

# Psychology in Action

12th Edition

#### KAREN HUFFMAN

Palomar College

#### KATHERINE DOWDELL

Des Moines Area Community College

#### **CATHERINE A. SANDERSON**

**Amherst College** 

VICE PRESIDENT AND EXECUTIVE PUBLISHER

EXECUTIVE EDITOR

DIRECTOR OF DEVELOPMENT
PRODUCT DESIGNER
SENIOR MARKETING MANAGER
SENIOR CONTENT MANAGER

SENIOR PRODUCTION EDITOR CREATIVE DIRECTOR SENIOR DESIGNER

PHOTO DEPARTMENT MANAGER SENIOR PHOTO EDITOR PRODUCTION SERVICES George Hoffman

Veronica Visentin-Editorial Director

Barbara Heaney Wendy Ashenberg Glenn Wilson Dorothy Sinclair Sandra Rigby Jon Boylan Wendy Lai Melinda Patelli Mary Ann Price Furino Production

Cover photo: © vernonwiley/Getty Images

Study Tip and Test Yourself icon photos: Billy Ray/Wiley Chapter Opener tennis shoes photo: © alexxl66/iStockphoto

This book was typeset in 9.5/11.5 Source Sans Pro at Aptara and printed and bound by LSC Communications. The cover was printed by LSC Communications.

Founded in 1807, John Wiley & Sons, Inc. has been a valued source of knowledge and understanding for more than 200 years, helping people around the world meet their needs and fulfill their aspirations. Our company is built on a foundation of principles that include responsibility to the communities we serve and where we live and work. In 2008, we launched a Corporate Citizenship Initiative, a global effort to address the environmental, social, economic, and ethical challenges we face in our business. Among the issues we are addressing are carbon impact, paper specifications and procurement, ethical conduct within our business and among our vendors, and community and charitable support. For more information, please visit our website: www.wiley.com/go/citizenship.

This book is printed on acid-free paper.

Copyright © 2018, 2015, 2012, 2008, 2004, 2000, 1996, 1994 by John Wiley & Sons, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030-5774, (201) 748-6011, fax (201) 748-6008.

Evaluation copies are provided to qualified academics and professionals for review purposes only, for use in their courses during the next academic year. These copies are licensed and may not be sold or transferred to a third party. Upon completion of the review period, please return the evaluation copy to Wiley. Return instructions and a free of charge return shipping label are available at www.wiley.com/go/returnlabel. If you have chosen to adopt this textbook for use in your course, please accept this book as your complimentary desk copy. Outside of the United States, please contact your local representative.

EPUB ISBN: 978-1-119-39483-9

The inside back cover will contain printing identification and country of origin if omitted from this page. In addition, if the ISBN on the back cover differs from the ISBN on this page, the one on the back cover is correct.

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

# About the Authors



Courtesy of Karen Huffman

KAREN HUFFMAN is an emeritus professor psychology at Palomar College, San Marcos, California, where she taught full time until 2011 and served as the Psychology Student Advisor Co-Coordinator for psychology faculty. Professor Huffman received the National Teaching Award for Excellence in Community/ Junior College Teaching given by Division Two of

the American Psychological Association (APA), along with many other awards and accolades. She's also the author and co-author of several textbooks, including *Psychology in Action, Psychology*, and *Real World Psychology*. Professor Huffman's special research and presentation focus is on active learning and critical thinking. She has been the invited speaker and conducted numerous presentations, online web seminars, and teaching workshops throughout the United States, Spain, Canada, and Puerto Rico.



Courtesy of Katherine Dowdell

KATHERINE DOWDELL is a professor of psychology at Des Moines Area Community College in Iowa, where she teaches courses in introduction to psychology, abnormal psychology, lifespan development and social psychology. She also currently serves as District Chair of Behavioral Sciences. Professor Dowdell received her BA in Psychology from the University of Pennsyl-

vania, and her MS in Clinical Psychology from the University of Pittsburgh.

Professor Dowdell began working with Karen Huffman and the Wiley Psychology team as a Wiley Faculty Network mentor in 2007. She has taught and mentored faculty on best practices and the use of technology in teaching. She has conducted numerous online presentations and live workshops. As a decade-long user of WileyPLUS, Professor Dowdell has served as a development consultant on everything from WileyPLUS functionality, to video content, instructional design, user-experience and faculty training.

#### CATHERINE A. SANDERSON

is the Manwell Family Professor of Life Sciences (Psychology) at Amherst College. She received a bachelor's degree in psychology, with a specialization in health and development, from Stanford University, and received both masters and doctoral degrees in psychology from Princeton University. Professor Sanderson's research examines how personality and social variables influence health



Courtesy of Catherine Sanderson

related behaviors such as safer sex and disordered eating, the development of persuasive messages and interventions to prevent unhealthy behavior, and the predictors of relationship satisfaction. This research has received grant funding from the National Science Foundation and the National Institute of Health. Professor Sanderson has published over 25 journal articles and book chapters in addition to five college textbooks, a high school health textbook, and a popular press book on parenting. In 2012, she was named one of the country's top 300 professors by the Princeton Review.

# **Brief Contents**

```
PREFACE X
    Introduction and Research Methods 1
     Neuroscience and Biological Foundations 44
     Stress and Health Psychology 81
     Sensation and Perception 115
    States of Consciousness 151
    Learning 184
     Memory 220
 7
    Thinking, Language, and Intelligence 256
    Life Span Development I 288
10
    Life Span Development II 323
     Gender and Human Sexuality 351
11
     Motivation and Emotion 387
12
   Personality 421
13
   Psychological Disorders 456
    Therapy 494
15
     Social Psychology 531
            Statistics and Psychology A-1
APPENDIX A
APPENDIX B Answers to Self-tests, Connections, and
            Research Challenges B-1
GLOSSARY GL-1
REFERENCES R-1
NAME INDEX NI-1
SUBJECT INDEX SI-1
AVAILABLE SEPARATELY UPON REQUEST:
    Industrial/Organizational Psychology 569
     Psychology at Work in the Global Economy 597
```

<ul><li>Introduction and Research</li><li>Methods 1</li></ul>	3.4 Health Psychology 106 Gender and Cultural Diversity Culture and Job Stress 108 Research Challenge When Do Losers Actually Win? 109			
Psychology and a Contemporary Success Michael Jordan 2	Psychology and Your Professional Success How Well Do You			
1.1 Introducing Psychology 3	Cope with Job Stress? 109 Chapter Summary 111			
Gender and Cultural Diversity Psychology's History of	Chapter Summary 111			
Diversity <b>9</b>	4 Sensation and Perception 115			
Psychology and Your Professional Success Would You Like a	4 Sensation and Perception 115			
Career in Psychology? 11	Payabalagy and a Classic Syspess Halan Kallay 116			
1.2 The Science of Psychology 13	Psychology and a Classic Success Helen Keller 116			
1.3 Research Methods 20	<ul><li>4.1 Understanding Sensation 117</li><li>4.2 How We See and Hear 123</li></ul>			
Research Challenge Why Do Men and Women Lie				
About Sex? 29	4.3 Our Other Important Senses 130			
1.4 Tools for Student Success 32	Research Challenge Can Music Improve the Taste of Beer? 133			
Psychology and Your Personal Success Why Are a Growth	4.4 Understanding Perception 135			
Mindset and Grit Important? 37	Gender and Cultural Diversity Are the Gestalt Laws			
Chapter Summary 39	Universally True? <b>140</b>			
1 Norwaniana and Dialogical	Research Challenge Does Wearing Red Increase Your Sex			
2 Neuroscience and Biological	Appeal? 144			
Foundations 44	Psychology and Your Personal Success Helen Keller's			
	Inspiring Advice 146			
Psychology and a Contemporary Success Adele Diamond 45	Chapter Summary 147			
<ul><li>2.1 Neural and Hormonal Processes 46</li><li>2.2 Nervous System Organization 54</li></ul>	5 States of Consciousness 151			
2.3 A Tour Through the Brain 61	Psychology and a Classic Success Albert Einstein 152			
Gender and Cultural Diversity Are Male and Female Brains	5.1 Understanding Consciousness 153			
Different? 63	Research Challenge What's Wrong with Distracted			
Research Challenge Does Lying Lead to More Lies? 66	Driving? 155			
2.4 The Cerebral Cortex 68	Psychology and Your Personal Success Can Maximizing You			
Research Challenge Phineas Gage—Myths Versus Facts 71	Consciousness Save Lives? 155			
Psychology and Your Personal Success How to Train	5.2 Understanding Sleep and Dreams 157			
Your Brain <b>71</b>	Gender and Cultural Diversity Are There Differences in			
Chapter Summary 77	Dreams? <b>164</b>			
	5.3 Psychoactive Drugs 168			
3 Stress and Health Psychology 81	Psychology and Your Professional Success Potential Career			
	Costs of Addiction 170			
Psychology and a Contemporary Success Marcus Luttrell 82	5.4 Meditation and Hypnosis 176			
3.1 Understanding Stress 82	Chapter Summary 180			
Gender and Cultural Diversity What Are the Problems with				
Acculturative Stress? 87	6 Learning 184			
Research Challenge What Are the Hidden Benefits of				
Practice Testing? 93	Psychology and a Contemporary Success			
3.2 Stress and Illness 94	Cesar Millan 185			
3.3 Stress Management 99	6.1 Classical Conditioning 186			
Psychology and Your Personal Success Can Mindfulness	6.2 Operant Conditioning 194			
Improve Your GPA? 103	Research Challenge Do Dogs Prefer Food or Praise? 197			
	<u> </u>			

Psychology and Your Professional Success Why Can't We Get Anything Done Around Here? 205	Psychology and Your Professional Success Does Ageism Matter? 305
6.3 Cognitive–Social Learning 206	9.3 Cognitive Development 306
Research Challenge Does the Media Impact Our Body Size	9.4 Social-Emotional Development 314
Preferences? 210	Psychology and Your Personal Success The Power of
Psychology and Your Personal Success Can Learning	Touch 315
Principles Help You Succeed in College? 210	Chapter Summary 319
6.4 Biology of Learning 211	•
Chapter Summary 215	10 Life Coase Davidson and II
	10 Life Span Development II 323
<b>7</b> Memory 220	Psychology and a Classic Success Nelson Mandela 324
Developed a Company of	10.1 Moral Development 325
Psychology and a Contemporary Success Elizabeth	Gender and Cultural Diversity Effects on Moral
Loftus 221	Development 327
7.1 The Nature of Memory 221	10.2 Personality Development 328
Research Challenge Can Taking Photos Impair Our	10.3 Neurodevelopmental Disorders 331
Memories? 224	10.4 Challenges of Adulthood 335
7.2 Forgetting 233	Psychology and Your Personal Success What Are the
Gender and Cultural Diversity Does Culture Affect	Secrets to Enduring Love? 336
Memory? <b>237</b>	Research Challenge Are Brain Differences Associated with
7.3 Biological Bases of Memory 238	Age-Related Happiness? 341
7.4 Memory Distortions and Improvement 244	Chapter Summary <b>346</b>
Psychology and Your Personal Success Can Memory	
Improvement Increase Success? 248	<b>11</b> Gender and Human
Chapter Summary 251	Sexuality 351
8 Thinking, Language, and	Psychology and a Contemporary Success Ellen
Intelligence 256	DeGeneres 352
	11.1 Studying Human Sexuality 353
Psychology and a Contemporary Success Bill Gates 257	Gender and Cultural Diversity Sexuality Across
8.1 Thinking 258	Cultures 354
Psychology and Your Personal Success Strategies for Better	11.2 Sexual Identity 356
Problem Solving 262	Research Challenge Is Gender Income Inequality
Research Challenge Is Creativity Linked with Psychological	Real? 357
Disorders? 265	11.3 Sexual Behavior 364
8.2 Language 266	11.4 Sex Problems 367
Gender and Cultural Diversity Can Your Nonverbal	Research Challenge Does Political Affiliation Reflect Sexual
Language Reveal Your Roots? 270	Behavior? 372
	11.5 Sex and Modern Life 376
_	
8.4 Intelligence Controversies 276	Psychology and Your Personal Success Are Your Conflicts
Psychology and Your Professional Success Is a High IQ	Constructive or Destructive? 380
Essential to High Achievement? 282	Chapter Summary 384
Chapter Summary 284	
	<b>12</b> Motivation and Emotion 387
9 Life Span Development I 288	
	Psychology and a Contemporary Success Malala
Psychology and a Contemporary Success Oprah Winfrey 289	Yousafzai <b>388</b>
9.1 Studying Development 290	12.1 Theories of Motivation 389
Research Challenge Deprivation and Development 291	12.2 Motivation and Behavior 394
Gender & Cultural Diversity Should Diversity Affect	Psychology and Your Professional Success What Are the
Research? 294	Best Ways to Increase Motivation? 402
9.2 Physical Development 295	12.3 Components and Theories of Emotion 403

