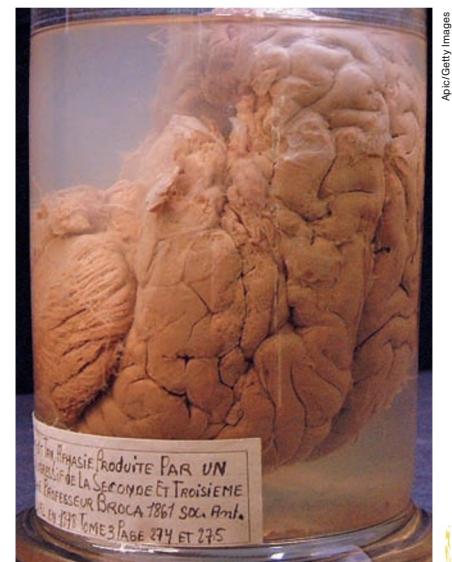
Hermann von Helmholtz (1821–1894) was a physiologist who had developed a method for measuring the speed of nerve impulses. He gave participants a mild electric shock on different parts of their bodies and then recorded their **reaction times**, or *the time it takes to respond to a specific stimulus*. Helmholtz found that people generally took longer to respond when he shocked their toes than when he shocked their thighs. He concluded that it must take longer for the nerve impulse to travel from the toe to the brain than from the thigh to the brain because the toe is farther away from the brain. And because he knew exactly how much farther away it was, he knew exactly how fast a nerve impulse could travel! These results were astonishing to 19th-century scientists because, at that time, just about everyone thought that mental processes occurred instantaneously. Helmholtz not only showed that this wasn’t true, but he also showed that something as simple as a

What was the useful application of Helmholtz’s results?

reaction time could help scientists unravel the mysteries of the brain and mind.

The other fellow whom William James admired was Wilhelm Wundt (1832–1920), who had been a student of Helmholtz’s. Wundt taught the first formal course in psychology in 1867 at the University of Heidelberg, and he opened the first psychology laboratory in 1879 at the University of Leipzig. Wundt believed that psychology should focus on analyzing **consciousness**, *a person’s subjective experience of the world and the mind*. Wundt noted that chemists try to understand the structure of matter by breaking down natural substances into basic elements, and so he developed an approach to psychology known as **structuralism**, *the analysis of the basic elements that constitute the mind*. Wundt made good use of reaction times, as his mentor had taught him to do,

How did the work of chemists influence early psychology?



Mr. Leborgne was nicknamed “Tan” because it was the only word he could say. When he died in 1861, Paul Broca dissected his brain and found a lesion in the left hemisphere which, he concluded, had been responsible for Leborgne’s loss of speech. Today, Leborgne’s brain lives in a jar at the Musée Dupuytren in Paris, France. And to this day, no one knows his first name.

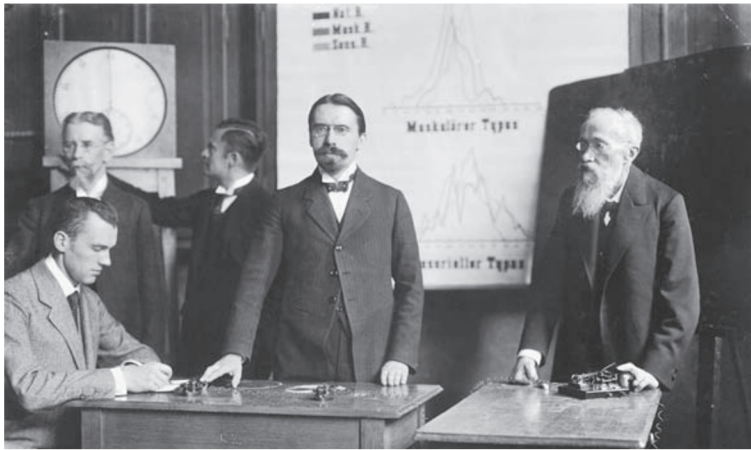
reaction time The amount of time taken to respond to a specific stimulus.

consciousness A person’s subjective experience of the world and the mind.

structuralism The analysis of the basic elements that constitute the mind.

