

GRISON • GAZZANIGA

PSYCHOLOGY

in Your Life

THIRD EDITION



PSYCHOLOGY IN YOUR LIFE



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For all teachers who inspire
others, especially
Brian Dill, Ken Kotovsky, and Steve Tipper

With gratitude,
Lilli, Emmy, Garth, Dante,
Rebecca, and Leonardo



MEET THE AUTHORS



SARAH GRISON is an Associate Professor of Psychology at Parkland College and a Coordinator for the college's Center for Excellence in Teaching and Learning. She brings more than 20 years of psychology teaching experience to *Psychology in Your Life*. Sarah regularly teaches introductory psychology both face to face and online, as well as classes in human sexuality and in child and adolescent development. In addition, Sarah regularly teaches underprepared and first-semester college students in a First Year Experience course. Sarah uses psychological research as the basis of her own empirical classroom studies to examine students' attitudes, skills, performance, and learning. At the Center for Excellence in Teaching and Learning, Sarah provides courses and workshops for teachers in course design, pedagogy, and assessment, all aimed at helping students have excellent educational experiences. Sarah is a certified Teacher-Scholar who was recognized each year on the University of Illinois List of Excellent Teachers. She has won the University of Illinois Provost's Initiative for Teaching Advancement Award and the Association for Psychological Science Award for Teaching and Public Understanding of Psychological Science. She is a member of the American Psychological Association (Divisions 3 and 15); the Society for Teaching of Psychology; the Association for Psychological Science; the International Mind, Brain, and Education Society; the American Educational Research Association; the American Association of Community Colleges; the Illinois Community College Faculty Association. She is also an APA Community College Teacher Affiliate (PT@CC).



MICHAEL S. GAZZANIGA is Distinguished Professor and Director of the Sage Center for the Study of the Mind at the University of California, Santa Barbara. In his career, he has introduced thousands of students to psychology and cognitive neuroscience. He received a PhD from the California Institute of Technology, where he worked with Roger Sperry and had primary responsibility for initiating human split-brain research. He has carried out extensive studies on both subhuman primate and human behavior and cognition. He established centers for cognitive neuroscience at Cornell Medical School and Dartmouth College, and he established the Center for Neuroscience at UC Davis. He is the founding editor of the *Journal of Cognitive Neuroscience* and also a founder of the Cognitive Neuroscience Society. For 20 years he directed the Summer Institute in Cognitive Neuroscience, and he serves as editor in chief of the major reference text *The Cognitive Neurosciences*. He was a member of the President's Council on Bioethics from 2001 to 2009. He is a member of the American Academy of Arts and Sciences, the National Academy of Medicine, and the National Academy of Sciences. He has written many notable books, including, most recently, *Psychological Science*, 6e; *Cognitive Neuroscience*, 5e; and *The Consciousness Instinct: Unraveling the Mystery of How the Brain Makes the Mind*.

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MISSION OF *PSYCHOLOGY* *IN YOUR LIFE*

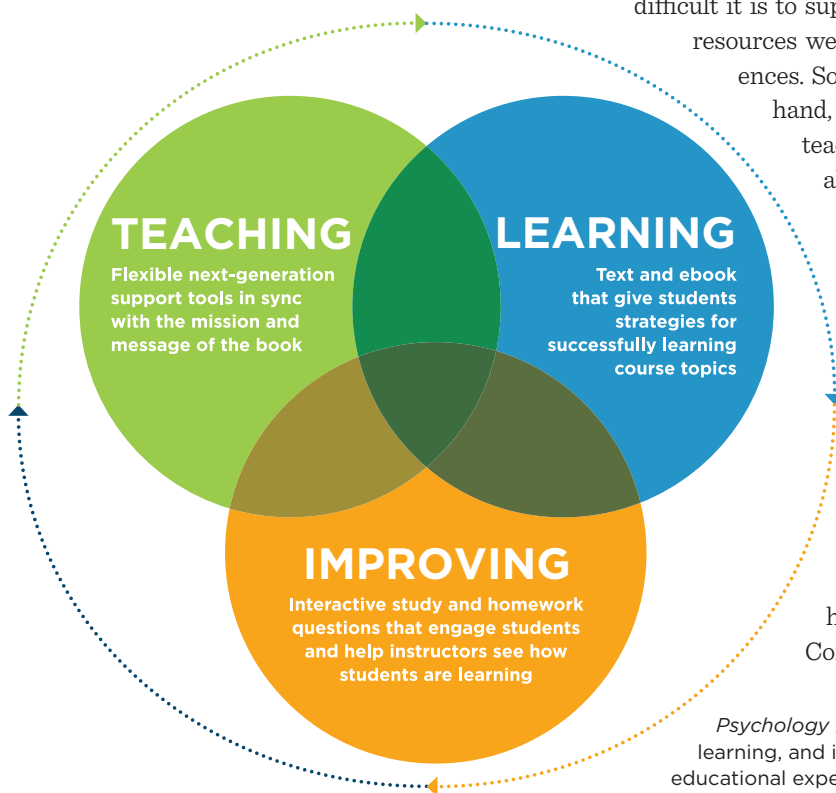
Welcome to *Psychology in Your Life*! Whether you are a teacher or a student, this book will be a perfect fit for you. That's because, unlike any other introductory psychology textbook authors, we believe that teaching, learning, and improving are all interconnected. Because of this, we have created every aspect of the textbook, all of the teaching support tools, and the embedded assessments to ensure that they work together seamlessly to create great educational experiences. We achieve this goal for *Psychology in Your Life* by focusing on three ideas: 1. Helping both teachers and students achieve educational excellence; 2. Using empirical research to develop the best teaching and learning tools, and 3. Ensuring an inclusive approach to the text, teaching tools, and assessment materials to honor all teachers and students.

Helping Teachers and Students Achieve Educational Excellence

As teachers, we have learned that we cannot help our students learn when they do not actively participate in the learning process. And we have experienced how difficult it is to support our students when we did not receive the resources we needed to create excellent educational experiences. So if great teaching and great learning go hand in hand, then *Psychology in Your Life* must support both teachers and students in achieving their goals while also providing ways to show that students are learning.