Research Challenge Does Wearing "Sexy" Clothing Signal Sexual Interest? 406  12.4 Experiencing Emotions 411  Gender and Cultural Diversity Are Emotions Affected by Culture and Evolution? 411  Psychology and Your Personal Success Are There Research Based Secrets for Happiness? 415  Chapter Summary 418	<ul> <li>15.3 Biomedical Therapies 510</li> <li>15.4 Psychotherapy in Perspective 516</li> <li>Research Challenge Can Watching Movies Prevent Divorce? 518</li> <li>Gender and Cultural Diversity Therapy in Action 523</li> <li>Psychology and Your Personal Success: What Are the Keys to Good Mental Health? 524</li> <li>Chapter Summary 526</li> </ul>
Psychology and a Classic Success: Abraham Lincoln 422  13.1 Psychoanalytic/Psychodynamic Theories 423  13.2 Trait Theories 430  Research Challenge Do Nonhuman Animals Have Unique	Psychology and a Contemporary Success Sonia Sotomayor 532  16.1 Social Cognition 533 Psychology and Your Personal Success How Can We Reduce
Personalities? 433  Psychology and Your Personal Success Can (and Should) We Improve Our Personalities? 434  13.3 Humanistic Theories 435  13.4 Social-Cognitive Theories 438  Psychology and Your Personal Success Could You Pass the Stanford Marshmallow Test? 440  13.5 Biological Theories 442  13.6 Personality Assessment 444  Psychology and Your Professional Success Should You Match Your Personality with Your Career? 448  Chapter Summary 450	Attributional Biases? 535  Research Challenge Can a 10-Minute Conversation Reduce Prejudice? 543  Psychology and Your Professional Success The Power of Affirmative Action 544  16.2 Social Influence 545  Gender and Cultural Diversity How Does Culture Affect Personal Space? 546  16.3 Social Relations 554  Psychology and Your Personal Success Using Psychology to Increase Your Dating Appeal 560  Research Challenge Can Long-Distance Relationships Survive? 561
14 Psychological Disorders 456	Chapter Summary <b>565</b> APPENDIX A Statistics and Psychology A-1
Psychology and a Contemporary Success Jennifer Lawrence 457  14.1 Studying Psychological Disorders 458  14.2 Anxiety Disorders 467  14.3 Depressive and Bipolar Disorders 472  Research Challenge Are Head Injuries Related to Depressive and Other Psychological Disorders? 474  14.4 Schizophrenia 476  14.5 Other Disorders 480  14.6 Gender and Cultural Effects 484  Research Challenge Does Unequal Pay for Equal Work Increase Female Anxiety and Depression? 485  Psychology and Your Personal Success Can Resilience Promote Mental Health in Children and Adults? 488  Chapter Summary 490	APPENDIX B Answers to Self-tests, Connections, and Research Challenges B-1  GLOSSARY GL-1  REFERENCES R-1  NAME INDEX NI-1  SUBJECT INDEX SI-1  AVAILABLE SEPARATELY UPON REQUEST:  17 Industrial/Organizational Psychology 569  18 Psychology at Work in the Global Economy 597
<b>15</b> Therapy 494	

Psychology and a Contemporary Success J. K. Rowling 495

15.1 Talk Therapies 49615.2 Behavior Therapies 505

# Preface



© vernonwiley/Getty Images

What do you think about the death-defying mountain climber on the cover of this text? Most readers don't recognize the time and thought authors and publishers commit to visually capturing the

essential message of their work. In our case, we've always chosen activity-oriented images for all twelve editions of *Psychology in Action* because, as its name implies, our textbook has earned its reputation as a leader in *active learning*.

Beginning with our first edition, we were the first to include *Try This Yourself* activities, *Study Tips*, *Research Challenges*, and other "hands on" demonstrations (e.g., *Critical Thinking Exercises* and *Media Challenges* that are available as graded assignments in the WileyPlus program). Why? We've always believed that student success is best assured through active learning, which encourages students to think critically and engage with

the material—thus leading to deeper levels of processing. Our enduring foundation in active learning continues in this twelfth edition—as shown in the following examples.

What's **NEW** in *Psychology in Action* 12e? Given our commitment to active learning and evidence-based research, we've chosen to make the development of a *growth mindset* and *grit* as the central goals and theme of this edition. As you may know, studies find that these two factors may be the most significant factors in determining career and academic success. In fact, some research suggests that they may be even more important than IQ (Datu et al., 2016; Dweck, 2007, 2012; Suzuk et al., 2015).

With this focus on a growth mindset and grit in mind, we start each chapter with a NEW *Psychology and a Classic* (or *Contemporary*) *Success* feature, which offers a brief description of a famous figure who exemplifies both qualities. (See the following example of J. K. Rowling.) The stories are then embedded throughout each chapter to illustrate core concepts. We believe offering these repeated success stories will reassure our readers that achievement is largely under their control,

#### Try This Yourself

#### Testing for Reflexes

If you have a newborn or young infant in your home, you can easily (and safely) test for these simple reflexes. (Most infant reflexes disappear within the first year of life. If they reappear in later life, it generally indicates damage to the central nervous system.)



Rooting reflex Lightly stroke the cheek or side of the mouth, and watch how the infant automatically (reflexively) turns toward the stimulation and attempts to suck.

#### Test Your Critical Thinking

- What might happen if infants lacked these reflexes?
- Can you explain why most infant reflexes disappear within the first year?



Grasping reflex Place your finger or an object in the infant's palm and note his or her automatic grasping reflex.



Babinski reflex Lightly stroke the sole of the infant's foot, and the big toe will move toward the top of the foot while the other tree for out

#### Research Challenge

#### Why Do Men and Women Lie About Sex?

The social desirability bics is of particular concern when we study sexual behaviors. A fascinating example comes from a study that asked college students to complete a questionnaire regarding how often they engaged in 124 different gender-typical behaviors (Fisher, 2013). Some of these behaviors were considered more typical of men (such as wearing dirty clothes and telling obscene jokes), whereas other behaviors were more common among women (such as writing poetry and lying about their weight). Half of the participants completed these questionnaires while attached to what they were told was a polygraph machine (or lie detector), although in reality this machine was not working. The other half completed the questionnaires without being attached to such a machine.

Can you predict how students' answers differed as a function of their gender and whether they were (or were NOT) attached to the supposed lie detector? Among those who were attached to a supposed lie detector and who believed that it could reliably detect their lies, men were more likely to admit that they sometimes engaged in behaviors seen as more appropriate for women, such as writing poetry. In contrast, women were more likely to admit that they sometimes engaged in behaviors judged more appropriate for men, such as telling obscene jokes. Even more interesting, men reported having had more sexual partners when they weren the hooked up to the lie detector than when they were. The reverse was true for women! They reported fewer partners when they were not hooked up to the lie detector than when they were.

How does the social desirability response help explain these differences? We're all socialized from birth to conform to norms (unwritten rules) for our culturally approved male and female behaviors. Therefore, participants who were NOT attached to the supposed lie detector provided more "gender appropriate" responses. Men admitted telling obscene jokes and reported having more sexual partners, whereas women admitted typing about their weight and reported having fewer sexual partners.

These findings were virtually reversed when participants be lieved they were connected to a machine that could detect thei lies. This fact provides a strong example of the dangers of the social desirability response. It also reminds us, as either researchers or consumers, to be very careful when interpreting findings regarding sexual attitudes and behaviors. Gender roles may lead to inaccurate reporting and exaggerated gender



#### Test Yourself

- Based on the information provided, did this study (Fisher, 2013) use descriptive, correlational, and/or experimental research?
- 2. If you chose:
  - descriptive research, is this a naturalistic observation, survey/interview, case study, and/or archival research?
  - correlational research, is this a positive, negative, or zero correlation?
  - experimental research, label the IV, DV, experimental group(s), and control group. (Note: If participants were not randomly assigned to groups, list it as a quasi-experimental design.)
  - both descriptive and correlational, answer the corresponding questions for both.

Check your answers by clicking on the answer button or by looking in Appendix B.

**Note:** The information provided in this study is admittedly limited, but the level of detail is similar to what is presented in most toxbooks and public reports of research findings. Answering these questions, and then comparing your answers to those provided, will help you become a better critical thinker and consumer of scientific research.

#### **Study Tip**

One way to differentiate the two subdivisions of the ANS is to imagine skydiving out of an airplane. When you initially jump, your sympathetic nervous system has "sympathy" for your stressful situation. It alerts and prepares you for immediate action. Once your "para" chute opens, your "para" sympathetic nervous system takes over, and you can relax as you float safely to earth.

#### Psychology and a Contemporary Success I J. K. Rowling

Joanne Rowling, best known as J. K. Rowling (1965–), is a British novelist, screenwriter, and film producer famous for her authorship of the *Harry Potter* series of fantasy novels (see photo). Rowling (pronounced *rolling*) was born in Yate, England, to parents who, as she says, "came from impoverished backgrounds and neither of whom had been to college." They did, however, love to read, and Rowling grew up surrounded by books to become the classic "bookworm." After graduating from Exeter University, Rowling moved to Portugal, where she met and married a Portuguese journalist. The marriage soon ended in divorce, and Rowling moved with her daughter to live near her sister in Edinburgh, Scot-

land. Struggling to support herself and her young daughter, she reluctantly signed up for welfare benefits, saying that she was "as poor as it is possible to be . . . without being homeless." Rowling sold her first novel in the Harry Potter series for only \$4,000. Since then, though, this series of books has sold over 450 million copies (McClurg, 2017; Rowling, n.d.).

Despite her apparently wildly successful life, Rowling has endured numerous hardships. She reports that her teenage years were very unhappy due to her mother's protracted illness and a strained relationship with her father. The period after her divorce and her mother's painful death from multiple sclerosis was a particularly difficult time for Rowling. She saw herself as such a dismal failure that she even contemplated suicide. Fortunately, therapy helped her climb out of her diagnosed clinical depression, and she later reported that it was her experiences with such deep despair that led her to create the *Dementors*—the soul-sucking monsters found in the *Harry Potter* series (Bennett, 2012; Oppenheim, 2016; Rowling, n.d.).



PA Images/Alamy Stock Photo

and thereby inspire them to use grit and a growth mindset to achieve their own personal dreams and aspirations. As shown in **Table 1**, we also include two additional NEW features—*Psychology and Your Personal Success* and *Psychology and Your Professional Success*—to further demonstrate how the content of each chapter, along with a growth mindset and grit, can help them succeed in the real world.

Given that our gracious and loyal previous adopters may be interested in what changes we've made and/or the updating we've added in this 12th edition (i.e., to the basic content, key terms, and continued features), we've created a handy summary of these changes in **Table 2**. This table also summarizes the key assets for each chapter provided in WileyPLUS.

#### **Additional Resources**

#### WileyPlus with ORION

Given that students obviously don't all learn and achieve at the same rate, WileyPLUS with ORION provides adaptive practice in a digital tutorial, homework, and assessment platform that significantly improves individual student performance and success rates.