By measuring a person’s reaction times to different stimuli, Hermann von Helmholtz (1821–1894) estimated the length of time it takes a nerve impulse to travel to the brain.





Wilhelm Wundt (1832–1920), far right, founded the first laboratory devoted exclusively to psychology at the University of Leipzig in Germany. He sought to understand consciousness by breaking it down into its basic parts, including individual sensations and feelings.

but his primary research method involved **introspection**, which is *a method that asks people to report on the contents of their subjective experience*. In a typical experiment, Wundt's participants were exposed to a color or a sound and were simply asked to describe its brightness or its loudness. By analyzing the relationship between different aspects of these verbal reports, Wundt hoped to discover the basic elements of conscious experience.

James and the Functional Approach

William James agreed with Wundt on the importance of immediate experience and the usefulness of introspection as a technique (Bjork, 1983). But he disagreed with Wundt's claim that consciousness could be broken down into

separate elements. James believed that trying to isolate and analyze a particular moment of consciousness was absurd because consciousness was like a flowing stream that could only be understood in its entirety. Furthermore, he felt that Wundt was asking the wrong question: He was asking what consciousness was *made of* rather than

The Real World

Improving Study Skills

Our minds don't work like video cameras, recording everything that happens and then faithfully storing the information. In order to retain new information, you need to take an active role in learning by doing such things as rehearsing, interpreting, and testing yourself. These activities initially might seem difficult, but in fact they are what psychologists call *desirable difficulties* (Bjork & Bjork, 2011): Making an activity more difficult by actively engaging during learning will increase your retention and ultimately result in improved performance. Here are four specific suggestions:

- **Rehearse.** One useful type of active manipulation is rehearsal: repeating to-be-learned information to yourself. For example, suppose you want to learn the name of a person you've just met. Repeat the name to yourself right away; wait a few seconds and think of it again; wait a bit longer (maybe 30 seconds), and bring the name to mind once more; then rehearse the name again after a minute and once more after 2 or 3 minutes. This type of spaced rehearsal improves long-term learning more than rehearsing the name without any spacing between rehearsals (Landauer & Bjork, 1978). You can apply this technique to names, dates, definitions, and many other

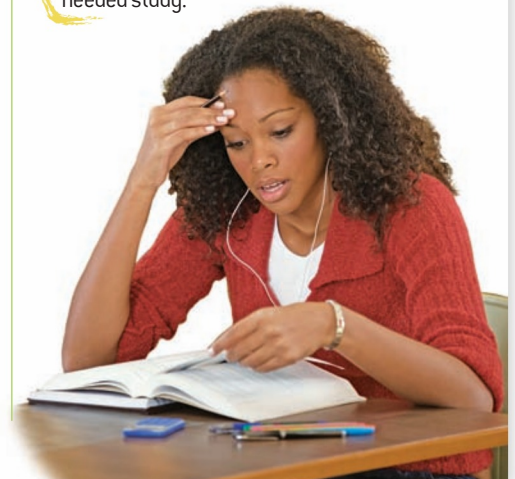
kinds of information, including concepts presented in this textbook.

- **Interpret.** If we think deeply enough about what we want to remember, the act of reflection itself will virtually guarantee good memory. The Changing Minds scenarios at the end of each chapter require you to review what you've learned in the chapter and to relate it to other things you already know about, which in turn will make you more likely to remember the information.
- **Test.** Don't just look at your class notes or this textbook; test yourself on the material as often as you can. Actively testing yourself helps you to later remember that information more than just looking at it again. The Cue Questions that you will encounter throughout the text (highlighted by green question marks) are designed to test you and thereby increase learning and retention. Be sure to use them.
- **Hit the main points.** Take some of the load off your memory by developing effective note-taking and outlining skills. Realize that you can't write down everything an instructor says, so try to focus on making detailed notes about the main ideas, facts, and people mentioned in the lecture. Later, organize your

notes into an outline that clearly highlights the major concepts. This will force you to reflect on the information in a way that promotes retention and will also provide you with a helpful study guide to promote self-testing and review.