Supporting Teachers To support teachers, we developed several resources related to the Learning Goals in the textbook. These resources can be found in the Interactive Instructor's Guide (IIG), an online repository of resources available for adopters. The teaching support tools in the IIG include Enhanced Lecture PowerPoints with Active Learning slides, which engage students in class; Student Demonstration Videos, which help students participate in class activities; and Concept Videos, which explain key concepts in

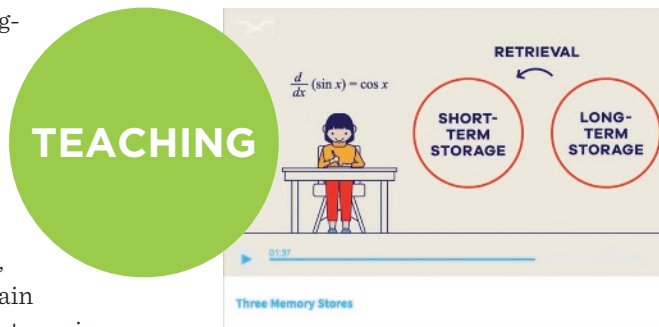
Psychology in Your Life is based on the idea that teaching, learning, and improving are all interconnected to create great educational experiences.



fun animations. For every chapter, Teaching Videos describe challenging concepts and provide ways to make them interesting. All of these teaching tools are designed for use in face-to-face, online, or hybrid learning environments. Together, they help teachers support their students in the best ways possible.

Supporting Students To support students, we designed the textbook and ebook to clearly state the Learning Goals. In addition, every chapter provides extra help through Learning Tips, which explain easy ways to think about and learn difficult concepts. Additional features in the textbook help students absorb the material by relating it to themselves: Has It Happened to You?, Try It Yourself, Using Psychology in Your Life, and Putting Psychology to Work. To check their mastery of the Learning Goals, students can answer the red Q questions throughout each chapter and the Self-Quizzes at the end of each chapter and check their answers in Appendix B.

Assessing Improvement To ensure that students are learning, we provide many assessments related to the Learning Goals. For example, an adaptive online homework tool, InQuizitive, provides students and teachers with feedback about whether students have mastered the textbook concepts. We have also created several ways for teachers to get assessment data while in class, such as in-class videos in a learning management system, comprehension questions that can be used with a student response system, one-minute writing prompts, and topics for class discussions. Some of our assessment methods are particularly useful in online environments. When students view the Student Demonstration Videos or Concept Videos in a learning management system, they can answer our prepared quiz questions about what they saw. Finally, our team of trained teacher-researchers have written quiz and test questions that focus on whether students can remember and understand the concepts and also apply them to new situations. These questions are packaged into quizzes that teachers can give to students before class or after the material has been covered for a chapter. All of the quiz and test questions can be used either in class or online in a teacher's learning management system. When embedded into a teacher's class, these assessment tools provide well-rounded information that reveals whether students have mastered the material.



Animated Concept Videos are just one of the best-practice teaching support tools that are an integral part of *Psychology in Your Life*.



“The best aspects of *Psychology in Your Life* are the examples and real-life situations. They allowed me to relate different processes in psychology to my own life, which helped me learn better overall. Additionally, it was easy to read and understand, so the material itself was easier to understand.”
—Gabrielle (Gabby) Wessels, introductory psychology student

Using Empirical Research to Develop the Best Teaching and Learning Tools

During our careers, we have seen vast growth in how much psychological research focuses on teaching and learning. As teachers and researchers, we realize how valuable this research is in creating tools that will work for teachers and students in face-to-face, online, and hybrid environments. Let's look at several specific ways that research has informed the creation of *Psychology in Your Life*. To learn more about these research-based strategies, and others, be sure to read the section below, Introducing the Third Edition, which describes our exciting, new *High-Impact Practices: A Teaching Guide for Psychology*.

Goal-Directed Active Reading Improves Learning When we talk to college students about how they read textbooks, they often say “I don't,” “I highlight key

words,” or “I reread.” Yet research shows that these techniques do not support learning (Dunlosky et al., 2013). Unfortunately, students may never have been taught how to read effectively and may not have read textbooks in high school. So how can a textbook help students learn to read effectively? *Psychology in Your Life* uses several evidence-based approaches, including:



7.2 LEARNING GOAL ACTIVITIES

To maximize your learning, complete the following learning goal activities.

- a. Understand all bold and italic terms by writing explanations of them in your own words.
- b. Understand how attention affects memory by summarizing in your own words how selective attention influences the creation of a memory.

Learning Goal Activities at the start of each study unit are an evidence-based learning tool that supports reading *Psychology in Your Life*.

LEARNING

- Emphasizing goal-directed active learning (American Psychological Association, 2013) in each study unit and providing teachers with all the Learning Goals Activities so they can add their own goals.
- Embedding Learning Goal Activities in the textbook so students can write down their answers as they read (Nguyen & McDaniels, 2014) and supporting teachers in low-stakes grading of these writing assignments, which can help learning (Drabick, Weisberg, Paul, & Bubier, 2007; Elbow & Sorcinelli, 2005).
 - Spreading questions across levels of Bloom’s taxonomy of cognitive skills (Anderson et al., 2001; Pusateri, Halonen, Hill, & McCarthy, 2009) to improve students’ ability to remember, understand, and apply material and clearly indicating these levels to teachers so they can add their own goals at different cognitive levels.

Active Engagement That Requires Deeper Processing Improves Learning

When we ask students what they do to learn material, they often reply, “I study.” But when we press them on what they actually did, we often get blank stares. Luckily, learning is enhanced when students actively work with material and process information deeply (Bertsch & Pesta, 2014). In response, we designed *Psychology in Your Life* to entice students to work actively with materials through pedagogical features that encourage rich processing of information by:



“I have been teaching for over two decades, and this is the greatest textbook that I have ever used. I wish that I had used it sooner. But I guess you cannot appreciate filet mignon until you eat a lot of hamburger.”

—Laura Scaletta, Niagara County Community College

- Asking students to relate new information to what they already know, that is, self-explanation (Dunlosky et al., 2013; Toukushima-Espinosa, 2011), through textbook features—Has It Happened to You?, Try It Yourself, Using Psychology in Your Life, and Putting Psychology to Work—and providing teachers with Think-Pair-Share and Quick Write questions that relate to these features that can be used in class.
- Providing ways for students to explain particular concepts or phenomena, that is, elaborative interrogation (Dunlosky et al., 2013; Toukushima-Espinosa, 2011), in the textbook’s red Q questions, Evaluating Psychology in the Real World features, and The Methods of Psychology figures and providing teachers with materials to support in-class discussions about the research described in the text.
- Creating Student Demonstration Videos and Concept Videos that apply the material to new situations and that include embedded activities and questions for students, while also giving teachers engaging class materials in Enhanced Lecture PowerPoints with Active Learning slides to engage students in answering questions about these videos.

Practice Makes Perfect Most students want to get through studying as quickly as possible. In fact, most students think that studying is “one and done.”

