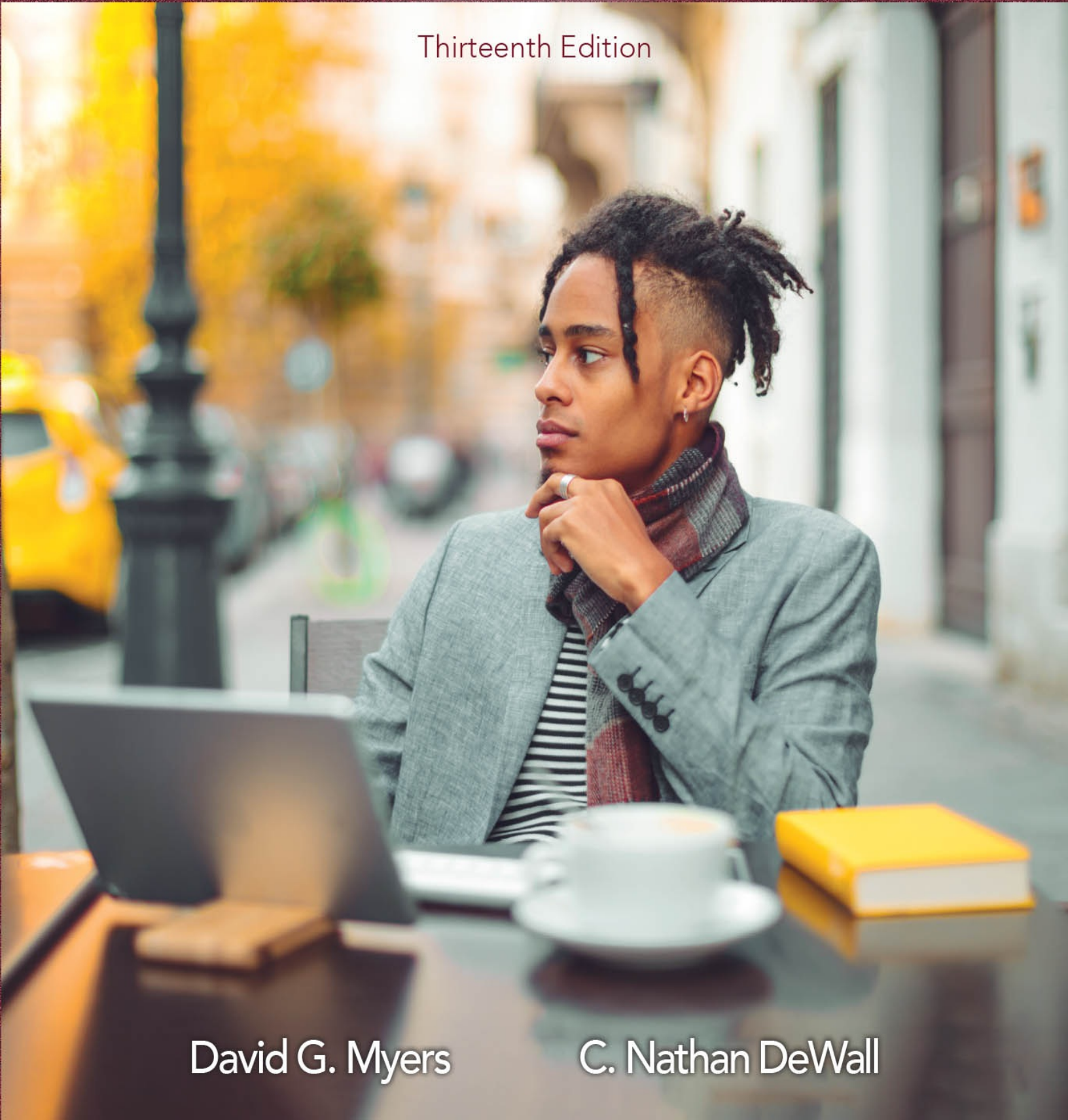


PSYCHOLOGY

Thirteenth Edition



David G. Myers

C. Nathan DeWall

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Thirteenth Edition

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Psychology

THIRTEENTH EDITION

David G. Myers

Hope College
Holland, Michigan

C. Nathan DeWall

University of Kentucky
Lexington, Kentucky



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To John Sargent, with gratitude for his enduring friendship and support, and his
example of progressive corporate leadership.

DM

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To Barb Gillilan: A loving aunt, skilled nurse, and inspiration to many.

ND

About the Authors



Photographer Steven Herppich,
courtesy of Hope College Public
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David Myers received his B.A. in chemistry from Whitworth University, and his psychology Ph.D. from the University of Iowa. He has spent his career at Michigan's Hope College, where he has taught dozens of introductory psychology sections. Hope College students have invited him to be their commencement speaker and voted him "outstanding professor." His research and writings have been recognized by the Gordon Allport Intergroup Relations Prize, an Honored Scientist award from the Federation of Associations in Behavioral & Brain Sciences, an Award for Distinguished Service on Behalf of Social-Personality Psychology, a Presidential Citation from APA Division 2, election as an American Association for the Advancement of Science Fellow, and three honorary doctorates.

With support from National Science Foundation grants, Myers' scientific articles have appeared in three dozen scientific periodicals, including *Science*, *American Scientist*, *Psychological Science*, and *American Psychologist*. In addition to his scholarly and textbook writing, he digests psychological science for the general public. His writings

have appeared in four dozen magazines, from *Today's Education* to *Scientific American*. He has authored five general audience books, including *The Pursuit of Happiness* and *Intuition: Its Powers and Perils*. And he blogs about psychology and life at TalkPsych.com.

David Myers has chaired his city's Human Relations Commission, helped found a thriving assistance center for families in poverty, and spoken to hundreds of college, community, and professional groups worldwide.

Drawing on his experience, he also has written articles and a book (*A Quiet World*) about hearing loss, and he is advocating a transformation in American assistive listening technology (see HearingLoop.org). For his leadership, he has received awards from the American Academy of Audiology, the hearing industry, and the Hearing Loss Association of America.

David and Carol Myers met and married while undergraduates, and have raised sons Peter and Andrew, and a daughter, Laura. They have one grandchild, Allie (see [p. 177](#)).



J.A. Laub Photography, LLC

Nathan DeWall is professor of psychology at the University of Kentucky. He received his bachelor's degree from St. Olaf College, a master's degree in social science from the University of Chicago, and a master's degree and Ph.D. in social psychology from

Florida State University. DeWall received the College of Arts and Sciences Outstanding Teaching Award, which recognizes excellence in undergraduate and graduate teaching. The Association for Psychological Science identified DeWall as a “Rising Star” early in his career for “making significant contributions to the field of psychological science.” He is in the top 1 percent of all cited scientists in psychology and psychiatry on the Institute for Scientific Information list, according to the Web of Science.

DeWall conducts research on close relationships, self-control, and aggression. With funding from the National Institutes of Health, the National Science Foundation, and the John Templeton Foundation, he has published over 200 scientific articles and chapters. DeWall’s research awards include the SAGE Young Scholars Award from the Foundation for Personality and Social Psychology, the Young Investigator Award from the International Society for Research on Aggression, and the Early Career Award from the International Society for Self and Identity. His research has been covered by numerous media outlets, including *Good Morning America*, *The Wall Street Journal*, *Newsweek*, *The Atlantic Monthly*, *The New York Times*, *The Los Angeles Times*, *Harvard Business Review*, *USA Today*, National Public Radio, the BBC, and *The Guardian*. He has lectured nationally and internationally, including in Hong Kong, China, the Netherlands, England, Greece, Hungary, Sweden, Australia, and France.

Nathan is happily married to Alice DeWall and is the proud father of Beverly “Bevy” and Ellis. He enjoys playing with his two golden retrievers, Finnegan and Atticus. As an ultramarathon runner, he completed numerous races, including the Badwater 135 in 2017 (dubbed “the World’s toughest foot race”). In his spare time now, he writes novels, watches sports, and plays guitar and sings in a rock band called *Roar Shock*.