 Identify their personal strengths and weaknesses through adaptive, 24/7, robust self-testing with immediate, personalized feedback

- Save time by making study time and practice testing more efficient
- Better prepare for both online and in-class quizzes and exams
- Create a focused and personalized study plan that reflects their individual learning needs
- Truly engage with course content—resulting in deeper levels of processing, higher performance, and overall achievement in the course
- Improve their individual, academic success skills and transfer them to all other college courses
- Quickly assess individual and class activity and track student progress using real time data and analytics, and then adjust lectures and testing material appropriately
- Create meaningful assignments and additional resources with personalized feedback for each student
- Save preparation and grading time with high-quality instructor resources and automated grading of assignments, practice tests, and exams
- Enhance lectures and create a focused and personalized course that reflects their individual teaching style
- Quickly identify and understand student learning trends to improve classroom engagement
- Improve their course year after year using WileyPLUS data

#### Wiley E-Textbook

E-Textbooks are complete digital versions of the text that help students study more efficiently as they:

- Access content online and off line on a desktop, laptop, or mobile device
- · Search across the entire book content
- Take notes and highlight
- Copy and paste or print key sections

Wiley E-Text: Powered by Vitalsource® allows student access to course content anytime and anywhere. With the Wiley E-Text, students can:

- Create a personalized study plan
- · Easily search content and make notes
- · Share insights and questions with peers

#### Wiley Custom

This group's services provide the freedom and flexibility for instructors to:

- Adapt existing Wiley content and combine texts
- Incorporate and publish personal instructional materials
- Collaborate with Wiley's team to ensure both instructor and student satisfaction and success

#### Wiley Custom Select

Wiley Custom Select allows instructors to build their own course materials using selected chapters of any Wiley text and their own material if desired. For more information, contact Wiley sales representatives and/or visit http://customselect. wiley.com/.

## Acknowledgments

Reviewers: To the professors who reviewed material and gave their time and constructive criticism, we offer our sincere appreciation. This text is much stronger, clearer, and concise thanks to their efforts. We are deeply indebted to the following individuals, and trust that they will recognize their contributions throughout the text.

Mary Beth Ahlum, Nebraska Wesleyan University; Kathryn Alves-Labore, Forsyth Technical Community College; Roxanna Anderson, Palm Beach State College; Susan Antaramian, Christopher Newport University; Darin Baskin, Lone Star College; Matthew Bell, Santa Clara University; Barbara Boccaccio, Tunxis Community College; Amy Bradshaw Hoppock, Embry-Riddle Aeronautical University; Courtney Brewer, Suffolk County Community College; Melissa Brown, State University of New York,

College at Brockport; Michael Cassens, Irvine Valley College; Sky Chafin, Grossmont College; Charlene Chester, Morgan State University; Wanda Clark, South Plains College; Herb Coleman, Austin Community College; Lorry Cology, Owens Community College; Rosalyn Davis, Indiana University, Kokomo; Ben Denkinger, Augsburg College; Michael Dudley, Southern Illinois University, Edwardsville; Sylvia Edwards-Borens, Texas State Technical College, Waco; Daniella Errett, Pennsylvania Highlands Community College; Rebecca Ewing, Central Georgia Technical College; Linda Fayard, Mississippi Gulf Coast Community College; Johnathan Forbey, Ball State University; Jamie Franco-Zamudio, Spring Hill College; Audrey Fresques, Paradise Valley Community College; William Fry, Youngstown State University; Perry Fuchs, The University of Texas at Arlington; Janet Gebelt, Westfield State University; William Goggin, University of Southern Mississippi; Kate Guts, Seattle University; Jill Haasch, Elizabeth City State University; Barbara Hall, Iowa Valley Community College; Kate Halverson, Des Moines Area Community College; Andrew Herst, Montgomery College; Becky Howell, Forsyth Technical Community College; Vivian Hsu, Rutgers, The State University of New Jersey; Dominique Hubbard, Northern Virginia Community College, Alexandria; Jeannie Hudspeth, Ozarka College; Sierra Iwanicki, Eastern Michigan University; Alisha Janowsky, University of Central Florida; Joan Jensen, Central Piedmont Community College; Robert Rex Johnson, Delaware County Community College; Karen Jolley, Central Georgia Technical College; Deana Julka, University of Portland; Kristina Klassen, North Idaho College; Jim Koopman, Des Moines Area Community College; Monica Lackups-Fuentes, Eastern Michigan University; Julie Learn, Indiana University of Pennsylvania; James Leone, Bridgewater State University; Bernard Levin, Blue Ridge Community College; Carolyn Lorente, Northern Virginia Community College; Karen Markowitz, Grossmont College; Alex Marvin, Seminole State College of Florida; Daniel McConnell, University of Central Florida; Mark McKellop, Juniata College; Ticily Medley, Tarrant County Community College, South Campus; Amy Meeks, Texas State University; Elisabeth Morray, Boston College; Gabe Mydland, Dakota State University; Ronn Newby, Des Moines Area Community College; Mason Niblack, Salish-Kootenai College; Caroline Olko, Nassau Community College; Mary-Ellen O'Sullivan-Vollemans, Housatonic Community College and Southern Connecticut University; Alison Pepper, University of Montana, Missoula College; Doug Peterson, University of South Dakota; Susan Poulin, Central Main Medical Center College of Nursing and Health Professions; Chris K. Randall, Kennesaw State University; Matthew Rhoads, Arkansas State University; Nicole Rodiles, Imperial Valley College; Theresa Rufrano-Ruffner, Indiana University of Pennsylvania; Sharon Sanders, University of Cincinnati, Clermont College; Hildur Schilling, Fitchburg State University; Sharon Sexton, Texas States Technical College; David Shepard, South Texas College; Jessica Siegel, University of the South; Stuart Silverberg, Westmoreland County Community College; Amy Skinner, Central Alabama Community College; Sherry Span, California State University, Long Beach; Nelly Sta Maria, Suffolk County Community College; Cari Stevenson, Kankakee Community College; John Story, Bluegrass Community and Technical College; Eva Szeli, Arizona State University; Rachelle Tannenbaum, Anne Arundel Community College; Kim Taylor, Spokane Falls Community College; Jane Theriault, University of Massachusetts, Lowell; Tiffany Thomas, Des Moines Area Community College; Sherri Toman, United Tribes Technical College; Katie Townsend-Merino, Palomar College; Alicia Trotman, Mercy College; Victoria Van Wie, Lone Star College, CyFair; Catherine Wehlburg, Texas Christian University; John Wright, Washington State University; Jason Young, Hunter College.

#### Special Thanks from the Authors

We'd like to offer our very special thank you to the superb editorial and production teams at John Wiley & Sons. Like any cooperative effort, writing a book requires a strong and professional support team, and we are deeply grateful to this remarkable group of people: Mary Ann Price, Senior Photo Editor; Maureen Eide, Senior Designer; Sandra Rigby, Senior Production Editor; and a host of others. Each of these individuals helped enormously in the production of this text. Without them, this program would not have been possible.

- This twelfth edition particularly benefited from the incredible patience, wisdom, and insight of Emma Townsend-Merino. Her title, Assistant Development Editor, does not reflect the true scope of her responsibilities and contributions. Emma's patience, wisdom, and professionalism inspire all who know her. As Jason Spiegelman (our incredible Test Bank author) noted, "she's awesome!"
- Our personal appreciation and gratitude also goes out to Veronica Visentin, our Executive Editor, who recently took over responsibility for the psychology team at Wiley and added her energy and personal touch to this Twelfth Edition. We're similarly thankful and beholden to Glenn Wilson, who also recently joined us as the Senior Market Development Manager. He handled all the ins and outs of marketing and was instrumental in the creative ideas for this edition.
- Psychology in Action also could not exist without a great team of contributors. We gratefully acknowledge the expertise and immense talents of Beverly Peavler, whose careful guidance and editing greatly improved this edition. In addition, we offer a big, heartfelt thank you to our team of fabulous ancillary authors: Jason Spiegelman (The Community College of Baltimore County) Test Bank and PowerPoint; Ronn Newby (Des Moines Area Community College) Instructor's Resource Guide; Melissa Patton (Eastern Florida State College) Instructor Demonstration Videos; and Kate Halverson (Des Moines Area Community College) Practice Tests. We love and appreciate each and every one of you!
- The staff at Furino Production deserves a special note of thanks -especially, Jeanine Furino. Their careful and professional approach was critical to the successful production of this edition. Jeanine supervised this project from manuscript through final text, with great patience and incredible grace.
- We'd also like to express our heartfelt appreciation to the hundreds of faculty across the country who contributed their constructive ideas to Psychology in Action 12e, and to our many students over all the years. They've taught us what students want to know, and inspired us to write this book.
- Finally, all the hard work of the entire staff, and months of writing, producing, and marketing of this book, would be wasted without an energetic and dedicated sales staff. We wish to sincerely thank all the publishing representatives for their tireless efforts and

good humor. It's a true pleasure to work with such a remarkable group of people.

#### Personal Acknowledgments from the Authors

• From Karen Huffman: Katherine Dowdell and I warmly welcome Catherine Sanderson to the shared authorship of the twelfth edition, and sincerely thank her for her timely research and invaluable contributions. Working with both of my co-authors has been a great and rewarding experience! In truth, the writing of this (and all editions of Psychology in Action) has been a group effort involving the input and unflagging support of my coauthors, along with all of my wonderful friends, family, and valued colleagues. To each person, I offer my most sincere thanks: Amy Beeman, Joline Bourdages, Sky Chafin, Haydn Davis, Mike Garza, Teresa Jacob, Jim Matiya, Lou Milstein, Kandis Mutter, Tyler Mutter, Roger Morrissette, Katie Townsend-Merino, Maria Pok, Fred Rose, Kathy Young. They and many others provided personal friendship, feedback, careful editing, library research, and a unique sense of what should and should not go into an introduction to psychology text.

A special note of appreciation goes to my dear friend and colleague, Tom Frangicetto at Northampton Community College. His co-authoring of the critical thinking Prologue, and full authorship of most of the critical thinking exercises for each chapter, provided invaluable, "hands on" opportunities for our students to practice and develop their critical thinking skills.

Finally, I send a big hug and continuing appreciation to Richard Hosey. His careful editing, constructive feedback, professional research skills, and shared commitment to excellence were essential to this revision. Last, and definitely not least, I thank my beloved husband, Bill Barnard. My professional life and personal happiness are in your loving hands.

- From Katherine Dowdell: Many thanks to my co-authors, Karen and Catherine, for their dedication, scholarship, and enthusiasm throughout this journey. I'd also like to express my deep appreciation to Tiffany Thomas, Kate Halverson and our colleagues at DMACC for their input, insight, and advice on the text and Wiley-PLUS. And finally, my love and gratitude to my family, Mark, Jane and Vaughn Hommerding, for their unfailing love and support for all that I am and do.
- From Catherine Sanderson: I am thrilled to be joining the author team for Psychology in Action, and appreciate the warm welcome from Karen and Katherine. I'd also like to thank my fabulous research assistant, Chris Roll, for all of his work on gathering and checking references. Last, but certainly not least, I owe a big thanks to my family (Bart, Andrew, Robert, and Caroline) for supporting yet another writing endeavor ... and all the resulting take-out dinners!