According to the research, however, students maximize their learning by distributing their studying over time (Cepeda et al., 2006). In addition, repeatedly practicing with material gives students multiple opportunities to learn it (Dunlosky et al., 2013). Indeed, reaccessing information during quizzes and tests enhances learning (Roediger & Karpicke, 2006; Pyc, Agarwal, & Roediger, 2014) and promotes transfer of the information to new involving the concepts (Carpenter, 2012). *Psychology in Your Life* uses all of these approaches to maximize learning by:



- Including low-stakes methods of repeatedly practicing with the material in the textbook, through red Q questions and Self-Quiz questions in each chapter, all of which have answers in Appendix B, so students can easily see what Learning Goals they have or have not mastered.
- Providing quiz questions, in the coursepack, related to features in the textbook and to the Student Demonstration Videos, which can be used either in class in a learning management system to reveal whether the concepts have been learned.
- Creating pre-lecture quizzes related to the Learning Goals, with learning benefits such as improved scores on later exams (Narloch, Garbin, & Turnage, 2006).
- Providing post-lecture quizzes and Test Bank items with multiple-choice and essay questions related to the Learning Goals, which can be used either in class or in a learning management system to provide repeated practice and show learning.

Interactive, Adaptive Online Homework Tools Are Beneficial to Students

In these days of multimedia, it's no wonder that students get distracted easily and have a hard time paying attention when they study. Over and over again we have heard the same complaint: "Studying is boring!" Yet to learn, students must study actively over time. Luckily, adaptive online homework tools can help address these issues. In fact, students who get higher scores on online homework tools tend to also earn higher scores on exams (Regan, 2015). Because of these findings, we created InQuizitive to be an adaptive online homework tool that grabs attention and teaches effectively by:

- Designing it based on fun gaming techniques, because student interest is highly correlated with information retention (Naceur & Schiefele, 2005).
- Creating different types of interactive items—such as video questions, drag and drop, fill in the blank, and multiple choice—that require students to actively work with the concepts tied to specific Learning Goals (Bertsch & Pesta, 2014; Dunlosky et al., 2013).
- Ensuring InQuizitive supports learning through feedback provided to students (Pennebaker, Gosling, & Ferrell, 2013), where each student's mastery-based grade for a chapter can be imported automatically into a teacher's learning management system.
- Developing the most effective feedback for students by explaining how the student might be thinking incorrectly about the information and giving the textbook page numbers so students can review the concepts, all of which further enhances learning (Hattie & Yates, 2014).



"I would describe *Psychology in Your Life* as a first choice for an accessible and enjoyable introductory psychology text. The many inset features that essentially provide brief articles and applications deliver more tempting morsels for the reader than endless text. [This textbook] has made me consider more directed reading assignments for students than simply assigning chapters and the corresponding InQuizitive sections."

—James Sturges,
California State
Polytechnic University,
Pomona

INQUIZITIVE

Question Review (18 of 60)

Jason made index cards on a textbook chapter and always studied them in the same order. During the exam, he was able to recall the information on his first and last index cards, but not the ones in the middle.

What explains the fact that Jason was not able to recall the information from the middle of the chapter?

Correct Answer(s)

- primacy effect
- recency effect
- chunking**
- sensory memory

Incorrect Answer(s)

InQuizitive is one of the evidence-based tools for *Psychology in Your Life* that lets teachers and students see whether students are improving in learning the material.

- Providing easy-to-understand graphs of individual student performance over time, by specific concepts and by question type, which helps teachers check students' mastery of the material either before class, where difficult concepts can be discussed, or before quizzes and tests.

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Ensuring an Inclusive Approach to the Text, Teaching Tools, and Assessment Materials to Honor All Teachers and Students

In our combined experience of nearly 80 years in higher education we have worked with teachers and students from all walks of life. If we have learned one thing, it is this: Teachers and students today are vibrant in their diverse identities, experiences, goals, and challenges. Because of this, a key aspect of our vision has been to develop *Psychology in Your Life* to reflect this diversity and be inclusive in all aspects of the textbook, teaching tools, and assessment materials. How do we achieve this? As we work with teachers and students, we ask them about themselves: their goals, needs, successes, and challenges, and what is important to them in terms of their identities and experiences. Even more importantly, we listen to their answers. Their answers—your answers—provide the foundation for how we support you in the best ways possible. Here is what we have learned about the teachers and students who use *Psychology in Your Life*.



“I liked the InQuizitive homework because if forced me to read about the material. I found that I usually could not do well on the homework until I read the textbook. Overall, though, I loved the way the InQuizitive homework was structured. It felt like a game rather than homework, so I was never reluctant to do it.”

—Salman Khan,
introductory psychology
student

Teachers Face Significant Challenges in Supporting Their Students

Teaching is a difficult job, and in today’s educational environment, teachers are increasingly being asked to do more. Teachers must teach more courses, even if they are outside their areas of expertise. Teachers now have greater numbers of students than ever before, including students with widely varying needs, and they must support more students who are underprepared for college. They are being asked to use innovative approaches they may be unfamiliar with and teach courses using formats that are new to them (such as online and hybrid). Many teachers are even being tasked with obtaining assessment data from their courses to give to institutions, even though they often have no training in this area. Yet even as the pressures of teaching increase, institutions provide less support, fewer professional development opportunities, fewer pedagogical resources, and less technical training. Part of our vision is to support teachers with the tools they need, in several ways:

- Because teachers have different learning goals for students, the Learning Goals in our textbook and the support materials, including quiz and Test Bank questions, focus on remembering, understanding, or applying the concepts. This approach lets teachers choose what goals to focus on and choose the appropriate materials to use with their students.
- Because teachers may want students to develop skills, we support reading and writing skills (through the Learning Goal Activities), study techniques (the Using Psychology in Your Life features), critical thinking (the Evaluating Psychology in the Real World features), scientific thinking (the Methods of Psychology figures), and career development (the Putting Psychology to Work features).
- For teachers just starting in the field or for those looking for refreshers, the IIG includes Teaching Videos for each chapter that explain difficult concepts and how to teach them and Teacher Versions of the Student Demonstration Videos that explain how to conduct specific in-class activities.

“Psychology in Your Life is a great book. It has definitely helped me see psychology in my life and understand how psychology can help me in my future career as a teacher.”

—Thipachan (Mia) Radanavong, introductory psychology student



- For novice teachers who are looking to learn about pedagogies that increase active learning, or for experienced teachers who are excited to add to their pedagogical toolboxes, we have created the Enhanced Lecture PowerPoints with Active Learning slides, which include in-class activities and demonstrations as well as examples of different types of engaging activities, such as Think-Pair-Share, Quick Writes, and Did You Get It? comprehension questions.
- We have designed the new HIP Guide, or *High-Impact Practices: A Teaching Guide for Psychology* to support both novice teachers and experienced instructors who want to learn more about evidence-based pedagogies they can use in their classes as well as provide information about professional development opportunities.
- To help teachers develop excellent online and hybrid courses, we provide materials that can be used flexibly in those formats, such as the Concept Videos and the Student Demonstration Videos, and we ensure that all of these meet the current requirements for accessibility for all students.
 - We have developed many ways for teachers to embed assessments into their courses, through InQuizitive, various quizzes (pre-lecture, post-lecture, and Student Demonstration Video quizzes), and through the Test Bank, so teachers can easily capture information about student performance and learning for their institutions.
 - Lastly, teachers worry about keeping costs for their students as low as possible, so we provide several cost-effective textbook options: paperback, notebook, and ebook.