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From its first edition, this text has focused on teaching **critical thinking**, and helping students understand the **research** underlying psychological discoveries. We've expanded that focus in this new edition. (See [p. xii](#) to learn more about the Myers/DeWall research and critical thinking story.) This new edition offers 2100 research citations dated 2015–2020, making these ***the most up-to-date introductory psychology course resources available***. With so many exciting new findings, and every chapter updated with current new examples and ideas, students will see the importance and value of psychological research, and how psychology can help them make sense of the world around them. For example, we discuss new research on how the COVID-19 pandemic may affect: our need to belong ([Chapter 11](#)), the social responsibility norm and prejudice ([Chapter 13](#)), and suicidal behavior ([Chapter 15](#)). The abundant, high quality teaching and learning resources in **LaunchPad** and in **Achieve Read & Practice**, carefully matched to the text content, help students succeed, and help make life easier and more enjoyable for instructors. Our integrated resources help bring students to class better prepared, and offer instructors more ways to engage them.

APA Introductory Psychology Initiative, and Learning Goals and Outcomes for the Psychology Major

As of our press date, the American Psychological Association (APA) was scheduled to release the results of its **Introductory Psychology Initiative (IPI)** in August, 2020 in hopes of improving “the quality of the introductory psychology experience” ([APA.org/Ed/Precollege/Undergrad/Introductory-Psychology-Initiative](https://www.apa.org/Ed/Precollege/Undergrad/Introductory-Psychology-Initiative)). The APA IPI, with its five “Integrative Themes” and six “Student Learning Outcomes,” encourages instructors to integrate these themes throughout the course, with regular opportunities for practicing, thinking, and communicating about them, and regular assessment of student understanding.

In summary, the APA IPI encourages instructors to use the **five Integrative Themes** to help students (1) adapt their thinking in response to empirical evidence; (2) recognize general principles but individual differences; (3) acknowledge biological, psychological, and social-cultural influences; (4) be aware of perceptual and thinking errors; and (5) apply psychology’s principles to improve their own lives.

The **six Learning Outcomes** charge students to (1) fully understand the five themes; (2) apply psychology in their daily lives; (3) use empirical evidence in judgments and decision making; (4) evaluate claims using psychological science; (5) design, carry out, and evaluate research studies; and (6) know ethical principles for research and therapy.

Psychology, Thirteenth Edition, and its resources offer a perfect match for those interested in following these new guidelines, with full text coverage of relevant content, and abundant student and classroom activities and assessment opportunities (see [TABLE 1](#) and [TABLE 2](#)).

TABLE 1 APA 2020 Introductory Psychology Initiative’s **Expected Integrative Themes*

APA’s Five “Integrative Themes”	APA’s “Sample Concepts or Ideas”
a. Psychological science relies on empirical evidence, adapts as new data develop.	• Experimental methods • Statistics • Memory models • Subliminal perception • Therapy interventions
b. Psychology explains general principles that govern behavior, while recognizing individual differences.	• Intelligence • Resilience

	• Personality testing • Supertasters • Synesthesia
c. Psychological, biological, social, and cultural factors influence mental processes and behavior.	• Psychological disorders • Aging • Health and wellness • Attachment • Personality theories
d. Our perceptions filter experience of the world through an imperfect personal lens.	• Perceptual illusions • Schemas • Cognitive errors • Self-serving bias • Ingroup bias
e. Applying psychological principles can change our lives in positive ways.	• Psychotherapy • Study skills • Coping • Conflict resolution • Behavioral change

*NOTE that these are the *expected* integrative themes—from the July 2019 APA Summit on Introductory Psychology. As of our press date, final recommendations were scheduled to be released in August, 2020. **For final Integrative Themes, please see [APA.org/Ed/Precollege/Undergrad/Introductory-Psychology-Initiative](https://www.apa.org/Ed/Precollege/Undergrad/Introductory-Psychology-Initiative).**

TABLE 2 *Psychology*, Thirteenth Edition, Corresponds to APA 2020 Introductory Psychology Initiative’s **Expected Student Learning Outcomes*

APA’s Six Student Learning Outcomes	<i>Psychology</i> , Thirteenth Edition, Coverage
1. Identify basic concepts and research findings, and give examples of psychology’s integrative themes.	This first outcome is content-based, challenging students to demonstrate the five “Integrative Themes” outlined in Table 1 . <i>Psychology</i> , Thirteenth Edition, offers a compelling and complete survey of the field, including all of the “Sample Concepts or Ideas” outlined in Table 1 .
1. a. Psychological science relies on empirical evidence and adapts as new data develop.	• The empirical approach is introduced as a key term on p. 2, and the reality that psychology is a science and that research matters is emphasized throughout the text. See Preface section “Myers/DeWall Research and Critical Thinking Story” (p. xii). • In addition, David Myers regularly blogs at TalkPsych, where he shares the most exciting new psychological science discoveries, how the field is adapting in response, and how psychology helps explain the rapidly changing world around us.
1. b. Psychology explains general principles that govern behavior.	• Since the first edition of this text, one of Myers and DeWall’s “Eight Guiding Principles” has been “to convey respect for human unity and diversity.” Readers will learn about human kinship in our shared biology and need for affiliation; our shared mechanisms for learning and remembering, emotional expression, and the stress response; and our shared vulnerability to perceptual and thinking errors. Yet they will learn much about our individual diversity—in development and aptitudes, temperament and characteristics, sexual orientation and gender identity, attitudes and motivations, disorders and health, and about cultural and other groups.

behavior, while recognizing individual differences.	identity, attitudes and motivations, disorder and health—and about cultural and other group variations.
1. c. Psychological, biological, social, and cultural factors influence mental processes and behavior.	The biopsychosocial approach is introduced in the Prologue and carried through the rest of the book, with regular narrative reflections on the biological, psychological, and social/cultural factors influencing our understanding of behavior and mental processes. The text includes flow charts outlining the biopsychosocial influences on key topics, including development, aging, disordered drug use, learning, sexual motivation, aggressive behavior, personality, and psychological disorder.
1. d. Our perceptions filter our experiences of the world through an imperfect personal lens.	The Chapter 6 discussion of “Processing Sensations and Perceptions” outlines the impressive strengths and numerous weaknesses in our ability to detect and interpret incoming stimuli. Other coverage of our “imperfect personal lens” includes: cognitive errors (Chapter 9), ingroup bias (Chapter 13), and self-serving bias (Chapter 14).
1. e. Applying psychological principles can change our lives in positive ways.	- This edition has a new student preface—Student Success: How to Apply Psychology to Live Your Best Life. This preface offers brief discussions of “Thinking Critically and Scientifically,” “Self-Control and Self-Improvement,” “Time Management and Study Tips,” “Social Life,” and “Finding Meaning and Pursuing Goals.” - New “Ask Yourself” questions appear throughout each chapter to help students apply what they are learning to improve their own lives. This helps make the material more meaningful and memorable. Self-applications are built into the narrative throughout the text, including “Use Psychology to Become a Stronger Person—and a Better Student” in the Prologue, tips for getting a “Better Night’s Sleep” in Chapter 3, goal-setting to “Change Your Own Behavior” in Chapter 7, “Goal-Setting” strategies in Chapter 11, “Improving Memory” in Chapter 8, ways to “boost the creative process” in Chapter 9, building a “Growth Mindset” in Chapter 10, “Tips for Weight Management” in Chapter 11, “Connecting and Social Networking” in Chapter 11, “Evidence-Based Suggestions for a Happier Life” in Chapter 12, guidance for coping with stress in Chapter 12, “How to Be Persuasive” in Chapter 13, “Cognitive Therapy Techniques” in Chapter 16, “When should a person seek therapy and what should people look for when selecting a therapist?” in Chapter 16, “Therapeutic Lifestyle Change” in Chapter 16, and tips for finding “flow” in Appendix C. - In the “Assess Your Strengths” activities in LaunchPad, students apply what they are learning from the text to their own lives and experiences by considering key “strengths.” Students assess themselves on the strength (critical thinking, quality of sleep, self-control, relationship strength, and more), then get guidance for nurturing that strength in their own lives. - The value of community psychology and preventive mental health work is discussed in the Prologue, Chapter 16, and Appendix B. Related discussions include: the social toxicity of extreme income inequality (Chapter 12), the importance of community communication (Chapter 13), and the relationship of poverty and empowering communities to mental disorders (Chapter 15).
2. Apply psychological principles to everyday life.	Since the first edition of the text, one of the “eight guiding principles” has been “to provide applications of principles.” The authors strive throughout to make psychology meaningful and memorable to students by showing how it relates to their lives. (See above examples.)
3. Draw	There are “Thinking Critically About...” infographics, with associated activities in LaunchPad,