# TABLE 1 New Special Features in Psychology in Action, 12e

Chapter Title	Psychology and a Classic/ Contemporary Success	Psychology and Your Professional Success	Psychology and Your Personal Success	WileyPLUS Assets : Animations(A), Mini Courses(MC), and Interactives(I)
1 Introduction and Research Methods	Michael Jordan	Would You Like a Career in Psychology?	Why Are a Growth Mindset and Grit Important?	<ul> <li>Correlation does not mean causation (A)</li> <li>Components of an experiment (A)</li> <li>Research methods (MC)</li> <li>The scientific method (I)</li> </ul>
2 Neuroscience and Biological Foundations	Adele Diamond		How to Train Your Brain	<ul> <li>Sympathetic and parasympathetic nervous systems (A)</li> <li>Peripheral and central nervous systems (A)</li> <li>Lateralization of the brain (A)</li> <li>The human brain (MC)</li> <li>Key parts of the neuron (I)</li> <li>Communication between neurons (I)</li> </ul>
3 Stress and Health Psychology	Marcus Luttrell	How Well Do You Cope with Job Stress?	Can Mindfulness Improve Your GPA?	<ul> <li>Three types of conflict (A)</li> <li>The HPA axis and General Adaptation Syndrome (A)</li> <li>Physical response to stress (MC)</li> </ul>
4 Sensation and Perception	Helen Keller		Helen Keller's Inspiring Advice	<ul> <li>Sensation vs. perception (A)</li> <li>The body senses (A)</li> <li>Understanding perception: Selection and interpretation (A)</li> </ul>
5 States of Consciousness	Albert Einstein	Potential Career Costs of Addiction	Can Maximizing Your Consciousness Save Lives?	<ul> <li>Inattentional blindness, selective attention, automatic vs. controlled processes (A)</li> <li>Sleep deprivation (A)</li> <li>Why we sleep: Four theories (A)</li> <li>Agonist and antagonist drugs: How do they produce their effects? (I)</li> </ul>
6 Learning	Cesar Millan	Why Can't We Get Anything Done Around Here?	Can Learning Principles Help You Succeed in College?	<ul> <li>Reinforcement vs. punishment (A)</li> <li>Effective use of reinforcement and punishment (A)</li> <li>Six principles of operant conditioning (A)</li> <li>Schedules of reinforcement (A)</li> <li>Classical conditioning (MC)</li> </ul>
7 Memory	Elizabeth Loftus		Can Memory Improvement Increase Success?	<ul> <li>ESR memory model (A)</li> <li>Factors in forgetting (A)</li> <li>Memory distortions (A)</li> <li>Memory tools for student success (A)</li> </ul>
8 Thinking, Language, and Intelligence	Bill Gates	Is a High IQ Essential to High Achievement?	Strategies for Better Problem Solving	<ul> <li>Problem solving (A)</li> <li>Barriers to problem solving (A)</li> <li>Issues in measuring intelligence (A)</li> <li>Language and the brain (I)</li> <li>Language acquisition (I)</li> </ul>

Chapter Title	Psychology and a Classic/ Contemporary Success	Psychology and Your Professional Success	Psychology and Your Personal Success	WileyPLUS Assets : Animations(A), Mini Courses(MC), and Interactives(I)
9 Life Span Development I	Oprah Winfrey	Does Ageism Matter?	The Power of Touch	<ul> <li>Research methods in development: Cross-sectional vs. longitudinal design (I)</li> <li>Cognitive development (A)</li> <li>Styles of attachment (A)</li> <li>Parenting styles (I)</li> </ul>
10 Life Span Development II	Nelson Mandela		What Are the Secrets to Enduring Love?	Moral development (A)     Erikson's psychosocial theory (MC)
11 Gender and Human Sexuality	Ellen DeGeneres		Are Your Conflicts Constructive or Destructive?	Cognitive factors influencing arousal (A)
Motivation and Emotion	Malala Yousafzai	What Are the Best Ways to Increase Motivation?	Are There Research-Based Secrets for Happiness?	<ul> <li>Environmental factors in eating and obesity (A)</li> <li>Persistence and grit (A)</li> <li>Theories of motivation (MC)</li> <li>Symptoms of anorexia and bulimia (I)</li> </ul>
13 Personality	Abraham Lincoln	Should You Match Your Personality With Your Career?	Can (and Should) We Improve Our Personalities? Could You Pass the Marshmallow Test?	<ul> <li>Trait theories (A)</li> <li>Unconditional love (A)</li> <li>Reciprocal determinism (A)</li> <li>Freud's personality structure (I)</li> </ul>
14 Psychological Disorders	Jennifer Lawrence		Can Resilience Promote Mental Health in Children and Adults?	<ul> <li>How phobias are created (A)</li> <li>Learned helplessness (A)</li> <li>Gender differences in managing depression (A)</li> <li>Biopsychosocial model of schizophrenia (MC)</li> <li>Anxiety disorders (I)</li> </ul>
15 Therapy	J. K. Rowling		What Are the Keys to Good Mental Health?	<ul> <li>Systematic desensitization (A)</li> <li>Operant conditioning (A)</li> <li>Group therapy (A)</li> <li>Cognitive behavioral therapy (MC)</li> <li>Three major approaches to therapy (I)</li> <li>Five common goals of therapy (I)</li> </ul>
16 Social Psychology	Sonia Sotomayor	How Can We Reduce Attributional Biases? Can Prejudice Affect Your Career Success?	Using Psychology to Increase Your Dating Appeal	<ul> <li>Attribution (A)</li> <li>Groupthink (A)</li> <li>Altruism: Why do we help? (A)</li> <li>Cognitive dissonance (MC)</li> <li>Prejudice and discrimination (I)</li> </ul>

# **TABLE 2** Continuing Special Features in *Psychology in Action*, 12e

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
1 Introduction and Research Methods	(RC) Why Do Men and Women Lie About Sex? (G&C) Psychology's History of Diversity	(RT) Moved research ethics to the Science of Psychology section, updated and revised correlational research (ANT) New connections of famous figure (Michael Jordan) with key chapter topics. Added discussion of quasi-experimental designs, growth mindset, and grit	(DKT) The term "survey" replaced with survey/interview (NKT) Functionalism, grit, growth mindset, natural selection, representative sample, structuralism	(CT) How to Think Critically About Psychological Science (MC) Is College Worth It?	Applying Research Methods (V) The Experiment (V) The Art of Prediction (A) Yerkes Primate Center (VFT)
Neuroscience and Biological Foundations	(RC) Does Lying Lead to More Lies? (RC) Phineas Gage—Myths versus Facts (G&C) Are Male and Female Brains Different? (G&C) Culture and Job Stress	(RT) Moved Genetic Inheritance to Ch. 9, expanded discussion of frontal lobes  (ANT) New connections of famous figure (Adele Diamond) with key chapter topics. Added discussion of executive functions and positive effects of simple mental skills training and physical exercise on brain functioning	(DKT) Moved key terms related to genetics to Chapter 9 (NKT) Allor-nothing principle, executive functions, fight-flight-freeze response, motor cortex, nervous system, somatosensory cortex	(CT) DNA Testing: Changing Lives, Saving Lives (MC) The (Invisible) Plague of Concussion	Dissecting the Brain (V) Interaction of Genes and Environment (V) Drawing and Building A Brain (V) The Brain (A) Alcohol, Neurotransmitters and Your Brain (A) Neuroimaging (VFT) Reading Your DNA (VFT)
3 Stress and Health Psychology	(RC) What are the Hidden Benefits of Practice Testing? (RC) When Do Losers Actually Win? (G&C) What are the Problems with Acculturative Stress?	(RT) Updated and revised the benefits of stress, social media's negative effects, and PTSD with a focus on veterans  (ANT) New connections of famous figure (Marcus Luttrell) with key chapter topics. Added discussion of acculturative stress, chronic pain, and cognitive appraisal. Moved table and major discussion of defense mechanisms from Chapter 13 to this chapter	(DKT) Type A and Type B (NKT) Acculturative stress, chronic pain, fight-flight- freeze response (versus fight or flight)	(CT) Perils of Procrastination (MC) Are We Denying the Dangers of Stress?	Sources of Stress (V) Coping with Stress (V) Positive Psychology (V) Biofeedback (VFT) Managing Stress Improves Health (A)

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
4 Sensation and Perception	(RC) Can Music Improve the Taste of Beer? (RC) Does Wearing Red Increase Your Sex Appeal? (G&C) Are the Gestalt Laws Universally True?	(ANT) New connections of famous figure (Helen Keller) with key chapter topics. Added discussion and new figure on feature detectors in the brain, new figure and research on depth perception	(NKT) Gestalt psychology, parapsychology, priming, volley principle for hearing	(CT) Why Do So Many People Believe in ESP? (MC) Astrology and Crime	Seeing and Hearing (V) A World Turned Upside Down: Visual Processing (V) Perception (A) How We See and Hear (A) 3-D Media (VFT)
5 States of Consciousness	(RC) What's Wrong with Distracted Driving? (G&C) Are There Differences in Dreams?	(RT) Significantly updated and revised text on sleep deprivation, opioids, LSD, Ketamine, and marijuana (ANT) New connections of famous figure (Albert Einstein) with key chapter topics. Added discussion of effects of multitasking on learning, new figure on sleep deprivation, emotionality and impulse control	(NKT) Inattentional blindness, suprachiasmatic nucleus	(CT) The Spectacular Now (MC) Teen Night Owls	Automatic Processing and Multitasking (V) Myths about Sleep, Dreaming and Drugs (V) Diagnosing Sleep Disorders (VFT)
6 Learning	(RC) Do Dogs Prefer Food or Praise? (RC) Does the Media Impact Our Body Size Preferences?	(RT) Expanded discussion of Skinner's response to Thorndike and his definition of reinforcement and punishment (ANT) New connections of famous figure (Cesar Millan) with key chapter topics, added discussion of classical conditioning and emotional eating	(DKT) Removed conditioning as a key term, and the word "stimulus" from key terms of generalization and discrimination	(CT) What Kind of Name Is Ryan For a Girl? (MC) The Return of the Working Class Hero	Classical and Operant Conditioning in Action (V) Understanding Reinforcement and Punishment (V) Classical Conditioning (A) The Search Dog Foundation (VFT)
7 Memory	(RC) Can Taking Photos Impair Our Memories? (G&C) Does Culture Affect Memory?	(RT) Updated and expanded discussion of infant memories, working memory with new figure, traumatic brain injury, eyewitness testimony, and repressed memories (ANT) New connections of famous figure (Elizabeth Loftus) with key chapter topics. Added discussion and new figure of the four major models of memory	(DKT) Sleeper effect (NKT) Parallel distributed processing, repression	(CT) Critical Thinking Is No Laughing MatterOr Is It? (MC) How Memoirists Mold the Truth	Constructing Memory (V) Organizing Long-Term Memories (V) How Could I Forget That? (V) Eyewitness Memory (V) Enhancing Your Memory (A) USA Memory Championships (VFT) Alzheimer's Treatment Center (VFT)

## TABLE 2 Continuing Special Features in Psychology in Action, 12e (continued)

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
8 Thinking, Language, and Intelligence	(RC) Is creativity Linked with Psychological Disorders? (G&C) Can Your Nonverbal Language Reveal Your Roots?	(RT) Updated discussion on the value of play and creativity, expanded and updated research on controversies surrounding racial/ethnic differences (ANT) New connections of famous figure (Bill Gates) with key chapter topics and added new discussion of artificial intelligence	(DKT) Babbling, cooing, overextension, overgeneralization, savant syndrome, telegraphic speech (NKT) Artificial intelligence, cognitive offloading, convergent thinking, embodied cognition, mental age, triarchic theory of intelligence	(CT) 12 Years A Slave (MC) How Social Media Is Ruining Our Minds	Barriers to Problem Solving (V) Understanding IQ (V) Standards for Psychological Tests (V) Problem Solving (A) Baby Sign Language (VFT) High IQ Society (VFT) Down Syndrome Connection (VFT)
9 Life Span Development I	(RC) Deprivation and Development (G&C) Should Diversity Affect Research?	(RT) Expanded discussion of cultural effects on developmental research. Added new research on prenatal exposure to smoke and later obesity and how taking "selfies" relates to narcissism  (ANT) New connections of famous figure (Oprah Winfrey) with key chapter topics. Added discussion of imprinting, along with new figure and section on genetics and theory of mind	(DKT) Moved age-related positivity effect to Chapter 10 (NKT) Behavioral genetics, chromosomes, DNA, epigenetics, gene, temperament, theory of mind	(CT) Overcoming Egocentric Thinking (MC) Older and Slower?	Understanding Development in Context (V) The Strange Situation (V) Attachment Through the Lifespan (V) A Guide to Parenting (VFT) Piaget and Cognitive Development (A)
10 Life Span Dev- elopment II	(RC) Are Brain Differences Associated with Age- Related Happiness? (G&C) Effects on Moral Development	(RT) New section on how to increase your positivity and how traveling may increase immoral behavior  (ANT) New connections of famous figure (Nelson Mandela) with key chapter topics. Added discussion of connection of theory of mind with autism, along with the age-related positivity effect	(DKT) Moved resiliency to Chapter 14 (NKT) Age- related positivity effect	(CT) Morality and Academic Cheating (MC) Millennials: Not the Marrying Kind	Kohlberg's Stages of Moral Reasoning (A) Erikson's Psychosocial Theory (V) Factors in Marital Satisfaction (V) Attitudes Toward Aging (V) Dying with Dignity: Hospice (VFT)

