

Essentials of  
Understanding  
Psychology

ROBERT S. FELDMAN

Mc  
Graw  
Hill  
Education

11<sup>e</sup>

ELEVENTH EDITION

# Essentials of Understanding Psychology

**ROBERT S. FELDMAN**

*University of Massachusetts Amherst*

**Mc  
Graw  
Hill**  
Education





ESSENTIALS OF UNDERSTANDING PSYCHOLOGY, ELEVENTH EDITION

Published by McGraw-Hill Education, 2 Penn Plaza, New York, NY 10121. Copyright © 2015 by McGraw-Hill Education. All rights reserved. Printed in the United States of America. Previous editions © 2013, 2011, and 2008. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of McGraw-Hill Education, including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 DOW/DOW 1 0 9 8 7 6 5 4

ISBN 978-0-07-786188-9  
MHID 0-07-786188-4

Senior Vice President, Products & Markets: *Kurt L. Strand*  
Vice President, General Manager, Products & Markets: *Michael Ryan*  
Vice President, Content Design & Delivery: *Kimberly Meriwether David*  
Managing Director: *William Glass*  
Executive Director: *Krista Bettino*  
Brand Manager: *Krista Bettino*  
Marketing Managers: *Ann Helgerson and Aj Laferrera*  
Lead Product Developer: *Dawn Groundwater*  
Senior Product Developer: *Sarah Colwell*  
Director, Content Design & Delivery: *Terri Schiesl*  
Program Manager: *Debra B. Hash*  
Content Project Manager: *Debra B. Hash*  
Buyer: *Sandy Ludovissy*  
Design: *David Hash*  
Content Licensing Specialists: *Ann Marie Jannette (text); Keri Johnson (image)*  
Cover Image: *Caiimage/Paul Bradbury/Getty Images*  
Compositor: *Aptara®, Inc.*  
Printer: *R. R. Donnelley*

All credits appearing on page or at the end of the book are considered to be an extension of the copyright page.

**Library of Congress Cataloging-in-Publication Data**

Feldman, Robert S. (Robert Stephen), 1947-  
Essentials of understanding psychology / Robert S. Feldman.—11th ed.  
pages cm  
ISBN 978-0-07-786188-9 (alk. paper)—ISBN 0-07-786188-4 (alk. paper)  
1. Psychology. I. Title.  
BF121. F337 2015  
150—dc23

2014023693

The Internet addresses listed in the text were accurate at the time of publication. The inclusion of a website does not indicate an endorsement by the authors or McGraw-Hill Education, and McGraw-Hill Education does not guarantee the accuracy of the information presented at these sites.

*Dedication*

*To*

*Jon, Leigh, Alex, Miles, Josh, Julie,  
Sarah, and Kathy*



# About the Author

**ROBERT S. FELDMAN** is Professor of Psychological and Brain Sciences and Deputy Chancellor of the University of Massachusetts Amherst. A recipient of the College Distinguished Teacher Award, he teaches psychology classes ranging in size from 15 to nearly 500 students. During the course of more than two decades as a college instructor, he has taught undergraduate and graduate courses at Mount Holyoke College, Wesleyan University, and Virginia Commonwealth University in addition to the University of Massachusetts.

Professor Feldman, who initiated the Minority Mentoring Program at the University of Massachusetts, also has served as a Hewlett Teaching Fellow and Senior Online Teaching Fellow. He initiated distance-learning courses in psychology at the University of Massachusetts.

A Fellow of the American Psychological Association and the Association for Psychological Science, Professor Feldman received a BA with High Honors from Wesleyan University and an MS and PhD from the University of Wisconsin-Madison. He is a winner of a Fulbright Senior Research Scholar and Lecturer Award and the Distinguished Alumnus Award from Wesleyan. He is on the Board of the Federation of Associations in Behavioral and Brain Sciences (FABBS) and the president-elect of the FABBS Foundation, which advocates for the field of psychology.