appropriate, logical, and objective conclusions about behavior and mental processes from empirical evidence.	for every chapter to guide students to consider available empirical evidence before drawing conclusions. Topics include parenting styles, gender bias, sexual aggression, effects of violence-viewing, lie detection, and introversion. • Chapter 9 outlines the obstacles to effective decision making, judgment, and problem solving, including confirmation bias, fixation, mental set, representativeness and availability heuristics, overconfidence, belief perseverance, and framing.
4. Evaluate misconceptions or erroneous behavioral claims based on evidence from psychological science.	• “To teach critical thinking” has been the first of the “Eight Guiding Principles” that have guided Myers and DeWall’s work on this text since the first edition. • Table 4 in the Preface (p. xiv) outlines coverage of “Critical Examinations of Pop Psychology,” “Thinking Critically With Psychological Science,” and “Scientific Detective Stories.” • Chapter 1 offers a new section on “Psychological Science in a Post-Truth World,” which is accompanied by Myers’ new tutorial animation “Thinking Critically in Our Post-Truth World” in LaunchPad, and also at tinyurl.com/PostTruthMyers. • There is coverage integrated throughout of misconceptions related to diversity, including prejudice toward various “outgroups,” and the value in embracing diverse perspectives (see p. xii).
5. Design, conduct, or evaluate basic psychological research.	• “How Would You Know?” research activities for each chapter in LaunchPad allow students to play the role of researcher as they design and interpret studies. Students consider possible confounding factors and other issues that affect interpretation of results. Students learn about how key decision points can alter the meaning and value of a psychological study, and they develop scientific literacy skills in the process. Topics include “How Would You Know If a Cup of Coffee Can Warm Up Relationships?,” “How Would You Know If People Can Learn to Reduce Anxiety?,” and “How Would You Know If Schizophrenia Is Inherited?” • New research-oriented iClicker questions, based on research presented in the text, are available for each chapter, helping build student understanding of research design and interpretation.
6. Describe ethical principles that guide psychologists in research and therapy.	• The Chapter 1 section “Research Strategies: How Psychologists Ask and Answer Questions” includes discussion of “Psychology’s Research Ethics,” with a new section on “Ensuring Scientific Integrity” as well as coverage of “Studying and Protecting Animals,” “Studying and Protecting Humans,” and “Values in Psychology.” • Chapter 16, Therapy, has new coverage of Ethical Principles in Psychotherapy and the Ethics of Research on Mental Illness.

*NOTE that these are the *expected* Student Learning Outcomes—from the July 2019 APA Summit on Introductory Psychology. As of our press date, final recommendations were scheduled to be released in August, 2020. **For final Student Learning Outcomes, please see [APA.org/Ed/Precollege/Undergrad/Introductory-Psychology-Initiative](https://www.apa.org/ed/precollege/undergrad/introductory-psychology-initiative).**

In addition, APA’s **2013 Learning Goals and Outcomes**, from their *Guidelines for the Undergraduate Psychology Major*, Version 2.0, were designed to gauge progress in students graduating with psychology majors. (See [apa.org/ed/precollege/about/psymajor-guidelines.pdf](https://www.apa.org/ed/precollege/about/psymajor-guidelines.pdf).) Many psychology departments use these goals and outcomes to help establish their own benchmarks for departmental assessment purposes. **TABLE 3** outlines the way *Psychology*, Thirteenth Edition, can help you and your department to address the APA’s Learning Goals and Outcomes. There is a detailed APA Correlation Guide in LaunchPad’s Instructor Resources for this

thirteenth edition. In addition, *all of the Test Bank items for this text are coded for the APA Outcomes.*

TABLE 3 *Psychology*, Thirteenth Edition, Corresponds to APA Learning Goals

Relevant Feature from <i>Psychology</i> , Thirteenth Edition	APA Learning Goals				
	Knowledge Base in Psychology	Scientific Inquiry and Critical Thinking	Ethical and Social Responsibility in a Diverse World	Communication	Professional Development
Text content	•	•	•	•	•
Myers/DeWall research and critical thinking story	•	•	•		
“Thinking Critically About...” infographics and their new LaunchPad activities	•	•	•		
“Learning Objective Questions” previewing main sections	•	•			
“Retrieval Practice” self-tests throughout	•	•	•		
New “Ask Yourself” questions integrated throughout	•	•	•	•	•
“Try this” style activities integrated throughout the text and LaunchPad resources	•	•		•	•
“Mastering the Material” self-tests	•	•		•	
“Psychology at Work” appendix	•	•	•	•	•
“The Story of Psychology” timeline (Appendix A)	•		•		•
“Career Fields in Psychology” appendix, with “Pursuing a Psychology Career” online appendix	•		•		•
LearningCurve adaptive quizzing	•	•	•	•	•
“Assess Your Strengths” activities in LaunchPad	•	•	•	•	•
“How Would You Know?” research activities in LaunchPad	•	•	•	•	•

Myers/DeWall Research and Critical Thinking Story

2100 References Dated 2015–2020

The most important task for us as your authors is to report the current state of psychology, including each sub-discipline's latest research insights. Thus, you will find 2100 references in this edition dated 2015–2020. A lot has changed since 2014: Barack Obama is no longer the U.S. president, #MeToo and the COVID-19 pandemic have happened, a little-known app called Instagram now has over a billion users, and efforts to improve replicability in psychological science have ramped up dramatically.

The end-of-book **References** section highlights these 2100 recent citations in blue. The work of writing this text is mostly reading: With thousands of studies published each year, it takes a daily effort to keep up with all that is happening in our exciting field. In winnowing new research findings, we consider:

- *Reliability*: Does either replication or the inherent scale of the finding make it trustworthy?
- *Importance*: Is this, for psychology, a significant new finding? And is this something an educated person needs to know?
- *Clarity*: Is this something our readers could understand and remember?

The new findings met these high standards for inclusion. Each confirms key concepts or informs the way we present them. The remaining thousands of reference citations include important classic studies that have formed the structure of our discipline.

We all want students to walk away with the most accurate, current understandings of psychology to apply in their own lives and work. Having the latest research engages students so much more effectively. Here are two examples of new research areas—from just the last couple of years—that are important for students' understanding of

psychological science and its application in their lives.

1. *People often spurn those with differing worldviews, yet the recent scientific evidence we share in this new edition demonstrates value in embracing diverse perspectives:*
 - Diverse scientific teams make more scientific breakthroughs ([AlShebli et al., 2018](#); see [Chapter 13](#), under Antisocial Relations).
 - Children raised with competent, secure, and nurturing care can flourish regardless of parents' gender and sexual orientation ([Calzo et al., 2019](#); see [Chapter 5](#), under Infancy and Childhood).
 - People who identify as transgender have a more positive therapeutic experience when therapists affirm them ([Bettergarcia & Israel, 2018](#); see [Chapter 16](#), under Evaluating Psychotherapies).
 - Politically conservative and liberal people are similarly biased against those who hold differing political views ([Ditto et al., 2019a,b](#); see [Chapter 1](#), under Research Strategies: How Psychologists Ask and Answer Questions).
 - Social media communication often occurs in an ideological vacuum, in which we surround ourselves with mostly like-minded individuals ([Hills, 2019](#); see [Chapter 13](#), under Social Influence).
2. *Social media use has soared, and the new research we present in [Chapters 1](#) and [11](#) explores correlational, longitudinal, and experimental studies of its possible effects, such as on depression and suicidal thoughts in teen girls.*

Other new, student-relevant research explores

- navigating our “post-truth” world,
- understanding how gene–environment interactions affect us,
- distinguishing substance use from abuse,
- weighing parent/peer influences on our development,
- appreciating our unique sensory and perceptual windows on the world,
- figuring out how to learn and remember most effectively,
- successfully connecting socially with others to build our health and well-being,
- understanding gender identity and sexual orientation,
- learning about our hunger and sexual motivations,
- coping with stress and determining how to thrive,
- recognizing inborn personality variations,
- dealing with the challenges of mental illness,

- appreciating *neurodiversity* (including those on the autism spectrum, and those challenged by ADHD, a learning disorder, or brain injury),
- finding hope in psychological and biomedical therapies, and
- seeking “flow” in our daily lives and work.