Students Face Challenges in Achieving Their Educational Goals Increasingly, students are underprepared for college and do not have the skills to read at their grade level, write competently, schedule their time, study effectively, or even focus their attention in class or when doing homework. At the same time, students are busier than ever, playing sports, participating in extracurricular activities, taking care of their families, and so on. Most of our students work, either part-time or full-time, even on overnight shifts in some jobs. Yet even if they are working, many students lack the basic necessities in life. Some students experience such extreme challenges that they find it extremely hard just to get to class or do homework, much less navigate the twists in their path to success in higher education. Part of our vision is to support students with the resources they need to succeed, such as by:

- Chunking information in the textbook into shorter, concise study units, with Learning Goal Activities to help students actively engage with and learn the concepts.
- Ensuring that students have a wide variety of effective active-learning tools at their disposal in the textbook and support materials so they can choose which methods they feel might be most interesting, motivating, or personally applicable.
- Providing examples and activities that are culturally sensitive and represent many diverse backgrounds.
- Creating quiz and test questions that use diverse names and situations that represent the students who use the textbook, while also avoiding scenarios and language that are culturally specific and might confuse students using these assessments.

- Choosing photos and developing graphics in the book that represent the diverse students who use the textbook so the students can see themselves in the images, by presenting people of varying genders, ethnicities, ages, body types, gender expressions, and sexual orientations.
- Using the most appropriate terms to describe people, situations, and phenomena, especially with respect to sex, gender, sexual orientation, psychological disorders, and intellectual abilities, among other topics.
- Supporting students' financial needs by providing them with the most effective textbook at the lowest cost as well as the least inexpensive, most evidence-based online homework tool, InQuizitive.

In summary, *Psychology in Your Life* is not just a textbook. Instead, we have developed an evidence-based pedagogical system with an integrated approach to teaching, learning, and improving that supports teachers and students from diverse backgrounds and with different identities and experiences. We hope that you will enjoy this newest edition of *Psychology in Your Life*, and the support materials, as much as the 100,000-plus other people who are using them.

Have fun. Learn things.

Sarah & Mike



Introducing the Third Edition

Psychology in Your Life has been developed based on evidence-based principles that help teachers support student learning. Because of this, the textbook and the integrated support materials are continuously updated to reflect new research findings and pedagogical input from introductory psychology teachers who are using the materials. Guided by the best practices in teaching, learning, and improving, the third edition of *Psychology in Your Life* has been updated in several important ways.

“I would describe this book as very student centered and friendly. A lot of thought was given to making psychology relevant for students. There are lots of thought provoking questions to engage the student, the chapter summaries provide the important points, and there are lots of headings and subdivisions to help organize the information. This text actually positions students to be successful!”

—Krishna Stilianos, Oakland Community College, Highland Lakes Campus



- 1. Every chapter has been revised and updated.** Comments from reviewers, our teaching colleagues, and our students have helped us ensure that every chapter in the textbook is as accurate and compelling as possible. First, we added information on new topics that are becoming important in the field of psychology. Second, we cited the most recent psychological research for the topics discussed in each chapter. Third, we updated the references to popular culture to keep our discussions and images fresh. Fourth, we revised the support materials for teachers and students so they align perfectly with the changes in the textbook. As a result of these changes, this new edition of *Psychology in Your Life* provides teachers and students with the best, most up-to-date information on psychological research and current events related to psychology, along with excellent new interactive ways for students to engage with the material.
- 2. Content has been organized into concise, goal-directed study units.** This new format supports the needs of underprepared readers by chunking text information into shorter sections that are linked with specific Learning Goals. For example, frequent pauses in the text provide opportunities for additional Learning Goals, so more concepts are covered by the Learning Goals. This also provides an opportunity for additional Learning Goal Activities, which support even stronger development of reading and writing skills.
- 3. Opportunities for active learning have been increased in every chapter.** In the third edition, we have also increased active learning. We placed red Q questions throughout every chapter and placed Self-Quiz questions at the end of each chapter to increase likelihood students would use them. We also updated the active learning aspects of two of the book’s pedagogical features, Evaluating Psychology in the Real World boxes and The Methods of Psychology figures, to include updated questions for students to think about and answer, either as homework or while in class. Finally, because our students have incredibly diverse reasons for being in college, we highlight how psychology can be useful in so many careers by adding a new feature, Putting Psychology to Work.
- 4. Terms, examples, photos, graphics, and support materials have been revised to reflect the diversity of students and teachers.** Since the conception of *Psychology in Your Life*, we have ensured that examples, photos, graphics, and support materials are inclusive and reflect today’s students in all their variety. In addition, terminology has been updated, such as in regard to sex, gender, and sexuality.
- 5. InQuizitive has been updated with new active-learning questions.** Throughout InQuizitive, new questions provide students with opportunities for repeated practice online. These questions are aligned with the textbook’s study units, such as in their use of terminology. In addition, InQuizitive includes questions about the Concept Videos.

6. New evidence-based teacher support materials have been created.

In addition to updating the existing teacher support tools, we have created the HIP Guide (*High-Impact Practices: A Teaching Guide for Psychology*), Concept Videos, Enhanced Lecture PowerPoints with Active Learning Slides, and quiz and test questions, especially at the application level.

Appreciation for Contributors and Reviewers

Like teaching and learning, writing a textbook and developing unique and integrated educational tools for teachers and students are joint efforts. Our work to support teachers and students in *Psychology in Your Life* has depended so much on the support that we received in the years we have been engrossed in this project. First, we wish to thank our families for their unwavering support. Our spouses and significant others have been incredibly understanding and generous when we repeatedly worked through family vacations. And our children and grandchildren have patiently waited for us to finish working on the days when they wanted to spend time with us. We are very grateful to each of you.