These four activities may seem difficult or demanding at first, but they will result in improved retention and ultimately will make learning easier for you.

Anxious feelings about an upcoming exam may be unpleasant, but as you've probably experienced yourself, they can motivate much-needed study.





How does functionalism relate to Darwin's theory of natural selection?

what consciousness was for. So James developed an approach now known as **functionalism**, which is *the study of the purpose that mental processes serve*. (See

the Real World box for some strategies to enhance one of the functions of mental processes—learning.)

James was inspired not only by Helmholtz and Wundt, but also by the naturalist Charles Darwin (1809–1882), who had recently published a groundbreaking book on the theory of evolution. In that book, Darwin proposed the principle of **natural selection**: *The features of an organism that help it survive and reproduce are more likely than other features to be passed on to subsequent generations*. James realized that like all other animals, human beings must avoid predators, locate food, build shelters, attract mates, and so on. Applying Darwin's principle of natural selection, James (1890) reasoned that the ultimate function of all psychological processes must be to help people survive and reproduce, and he suggested that psychology's mission should be to find out exactly how different psychological processes execute that function. James's arguments attracted much attention, and by the 1920s, functionalism was the dominant approach to psychology in North America.



Yuri Kuzbunov/AFP/Getty Images

You don't have to look at this photo for more than a half-second to know that Vladimir Putin, the president of Russia, is not feeling very happy. William James suggested that your ability to read emotional expressions in an instant serves an important function that promotes your survival and well-being.

SUMMARY QUIZ [1.1]

- In the 1800s, Paul Broca conducted research that demonstrated a connection between
 - animals and humans.
 - the mind and the brain.
 - brain size and mental ability.
 - skull indentations and psychological attributes.
- What was the subject of the famous experiment conducted by Hermann von Helmholtz?
 - reaction time
 - childhood learning
 - structuralism
 - functions of specific brain areas
- Wundt and his students sought to analyze the basic elements that constitute the mind, an approach called
 - consciousness.
 - introspection.
 - structuralism.
 - objectivity.
- William James developed _____, the study of the purpose mental processes serve in enabling people to adapt to their environments.
 - empiricism
 - nativism
 - structuralism
 - functionalism

introspection The subjective observation of one's own experience.

functionalism The study of the purpose mental processes serve in enabling people to adapt to their environment.

natural selection Charles Darwin's theory that the features of an organism that help it survive and reproduce are more likely than other features to be passed on to subsequent generations.

The Development of Clinical Psychology

While experimental psychologists were busy developing structuralism and functionalism, clinical psychologists were busy helping and studying people with mental disorders, and the observations of these clinical psychologists had an important influence on the development of psychology.



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In this photograph, Sigmund Freud (1856–1939) sits by the couch reserved for his psychoanalytic patients, where they would be encouraged to recall past experiences and bring unconscious thoughts into awareness.

The Path to Freud and Psychoanalytic Theory

In the mid-19th century, the French physician Jean-Martin Charcot (1825–1893) became interested in studying patients who had developed an unusual condition then known as **hysteria**, which is a *temporary loss of cognitive or motor functions, usually as a result of emotionally upsetting experiences*. Some of these patients were blind, some were paralyzed, and others were unable to remember their pasts—and yet, there was no obvious physical cause for any of these symptoms. Charcot discovered that when he put these patients into a trancelike state by using hypnosis, their symptoms disappeared—the blind could see, the paralyzed could walk, and the amnesiac could remember! But after coming out of their trances, their symptoms reappeared. In short, patients in a normal waking state and a trancelike hypnotic state behaved like two different people.