He has written and edited more than 200 books, book chapters, and scientific articles. He has edited *Development of Nonverbal Behavior in Children*, *Applications of Nonverbal Behavioral Theory and Research*, *Improving the First Year of College: Research and Practice*, and co-edited *Fundamentals of Nonverbal Behavior*. He is also author of *P.O.W.E.R. Learning: Strategies for Success in College and Life*. His textbooks, which have been used by more than 2 million students around the world, have been translated into Spanish, French, Portuguese, Dutch, German, Italian, Chinese, Korean, and Japanese. His research interests include deception and honesty in everyday life, work that he described in *The Liar in Your Life*, a trade book published in 2009. His research has been supported by grants from the National Institute of Mental Health and the National Institute on Disabilities and Rehabilitation Research.

Professor Feldman loves music, is an enthusiastic pianist, and enjoys cooking and traveling. He has three children and two young grandsons. He and his wife, a psychologist, live in western Massachusetts in a home overlooking the Holyoke mountain range.







# Brief Contents

Preface xxiii

## CHAPTER 1

### Introduction to Psychology 2

- MODULE 1** Psychologists at Work 5
- MODULE 2** A Science Evolves: The Past, the Present, and the Future 14
- MODULE 3** Research in Psychology 26
- MODULE 4** Critical Research Issues 40

## CHAPTER 2

### Neuroscience and Behavior 48

- MODULE 5** Neurons: The Basic Elements of Behavior 51
- MODULE 6** The Nervous System and the Endocrine System: Communicating Within the Body 60
- MODULE 7** The Brain 68

## CHAPTER 3

### Sensation and Perception 86

- MODULE 8** Sensing the World Around Us 89
- MODULE 9** Vision: Shedding Light on the Eye 94
- MODULE 10** Hearing and the Other Senses 103
- MODULE 11** Perceptual Organization: Constructing Our View of the World 116

## CHAPTER 4

### States of Consciousness 130

- MODULE 12** Sleep and Dreams 133
- MODULE 13** Hypnosis and Meditation 146
- MODULE 14** Drug Use: The Highs and Lows of Consciousness 153

## CHAPTER 5

### Learning 168

- MODULE 15** Classical Conditioning 171
- MODULE 16** Operant Conditioning 179
- MODULE 17** Cognitive Approaches to Learning 192



CHAPTER 6

Memory 202

- MODULE 18 The Foundations of Memory 205
- MODULE 19 Recalling Long-Term Memories 217
- MODULE 20 Forgetting: When Memory Fails 227

CHAPTER 7

Thinking, Language, and Intelligence 236

- MODULE 21 Thinking and Reasoning 239
- MODULE 22 Language 255
- MODULE 23 Intelligence 264

CHAPTER 8

Motivation and Emotion 284

- MODULE 24 Explaining Motivation 287
- MODULE 25 Human Needs and Motivation: Eat, Drink, and Be Daring 295
- MODULE 26 Understanding Emotional Experiences 312

CHAPTER 9

Development 324

- MODULE 27 Nature and Nurture: The Enduring Developmental Issue 327
- MODULE 28 Infancy and Childhood 337
- MODULE 29 Adolescence: Becoming an Adult 356
- MODULE 30 Adulthood 366

CHAPTER 10

Personality 380

- MODULE 31 Psychodynamic Approaches to Personality 383
- MODULE 32 Trait, Learning, Biological and Evolutionary, and Humanistic Approaches to Personality 393
- MODULE 33 Assessing Personality: Determining What Makes Us Distinctive 406

CHAPTER 11

Health Psychology: Stress, Coping, and Well-Being 416

- MODULE 34 Stress and Coping 419
- MODULE 35 Psychological Aspects of Illness and Well-Being 431
- MODULE 36 Promoting Health and Wellness 437

**CHAPTER 12****Psychological Disorders 446**

- MODULE 37** Normal Versus Abnormal: Making the Distinction 449
- MODULE 38** The Major Psychological Disorders 459
- MODULE 39** Psychological Disorders in Perspective 478