It has been our good fortune to have been joined by so many talented individuals during the process of developing and revising *Psychology in Your Life*. We are extremely grateful to our colleagues who lent their expertise in psychology to writing material for the textbook. Carrie V. Smith, at the University of Mississippi, wrote the Being a Critical Consumer features in the first and second editions. Beth Morling, at the University of Delaware, provided expert advice on our research methods coverage. Tasha R. Howe, at Humboldt State University, contributed material to the development chapter. Ines Segert, at the University of Missouri, contributed to the Putting Psychology to Work features and checked the accuracy of every chapter's text, figures, and captions. We are also very grateful to the faculty, graduate students, and undergraduates at the University of Illinois, Urbana-Champaign. Many of the teaching and learning principles we used in *Psychology in Your Life* were inspired by the teaching of Dr. Sandra Goss Lucas, who has spent many years training graduate students in pedagogical best practices. In addition, many of the teaching practices used in this book have been empirically tested with the undergraduate students in introductory psychology, who helped us learn more about what helped them learn and what did not.

Most importantly, we wish to thank the psychology teachers at Parkland College and the graduate student teachers and researchers, past and present, at the University of Illinois, Urbana-Champaign, for sharing with us their knowledge of psychological concepts and of evidence-based teaching and learning pedagogies. It is only with their expertise that we have been able to develop and update the materials to support teachers' skills in the Interactive Instructor's Guide and student learning in the Test Bank. In particular, Travis Sola, Crystal Carlson, Genevieve Henricks, Rachel Smallman, Angela Isaacs, and Lauren Bohn Gibson, we thank you. Your dedication to our mission, boundless energy, and drive for excellence are truly inspirational. Daniel Kolen, you are a fast learner about psychology, and your keen eye and production talent have perfected our video materials to support students and teachers. You are a true gem in your profession, and we are grateful to call you one of us—a member of "The Team."



"Psychology in Your Life has excellent features that promote critical thinking and application. Moreover, the text excels when it comes to InQuizitive, supplemental materials such as the Interactive Instructor's Guide, and seamless integration with learning management systems in the form of a course pack."

—Jon Skalski, College of Southern Nevada

Reviewers The chapters were thoroughly reviewed as they moved through the editorial and production process over three editions. Reviewers included star teachers who checked for issues such as level, detail, pacing, and readability, all of which support student comprehension. Reviewers also included experts who checked for scientific accuracy and helped us find the right balance of correctness, clarity, and conciseness. Our reviewers showed extraordinary attention to detail and understanding of the student experience. We are grateful to all the reviewers listed here. Their efforts reflect a deep commitment to excellence in psychology and in teaching students about the importance and applicability of our field.

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The Norton Team To realize a vision, you must take a first step. For *Psychology in Your Life*, the first step was a leap of faith, when W. W. Norton & Co. saw the possibilities of what this project could bring to teachers and students. As the oldest and largest independent publishing company, Norton has created some of the best-respected and iconic books in modern times. The excellence of these works makes Norton stand out as a beacon among publishers. Because the company is wholly owned by its employees, the employees are the heart and soul of this excellence.

Psychology in Your Life exists because of the extraordinary contributions of so many people at Norton. At the top of the list is Sheri Snavelly, the editor of *Psychology in Your Life*. When Sarah and Sheri first discussed this project, many publishing companies were interested in taking a new approach to developing evidence-based educational products. While representatives from many companies wanted to hear about this project, Sheri wanted to learn about it through experience. She asked to sit in on Sarah’s introductory psychology class. No one from another company had asked to do that, but Sheri needed to see if Sarah was a teacher who actually “walked the walk” of supporting student learning in class. That hands-on approach enabled Sheri to see the value in the vision. Sheri’s leadership and guidance have provided a constant star to keep us oriented in the right direction. She has our utter gratitude, respect, and admiration. Assistant editor Eve Sanoussi managed the review program, created art manuscripts, and kept the project running smoothly. She also helped ensure that the book’s illustration program is inclusive—reflecting today’s students in all their variety.

“At several points in reviewing *Psychology in Your Life*, I thought to myself—Why is this not my textbook? It will be a top contender when we consider a new edition. That’s how much I loved it.”

—Robin Musselman,
Lehigh Carbon
Community College



One of our key goals for this textbook was providing appropriate, accurate, and engaging information about psychology while supporting students’ abilities to understand the material. The developmental editor for the second and third editions, Kurt Wildermuth, helped us make the text accessible while maintaining the integrity of the content. He then patiently guided the chapters through the many stages from manuscript editing to publication.

The media for this third edition has benefitted tremendously from the expertise of media editor Kaitlin Coates. Kaitlin skillfully guided the new Concept Videos, Teaching Videos, and *High-Impact Practices: A Teaching Guide for Psychology* to completion, and we are grateful for her talent and hard work. Kaitlin and the excellent associate media editor, Victoria Reuter, worked tirelessly with us to design all aspects of the ebook; Integrated Instructor’s Guide; InQuizitive online formative, adaptive homework tool; and Test Bank around the core learning goals in the textbook. The media editorial assistant, Allison Smith, ensured that the media processes went smoothly. The end result of these long hours of joint work is something remarkable: media that is part of an integrated package, connected to all aspects of *Psychology in Your Life*.

It has been a great joy to work with Ashley Sherwood, our energetic and creative marketing manager. Ashley has been a tireless champion, making sure people understand our mission to support teachers and students. She also is the source of our excellent swag: experiment buttons featuring the field’s most pivotal studies, heart/PSYCH stickers that our children and grandchildren plaster on their laptops, and *Putting Psychology to Work* posters. Norton’s sales managers, representatives, and specialists are truly invested in supporting teachers and students. Their expertise, insight, and mission focus make them extraordinary advocates for excellence in education.

Finally, we want to thank the teachers we have met at conferences and meetings, where we have exchanged ideas about challenges in teaching and how to address those challenges so that our students have great learning experiences. By contributing to the ideas behind *Psychology in Your Life*, those teachers have become part of the extended Norton family.

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PSYCHOLOGY IN YOUR LIFE

1 Introducing the World of Psychology

YOU'RE DRIVING DOWN THE STREET, talking on your cell phone as you negotiate the traffic, stop signs, and pedestrians. Then the driver in front of you stops suddenly. You frantically drop the phone and swerve, barely avoiding a collision. Your heart is pounding as you realize what could have happened.

BIG QUESTIONS

Why Is Psychology Important to You?

What Do Psychologists Investigate?

How Do Psychologists Conduct Research?





FIGURE 1.1

Psychology in Daily Life: The Dangers of Using a Cell Phone While Driving

Kelsey Raffaele took this photo of herself (photo courtesy of her mother, Bonnie Raffaele). Bonnie Raffaele helped get a law passed in their state that prevents novice drivers from using cell phones while driving. For more information on the dangers of using a cell phone while driving, please visit <https://www.thekdrchallenge.com/kelsey-s-story>.