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
Gender and Human Sexuality	(RC) Is Gender Income Inequality Real? (RC) Does Political Affiliation Reflect Sexual Behavior? (G&C) Sexuality Across Cultures	(RT) Expanded discussion of sexual prejudice and sexual orientation, including LGBTQ  (ANT) New connections of famous figure (Ellen DeGeneres) with key chapter topics. Added new discussion on gender and income inequality, the double standard, pair bonding, the fallacy of "stranger danger," and child sexual abuse	(NKT) Double standard, gender stereotypes, pair bonding, sexuality, sexually transmitted infection	(CT) The Scarlet Letter (MC) Scarcity of Women in Science?	Clearing Up the Confusion: Gender Roles, Gender Identity and Sexual Orientation (V) Gender (A) The Sexual Response Cycle (V) Healthy Sexuality (V) Sexual Communication (V) Planned Parenthood (VFT)
12 Motivation and Emotion	(RC) Does Wearing "Sexy" Clothing Signal Sexual Interest? (G&C) Are Emotions Affected by Culture and Evolution?	(RT) Revised discussion and figure on intrinsic vs. extrinsic motivation, and updated and expanded theories on basic emotions (ANT) New connections of famous figure (Malala Yousafzai) with key chapter topics. Added new table and research:  • Emotions  • Psychology of happiness  • Botox injections and the link to decreased empathy  • How expectancies increase alcohol consumption  • How sleep deprivation, photos of food, and processed foods increase eating	(NKT) Adaptation-level phenomenon, display rules	(CT) The New Psychology of Success (MC) Mirror, Mirror on The Wall?	Get Motivated (V) Hormones and Hunger (V) Emotional Intelligence (V) The Polygraph (A) Surgical Weight Loss Center (VFT)
13 Personality	(RC) Do Nonhuman Animals Have Unique Per- sonalities?	(RT) Revised levels of consciousness figure, updated step-by-step diagram on psychosexual stages, moved defense mechanisms table to Ch. 3, revised five-factor model and self-concept figures	(DKT) Morality principle, pleasure principle, reality principle (NKT) Behavioral genetics, character, temperament	(CT) Maslow Revisited (MC) Can Personality Predict Health?	Applying Rogerian Techniques (V) Exploring Your Personality (V) Measuring Personality (V) Freud's Defense Mechanisms (A) Personality Research (VFT)

## TABLE 2 Continuing Special Features in Psychology in Action, 12e (continued)

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
14 Psychological Disorders	(RC) Are Head Injuries Related to Depressive and Other Psychological Disorders? (RC) Does Unequal Pay for Equal Work Increase Female Anxiety and Depression?	(ANT) New connections of famous figure (Abraham Lincoln) with key chapter topics. Added discussion and figures:  • Freud and modern western culture  • Mischel's marshmallow test  • Personality and behavioral genetics  • Identical vs. fraternal twins and adoption studies  • Introversion and extraversion misconceptions  (RT) Moved and expanded discussion of the stigma of mental illness, suicide and other general terms to front of chapter to better apply to all disorders, expanded discussion of gender strategies for managing depression  (ANT) New connections of famous figure (Jennifer Lawrence) with key chapter topics. Added discussion and new figures:  • OCD  • Antisocial and borderline personality disorders  • Nonsuicidal self-injury  • Psychology student syndrome  • Resilience	(NKT) Mania, major depressive disorder, nonsuicidal self-injury, psychological disorder, psychology student syndrome, resilience	(CT) How Your Thoughts Can Make You Depressed (MC) Lefties and Psychotic Disorders	Myths About Mental Illness (V) Signs of Suicide (V) OCD (VFT) Bipolar Disorder (VFT) Schizophrenia (A)
15 Therapy	(RC) Can Watching Movies Prevent Divorce? (G&C) Therapy in Action	(RT) Moved evaluation of psychoanalysis to include psychoanalytic therapies, significantly revised figures for systematic desensitization and aversion therapy	(DKT) Antianxiety drugs, antidepressant drugs, mood- stabilizer drugs	CT) Cinema Therapy (MC) Finding Treatment Grows Harder	A Guide to Psychotherapy (V) Myths About Therapy (V) CBT (A) ECT Treatment Center (VFT) Kicking the Habit: Drug Treatment (VFT)

Chapter Title	Research Challenges (RC)/ Gender and Cultural (G&C) Diversity	Significantly Revised Topics (RT)/Added New Topics (ANT)	Deleted Key Terms (DKT)/ New Key Terms (NKT)	NOW in Wiley- Plus Critical Thinking Exer- cises (CT)/ Media Chal- lenges (MC)	Sample WileyPlus Assets: Videos (V), Animations (A), Virtual Field Trips (VFT)
		<ul> <li>(ANT) New connections of famous figure (J. K. Rowling) with key chapter topics.</li> <li>Added new discussion, figures and/or tables:</li> <li>Cognitive triad and depression</li> <li>Token economy</li> <li>Evidence-based practice in psychology (EBPP)</li> <li>Side-by-side comparison of treatments for psychological disorders</li> <li>Psychedelic drugs and psychosis</li> <li>Evidence-based practice in psychology (EBPP)</li> <li>Metacognitive therapy</li> <li>Mindfulness-based cognitive therapy (MBCT) Therapeutic alliance</li> <li>Well-being therapy (WBT)</li> </ul>	(NKT) Evidence-based practice in psychology (EBPP), metacognitive therapy, mindfulness-based cognitive therapy (MBCT), therapeutic alliance, well-being therapy (WBT)		
Social Psychology	(RC) Can a 10-Minute Conversation Reduce Prejudice? (G&C) How Does Culture Affect Personal Space? (RC) Can Long- Distance Relationships Survive?	(RT) Moved prejudice to social cognition section, expanded discussion on flirting, deleted female named hurricanes  (ANT) New connections of famous figure (Sonia Sotomayor) with key chapter topics. Added new discussions and/or new figures:  Prefrontal cortex and relation to social behavior  How taking pain pills can change attitudes  Implicit biases  Saving your own life  Social facilitation  Social loafing	(DKT) Frustration- aggression hypothesis, mere-exposure effect (NKT) social facilitation, social loafing, changed triarchic theory of love to triangular theory of love	(CT) To Kill A Mockingbird  (MC) When Science Becomes News	Implicit Attitudes (V) Bystander Effect (V) Attitudes and Cognitive Dissonance (A) Internet Dating (VFT)

# Prologue

# © WENN Ltd/Alamy

Benedict Cumberbatch as Sherlock



courtesy The Institute

John Gottman as John Gottman

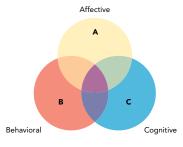


FIGURE 1 ABCs of Critical Thinking

#### Successful Living Through Critical Thinking

Co-authored with Thomas Frangicetto (and generous contributions from his students at Northampton Community College, Bethlehem, PA)

"Sherlock Holmes is not a cold, calculating, self-gratifying machine. He cares for Watson... and for Mrs. Hudson. He has a conscience... In other words, Holmes has emotions—and attachments—like the rest of us. What he's better at is controlling them and only letting them show under very specific circumstances."

Maria Konnikova (2012), "Stop Calling Sherlock Holmes A Sociopath!"

Psychologist Maria Konnikova also could have said that Sherlock Holmes – the famous fictional detective created by Sir Arthur Conan Doyle and popularized in numerous movies, books, and TV shows – is an excellent *critical thinker*. In applying fundamental, psychological principles of deduction, perception, skepticism, and logic, Holmes realized that emotions could be the enemy of sound reasoning (Kellogg, 1986). Even the most sublime emotion of all, *love*, is not to be trusted. In one story, Holmes says to his best friend and crime-solving companion, Dr. John Watson, "Love is an emotional thing, and whatever is emotional is opposed to that cold reason which I place above all things."

Why are we opening this Prologue on Critical Thinking with a discussion of emotions? We believe, as Sherlock Holmes did, that our capacity for objective reason is compromised when we are highly emotional (Halpern, 2014; Paul & Elder, 2002). What about Sherlock Holmes' love life? Although he "cared deeply" about special people in his life, he apparently never experienced *romantic love*. Had Holmes been a real person working with Dr. John Gottman (a preeminent authority on romantic relationships—see Chapter 10), and had he applied his critical thinking skills to his love life, he may have been more successful. Effective critical thinking is the best route to finding lasting love, as well as the best antidote to self-defeating, repetitive thoughts, feelings and actions. Unlike the common use of "critical" as a negative type of criticism and fault finding, critical thinking is a positive, life-enhancing process and key to success in all parts of our lives.

What exactly is critical thinking? We define it as: *Thinking about our feelings, actions, and thoughts so we can clarify and improve them* (adapted from Chaffee, 1988, p. 29). As you can see in **Figure 1**, there are 3 main categories of critical thinking, with at least 15 overlapping **critical thinking components (CTCs):** Affective (feelings/emotions), Behavioral (actions), and Cognitive (thoughts).

#### **Critical Thinking Components (CTCs)**

(Note: Most CTCs include personal examples generously provided by students at Northampton Community College.)

**Affective Components** (Emotional foundation for critical thinking)

Empathize and Demonstrate Altruism: Critical thinkers are empathic. They try to understand others' feelings, thoughts, and behaviors. Noncritical thinkers view everything in relation to themselves, which is known as "egocentrism" (Chapter 13). The ability to consider the perspective of another person is the most effective antidote to egocentric thinking. There are children who lag behind in language development. It's best to empathize. When I am a teacher, there are going to be many times where I need to know that differences are "okay."
Kayla Ann Felten

Can you see how empathy would naturally lead to altruism—actions designed to help others with no obvious benefit to the helper (Chapter 16)? Once we stand in another's shoes and mirror their emotions, we naturally want to help them.

2. Welcome Divergent Views and Critical Dialogue: Critical thinkers examine issues from every angle, especially opposing viewpoints. This quality is especially valuable in decision-making and avoiding groupthink (Chapter 16). Most Americans don't try to understand the sociocultural influences of suicide bombers. They believe that martyrs are crazy, while Palestinians believe that martyrdom is to be idolized. My decision to believe that martyrdom is a form of self-expression may clash with the views of many, but as an American, I have the right to believe what I want.

Sophia Blanchet

Critical thinkers also actively question others, challenge opinions, and welcome questions and challenges in return. Socratic questioning is an important type of critical dialogue, which deeply probes the meaning, justification, or logical strength of an argument (Elder & Paul, 2007). It is easy to avoid such time-consuming dialogues, but they are a vital part of intellectually healthy relationships. My mother has been calling me for the last year because she is dying. It has taken a long time to warm up to her because of the past. After many years, we are finally expressing our feelings with each other. This has been gratifying because we have become friends. My hope is that when the end comes, we will know that, despite our faults, we really loved each other.

3. Tolerate Ambiguity, but not Magical Thinking: Formal education often trains us to look for a single "right" answer (aka convergent thinking—Chapter 8). But critical thinkers know that many issues are too complex to have one right answer. They value qualifiers such as "probably" and "not very likely." A big difference between high school and

college level thinking is tolerating ambiguity. In high school, we were often taught there was one right answer. In college, we learn that things are more complex. We also learn that some questions do not even have an "answer" or may have multiple answers.

Chereen Nawrocki

Tolerating ambiguity does not mean that all beliefs and opinions are equally valid. Despite scientific consensus on many issues, noncritical thinkers often resort to magical thinking, which makes unwarranted links between one event-some action we've taken-and some unconnected result (Riggio, 2014). Consider superstitious behaviors, the belief in supernatural forces—such as ghosts, alien abductions, possession by spiritual entities—or even winning big one time at gambling and expecting to win repeatedly (Sagan, 1996; Shermer & Gould, 2007). The problem with magical thinking is that we can believe that our actions are caused by the magical force instead of being due to us or the social environment. Reliance on magical thinking to explain things leads to self-deception and a lack of insight. Ronald Riggio

4. Appreciate Eclecticism and Synthesize: Critical thinkers are not bound to one way of thinking. They appreciate and select what appears to be the best or most useful option when faced with competing ideas and approaches. For example, a psychotherapist might have training in one theoretical perspective, but also use techniques from other perspectives when more appropriate for the problems presented. This CTC goes beyond welcoming divergent views; it also involves analyzing all potential sources for value and content.