**CHAPTER 13****Treatment of Psychological Disorders 486**

- MODULE 40** Psychotherapy: Psychodynamic, Behavioral, and Cognitive Approaches to Treatment 489
- MODULE 41** Psychotherapy: Humanistic, Interpersonal, and Group Approaches to Treatment 500
- MODULE 42** Biomedical Therapy: Biological Approaches to Treatment 509

**CHAPTER 14****Social Psychology 520**

- MODULE 43** Attitudes and Social Cognition 523
- MODULE 44** Social Influence and Groups 532
- MODULE 45** Prejudice and Discrimination 540
- MODULE 46** Positive and Negative Social Behavior 546



McGraw-Hill Psychology's APA Documentation Style Guide

Glossary G-1

References R-1

Credits C-1

Name Index I-1

Subject Index I-21



# Contents

Preface xxiii  
Making the Grade xxix

## CHAPTER 1

### Introduction to Psychology 2

#### MODULE 1

#### Psychologists at Work 5

The Subfields of Psychology: Psychology's Family Tree 6  
Working at Psychology 9

#### MODULE 2

#### A Science Evolves: The Past, the Present, and the Future 14

The Roots of Psychology 14  
Today's Perspectives 16  
Psychology's Key Issues and Controversies 19  
**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Psychology Matters 20  
Psychology's Future 22  
**NEUROSCIENCE IN YOUR LIFE:** Reading the Movies in Your Mind 23

#### MODULE 3

#### Research in Psychology 26

The Scientific Method 26  
Psychological Research 28  
Descriptive Research 28  
Experimental Research 32

#### MODULE 4

#### Critical Research Issues 40

The Ethics of Research 40  
**EXPLORING DIVERSITY:** Choosing Participants Who Represent the Scope of Human Behavior 41



**NEUROSCIENCE IN YOUR LIFE:** The Importance of Using Representative Participants 42

Should Animals Be Used in Research? 42

Threats to Experimental Validity: Avoiding Experimental Bias 43

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Thinking Critically About Research 44

## CHAPTER 2

# Neuroscience and Behavior 48



### MODULE 5

## Neurons: The Basic Elements of Behavior 51

The Structure of the Neuron 51

How Neurons Fire 52

Where Neurons Meet: Bridging the Gap 55

Neurotransmitters: Multitalented Chemical Couriers 56

### MODULE 6

## The Nervous System and the Endocrine System: Communicating Within the Body 60

The Nervous System: Linking Neurons 60

The Evolutionary Foundations of the Nervous System 63

The Endocrine System: Of Chemicals and Glands 64

### MODULE 7

## The Brain 68

Studying the Brain's Structure and Functions: Spying on the Brain 68

The Central Core: Our "Old Brain" 70

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Mind Over Cursor: Harnessing Brainpower to Improve Lives 71

The Limbic System: Beyond the Central Core 72

The Cerebral Cortex: Our "New Brain" 73

Neuroplasticity and the Brain 76

**NEUROSCIENCE IN YOUR LIFE:** The Plastic Brain 77

The Specialization of the Hemispheres: Two Brains or One? 78

**EXPLORING DIVERSITY:** Human Diversity and the Brain 79

The Split Brain: Exploring the Two Hemispheres 80

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Learning to Control Your Heart—and Mind—Through Biofeedback 81