Kelsey Raffaele, a 17-year-old high school senior in Michigan, wasn't so lucky (Figure 1.1). One day, Kelsey was driving through town after school and decided to pass a slower vehicle in front of her. When she saw an oncoming vehicle in the passing lane, she misjudged the distance and crashed. Kelsey spoke her last words on her cell phone as she talked with her best friend, Stacey Hough: "Oh [no], I'm going to crash."

If you are like most people in the United States, you have talked on a cell phone when you were driving. This habit is so common that many of us never think twice about it. That's exactly what Stacey Hough reported. She was driving behind Kelsey at the time of the accident. "[We] used our phones all the time behind the wheel. We never thought anything would come of it," said Stacey. "Until it happen[s], you don't think it could happen."

Statistics contradict people's intuition, their gut feeling, that they can drive safely when talking on the phone. The National Highway Traffic Safety Administration (n.d.) estimates that in 2015 about 391,000 people were injured and 3,477 people died in accidents due to distracted driving, including talking and texting on cell phones. Many people believe these accidents happen because the driver has only one hand on the wheel while holding the cell phone with the other. Because of this habit, by March 2016, 14 states had enacted laws that require the use of hands-free phones while driving (Pickrell & Li, 2017). But even when people have two hands on the steering wheel, can they really drive safely while talking on the phone?

According to one study, a driver's performance is still impaired when using a hands-free device (Strayer & Drews, 2007). This finding implies that the absence of one hand on the steering wheel is not the problem. Rather, diverting one's attention to the phone conversation and away from important visual and auditory cues is a key factor in car accidents. Having all the data gives us evidence so we can make informed decisions about what actions to take. In the case of cell phones and driving, banning the use of handheld cell phones while driving does not reduce accidents (Burger, Kaffine, & Yu, 2014). Instead, we must ban all cell phone use while driving. But how can public policies succeed in getting people not to use cell phones when driving, especially when drivers believe they are not at risk (Sanbonmatsu, Strayer, Behrends, Ward, & Watson, 2016)? Could manufacturers create cell phones and other in-car products that are less distracting when drivers use them? And how might we understand which drivers are most at risk and provide intervention for them? Psychological research is currently investigating these questions.

When you decided to take a psychology course, you probably did not think it would deal with issues such as why it is dangerous to use a cell phone while driving. But questions like these are at the forefront of psychological research. Unfortunately, we cannot use intuition or our personal beliefs to answer questions like this one. Why not? What seems to be obvious is rarely the whole story. Behind the "obvious" are mental processes that cause us to think and act in certain ways. Processes of this kind are one of the major subjects of psychology. This text introduces you to current topics such as this one, teaches you to think critically about them, and looks at how you can use psychology to improve your daily life. Just imagine what this knowledge might have done for Kelsey Raffaele—and for the thousands of other people like her who perish in distracted driving accidents every year.

Why Is Psychology Important to You?

Learning about psychology can affect you in critical ways. For example, psychology can help you understand why you should not talk on your cell phone while driving. It can also help you understand other people. Why are some people fascinated by celebrities and their lives, such as Beyoncé and Jay-Z, whereas many others try to ignore media coverage of celebrities (**Figure 1.2**)? Or think about the last time a friend or family member did something that really surprised you. You may have wanted to understand that person’s motives, thoughts, desires, intentions, moods, actions, and so on.

All of us want to know whether other people are friends or enemies, leaders or followers, likely to reject us or fall in love with us. We also want to understand ourselves—why we love the people we do, why we get so angry when someone laughs at us, or why we made that “stupid mistake.” Psychology can help us understand ourselves and other people. In turn, this understanding can help us have more success in our studies, be better parents, improve our friendships, work more effectively in groups, and succeed at our jobs. In short, psychology can help us improve our lives.



FIGURE 1.2
Understanding People

Psychology can help you understand yourself. It also provides insight into why some people find certain celebrities fascinating. The relationship between Beyoncé and Jay-Z has been the focus of intense interest by many people.

1.1 Psychology Explains Your Mental Activity and Behavior



1.1 LEARNING GOAL ACTIVITIES

To maximize your learning, complete the following learning goal activities:

- a. Understand all bold and italic terms by writing explanations of them in your own words.
- b. Apply psychology to your life by writing an example of your own mental activity and behavior in a situation.

As you saw in this chapter’s opening story, people believe they can talk on a cell phone and still drive safely. This story is important because it shows that you cannot use your intuition or your personal beliefs to truly understand people or to predict behavior. By contrast, **psychology** is the scientific study of the mind and behavior, both of which depend on processing in the brain.

The mind is made up of all of the mental activity that lets you experience the world. That is, you use your senses—sight, smell, taste, hearing, and touch—to take in information from outside yourself. Through mental activity, you interpret that information. These processes of receiving and interpreting information are responsible for all of your memories, thoughts, and feelings. By contrast, the term “behavior” refers to all of the actions that result from sensing and interpreting information. It is important to remember that both mental activity and behavior are produced by the brain. In recent years, technology such as brain imaging has provided great insight into how the brain processes information to let you think about and respond to information in the world around you.

So psychology focuses on the scientific study of mental activity, behavior, and the brain processes that underlie them. The areas of investigation range from the simple to the complex. What are some of the topics of interest in psychology? Using the Try It Yourself feature on p. 6, see if you can figure out the answer.

psychology

The scientific study of mental activity and behavior, which are based on brain processes.

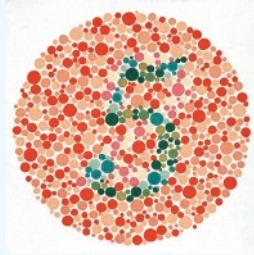


TRY IT YOURSELF: What Is Psychology?

QUESTION: Which of these pictures show aspects of psychology?



These people are friends.



This is a color-blindness test—see the 5?



This woman is experiencing depression.



This couple enjoys the thrill of roller coaster rides.



The design of this door is confusing—push or pull?

Answer: All of these pictures reflect psychology because they suggest the presence of mental activity and behavior that depend on brain processes.

Are you getting the impression that every aspect of what you think and do relates to psychology? Then you are right. You might be surprised to know that as you sit reading this textbook, you are experiencing psychology. Your eyes move across the page so you can see the words and understand their meanings. But maybe you are also feeling hungry, so you are distracted by thoughts of food. Perhaps you are thinking about someone you just met whom you want to get to know better. Or maybe you are thinking about how to get a better job that relates more closely to your career interests. All these mental activities and actions relate to psychology, so psychology is a part of every moment of your life.

1.2 Psychology Teaches You to Think Critically



1.2 LEARNING GOAL ACTIVITIES

To maximize your learning, complete the following learning goal activities:

- a. Understand all bold and italic terms by writing explanations of them in your own words.
- b. Apply critical thinking to real life by writing an example of each of the following: an intuition, a belief, an opinion, a pseudofact, and objective evidence.