Expanded Focus on Critical Thinking and Research

Throughout the text, we help students ***think critically***. By examining sources and evidence, students can apply psychology’s concepts to their own lives and to their studies—using evidence-based principles to boost their relationships, academic success, stress-management, and so much more (see [TABLE 4](#)). “To teach critical thinking” has been the first of the “Eight Guiding Principles” that have guided our work on this text since the first edition. (See [p. xxvii](#).) The first subsection in the text’s Prologue is headed “*Psychology Is a Science*,” and [Chapter 1](#) takes a critical-thinking approach to introducing students to psychology’s research methods. “Critical thinking” is a key term on [p. 3](#) and is encouraged throughout the text and its resources. ***New resources include:***

- a new ***Student Preface***, “[Student Success: How to Apply Psychology to Live Your Best Life](#),” which includes discussion of “Thinking Critically and Scientifically.”
- a new [Chapter 1](#) section on “***Psychological Science in a Post-Truth World***” (accompanied by my [DM’s] new tutorial animation, “Thinking Critically in Our Post-Truth World” in LaunchPad, and also at tinyurl.com/PostTruthMyers),
- new [Chapter 1](#) coverage of “***Ensuring Scientific Integrity***,”
- new [Chapter 16](#) coverage of ***Ethical Principles in Psychotherapy*** and the ***Ethics of Research on Mental Illness***,
- new ***research-oriented iClicker questions*** for each chapter, contributed by Jennifer Zwolinski (University of San Diego), and
- new “***Thinking Critically About...***” ***infographic activities*** (along with our popular “How Would You Know” research design activities) for every chapter in LaunchPad.

TABLE 4 Critical Thinking and Scientific Inquiry

Critical thinking coverage and in-depth stories of psychology’s process of scientific inquiry can be found on the following pages:

Thinking Critically About ...

infographics:

The Scientific Attitude, [p. 4](#)
Correlation and Causation, [p. 34](#)
Do We Use Only 10 Percent of Our Brain?, [p. 80](#)
Tolerance and Addiction, [p. 111](#)
Gender Bias in the Workplace, [p. 153](#)
Sexual Aggression, [p. 159](#)
Parenting Styles—Too Hard, Too Soft, Too Uncaring, and Just Right?, [p. 187](#)
Subliminal Sensation and Subliminal Persuasion, [p. 215](#)
The Effects of Viewing Media Violence, [p. 289](#)
Can Memories of Childhood Sexual Abuse Be Repressed and Then Recovered?, [p. 320](#)
The Fear Factor, [p. 331](#)
Cross-Sectional and Longitudinal Studies, [p. 367](#)
The Challenges of Obesity and Weight Control, [p. 392](#)
Lie Detection, [p. 424](#)
Stress and Health, [p. 451](#)
How To Be Persuasive, [p. 474](#)
The Internet as Social Amplifier, [p. 486](#)
The Stigma of Introversion, [p. 534](#)
ADHD—Normal High Energy or Disordered Behavior?, [p. 595](#)
Therapeutic Lifestyle Change, [p. 621](#)

Critical Examinations of Pop

Psychology:

The need for psychological science, [pp. 22–24](#)
Perceiving order in random events, [pp. 23–24](#)
Do we use only 10 percent of our brain?, [p. 80](#)
Near-death experiences, [p. 118](#)
Critiquing the evolutionary perspective, [pp. 139–140](#)

How much credit or blame do parents deserve?, [pp. 143–144](#)
Sensory restriction, [pp. 235–236](#)
Can hypnosis be therapeutic? Alleviate pain?, [pp. 246–247](#)
Is there extrasensory perception?, [pp. 253–255](#)
Do other species have language?, [pp. 346–348](#)
Do violent video games teach social scripts for violence?, [pp. 499–500](#)
Is Freud credible?, [pp. 523–526](#)
Is repression a myth?, [p. 524](#)
How valid is the Rorschach test?, [pp. 526–527](#)
Is psychotherapy effective?, [pp. 612–615](#)
Evaluating alternative therapies, [p. 616](#)

Thinking Critically With Psychological Science:

“Critical thinking” introduced as a key term, [p. 3](#)
Psychological science in a post-truth world, [pp. 13–14](#)
The limits of intuition and common sense, [p. 22](#)
The scientific method, [pp. 25–39](#)
Exploring cause and effect, [pp. 31–37](#)
Regression toward the mean, [p. 33](#)
Correlation and causation, [p. 34](#)
Random assignment, [p. 35](#)
Independent and dependent variables, [pp. 36–37](#)
Choosing the right research design, [p. 38](#)
Statistical reasoning, [pp. 44–48](#)
Describing data, [pp. 44–46](#)
Making inferences, [pp. 47–48](#)
The evolutionary perspective on human sexuality, [pp. 138–140](#)
Scientific Detective Stories:
Superforecasters avoid overconfidence, [p. 23](#)
Big data enables naturalistic observation, [p. 28](#)
Girls’ social media use and risk of depression and self-harm, [pp. 35–36](#)

Natural endorphins discovery, [p. 59](#)
Our divided brain, [pp. 82–85](#)
What affects our sleep patterns, and why do we sleep?, [pp. 99–101](#)
Why we dream, [pp. 106–109](#)
Twin and adoption studies, [pp. 128–130](#)
How a child’s mind develops, [pp. 174–175](#)
How do we see in color?, [pp. 225–226](#)
Parallel processing, [p. 228](#)
How can hypnosis provide pain relief?, [pp. 246–247](#)
How are memories constructed?, [pp. 294–301](#)
How do we store memories in our brain?, [pp. 302–307](#)
Do other species exhibit language?, [pp. 346–348](#)
Aging and intelligence, [pp. 368–369](#)
Why do we feel hunger?, [pp. 387–389](#)
What determines sexual orientation?, [pp. 401–404](#)
The pursuit of happiness: Who is happy, and why?, [pp. 434–440](#)
How does stress contribute to heart disease?, [p. 450](#)
How is social support linked with health?, [pp. 457–459](#)
Why do people fail to help in emergencies?, [pp. 508–510](#)
Self-esteem versus self-serving bias, [pp. 547–549](#)
What causes depressive disorders and bipolar disorders?, [pp. 574–578](#)
Do prenatal viral infections increase the risk of schizophrenia?, [p. 582](#)
Is psychotherapy effective?, [pp. 612–615](#)

What’s New in the Thirteenth Edition?

In addition to our thorough, line-by-line updating of every chapter, and our ongoing efforts to make no assumptions about student readers’ gender identity, sexual

orientation, culture, relationship or family status, age, economic background, or physical ability, we offer much that is new in this thirteenth edition:

1. **Over 2100 research citations dated 2015–2020.** Our ongoing scrutiny of dozens of scientific periodicals and science news sources, enhanced by commissioned reviews and countless emails from instructors and students, enables integrating our field's most important, thought-provoking, and student-relevant new discoveries. Part of the pleasure that sustains this work is learning something new every day! See [MacmillanLearning.com](https://www.macmillanlearning.com) for a chapter-by-chapter list of significant Content Changes.
2. **More support for teaching that *psychology is a science*, and that *critical thinking* and research matter!** (See [“Expanded Focus on Critical Thinking and Research,” p. xiii.](#))
3. **NEW [Student Preface—Student Success: How to Apply Psychology to Live Your Best Life](#).** When we ask our teaching colleagues to share the most important lessons they wish to impart to students, they often tell us they want to teach students to ***think critically***, and to ***apply psychology to their own lives*** so that they can live better and be more successful. This brief new Student Success preface, which previews relevant resources in the text and in LaunchPad, helps get students on the right path with sections on
 - Thinking Critically and Scientifically,
 - Self-Control and Self-Improvement,
 - Time Management and Study Tips,
 - Social Life, and
 - Finding Meaning and Pursuing Goals.
4. **Improved, updated coverage of gender identity and sexual orientation.** A lot has changed in the field of psychology since the last edition was written, especially in the fast-moving subfields of human sexuality and gender psychology. We sought extra reviews from experts and instructors and made extensive updates to this coverage. In [Chapter 4](#), [Chapter 11](#), and elsewhere, we've worked to be appropriately inclusive and fully up-to-date in our presentation—representing the abundance of current research in this area, but also encompassing the lived experiences of many people, which may not yet be well represented in the literature.
5. **Ask Yourself Questions.** New “Ask Yourself” questions appear periodically

throughout each chapter to help students apply what they are learning to their own lives. This helps make the material more meaningful, and more memorable. These questions are repeated in the Lecture Guides, for use as classroom discussion starters. We continue to offer “Assess Your Strengths” personal self-assessments in LaunchPad, allowing students to actively apply key principles to their own experiences and develop their strengths.