Critical thinkers are also able to combine or "synthesize" various elements into a useful composite. Understanding a suicidal person is the key to saving them. Critical thinkers "recognize that comprehension comes from combining various elements into a useful composite." By seeing patterns or "warning signs"—such as different symptoms of depression and changes in behavior—you can recognize suicidal thinking. Micelle Pascoe

5. Value Emotional Intelligence (EI): Defined as "the ability to know and manage one's emotions, empathize with others, and maintain satisfying relationships," emotional intelligence (Chapter 12) can serve as the bridge between our intelligence and emotional reactions. I think increasing children's emotional intelligence is a superb idea—especially a focus on managing aggressive impulses. The ability to manage aggressiveness means you are well on your way toward learning to control your feelings and recognizing the feelings of others too.

Amy Harding

**Behavioral Components** (Actions necessary for critical thinking)

6. Listen Actively and Cultivate Trust: Critical thinkers fully engage their thoughts, feelings, and actions when listening to another person. They ask questions, nonverbally affirm what they hear, and request clarification. My brother was diagnosed with a rare kidney disease, and I tried my hardest to communicate with him and appreciate his thoughts and feelings. When he would try to talk about his feelings, I would often interrupt or tell him what he should think or feel. I was trying to focus on my need to control my own feelings when I should have been doing what he needed the most from me: active listening.

In addition to active listening, being both trusting and trustworthy are essential qualities to bring to all meaningful relationships. One caution: Not everyone is worthy of your total trust. It is a privilege that must be earned over time and trial. For Gottman, trust is not something that just "grows" between people; rather, it is the "specific state that exists when you are both willing to change your own behavior to benefit your partner"—in other words, "you have each other's back" (Gottman, 2012).

7. Employ Precise Terms and Define Problems Accurately:
Precise terms help critical thinkers identify issues clearly so they can be objectively defined and empirically tested.
When two people argue about an issue, they are often defining it differently without even knowing it. I have had a Japanese girlfriend for the last year and a half. Our cultures are very different and at times we do not understand each other. But, if we remain open and help each other appreciate what words like "love" and "commitment" mean to us, we can learn how to understand each other better.

Anar Akhundov

A critical thinker also tries to frame the issues as accurately as possible to prevent confusion and to lay the foundation for gathering relevant information (see CTC #8). This CTC appears to contradict *tolerating ambiguity* (see CTC #3), but critical thinkers are able to tolerate ambiguity until it is possible to *define problems accurately*.

8. Gather Information and Delay Judgment until Adequate Data are Available: Impulsivity is a major obstacle to good critical thinking. Rash judgments about others, impulse purchases of a new car or home, uninformed choices for political candidates, or "falling in love at first sight" can all be costly mistakes that we may regret for many years. A critical thinker does not make snap judgments. Instead, he or she collects up-to-date, relevant information on all sides of an issue and delays decisions or judgment until adequate information is available. I am a white male. I have met African Americans I don't like, I have met Asians I don't like, I have met Hispanics I don't like, and yes, I have met whites I don't like. So if I don't like an entire race of people because I don't like certain people of that race, then I shouldn't like my own race either, because there

are people of my race I don't like. You cannot judge a race by its worst representatives. I know I would not want my whole race judged by "White Power," KKK members. Maybe someday we will just have one race—the human race.

Ryan Umholtz

- 9. Cultivate Open-Mindedness and Modify Judgments in Light of New Information: Critical thinkers are willing to examine their own thinking and abandon or modify their judgments if compelling evidence contradicts them. Noncritical thinkers stubbornly stick to their beliefs and often value self-interest above the truth. The ability to say, "I'm rethinking my opinion," reflects the open-minded flexibility of a good critical thinker. For much of high school, I procrastinated. However, I procrastinate less now that I am in college. I know now that these assignments are for my benefit and that a certain level of self-motivation is required in order to succeed in life. I am paying for my education, so I may as well get as much out of it as I can. Tom Shimer
- 10. Accept Change: Critical thinkers remain open to the need for adjustment throughout our life cycle. Because critical thinkers fully trust the processes of reasoned inquiry, they are willing to use these skills to examine even their most deeply held beliefs, and to modify these beliefs when evidence and experience contradict them. It's easy to tell a woman to get out of a bad relationship because she doesn't deserve to be abused. It's much harder when you're the one in the relationship. It's important for the abused woman to stop trying to "change" the man, thinking the situation will get better. It's vital not to be stuck in a toxic situation and accepting change is the first step.

  Katrina Kelly

**Cognitive Components** (Thought processes required for critical thinking)

11. Recognize Personal Biases and Value Truth above Self-Interest: Being an effective critical thinker does not mean the absence of bias, but rather the willingness to recognize and correct it. We may think we are hitting the benchmarks on social issues when we drop a "bill or two in the bucket" and consider our job done. Some of us view the suffering of others as the result of their own actions. Over-generalizing that all "purple people" are lazy and all "orange people" are uncivilized reflects bias... [where] there is no room for empathy or simple kindness. Unless we recognize our personal biases, instead of hiding behind them as a cover for a lack of humanness, we will never witness another's oppression and "feel their pain."

Mary Ellen Allen

Critical thinkers also avoid the tendency to cater to our self-interests, while ignoring conflicting information. We must recognize that, even when it appears otherwise, the "truth" is always in our self-interest. No matter what my interest was in watching my friends do drugs, I valued the truth against their reasons for why I should begin to smoke with them. Anytime I felt tempted, I valued what my mother told me. The truth was in front of my eyes. Family

members that were homeless, indulging in illegal drugs, were the truth for me. I valued my life more than I wanted to fit in.

Nicole Bouvet

**12. Recognize Fact versus Opinion and Resist Overgeneralization:** *Facts* are statements that are supported by objective evidence. *Opinions* are statements that express how a person feels about an issue or what someone *believes* to be true. It is easy to have an uninformed opinion about any subject, but critical thinkers seek out and evaluate facts before forming their opinions.

Overgeneralization is applying an experience to other situations that are only superficially similar. It's also a form of "tunnel vision"—failing to see the bigger picture because you see just a small sample of the whole. While watching a rerun of "Jersey Shore," I made an over-generalization about "Jersey guys"! The show convinced me that every Jersey boy in his twenties was a meathead without moral values and who only cared about his looks. I met a Jersey boy and automatically thought he was like one of the guys from the show. Turns out he was an educated man who happened to come from New Jersey. Caitie Stoneback

edge to New Situations: By evaluating the nature of evidence and the credibility of sources, critical thinkers recognize blatant appeals to emotion, unsupported claims, and faulty logic. They also can spot sources that contradict themselves, or have a vested interest in selling a product, idea, or viewpoint that is only partially accurate (a "half-truth"). This is an important CTC when it comes to choosing a religion because it takes a full analysis of a religious system in order to make the right choice. If I break down all of a religion's content for its inherent value, I will be making a well-informed decision.

Ali Nabavian

Noncritical thinkers can often provide correct answers, repeat definitions, and carry out calculations, yet

they are unable to transfer their knowledge to new situations because of an inability to "synthesize" seemingly unrelated content (see #4). History teaches that war rarely puts an end to a conflict. America's experience in Iraq argues that military action against Iran means inviting more trouble. Iran would retaliate, inviting a tit-for-tat escalation, putting American interests in great danger. Polls tell us most Americans prefer diplomatic options.

Nivedita "Minu" Mahato

14. Independent Thinking: Rather than passively accepting the beliefs of others or being easily manipulated, critical thinkers are independent. They hold firm to their own values, while recognizing the difference between being independent and just being stubborn (Sagan, 1996; Shermer & Gould, 2007). All my life, I was a follower. I did what everyone else did—the designer clothes, the makeup, the highlights, etc. Instead of thinking independently, I went with the crowd. And that was one of my greatest downfalls.

**Courtney Fisher** 

15. Metacognition (aka reflective thinking) involves analyzing your mental processes—thinking about your own thinking. Critical thinkers who are motivated to examine and trace the origin of their beliefs can often be heard saying things like: "What was I thinking?" or "I don't know why I believe that, I'll have to think about it." My dad and I had a torn relationship following my parents' divorce. I couldn't live with my mother anymore, so I thought about living with my dad. I began employing meta-cognition. I wanted to understand my anger toward him. I realized when we fought, it was just frustration. I decided to move in with my dad, and I'm happy to say our relationship has changed dramatically for the better. Using critical thinking made a huge difference.

Laura Markley



# Introduction and Research Methods

#### **CHAPTER OUTLINE**

#### **LEARNING OBJECTIVES**

Psychology and a Contemporary Success Michael Jordan

#### 1.1 Introducing Psychology

- Psychology's Past
- Modern Psychology

# GCD Gender and Cultural Diversity Psychology's History of Diversity

Psychology and Your Professional Success Would You Like a Career in Psychology?

# Summarize psychology's past, modern perspectives, and what psychologists do.

- **Define** psychology, critical thinking, and pseudopsychologies.
- **Review** structuralism, functionalism, and the psychoanalytic perspectives.
- **Discuss** modern psychology's seven major perspectives and the contributions of women and people of color.
- **Describe** the biopsychosocial model, along with individualistic and collectivistic cultures.
- Summarize psychology's major career options and specialties.

#### 1.2 The Science of Psychology

- Basic and Applied Research
- The Scientific Method
- Psychology's Four Main Goals
- Psychology's Research Ethics

#### Discuss the key principles underlying the science of psychology.

- **Compare and contrast** the fundamental goals of basic and applied research.
- **Describe** the scientific method, its key terms, and its six steps.
- **Review** psychology's four main goals.
- **Discuss** the ethical concerns and guidelines for psychological research.

#### 1.3 Research Methods

- Descriptive Research
- Correlational Research
- Experimental Research
- Research Problems and Safeguards

#### RC Research Challenge

Why Do Men and Women Lie About Sex?

#### Summarize psychology's three major research methods.

- **Review** descriptive research and its four key methods.
- **Discuss** correlational research and its limits and value.
- **Identify** the key terms and components of experimental research.

#### 1.4 Tools for Student Success

- Study Habits
- Time Management
- Grade Improvement
- Attitude Adjustment
- Psychology and Your Personal Success Why Are a Growth Mindset and Grit Important?

#### Review the key strategies for student success.

- **Describe** the four steps important to improving your study habits.
- **Discuss** ways to improve your time management.
- **Identify** the key factors in grade improvement.
- Summarize why attitude adjustment is key to student success.



**Growth mindset** A psychological term referring to a selfperception or a set of beliefs about one's personal abilities and the potential for change and improvement with effort.

**Grit** A psychological term referring to perseverance and passion in the pursuit of long-term goals.

#### Psychology and a Contemporary Success | Michael Jordan

Who comes to your mind when someone mentions the best ever basketball player? For most of us, and even according to the official NBA website, Michael Jordan (1963-) is judged to be "the greatest basketball player of all time." Born into a family of five children, Jordan always loved sports and played with an unusual passion, yet he failed to make his high school basketball team in his sophomore year. He overcame this early setback and made the team the following year, later earning a scholarship to play for the University of North Carolina—thanks to his perseverance and intensive practice. Even more impressive, Jordan went on to play professionally for the Chicago Bulls, where he led the team to six NBA championships and won the Most Valuable Player Award five times. In 2016, Barack Obama presented Jordan

with one of the nation's highest honors—the Presidential Medal of Freedom. (See the photo.)

How do psychologists explain this incredible level of achievement? Researcher Carol Dweck believes Jordan reflects a growth mindset, the self-perception that one's abilities can change and improve with effort (Dweck, 2007, 2012). Other psychologists have emphasized his grit, which includes perseverance and passion in the pursuit of long-term goals (Datu et al., 2016; Yeager et al., 2016). We'll discuss these very important traits in more detail at the end of this chapter and throughout this text.