Do you believe in astrology? Astrology is the idea that the positions of stars and of planets affect our lives. Many people know their star sign and even read their horoscope to discover what life may have in store for them. In fact, about 25 percent of Americans believe in astrology (Gallup, 2005). However, there is no compelling scientific support for astrology or for the accuracy of horoscopes. In fact, psychological research demonstrates that numerous factors other than a person's star sign better predict the individual's behavior and traits (Hartmann, Reuter, & Nyborg, 2006).

Before taking a psychology course, many students believe things about the brain, mental activity, and behavior without stopping to think about why they believe

what they do. But a main goal of this textbook is to teach you to stop and investigate before you believe. In other words, in this textbook, you will learn to think critically to evaluate psychological information in the real world.

critical thinking

Systematically evaluating information to reach conclusions best supported by evidence.

STEPS IN CRITICAL THINKING In **critical thinking**, we systematically evaluate information to reach conclusions based on the evidence that is presented. As shown in the Learning Tip below, three steps are involved in thinking critically about information in psychology, or on any other topic.

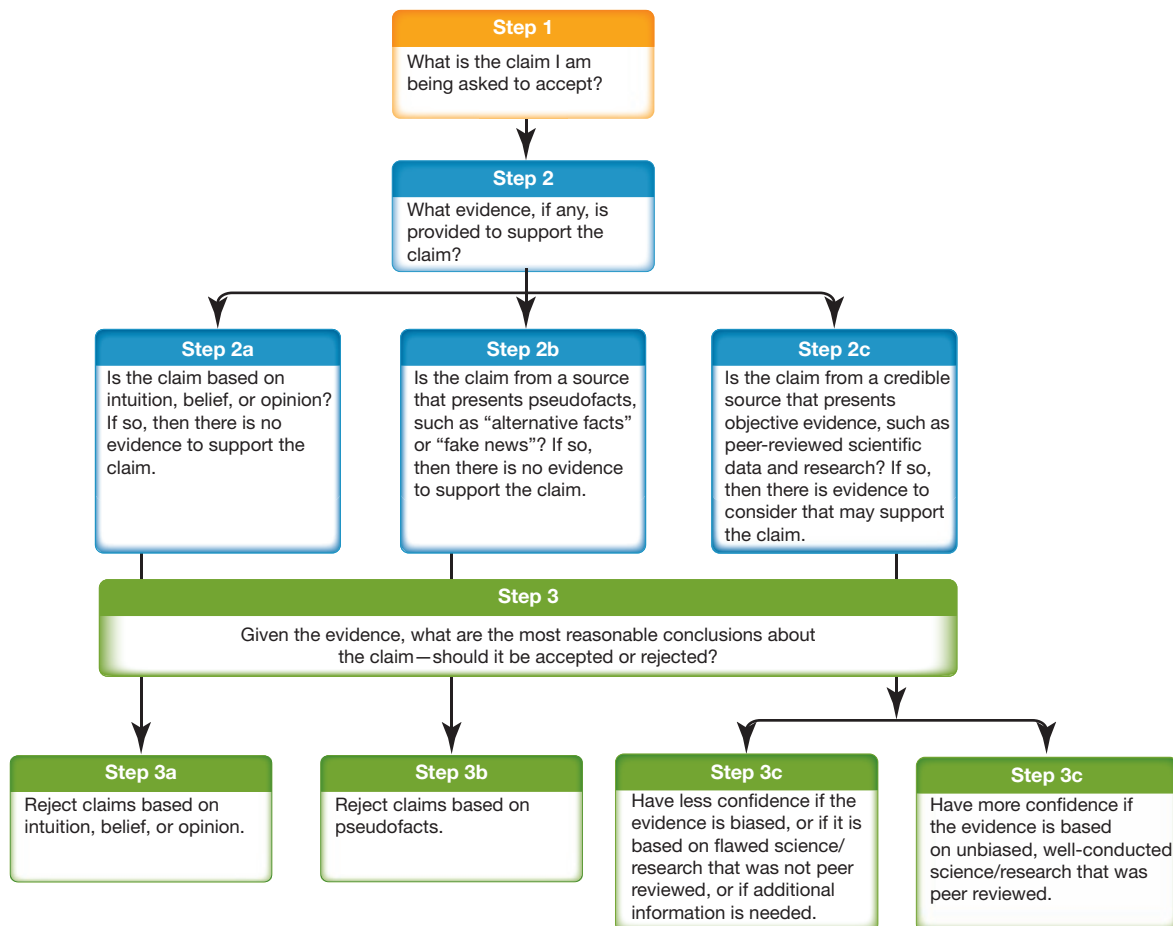
The first step in critical thinking is to ask, “What is the claim I am being asked to accept?” In other words, you have to identify the statement that you will then evaluate. Once you identify the claim, you must approach it with friendly skepticism. That is, keep an open mind about the new claim, but do not accept it at face value. This combination of openness and caution is important because it lets you receive new information but not absorb everything that comes your way. Ideally, you do not simply accept information because it fits with what you already believe.

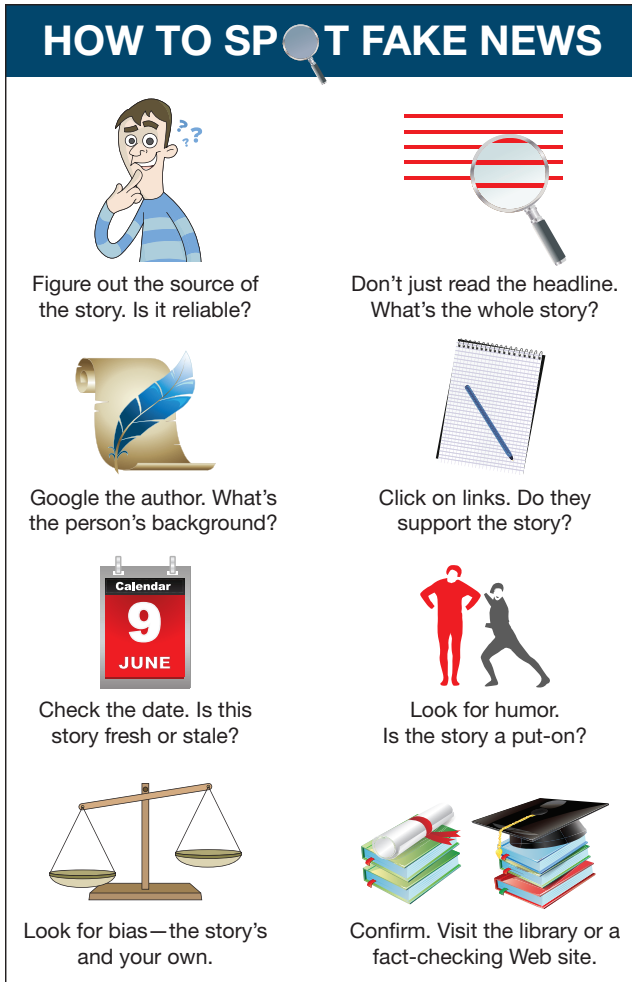
The second step in critical thinking is to ask, “What evidence, if any, is provided to support the claim?” Evidence is the available information that is relevant to the



LEARNING TIP: Developing Critical Thinking Skills

Throughout this textbook, Evaluating Psychology in the Real World features will help you develop critical thinking skills. Each time you read one of these features, try to follow the steps in the diagram below to correctly evaluate the claim being made.