6. **“Thinking Critically About ...” Infographic Activities.** All of these infographics in the text have been revised and updated for the new edition, with two entirely new pieces on “Sexual Aggression” ([Chapter 4](#)) and “How to Be Persuasive” ([Chapter 13](#); see [FIGURE 1](#)). They are also now accompanied by *new corresponding activities in LaunchPad*.
7. **Active Learning.** Our Instructor’s Resources have long been considered the “gold standard” in the field, and they nicely support students’ active learning in class. There are additional NEW Classroom Exercises, Student Projects, Demonstrations, and Lecture/Discussion Topics that work well for think-pair-share, small-group, and large-group activities. These new activities for each chapter cover diversity in psychology and were created by Salena Brody (University of Texas, Dallas).
8. **New research and research design-oriented iClicker questions.** We have new iClicker questions for each chapter, written by Jennifer Zwolinski (University of San Diego), that help engage students on research topics, such as designing an effective study, understanding the component parts of key research that’s presented in the text, and weighing the implications of research results.

Sample “Ask Yourself” questions Here are two samples, taken from [Chapter 5](#), Developing Through the Life Span, and [Chapter 12](#), Emotions, Stress, and Health.

ASK YOURSELF

Are you the same person you were as a preschooler? As an 8-year-old? As a 12-year-old? How are you different? How are you the same?

ASK YOURSELF

Imagine a situation in which you would like to change the way you feel. How could you do so by altering your facial expressions or the way you carry yourself? In what other settings could you apply your knowledge of these feedback effects?

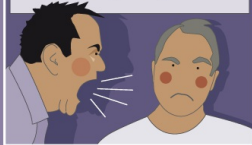
Thinking Critically About: How to Be Persuasive

LOO 40-4 How can we share our views more effectively?

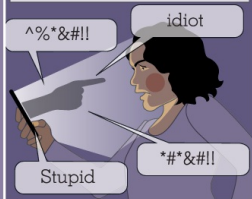
Would you like to be persuasive with those whose views differ from yours?

Do not:

Loudly argue your position before listening. Yelling backfires.



Humiliate people, or imply that they are ignorant. Insults breed defensiveness.



Bore people with complex and forgettable information.

Therefore, with that said, direct your attention to this very dull and wonky and boring statistic that you will never remember. Now, however, on the other hand, here are yet more data points that are even more dry and overly complicated than the last... Let us continue...

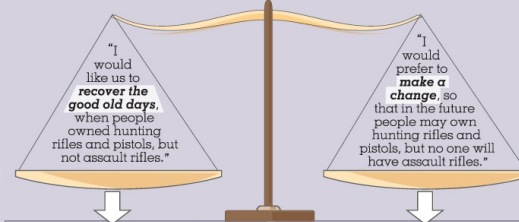
Do:

Identify your shared values or goals, such as, "We all want to graduate, yes? Find a better job? Let's study for the test before we take time off to hang out."



Appeal to others' admirable motives.

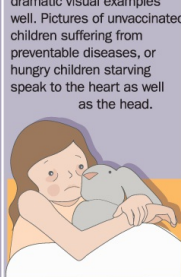
Relate your aims to their yearnings.¹ For example:



Political conservatives tend to respond to nostalgia. Those promoting gun safety legislation to this group should frame their message as an affirmation of yesteryear.

Political liberals respond better to future-focused messages.

Make your message vivid. People remember dramatic visual examples well. Pictures of unvaccinated children suffering from preventable diseases, or hungry children starving speak to the heart as well as the head.

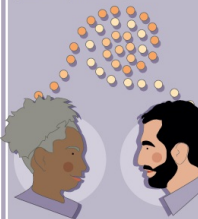


Repeat your message. People often come to believe repeated falsehoods, but they also tend to believe off-repeated truths.

Science Evidence-based Science Evidence-based Science Evidence-based Consider alternatives Science



Engage your audience in restating your message or, better yet, acting on it. Engage them in actively owning it—not just passively listening.



1. Lammers & Baldwin, 2018.

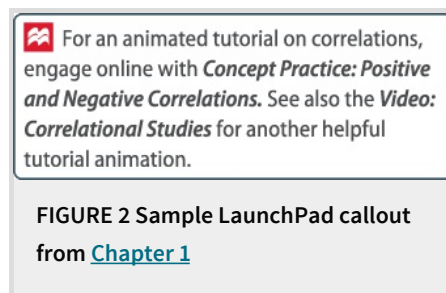
Myers/DeWall, *Psychology*, 13e, © 2021 Worth Publishers

FIGURE 1 Sample "Thinking Critically About" infographic

Why Should I Use *Psychology*, Thirteenth Edition, and Its Resources?

There are several reasons we think you should consider using this text and its resources for your classes:

1. **These resources are *top quality*.** Our resources offer *up-to-date, carefully checked content and assessment you can rely on*, with a study system that follows best practices from learning and memory research. This new thirteenth edition includes *2100 citations* dated 2015–2020, representing the field’s most important, thought-provoking, and student-relevant new discoveries. We have worked with dozens of helpful reviewers, and with our editors we have run the text manuscript through *eight* drafts. Our dedicated Media and Test Bank authors and editors have focused similar intensity on their work. (For example, our 10,000 Test Bank questions go through four stages of checking to ensure there is appropriate, useful coverage for each new edition, and that different levels and kinds of questions have been included.)
2. **This text and its resources *make life easier for instructors*.** We’ve imagined the worst-case scenario of being asked to teach a course on a Friday and being ready to teach on a Monday. Step 1: Assign a book students tell us they love! Step 2: You have what you need with *LaunchPad’s full course solution* (e-book, LearningCurve adaptive quizzing and other assessments, iClicker questions, classroom activities and other Instructor Resources, abundant videos, and numerous engaging student tutorials and activities for each chapter—all reporting to an easy-to-use gradebook). Or you may opt for the simplified (and extra-affordable) *Achieve Read & Practice* (e-book and LearningCurve adaptive quizzing, reporting to a gradebook with analytics on student performance). These engaging, integrated, top-notch options are both ready to use as is, with a default courses set up, or you can readily tweak them to suit your needs. Our popular LearningCurve adaptive quizzing system has been shown to bring students to class better prepared, and help them do better in class. We’ve included callouts from the text pages to especially pertinent, helpful online resources. (See [FIGURE 2](#) for a sample.)



3. **Macmillan Learning offers students *affordable options*.** The digital-only, rental,

or looseleaf options compete with Open Educational Resources (OER) printouts on price, and far surpass OER on success in the course for students, and ease of use and success for instructors.

4. **We wrote this text to be *inclusive of diverse student readers*.** From the first edition, we have endeavored to make no assumptions in terms of students' gender identity, sexual orientation, culture, relationship or family status, age, economic background, or physical ability. The text includes abundant, integrated coverage of psychology's diversity, and plenty of everyday life applications to draw all students into the content. Since this text's first edition, one of its Eight Guiding Principles has been "To convey respect for human unity and diversity." This edition offers an even more thoroughly **cross-cultural perspective** on psychology, with a world-based presentation for our worldwide student readers. We have included important new research and fresh examples from around the world in our efforts to help students understand *human* behavior in a broad sense, and to expose students to the world beyond their own culture. Salena Brody (University of Texas, Dallas) created new classroom activities for each chapter covering diversity in psychology topics, and she revised our newly illustrated Timeline ([Appendix A](#)) to reflect the many contributions from women and people of color to the history of psychology. (See [TABLE 5](#), The Psychology of Gender, Gender Identity, and Sexuality, and [TABLE 6](#), The Psychology of Cultural Diversity and Inclusion.)