## **Chapter Overview**

Welcome to the exciting world of **Psychology in Action**. As the story of Michael Jordan and the name of this text imply, psychology is an active, dynamic field that affects every part of our lives—our relationships at home, college, and work, as well as in sports, politics, television, movies, newspapers, and the Internet. And psychology encompasses not only humankind but our nonhuman compatriots as well—from rats and pigeons to cats and chimps.

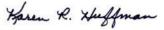
Given that this first chapter is an overview of the entire field of psychology, we begin with a formal definition of psychology, followed by its brief history as a scientific discipline. Next, we discuss the seven major perspectives of modern psychology, as well as its many different specialties and career options. Then, we explore the science of psychology, including basic and applied research, the scientific method, the four major goals of psychology, and its research ethics. Next, we discuss the three major research methods. We close with a section, called Tools for Student Success, that provides proven, research-based techniques for improving your study habits, time management, and grades, as well as showing you how psychology can contribute to your attitude adjustment and personal success. This section will help you enjoy and master the material in this and all your other college textbooks and courses. Be sure to study it carefully. We care about you and want you to succeed!

As further evidence of our commitment to your achievement, we've included numerous study tips throughout each chapter, along with a special feature (called Psychology and a Contemporary Success, shown above). These stories of real-life classic and contemporary figures who have prospered despite incredible obstacles have been shown to increase overall motivation and achievement. We also provide two additional sections—Psychology and Your Professional Success and Psychology and Your Personal Success, which highlight how psychology applies to your career and personal life. We believe this focus on success will not only help you master the content of the course, but will also inspire your own personal efforts and ultimate life success.

Finally, we invite you to let us know how your study of psychology (and this text) affects you and your life. You can reach us at khuffman@palomar.edu, kdowdell@dmacc.edu, and casanderson@amherst.edu. We look forward to hearing from you.

#### Warmest regards,







Katherine Ewons



Cathin A. Langh

### Why Study Psychology?

#### Did you know that the study of psychology

- . . . will increase your chances for personal, academic, and professional success? Our major goal for this edition of Psychology in Action is to help maximize your overall success and ability to persist during difficult and challenging times through a repeated focus on a growth mindset and on grit, which includes both passion and perseverance in the pursuit of long-term goals.
- ... will deepen your understanding of yourself and others? The Greek philosopher Socrates admonished us long ago to, "Know thyself." Studying psychology will greatly contribute to your understanding (and appreciation) of yourself and others. Knowing thyself and others, along with psychology's scientifically based guidelines and techniques, will also improve your relationships with friends, family, and coworkers.
- ... will broaden your general education and success as a global citizen? Psychology is an integral part of today's political, social, and economic world. Understanding its principles and concepts is essential to becoming an educated, well-informed person who can contribute to society and succeed in our global economy.



• . . . will improve your critical thinking? Would you like to become a more independent thinker, a better decision maker, and a more effective problem solver? These are only a few of the many critical thinking skills that are enhanced through a study of psychology.

# Introducing Psychology

#### **LEARNING OBJECTIVES**

1.1

**Retrieval Practice** While reading the upcoming sections, respond to each Learning Objective in your own words.

#### Summarize psychology's past, modern perspectives, and what psychologists do.

- Define psychology, critical thinking, and pseudopsychologies.
- Review structuralism, functionalism, and the psychoanalytic perspectives.

- **Discuss** modern psychology's seven major perspectives and the contributions of women and people of color.
- **Describe** the biopsychosocial model, along with individualistic and collectivistic cultures.
- Summarize psychology's major career options and specialties.

#### **Study Tip**

#### **Learning Objectives**

Each section of every chapter contains learning objectives, which you should attempt to answer in your own words as you read that section. Summarizing your answers to these objectives will keep you focused and greatly improve your mastery of the material.

**Psychology** The scientific study of behavior and mental processes.

Critical thinking The process of objectively evaluating, comparing, analyzing, and synthesizing information.

The term **psychology** derives from the roots *psyche*, meaning "mind," and *logos*, meaning "word." Modern psychology is most commonly defined as the scientific study of behavior and mental processes. Scientific is a key feature of the definition because psychologists follow strict scientific procedures to collect and analyze their data. Behavior (such as crying, hitting, and sleeping) can be directly observed. Mental processes are private, internal experiences that cannot be directly observed (like feelings, thoughts, and memories). As you can see in the photo, psychologists study not only behavior and mental processes, but also the application of that knowledge to marketing, health management, and many other aspects of our everyday life.

Psychology also places high value on empirical evidence that can be objectively tested and evaluated. In addition, psychologists emphasize critical thinking, the process of objectively evaluating, comparing, analyzing, and synthesizing information (Caine et al., 2016; Halpern, 2014). Unfortunately, a recent study revealed that high school and college students can't tell the difference between factual information presented by a reputable newspaper and that presented online by fringe activist groups (Wineberg & McGrew, 2016). In this study, college students were given 10 minutes to review two different websites: one belonged to the American Academy of Pediatrics (a reputable organization nearly 100 years in existence and with over 65,000 members) and the other belonged to the American College of Pediatricians (a group that has only about 200 members and has been classified as a hate group for claiming homosexuality is linked with pedophilia). Yet college students generally saw information presented by both groups as reliable. Does this help explain why the need to critically evaluate the information we receive, and its source, is particularly important during these times of heated political debates and growing reliance on social media outlets for news?



Psychology in action! One of the many benefits you'll receive from studying psychology is that you'll soon be able to easily recognize the psychological principles used in this ad that have been carefully designed to influence you as a prospective customer.

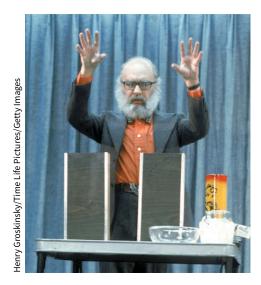
As part of your critical thinking, be careful not to confuse psychology, which is founded on the scientific method, with pseudopsychologies, which are based on false or unfounded common beliefs, folk wisdom, or superstitions. (Pseudo means "false.") These sometimes give the appearance of science, but they do not follow the basics of the scientific method. Examples include purported psychic powers, horoscopes, mediums, and self-help and "pop psych" statements such as "I'm mostly right brained" or "We use only 10% of our brains." For some, horoscopes or palmists are simple entertainment. Unfortunately, some true believers seek guidance and waste large sums of money on charlatans purporting to know the future or to speak with the deceased (e.g., Wilson, 2015b). Broken-hearted families also have lost valuable time and emotional energy on psychics claiming they could locate their missing children. As you can see, distinguishing scientific psychology from pseudopsychology is vitally important (Lilienfeld et al., 2010, 2015; Loftus, 2010). Given the popularity of these misleading beliefs, be sure to test your own possible myths in the following Myth Busters section.

#### **Myth Busters**

#### True or False?

- \_\_\_\_\_1. The best way to learn and remember information is to "cram," or study it intensively during one concentrated period.
  - **2.** Advertisers and politicians often use subliminal persuasion to influence our behavior.
  - \_\_\_\_3. Most brain activity stops when we're asleep.
- 4. Punishment is the most effective way to permanently change behavior.
  - \_5. Eyewitness testimony is often unreliable.
- \_6. Polygraph ("lie detector") tests can accurately and reliably reveal whether a person is lying.
- \_\_7. Behaviors that are unusual or violate social norms may indicate a psychological disorder.
- \_8. People with schizophrenia have multiple personalities.
- \_\_\_\_\_9. Similarity is one of the best predictors of satisfaction in long-term relationships.
- \_\_\_\_10. In an emergency, as the number of bystanders increases, your chance of getting help decreases.

The magician James Randi has dedicated his life to educating the public about fraudulent pseudopsychologists. Along with the prestigious MacArthur Foundation, Randi has offered \$1 million to "anyone who proves a genuine psychic power under proper observing conditions" (Randi, 2014; The Amazing Meeting, 2011). Even after many



years, the money has never been collected, and the challenge has been terminated. For details, please see http://web.randi.org/home/ iref-status

(Chapter 14), 8. False (Chapter 14), 9. True (Chapter 16), 10. True (Chapter 16) 4. False (Chapter 6), 5. True (Chapter 7), 6. False (Chapter 12), 7. True Answers: 1. False (Chapter 1), 2. False (Chapter 4), 3. False (Chapter 5),

#### Psychology's Past

Although people have long been interested in human nature, it was not until the first psychological laboratory was founded in 1879 that psychology as a science officially began. As interest in the new field grew, psychologists adopted various perspectives on the "appropriate" topics for psychological research and the "proper" research methods. These diverse viewpoints and subsequent debates molded and shaped modern psychological science.

Psychology's history as a science began in 1879, when Wilhelm Wundt [VILL-helm Voont], generally acknowledged as the "father of psychology," established the first psychological laboratory in Leipzig, Germany. Wundt and his followers were primarily interested in how we form sensations, images, and feelings. Their chief methodology was termed "introspection," and it relied on participants' self-monitoring and reporting on conscious experiences (Freedheim & Weiner, 2013; Goodwin, 2012).

A student of Wundt's, Edward Titchener, brought his ideas to the United States. Titchener's approach, now known as structuralism, sought to identify the basic elements, or "structures," of mental life through introspection and then to determine how these elements combine to form the whole of experience. Because introspection could not be used to study animals, children, or more complex mental disorders, however, structuralism failed as a working psychological approach. Although short-lived, it did establish a model for studying mental processes scientifically.

Structuralism's intellectual successor, functionalism, studied the way the mind functions to enable humans and other animals to adapt to their environment. William James was the leading force in the functionalist school (Figure 1.1). Although functionalism also eventually declined, it expanded the scope of psychology to include research on emotions and observable behaviors, initiated the psychological testing movement, and influenced modern education and industry. Today, James is widely considered the "father" of American psychology.

**Structuralism** Early psychological approach promoted by Wundt and Titchener that used introspection to study the basic elements (or structures) of the

Functionalism Early psychological approach associated with William James that explored how the mind functions to enable organisms to adapt to their environment.



Bettmann/Getty Images

FIGURE 1.1 William James (1842-1910) William James founded the perspective known as functionalism and established the first psychology laboratory in the United States, at Harvard University. In modern times, he is commonly referred to as the "father" of American psychology, whereas Wundt is considered the "father" of all psychology.

#### **Psychoanalytic perspective**

An earlier approach to psychology developed by Sigmund Freud, which focuses on unconscious processes, unresolved conflicts, and past experiences.

Psychodynamic perspective A modern approach to psychology that emphasizes unconscious dynamics, motives, conflicts, and past experiences; based on the psychoanalytic approach, but focuses more on social and cultural factors, and less on sexual drives.

Behavioral perspective A modern approach to psychology that emphasizes objective, observable, environmental influences on overt behavior.

**Humanistic perspective** A modern approach to psychology that perceives human nature as naturally positive and growth seeking; it emphasizes free will and self-actualization.

FIGURE 1.2 B. F. Skinner (1904-1990) B. F. Skinner was one of the most influential psychologists of the twentieth century. Here he uses the so-called "Skinner box" to train a rat to press a lever for a reward.

#### **Study Tip**

#### **Key Terms and Running Glossary**

Pay close attention to all key terms and concepts, which are boldfaced in the text and then defined in the running glossary located in the margin. Key terms from all chapters also appear in a cumulative glossary provided with this text.

During the late 1800s and early 1900s, while functionalism was prominent in the United States, the psychoanalytic perspective was forming in Europe. Its founder, Austrian physician Sigmund Freud, believed that a part of the human mind, the unconscious, contains thoughts, memories, and desires that lie outside personal awareness yet still exert great influence. For example, according to Freud, a man who is cheating on his wife might slip up and say, "I wish you were her," when he consciously planned to say, "I wish you were here." Such seemingly meaningless, so-called "Freudian slips" supposedly reveal a person's true unconscious desires and motives.

Freud also believed many psychological problems are caused by unconscious sexual or aggressive motives and conflicts between "acceptable" and "unacceptable" behaviors (Chapter 13). His theory led to a system of therapy known as psychoanalysis (Chapter 15).

Freud: If it's not one thing, it's your mother. —Robin Williams (Comedian, Actor)

### Modern Psychology

As summarized in **Table 1.1**, contemporary psychology reflects seven major perspectives: psychodynamic, behavioral, humanistic, cognitive, biological, evolutionary, and sociocultural. Although there are numerous differences among these seven perspectives, most psychologists recognize the value of each orientation and agree that no one view has all the answers.