(a)



(b)

FIGURE 1.3
Good Critical Thinking Includes Knowing the Source of Information

(a) Sometimes pseudofacts are given as support for claims. Such fabrication occurs most often in fake news. Follow these tips to avoid accepting the claims you may see in fake news. (b) The best evidence to support claims comes from scientific and research-based sources such as peer-reviewed journals.

claim. People sometimes use the everyday word “fact” to describe evidence. Scientists avoid the word “fact” because nothing is ever really 100 percent certain and new evidence changes how we interpret any claim. Psychologists look for strong objective evidence to support a claim. Objective evidence means information that is not influenced by feelings or opinions. However, some claims are not based on solid evidence. Therefore, a key part of this step in critical thinking is recognizing when evidence is lacking to support a claim. Some claims reflect a person’s *intuition*, which is an instinctive, gut feeling about something, not reflecting much thought. Other claims may reveal a person’s *belief*, which is a long-held, bedrock thought about an issue. And yet other claims may reveal an *opinion*, which is a judgment about a topic, including a judgment about evidence. Intuitions, beliefs, and opinions are not credible evidence.

In addition, some claims are associated with “facts” that look true but are not. Such false pieces of evidence are *pseudofacts*. Pseudofacts are sometimes called *alternative facts*. Whatever they are called, these fake pieces of information are not meaningful evidence of any kind, because they are false. You may have heard about the existence of *fake news* (Lazer et al., 2018). Fake news is not news, because it is based on shaky evidence. These are deliberately misleading stories, with either no supporting evidence or false facts. These stories are made up for personal reasons, advertising, or political purposes. **Figure 1.3a** shows how you can determine whether you are looking at fake news.

However, it is one thing to know that some “facts” are fake. It is another thing to actually separate good evidence from pseudofacts. To do so, you must determine the source of the claim. Did you hear the claim on TV or on the radio? Did you read about it in a newspaper? Did you see it on the Internet? Did you overhear someone say it on the bus? Knowing the source of a claim helps you evaluate the support given for the claim. Was any support given? Was the support biased? A claim is based on biased information when the person making the claim twists the information to fit a personal or political agenda. For example, statistics can be presented in misleading ways. Or all the information given may support the claim, with no mention of support for competing claims.

You might be wondering: If a person is making an argument, why would that person present evidence that supports competing claims? An argument actually becomes stronger, more persuasive, when it acknowledges different perspectives and then shows the weaknesses in those perspectives. If a claim cannot stand up in the face of different perspectives, it is a weak claim. So when you hear about only one side of an argument, be suspicious. Employ your friendly skepticism. Ask yourself what’s missing. If possible, ask the person making the claim to address other perspectives and fill in the gaps you noticed.

Now suppose you have been presented with information from a different source: a scientist. In science, well-supported evidence typically means research reports based on objective data that are published in peer-reviewed journals, such as the ones shown in **Figure 1.3b**. “Peer review” is a process by which other scientists with similar expertise evaluate and critique research reports before they are published.

Peer review ensures that published reports describe research studies that are well designed, are conducted ethically, and arrive at logical conclusions. Compared with information from other sources, evidence from peer-reviewed journals is most likely to be high-quality. As a result, you should feel more confident about accepting claims based on this type of evidence. Now, if a scientist says it, it must be true, right? On the contrary, you also must use critical thinking to evaluate claims that present evidence from scientific or research-based sources. These sources, like others mentioned above, may reflect bias.

The third and last step of critical thinking is to ask, “Given the evidence, what are the most reasonable conclusions about the claim—should it be accepted or rejected?” Suppose you have determined that no evidence has been presented to support the claim (as occurs when intuition, belief, or opinion is presented as support). Or suppose the claim is associated with pseudofacts (as occurs in fake news and with alternative facts). In these cases, you should reject the claim or at least be highly skeptical until you find better evidence. By contrast, if you decide that the evidence used to support the claim is based on scientific evidence and research, then you should be more likely to accept the claim. Yet even in this case you must use logic and reasoning to determine whether there are holes in the evidence (reasoning is discussed in study unit 8.4). Unfortunately, some peer-reviewed studies are published but still reflect flawed methods or analyses. After you have read this book, you will have a strong understanding of how scientific research is conducted and how claims can be safely made based on research findings. With that knowledge, you will be able to look at some scientific evidence and consider whether you need additional information to evaluate the claim being made. At the same time, you can think about whether there might be alternative explanations for the claim. You then can decide whether the evidence tends to support the claim.

The Learning Tip on p. 7 explains how this book will help you develop strong critical thinking skills. Throughout the book, you will practice using these three steps to evaluate real-world claims about psychology. Some of these claims may come from mainstream news. Others may come from social media. Everyone loves a good story, and people often jump on findings from psychological research. Unfortunately, as you will see, media reports can be distorted or even totally wrong. Because of this possibility, you should practice good critical thinking skills by being on the lookout for unreasonable claims.

EVALUATING PSYCHOLOGY IN THE NEWS One example of psychological research that was turned into an overblown news report concerns the so-called Mozart effect. According to the original research, adult research participants showed significant but temporary gains in performing one type of task after listening to a Mozart sonata for 10 minutes, compared with listening to relaxation instructions or silence (Rauscher, Shaw, & Ky, 1993).

News outlets quickly reported these results. However, the writers and editors either misunderstood the findings or misrepresented them with headlines that suggested that listening to Mozart was a way to increase intelligence (**Figure 1.4**). Even people surrounded by professional advisers can fall prey to such media reports.



FIGURE 1.4
Thinking Critically About Psychology in the News

Media reports seek to grab attention. The claims can be based on psychological research, but they can also be hype. Consider what happened when research revealed small gains in one type of performance task after adult participants listened to a Mozart sonata for 10 minutes. The media dubbed these gains the Mozart effect and falsely reported that listening to Mozart could make people smarter.