TABLE 5 The Psychology of Gender, Gender Identity, and Sexuality

Coverage of the *psychology of gender, gender identity, and sexuality* can be found on the following pages:

Absolute thresholds, p. 214	Gender, pp. 150–162	Love, romantic, pp. 206–207, 506	Sexual attraction, pp. 155, 161, 248, 393, 399–400, 504–505
Adulthood, physical changes, pp. 199–200	anxiety and, p. 573	companionate, pp. 506–507	Sexual development variations, pp. 156–157
Aggression, pp. 151, 497, 498–499	biological influences on, pp. 154–157	passionate, p. 506	Sexual dysfunctions, p. 396
father absence and, p. 498	child raising and, p. 158	Male answer syndrome, p. 152	Sexual fantasies, pp. 113, 394, 397–398
pornography and, p. 498	communication and, pp. 152, 154	Marriage, pp. 148, 175, 197, 206, 408, 457	Sexual fluidity of women, pp. 401, 404
sexual, pp. 158–159	definition, p. 151	same-sex, pp. 25, 175, 332, 492, 513	Sexual orientation, pp. 399–405
testosterone and, pp. 496–497, 500	prejudice, p. 491	Matchmaking, modern, pp. 410, 503	asexual, pp. 393, 399–400, 401
Alcohol use	"missing women," p. 491	Mating preferences, evolutionary perspective, pp. 138–139	bisexual, pp. 160, 399–400, 404, 492, 618
the brain and, p. 113	social-cultural influences on, pp. 157–160	Maturation, brain, p. 190	heterosexual, pp. 138–139, 243, 399–401, 405, 503, 504
sexual aggression/disinhibition and, p. 398	workplace bias and, p. 153	Media violence effects, pp. 289, 498–499	
sexual consent and, p. 398	Gender bias, pp. 153, 491		
	Gender differences/similarities, pp.		

sexual regret and, [p. 112](#)
sexual response expectations and, [p. 113](#)
women's heightened risk, [p. 112](#)
Alcohol use disorder, [pp. 112, 151, 573](#)
Altruism, [p. 509](#)
Androgyny, [p. 158](#)
Anger, [p. 433](#)
Antisocial personality disorder, [pp. 587–589](#)
Attention-deficit/hyperactivity disorder (ADHD), [pp. 151, 595](#)
Attraction, [pp. 502–507](#)
Autism spectrum disorder, [pp. 356, 593](#)
Beauty ideals, [pp. 504–505](#)
Bipolar disorders, [p. 573](#)
Body image, [p. 590](#)
Bystander effect, [p. 509](#)
Cohabitation and marriage, [p. 206](#)
Color vision, [p. 225](#)
Conscientiousness, [p. 377](#)
Depression, [pp. 570–578](#)
 higher vulnerability of women and girls, [pp. 573, 576](#)
 rumination and, [p. 576](#)
 substance abuse and, [p. 121](#)
 teenage girls and, [p. 195](#)
Divorce, [pp. 206, 408](#)
Dream content, [p. 106](#)
Dual parenting, [p. 183](#)
Eating disorders, [pp. 151, 590–591](#)
 substance use and, [p. 121](#)
Emotion, [pp. 426–428](#)
 ability to detect, [pp. 426–427](#)
 expressiveness, [pp. 151, 152, 427–428](#)
 identification of as masculine or feminine, [p. 427](#)
Empathy, [pp. 427–428, 593](#)
Empty nest, [p. 157](#)
Estrogens, [pp. 155, 394](#)
 151–154
 in aggression, [p. 151](#)
 evolutionary perspectives on, [pp. 138–140](#)
 intelligence and, [pp. 375–376](#)
 rumination and, [p. 576](#)
 sexuality and, [p. 138](#)
 in social connectedness, [pp. 152, 154](#)
 in social power, [pp. 152, 153](#)
Gender dysphoria, [p. 160](#)
Gender identity, [pp. 158, 160](#)
 androgyny in, [p. 158](#)
 binary/nonbinary, [p. 158](#)
 cisgender, [p. 160](#)
 gender dysphoria, [p. 160](#)
 parental and cultural influences on, [p. 158](#)
 social learning theory of, [p. 158](#)
 transgender, [pp. 160–161](#)
Gender roles, [pp. 157–158](#)
 changing cultural expectations of, [pp. 157–158, 161](#)
Gender schema theory, [p. 160](#)
Gender typing, [p. 158](#)
Gendered brain, [pp. 152, 398, 402](#)
Generalized anxiety disorder, [p. 563](#)
Generic pronoun “he,” [p. 349](#)
Grief, [p. 209](#)
Happiness, [p. 439](#)
Hearing loss, [p. 241](#)
HIV/AIDS, women's vulnerability to, [pp. 396–397](#)
Hormones
 sex, [pp. 64, 154–155, 156, 199, 248, 375, 394–395, 397, 403, 433, 496–497, 500, 506](#)
 sexual behavior and, [pp. 394–395](#)
 sexual development
Memory, episodic, [p. 303](#)
Menarche, [pp. 155–156](#)
 earlier, and emerging adulthood, [p. 197](#)
 early, and stress, [p. 156](#)
Menopause, [p. 199](#)
Midlife crisis, [p. 205](#)
Moral reasoning, [p. 192](#)
Narcissism, [p. 548](#)
Natural selection and mating preferences, [pp. 138–139](#)
Nonbinary gender identity, [p. 158](#)
Obedience, [p. 479](#)
Obesity and depression, [p. 392](#)
Older-brother effect, same-sex attraction, [pp. 403–404](#)
Ostracism, [p. 409](#)
Pain, women's greater sensitivity to, [p. 244](#)
Pansexual identity, [p. 400](#)
Paraphilias, [p. 396](#)
Parent relationships, in adolescence, [p. 196](#)
Parenting-related gender differences, [p. 156](#)
Perceptual set, [p. 218](#)
Physical attractiveness, [pp. 504–505](#)
Pornography, [pp. 138, 397–398, 499](#)
Posttraumatic stress disorder, [p. 566](#)
Poverty, role in psychological disorders, [p. 561](#)
Prejudice, gender, [pp. 152, 491](#)
Puberty, [p. 190](#)
Relationship equity, [p. 507](#)
REM sleep, arousal during, [p. 97](#)
Rumination, [p. 576](#)
Savant syndrome, [p. 356](#)
Schizophrenia, [pp. 580–581](#)
Self-injury, [p. 559](#)
Sex and gender, defined, [p. 151](#)
Sex chromosomes, [pp. 154–155](#)
Sex drive, gender differences in, [p. 138](#)
Sex reassignment surgery, [pp. 375, 156–157, 160](#)
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5. **These resources teach *critical thinking*.** See [p. xiii](#) and [Table 4](#) for details and a deeper list of coverage.
6. **This text offers excellent *neuroscience* coverage, maps almost exactly to the MCAT Behavioral Sciences Section, and is perfect for nursing and premed students.** We have continued to improve our strong neuroscience, behavior genetics, and evolutionary psychology coverage in this new edition, reflecting the dynamic nature of these subfields. See [TABLE 7](#) and [TABLE 8](#) for a list of topics covered. *Psychology*, Thirteenth Edition, also maps well onto the MCAT’s behavioral sciences section. Since 2015, the MCAT has devoted 25 percent of its questions to the “Psychological, Social, and Biological Foundations of Behavior.” The new section’s topics match up almost exactly with the topics in this text. See [TABLE 9](#) for a sample. For a complete pairing of the MCAT behavioral science topics with this book’s contents, see the MCAT Correlation Guide provided in LaunchPad’s Instructor Resources. In addition, the Test Bank questions for *Psychology*, Thirteenth Edition, are keyed to the MCAT behavioral science section’s topics.

TABLE 7 Neuroscience

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TABLE 8 Behavior Genetics and Evolutionary Psychology

In addition to the coverage found in [Chapter 4](#), *behavior genetics* is covered on the following pages:

Abuse, intergenerational transmission of, pp. 185, 287 Adaptability, p. 75 Aggression, pp. 495–500 intergenerational transmission of, p. 287 Autism spectrum disorder, pp. 179–180, 592–594 Behavior genetics perspective, pp. 10–11, 13 Biological perspective, pp. 52–53 Brain plasticity, pp. 53–54 Bullying, p. 185 Continuity and stages, p. 167 Deprivation of attachment, pp. 184–185 Depth perception, pp. 230–232 Development, pp. 166–168 Drives and incentives, p. 383	Drug use, pp. 120–123 Eating disorders, pp. 589–591 Epigenetics, pp. 11, 133–134, 170, 185, 373, 403, 522, 554–555, 568, 576, 583 Happiness, pp. 438–440 Hunger and taste preference, p. 390 Intelligence Down syndrome, p. 592 genetic and environmental influences, pp. 370–372 Learning, pp. 278–282 Memory, working, p. 295 Motor development, p. 173 Nature–nurture, p. 10 twins, p. 10 Obesity and weight control, pp. 391–392 Optimism, pp. 456–457	Pain, pp. 243–247 Parenting styles, pp. 186–187 Perception, pp. 235–236 Personality traits, pp. 532–537 Psychological disorders and ADHD, pp. 594–595 anxiety-related disorders, pp. 567–569 biopsychosocial approach, p. 554 depressed thinking, p. 578 depressive disorders and bipolar disorders, pp. 127, 132, 574–578 obsessive-compulsive disorder, pp. 564–565 personality disorders, pp. 588–589 posttraumatic stress disorder, pp. 565–566 schizophrenia, pp. 128, 581–584 somatic symptom and related disorders, pp. 566–567 suicide, pp. 557–558 violent behavior, pp. 559–560	Reward deficiency syndrome, p. 73 Romantic love, pp. 206–207 Sexual dysfunctions, p. 396 Sexual orientation, pp. 401–404 Sexuality, pp. 394–395 Sleep patterns, pp. 99–100 Smell, pp. 248–250 Stress, personality, and illness, pp. 446–452 benefits of exercise, pp. 459–461 Traits, gay-straight differences, p. 404 See also Chapter 2: The Biology of Behavior .
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In addition to the coverage found in [Chapter 4](#), *evolutionary perspective* is covered on the following pages:

Anger, pp. 433–434 Anxiety-related disorders, p. 569 Attraction, pp. 502–504 Biological predispositions in learning, pp. 278–280	Emotional expression, pp. 428–430 Evolutionary perspective, defined, pp. 12, 13 Exercise, pp. 459–460 Fear, pp. 331, 569 Feature detection, p. 227 Fight or flight, p. 445	Intelligence, pp. 360–362, 375–378 Language, pp. 340–346 Love, pp. 206–207 companionate, p. 506 Math and spatial ability, p. 375 Mating preferences, pp. 138–140	Puberty, onset of, pp. 155–156, 192–193 Reflexes, newborn, p. 171 Sensory adaptation, p. 216 Sexual orientation,
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in operant conditioning, pp. 280–281 Brainstem, pp. 69–70 Classical conditioning, pp. 264, 279–280 Cognitive development, p. 179 Darwin, Charles, pp. 6, 10 Emotion, effects of facial expressions and, pp. 430–431	Gender development, p. 151 Gene–environment interaction, pp. 133–134 Hearing, pp. 238–239 Hunger and taste preference, p. 390 Instincts, pp. 382–383	Memory, adaptive, p. 305 Nature–nurture, p. 161 Need to belong, pp. 407–408 Obesity, p. 392 Overconfidence, p. 332 Perceptual adaptation, p. 236 Prejudice, p. 492	pp. 399–405 Sexuality, pp. 138–140, 394–395, 399–405 Sleep, pp. 95, 99–101, 104 Smell, pp. 248–249 Taste, pp. 247–248 Therapeutic lifestyle change, p. 621 See also Chapter 2: The Biology of Behavior.
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TABLE 9 Sample MCAT Correlation With *Psychology*, Thirteenth Edition

MCAT 2015 Content Category 6C: Responding to the world	<i>Psychology</i> , Thirteenth Edition, Correlations	Page Numbers
Emotion	Emotion: Introduction to emotion; Expressing emotion; Experiencing emotion	417–440
Three components of emotion (i.e., cognitive, physiological, behavioral)	Emotion: Arousal, behavior, and cognition	417–422
Universal emotions (e.g., fear, anger, happiness, surprise, joy, disgust, and sadness)	Culture and emotional expression—including the universal emotions	428–430
	Experiencing emotion—including the basic emotions	432–440
Adaptive role of emotion	Emotion as the body’s adaptive response	418, 422–423, 433–434, 445–446
	Emotions and the autonomic nervous system	422–423
Theories of emotion <i>James-Lange theory</i> <i>Cannon-Bard theory</i> <i>Schachter-Singer theory</i> <i>Zajonc; LeDoux; Lazarus</i>	James-Lange theory: Arousal comes before emotion Cannon-Bard theory: Arousal and emotion occur simultaneously Schachter and Singer two-factor theory: Arousal + label = emotion Zajonc, LeDoux, and Lazarus: Does cognition always precede emotion?	418–419 419 419–420 420–422
The role of biological processes in perceiving emotion	Emotions and the autonomic nervous system	422–423
<i>Brain regions involved in the generation and experience of emotions</i>	The physiology of emotions—including the brain’s pathways for emotions	420–422, 423
	Zajonc, LeDoux, and Lazarus: Does cognition always precede emotion?	420–422
<i>The role of the limbic system in emotion</i>	Emotions and the autonomic nervous system The limbic system	422–423 71–72
	Physiological differences among specific	423–424

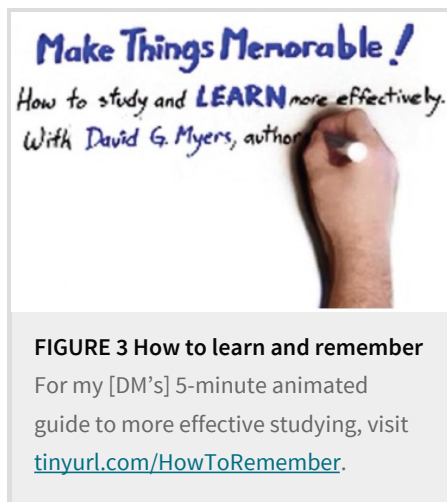
	emotions	
<i>Emotion and the autonomic nervous system</i>	Emotions and the autonomic nervous system	422–423
<i>Physiological markers of emotion (signatures of emotion)</i>	The physiology of emotions	420–422
Stress	Stress and illness	441–452
The nature of stress	Stress: Some basic concepts	441–446
<i>Appraisal</i>	The stress response system	441
<i>Different types of stressors (i.e., cataclysmic events, personal)</i>	Stress appraisal	442–445
<i>Effects of stress on psychological functions</i>	Stressors—things that push our buttons	445–446
Stress outcomes/response to stressors	The stress response system	445–446
<i>Physiological</i>	The stress response system	445–446
	Stress and vulnerability to disease	446–452
	Thinking critically about: Stress and health	451
<i>Emotional</i>	Stress and heart disease: The effects of personality, pessimism, and depression	449–451
	Coping with stress	453–459
	Posttraumatic stress disorder	565–566
<i>Behavioral</i>	The stress response system	445–446
	Coping with stress	453–459
Managing stress (e.g., exercise, relaxation techniques, spirituality)	Reducing Stress: aerobic exercise; relaxation and meditation; faith communities	459–466

7. The study system follows best practices from learning and memory research.

This text’s learning system harnesses the *testing effect*, which documents the benefits of actively retrieving information through regular testing ([FIGURE 3](#)). Thus, our popular LearningCurve adaptive quizzing provides a personalized study plan. In the text, each chapter offers **Retrieval Practice** questions interspersed throughout ([FIGURE 4](#)). Creating these *desirable difficulties* for students along the way optimizes the testing effect, as does *immediate feedback* via answers that are available for checking. In addition, each main section of text begins with a numbered question that establishes a **learning objective** and directs student reading. The **Review** sections repeat these questions as a further self-testing opportunity (with answers available to check). The Review sections also offer a self-test on the **Terms and Concepts to Remember**, and **Master the Material** questions to promote optimal retention.

8. You won’t find better service and support anywhere. The Macmillan representatives who market and sell these resources, help set up instructors’

courses, and in many other ways service instructor and student course needs are the best in the business. Many of these folks have become personal friends. We've been grateful to be working with a family-owned publisher that has been so supportive of our teaching mission and has encouraged us to create the best teaching and learning materials.



RETRIEVAL PRACTICE

RP-2 What does a good theory do?
RP-3 Why is replication important?

ANSWERS IN APPENDIX E

FIGURE 4 Sample Retrieval Practice feature

key terms Look for complete definitions of each important term near the term's introduction in the narrative.

LaunchPad and Achieve Read & Practice Resources

LaunchPad

It has been a joy for me [ND] to teach the course with **LaunchPad** (LaunchPadWorks.com), which my students love. LaunchPad makes it easy to engage students effectively starting on Day 1 of the class when I make a LaunchPad

assignment. With immediate engagement, and active learning throughout the course, most students have fun with the material and stay in my class.

Scattered throughout this book, students will find interesting and informative review notes and quotes from researchers and others that will encourage them to be active learners and to apply their new knowledge to everyday life.