**MODULE 8**
**CHAPTER 3**
**Sensation and Perception 86**
**Sensing the World Around Us 89**

Absolute Thresholds: Detecting What's Out There 90

Difference Thresholds: Noticing Distinctions Between Stimuli 91

Sensory Adaptation: Turning Down Our Responses 92

**MODULE 9**
**Vision: Shedding Light on the Eye 94**

Illuminating the Structure of the Eye 95

Color Vision and Color Blindness: The 7-Million-Color Spectrum 99

**MODULE 10**
**Hearing and the Other Senses 103**

Sensing Sound 103

Smell and Taste 107

The Skin Senses: Touch, Pressure, Temperature, and Pain 109

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Managing Pain 112

How Our Senses Interact 113

**NEUROSCIENCE IN YOUR LIFE:** Synesthesia and the Over-Connected Brain 114

**MODULE 11**
**Perceptual Organization: Constructing Our View of the World 116**

The Gestalt Laws of Organization 116

Top-Down and Bottom-Up Processing 118

Depth Perception: Translating 2-D to 3-D 118

Perceptual Constancy 120

Motion Perception: As the World Turns 121

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Study-Break Soundtrack 122

Perceptual Illusions: The Deceptions of Perceptions 122

**EXPLORING DIVERSITY:** Culture and Perception 124

**MODULE 12**
**CHAPTER 4**
**States of Consciousness 130**
**Sleep and Dreams 133**

The Stages of Sleep 134

REM Sleep: The Paradox of Sleep 135

Why Do We Sleep, and How Much Sleep Is Necessary? 136

**NEUROSCIENCE IN YOUR LIFE:** Why Are You so Irritable When You Don't Get Enough Sleep? 137

- The Function and Meaning of Dreaming 138
- Sleep Disturbances: Slumbering Problems 141
- Circadian Rhythms: Life Cycles 142
- Daydreams: Dreams Without Sleep 143
- BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Sleeping Better 144

**MODULE 13**

**Hypnosis and Meditation 146**

- Hypnosis: A Trance-Forming Experience? 146
- Meditation: Regulating Our Own State of Consciousness 148
- APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Will the Person on the Cell Phone Please Pipe Down! 150
- EXPLORING DIVERSITY:** Cross-Cultural Routes to Altered States of Consciousness 151

**MODULE 14**

**Drug Use: The Highs and Lows of Consciousness 153**

- Stimulants: Drug Highs 155
- Depressants: Drug Lows 158
- Narcotics: Relieving Pain and Anxiety 161
- Hallucinogens: Psychedelic Drugs 162
- BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Identifying Drug and Alcohol Problems 163



**CHAPTER 5**

**Learning 168**

**MODULE 15**

**Classical Conditioning 171**

- The Basics of Classical Conditioning 172
- Applying Conditioning Principles to Human Behavior 174
- Extinction 175
- Generalization and Discrimination 176
- Beyond Traditional Classical Conditioning: Challenging Basic Assumptions 177

**MODULE 16**

**Operant Conditioning 179**

- Thorndike's Law of Effect 179
- The Basics of Operant Conditioning 180
- BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Using Behavior Analysis and Behavior Modification 189

**MODULE 17**

**Cognitive Approaches to Learning 192**

- Latent Learning 192
- Observational Learning: Learning Through Imitation 194



**NEUROSCIENCE IN YOUR LIFE:** Learning Through Imitation 195

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** What Do We Learn About Gender from the Media? 197

**EXPLORING DIVERSITY:** Does Culture Influence How We Learn? 197



### MODULE 18

## CHAPTER 6

# Memory 202

## The Foundations of Memory 205

Sensory Memory 206

Short-Term Memory 207

Working Memory 209

Long-Term Memory 211

**NEUROSCIENCE IN YOUR LIFE:** The Building Blocks of Memory: Do You Have a Jennifer Aniston Neuron? 215

### MODULE 19

## Recalling Long-Term Memories 217

Retrieval Cues 217

Levels of Processing 218

Explicit and Implicit Memory 219

Flashbulb Memories 220

Constructive Processes in Memory: Rebuilding the Past 221

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Mind Pops 222

**EXPLORING DIVERSITY:** Are There Cross-Cultural Differences in Memory? 225

### MODULE 20

## Forgetting: When Memory Fails 227

Why We Forget 228

Proactive and Retroactive Interference: The Before and After of Forgetting 229

Memory Dysfunctions: Afflictions of Forgetting 230

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Improving Your Memory 232



### MODULE 21

## CHAPTER 7

# Thinking, Language, and Intelligence 236

## Thinking and Reasoning 239

Mental Images: Examining the Mind's Eye 239

Concepts: Categorizing the World 240

**NEUROSCIENCE IN YOUR LIFE:** How Culture Influences How We Categorize the World 241

Algorithms and Heuristics 242

Solving Problems 243

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Sleep On It 249

Creativity and Problem Solving 251

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Thinking Critically and Creatively 253