Charcot's striking observations made a big impression on a young physician from Vienna, Austria, named Sigmund Freud (1856–1939). Freud theorized that hysteria was caused by painful childhood experiences that the patient could not remember. Freud suggested that these memories resided in the **unconscious**, which is *the part of the mind that operates outside of awareness but that influences thoughts, feelings, and actions*. This idea led Freud to develop **psychoanalytic theory**, an approach that

emphasizes the importance of unconscious mental processes in shaping feelings, thoughts, and behaviors. Psychoanalytic theory formed the basis for a therapy that Freud called **psychoanalysis**, which focuses on *bringing unconscious material into conscious awareness to better understand psychological disorders*. Freud's theory suggested that the key to curing psychological problems was to help people remember the early experiences that were causing those problems. During psychoanalysis, patients were led to recall past experiences (“When I was a toddler, I was frightened by a masked man on a black horse”) and to articulate their dreams and fantasies (“Sometimes I close my eyes and imagine not having to pay for this session”). Making unconscious material conscious was the key to the psychoanalytic cure.

By the early 1900s, Freud's ideas had attracted a large number of followers in Europe, including soon-to-be-famous psychologists such as Carl Gustav Jung (1875–1961) and Alfred Adler (1870–1937). But his ideas were quite controversial in America because they suggested that understanding mental life required a thorough exploration of a person's early sexual experiences and unconscious sexual desires—topics that in those days were considered far too racy for discussion. In addition, Freud and most of his followers were physicians who neither conducted psychological experiments in the laboratory nor held positions at universities, so their ideas developed in isolation from the more academic and research-based approaches of people like William James.



How was Freud influenced by work with hysteric patients?

hysteria A temporary loss of cognitive or motor functions, usually as a result of emotionally upsetting experiences.

unconscious The part of the mind that operates outside of conscious awareness but influences conscious thoughts, feelings, and actions.

psychoanalytic theory An approach that emphasizes the importance of unconscious mental processes in shaping feelings, thoughts, and behavior.

psychoanalysis A therapeutic approach that focuses on bringing unconscious material into conscious awareness to better understand psychological disorders.



This famous psychology conference, held in 1909 at Clark University, brought together many notable figures, such as William James and Sigmund Freud. Both men are circled, with James on the left.

Influence of Psychoanalysis and the Humanistic Response

Most historians consider Freud to be one of the most influential thinkers of the 20th century, and the psychoanalytic movement influenced everything from literature and history to politics and art. Within psychology, psychoanalysis had its greatest impact on clinical practice, but that influence has been considerably diminished over the past 40 years. This is partly because Freud's ideas were difficult to test, and a theory that can't be tested is of limited interest to scientists. But it was also because Freud's vision of human nature was such a dark one, emphasizing limitations and problems rather than possibilities and potentials. He saw people as hostages to their forgotten childhood experiences and primitive sexual impulses, and the inherent pessimism of his perspective frustrated those psychologists who had a more optimistic view of human nature.

That's why in the second half of the 20th century, psychologists such as Abraham Maslow (1908–1970) and Carl Rogers (1902–1987) pioneered a new movement called **humanistic psychology**, *an approach to understanding human nature that emphasizes the positive potential of human beings*. Humanistic psychologists focused on the highest aspirations that people had for themselves. Rather than viewing people as prisoners of events in their remote pasts, humanistic psychologists viewed people as free agents who have an inherent need to develop, grow, and attain their full potential. This movement reached its peak in the 1960s when a generation of “flower children” found it easy to see psychological life as a kind of blossoming of the spirit. Humanistic therapists sought to help people realize their full potential; in fact, such therapists called them *clients* rather than *patients*. In this relationship, the therapist and the client (unlike the psychoanalyst and the patient) were on equal footing. The development of the humanistic perspective was one more reason why Freud's ideas eventually became less influential.

humanistic psychology An approach to understanding human nature that emphasizes the positive potential of human beings.

Humanistic psychology offered a positive view of human nature that matched the zeitgeist of the 1960s.

Why are Freud's ideas less influential today?