LaunchPad facilitates active learning as it solves key challenges in the course ([FIGURE 5](#)). In combination with the meticulously created text, these online resources give students everything they need to succeed, while giving you, the instructor, everything *you* need to quickly set up a course, shape the content to your syllabus, craft presentations, assign and assess homework, and guide the progress of individual students and the class as a whole:

- Our **e-book** can go with any student, anywhere. It is fully mobile-compatible and meets accessibility standards.
- **LearningCurve game-like quizzing** motivates students and adapts to their needs based on their performance. Additional reporting tools and metrics will help you assess the progress of individual students and the class as a whole.
- **iClicker offers active learning simplified, and now includes the REEF mobile app ([iClicker.com](https://www.iclicker.com))**. iClicker's simple, flexible tools in LaunchPad help you give students a voice, facilitate active learning and engage remote learners. Students can use iClicker remotes, or the REEF mobile app on their phone, tablet, or laptop to participate more meaningfully. LaunchPad includes a robust collection of iClicker questions for each chapter, including new questions for each chapter designed to help students understand the value and importance of research.
- The **Concept Practice collection** offers 120 dynamic, interactive 5-minute tutorials that teach and reinforce the course's foundational ideas.
- The **Topic Tutorials: PsychSim6**, Thomas Ludwig's (Hope College) award-winning interactive psychology simulations, place students in the role of scientist or participant in activities that highlight important concepts, processes, and experimental approaches.
- In the **Assess Your Strengths** activities, students apply what they are learning from the text to their own lives and experiences by considering key "strengths." Each activity starts with a personalized video introduction from us [DM and ND],

and students assessing themselves on the strength (critical thinking, quality of sleep, self-control, relationship strength, belonging, hope, and more) using scales developed by researchers. Next, students get tips for nurturing that strength in their own lives, and take a quiz to help solidify their learning.

- **NEW “Thinking Critically About...” infographic activities** for each chapter teach and reinforce critical-thinking skills.
- **LMS integration** into your school’s system is readily available. Check with your local sales representative for details.
- **The Video Assignment Tool** makes it easy to assign and assess video-based activities and projects, and provides a convenient way for students to submit video coursework.
- **The Gradebook** gives a clear window on performance for the whole class, for individual students, and for individual assignments.
- A **streamlined interface** helps students manage their schedule of assignments, while **social commenting tools** let them connect with classmates and learn from one another. 24/7 help is a click away, accessible from a link in the upper right corner.
- LaunchPad offers curated **optional pre-built chapter units**, which can be used as is or customized. Or choose not to use them and build your course from scratch.
- Our **Instructor Resources** include suggestions for lectures, classroom exercises and demonstrations, and student projects (which work well for think-pair-share, small-group, and large-group activities); **Lecture Guides** (summarizing key text discussions and connecting instructor resources with text learning objectives); the best **Test Banks** in the industry (over 10,000 carefully authored, professionally edited questions that are tightly coordinated with the text by the same editor since the first edition); and nice starter image slides with textbook graphics.
- In addition, we offer access to the **Macmillan Community** ([Community.Macmillan.com](https://community.macmillan.com)). Created *by* instructors *for* instructors, this is an ideal forum for interacting with fellow educators—including Macmillan authors—in your discipline. Join ongoing conversations about everything from course prep and presentations to assignments and assessments to teaching with media, keeping pace with—and influencing—new directions in your field. It includes exclusive access to classroom resources, blogs (including my [DM’s] [TalkPsych.com](https://talkpsych.com)), webinars, professional development opportunities, and more.

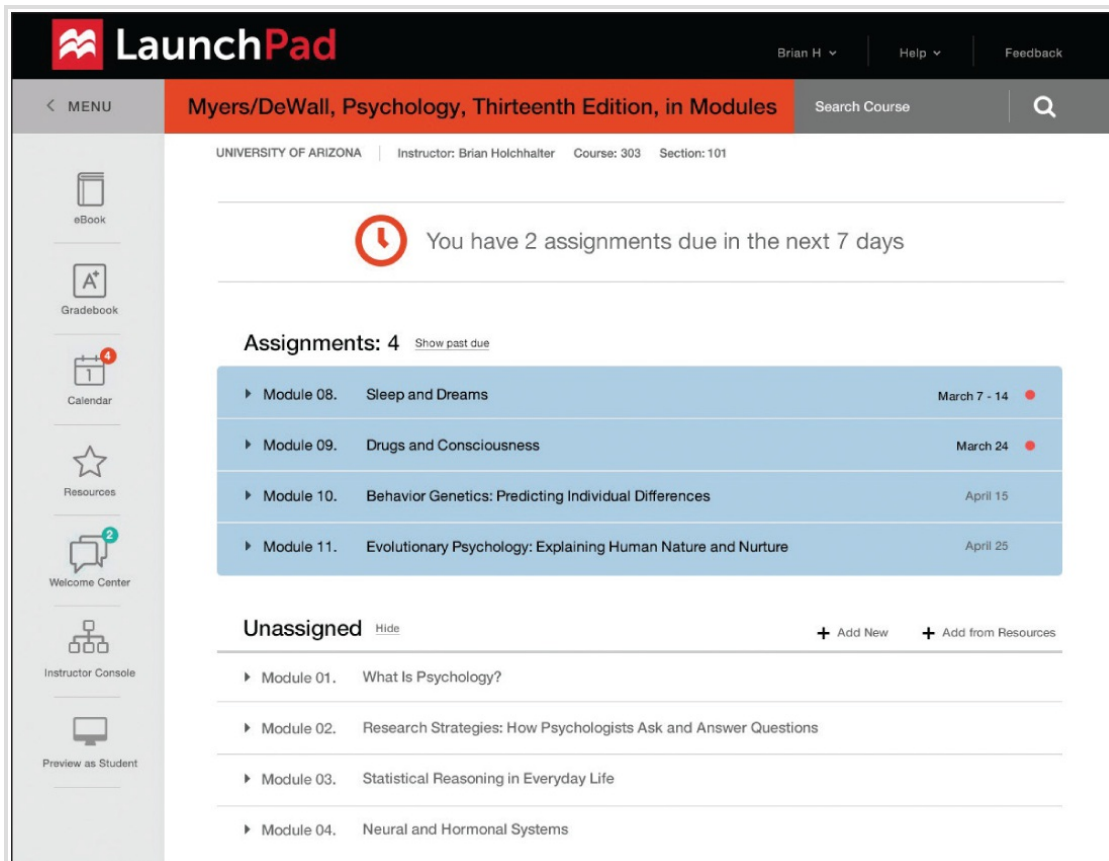


FIGURE 5 Sample from LaunchPad

Achieve Read & Practice

Achieve Read & Practice is the marriage of our LearningCurve adaptive quizzing and our mobile, accessible e-book in one, easy-to-use and affordable product ([FIGURE 6](#)). New, built-in analytics help instructors track student progress and intervene to help students succeed. Instructors who have used Achieve Read & Practice have been surprised by its truly easy interface, and pleased with their course results. In a study of 227 students at six institutions, instructors found a significant improvement in the proportion of students who stayed on track with the assigned reading, and they found that students who retaken quizzes (a helpful feature of Achieve Read & Practice) earned higher grades in the course. (Access the full report at

MacmillanLearning.com/Catalog/Page/LearningScience.)

← 2a. Neural and Hormonal Systems

Score: 20/450 Question Value: 15

The work groups that neurons cluster into are known as:

- ☐ neural networks.
- ☐ connectomes.
- ☐ interneurons.
- ☐ nerves.

Hide E-book Hint Show

e-Book Section

Neurons communicating with neurotransmitters make up our body's **nervous system**, a communication network that takes in information from the world and the body's tissues, makes decisions, and sends back information and orders to the body's tissues (FIGURE 2.5).

FIGURE 6 Sample from Achieve Read & Practice

Myers' and DeWall's Eight Guiding Principles

We have retained the goals—the guiding principles—that have animated this text since its first edition.

Facilitating the Learning Experience

1. **To teach critical thinking** By presenting research as intellectual detective work, we model a scientific mindset. Students will discover how critical thinking can help them evaluate competing ideas and popular claims—from ESP and memory construction to group differences in intelligence and alternative therapies. Our “Thinking Critically About” infographic features help engage students in this learning. (See p. xii, and [Table 4](#), for more about critical thinking in this text.)
2. **To provide applications of principles** Throughout the narrative, illustrations, and online resources we relate psychology's findings to real-world applications. We make psychology meaningful to students by showing how it relates to their lives—their life-span development, their search for relationships and happiness, their understanding of negative forces, such as prejudice, and so much more. The “Ask