Freud's nonscientific approach and emphasis on sexual and aggressive impulses have long been controversial, and today there are few strictly Freudian psychoanalysts left. However, the broad features of his theory remain in the modern psychodynamic perspective. The general goal of psychodynamic psychologists is to explore unconscious dynamics internal motives, conflicts, and past experiences.

In the early 1900s, another major perspective appeared that dramatically shaped the course of modern psychology. Unlike earlier approaches, the behavioral perspective emphasizes objective, observable environmental influences on overt behavior. Behaviorism's founder, John B. Watson (1913), rejected the practice of introspection and the influence of unconscious forces. Instead, Watson adopted Russian physiologist Ivan Pavlov's concept of conditioning (Chapter 6) to explain behavior as a result of observable stimuli (in the environment) and observable tight line responses (behavioral actions).

Most early behaviorist research was focused on learning; nonhuman animals were ideal participants for this research. One of the best-known behaviorists, B. F. Skinner, was convinced



that behaviorist approaches could be used to "shape" human behavior (Figure 1.2). As you'll discover in Chapters 6 and 15, therapeutic techniques rooted in the behavioristic perspective have been most successful in treating observable behavioral problems, such as those related to phobias and alcoholism (Cheng et al., 2017; El-Bar et al., 2017; Tyner et al., 2016).

Although the psychoanalytic and behavioral perspectives dominated psychology for some time, in the 1950s a new approach emerged—the humanistic perspective, which stresses free will (voluntarily chosen behavior) and selfactualization (an inborn drive to develop all one's talents and capabilities). According to Carl Rogers and Abraham Maslow, two central figures with this perspective, all individuals

TABLE 1.1	Modern Psychology's Seven Major Perspectives
	modern rayenology a deven major recapectures

Perspectives	Major Emphases	Sample Research Questions	
Psychodynamic	Unconscious dynamics, motives, conflicts, and past experiences	How do adult personality traits or psychological problems reflect unconscious processes and early childhood experiences?	
Behavioral	Objective, observable, environmental influences on overt behavior; stimulus-response (S-R) relationships and consequences for behavior	How do reinforcement and punishment affect behavior? How can we increase desirable behaviors and decrease undesirable ones?	
Humanistic	Free will, self-actualization, and human nature as naturally positive and growth seeking	How can we promote a client's capacity for self-actualization and understanding of his or her own development? How can we promote international peace and reduce violence?	
Cognitive	Mental processes used in thinking, knowing, remembering, and communicating	How do our thoughts and interpretations affect how we respond in certain situations? How can we improve how we process, store, and retrieve information?	
Biological	Genetic and biological processes in the brain and other parts of the nervous system	How might changes in neurotransmitters or damage to parts of the brain lead to psychological problems and changes in behavior and mental processes?	
Evolutionary	Natural selection, adaptation, and reproduction	How does natural selection help explain why we love and help certain people, but hurt others? Do we have specific genes for aggression and altruism?	
Sociocultural	Social interaction and the cultural determinants of behavior and mental processes	How do the values and beliefs transmit- ted from our social and cultural environ- ments affect our everyday psychological processes?	
		Why do we need seven perspectives?	

#### **Study Tip**

#### Illustrations

Do not skip over photos, figures, and tables. They visually reinforce important concepts and often contain material that may appear on exams.

Why do we need seven perspectives? What do you see in this figure? Is it two profiles facing each other, a white vase, or both? Your ability to see both figures is similar to a psychologist's ability to study behavior and mental processes from a number of different perspectives.



naturally strive to develop and move toward self-actualization. Like psychoanalysis, humanistic psychology developed an influential theory of personality and its own form of psychotherapy (Chapters 12 and 15).

The humanistic approach also led the way to a contemporary research specialty known as positive psychology—the study of optimal human functioning (Diener, 2016; Diener & Tay, 2015; Seligman, 2003, 2015). For many years, psychology understandably focused on negative states, such as aggression, depression, and prejudice. In recent years, leaders in the

**Positive psychology** The study of optimal human functioning; emphasizes positive emotions, traits, and institutions.

Cognitive perspective A modern approach to psychology that focuses on the mental processes used in thinking, knowing, remembering, and communicating.

**Biological perspective** A modern approach to psychology that focuses on genetics and biological processes.

**Evolutionary perspective** A modern approach to psychology that stresses natural selection, adaptation, and reproduction.

Natural selection Darwin's principle of an evolutionary process in which heritable traits that increase an organism's chances of survival or reproduction are more likely to be passed on to succeeding generations.

Sociocultural perspective A modern approach to psychology that emphasizes social interaction and the cultural determinants of behavior and mental processes.

positive psychology movement, such as Ed Diener, Martin Seligman, and Shelly Taylor, have pushed for a broader study of human experiences, with an emphasis on: (1) positive emotions (like hope, love, and happiness), (2) positive traits (such as altruism, courage, and compassion), and (3) positive institutions that help promote better lives (such as improved schools and healthier families) (Seligman, 2003). Thanks to its scientific methodology and broader focus on optimal functioning, positive psychology has provided a wealth of new research found throughout this text.

One of the most influential modern approaches, the cognitive perspective, emphasizes the mental processes we use in thinking, knowing, remembering, and communicating (Goldstein, 2015; Greene, 2016). These mental processes include perception, memory, imagery, concept formation, problem solving, reasoning, decision making, and language. Many cognitive psychologists also use an information-processing approach, likening the mind to a computer that sequentially takes in information, processes it, and then produces a response.

During the past few decades, scientists have explored the role of biological factors in almost every area of psychology. Using sophisticated tools and technologies, scientists who adopt this biological perspective examine behavior through the lens of genetics and biological processes in the brain and other parts of the nervous system. For example, research shows that genes influence many aspects of our behavior, including how kind we are to other people, whom we vote for in elections, and even whether or not we decide to purchase a handgun (Barnes et al., 2014; Ksiazkiewicz et al., 2016; Wilson, 2015a).

The evolutionary perspective stresses natural selection, adaptation, and reproduction (Buss, 2011, 2015; Dawkins, 2016; Goldfinch, 2015). This perspective stems from the writings of Charles Darwin (1859), who suggested that natural forces select traits that aid an organism's survival. This process of natural selection occurs when a particular genetic trait gives an organism a reproductive advantage over others. Because of natural selection, the fastest, strongest, smartest, or otherwise most fit organisms are most likely to live long enough to reproduce and thereby pass on their genes to the next generation. According to the evolutionary perspective, there's even an evolutionary explanation for the longevity of humans over other primates-it's grandmothers! Without them, a mother who has a two-year-old and then gives birth would have to devote her time and resources to the newborn at the expense of the older child. Grandmothers act as supplemental caregivers.

Finally, the sociocultural perspective emphasizes social interactions and cultural determinants of behavior and mental processes (Figure 1.3). Although we are often unaware of their influence, factors such as ethnicity, religion, occupation, and socioeconomic class have an enormous psychological impact on our mental processes and behavior.

For instance, researchers recently found that a 10-minute conversation with a random stranger led to significant decreases in transphobia (an irrational fear of transgender people) and that these effects lasted at least three months (Broockman & Kalla, 2016). What caused such a dramatic change? Rather than just presenting facts and talking "to" participants, the researchers asked them to recall and discuss their own personal experiences with judgment or prejudice. Afterward, they were encouraged to think about how their story related to the



©AP/Wide World Photos

#### FIGURE 1.3 Psychology in a global economy

Technological advances allow instant communication for people who not long ago were isolated from events in the rest of the world. How do you think these changes affect these men from Enaotai Island in West Papua, New Guinea?

experiences of transgender people. Do you see how this type of empathy induction encouraging someone to actively take the perspective of another-would lead to reduced prejudice? Or why this research was so widely cited in scientific journals and the mass media (Bohannon, 2016; Resnick, 2016)? It's due in part to the fact that deeply held attitudes, like prejudice, are so notoriously difficult to change. For more information on this study, see Chapter 16.

#### **Gender and Cultural Diversity**

#### Psychology's History of Diversity

During the late 1800s and early 1900s, most colleges and universities provided little opportunity for women and people of color, either as students or as faculty members. One of the first women to be recognized in the field of psychology was Mary Calkins. Her achievements are particularly noteworthy, considering the significant discrimination that she overcame. For example, married women could not be teachers or professors in co-educational settings during this time in history. In Mary Calkins' case, even after she completed all the requirements for a Ph.D. at Harvard University in 1895, and was described by William James as his brightest student, the university refused to grant the degree to a woman. Nevertheless, Calkins went on to perform valuable research on memory, and in 1905 served as the first female president of the American Psychological Association (APA). The first woman to receive her Ph.D. in psychology was Margaret Floy Washburn from Cornell University in 1894. She also wrote several influential books and served as the second female president of the APA.

Francis Cecil Sumner became the first Black person to earn a Ph.D. in psychology (Clark University, 1920). Dr. Sumner later chaired one of the country's leading psychology departments, at Howard University. In 1971, one of Sumner's students, Kenneth B. Clark, became the first person of color to be elected APA president. Clark's research with his wife, Mamie Clark, documented the harmful effects of prejudice and directly influenced the Supreme Court's landmark 1954 ruling against racial segregation in schools, Brown v. Board of Education (Figure 1.4).

Calkins, Washburn, Sumner, and Clark, along with other important people of color and women, made significant and lasting contributions to psychology's development. Today, women earning advanced degrees in psychology greatly outnumber men, but, unfortunately, people of color are still underrepresented (Graduate Study in Psychology, 2017; Willyard, 2011).



ibrary of Congress Prints and Photographs Division

FIGURE 1.4 Kenneth Clark (1914-2005) and Mamie Phipps Clark (1917-1985) Kenneth Clark and Mamie Phipps Clark conducted experiments with Black and White dolls to study children's attitudes about race. This research and their expert testimony contributed to the U.S. Supreme Court's ruling that racial segregation in public schools was unconstitutional.

Culture and the Biopsychosocial Model The seven major perspectives have all made significant contributions to modern psychology. This explains why most contemporary psychologists do not adhere to one single intellectual perspective. Instead, a more integrative, unifying theme—the biopsychosocial model—has gained wide acceptance. This model views biological processes (genetics, neurotransmitters, evolution), psychological factors (learning, personality, motivation), and social forces (family, culture, gender, ethnicity) as interrelated. It also sees all three factors as influences inseparable from the seven major

perspectives (Figure 1.5).

Why is the biopsychosocial model so essential? As the old saying goes, "A fish doesn't know it's in water." Similarly, as individuals living alone inside our own heads, we're often unaware of the numerous, interacting factors that affect us—particularly cultural forces. For example, most North Americans and Western Europeans are raised to be very individualistic and are surprised to learn that over 70% of the world's population live in collectivistic cultures. As you can see in **Table 1.2**, in *individualistic cultures*, the needs and goals of the individual are emphasized over the needs and goals of the group. When asked to complete the statement "I am . . . ," people from individualistic cultures tend to respond with personality traits ("I am shy"; "I am outgoing") or their occupation ("I am a teacher"; "I am a student").

In collectivistic cultures, however, the person is defined and understood primarily by looking at his or her place in the social unit (Fang et al., 2016; Moleiro et al., 2017; Saucier et al., 2015) (see Study Tip). Relatedness, connectedness, and interdependence are valued, as opposed to separateness, independence, and individualism. When asked to complete the statement "I am . . . ," people from collectivistic cultures tend to mention their families or nationality ("I am a daughter"; **Biopsychosocial model** An integrative, unifying theme of modern psychology that sees biological, psychological, and social processes as interrelated and interacting influences.

#### **Study Tip**

#### **Reference Citations**

Throughout this text, you will see citations to publications at the ends of many sentences. These citations—such as (Johnson, 2016) give authors' names and the dates of their publications. Instructors rarely expect you to memorize the names and dates in parentheses. They are provided as a starting point for research projects, for additional information on a topic of interest, and to double-check the research sources. Complete publication information (title of article or chapter, author, journal name or book title, date, and page numbers) can be found in the References section provided with this text.