**MODULE 22**

Language 255

Grammar: Language's Language 255

Language Development: Developing a Way with Words 256

Understanding Language Acquisition: Identifying the Roots of Language 257

The Influence of Language on Thinking: Do Eskimos Have More Words for Snow Than Texans Do? 259

Do Animals Use Language? 260

**EXPLORING DIVERSITY:** Teaching with Linguistic Variety: Bilingual Education 261

**MODULE 23**

Intelligence 264

Theories of Intelligence: Are There Different Kinds of Intelligence? 265

Assessing Intelligence 270

Variations in Intellectual Ability 275

Group Differences in Intelligence: Genetic and Environmental Determinants 277

**EXPLORING DIVERSITY:** The Relative Influence of Genetics and Environment: Nature, Nurture, and IQ 278

**CHAPTER 8**

Motivation and Emotion 284

**MODULE 24**

Explaining Motivation 287

Instinct Approaches: Born to Be Motivated 287

Drive-Reduction Approaches: Satisfying Our Needs 288

Arousal Approaches: Beyond Drive Reduction 289

Incentive Approaches: Motivation's Pull 289

Cognitive Approaches: The Thoughts Behind Motivation 289

Maslow's Hierarchy: Ordering Motivational Needs 291

Applying the Different Approaches to Motivation 292

**MODULE 25**

Human Needs and Motivation: Eat, Drink, and Be Daring 295

The Motivation Behind Hunger and Eating 295

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Finding the Motivation to Get Unstuck 299

**NEUROSCIENCE IN YOUR LIFE:** When Regulation of Eating Behavior Goes Wrong 301

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Dieting and Losing Weight Successfully 301

Sexual Motivation 302

The Needs for Achievement, Affiliation, and Power 308



## MODULE 26

## Understanding Emotional Experiences 312

The Functions of Emotions 313

Determining the Range of Emotions: Labeling Our Feelings 313

The Roots of Emotions 314

**EXPLORING DIVERSITY:** Do People in All Cultures Express Emotion Similarly? 319



## CHAPTER 9

## Development 324

## MODULE 27

## Nature and Nurture: The Enduring Developmental Issue 327

Determining the Relative Influence of Nature and Nurture 329

Developmental Research Techniques 329

Prenatal Development: Conception to Birth 330

## MODULE 28

## Infancy and Childhood 337

The Extraordinary Newborn 337

**NEUROSCIENCE IN YOUR LIFE:** Do Infants Recognize Emotion? 340

The Growing Child: Infancy Through Middle Childhood 341

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Distracted Parenting 344

## MODULE 29

## Adolescence: Becoming an Adult 356

Physical Development: The Changing Adolescent 356

Moral and Cognitive Development: Distinguishing Right from Wrong 358

Social Development: Finding One's Self in a Social World 360

**EXPLORING DIVERSITY:** Rites of Passage: Coming of Age Around the World 364

## MODULE 30

## Adulthood 366

Physical Development: The Peak of Health 367

Social Development: Working at Life 368

Marriage, Children, and Divorce: Family Ties 369

Later Years of Life: Growing Old 371

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Adjusting to Death 375



## CHAPTER 10

## Personality 380

## MODULE 31

## Psychodynamic Approaches to Personality 383

Freud's Psychoanalytic Theory: Mapping the Unconscious Mind 383

The Neo-Freudian Psychoanalysts: Building on Freud 389

**MODULE 32**

Trait, Learning, Biological and Evolutionary, and Humanistic Approaches to Personality 393

Trait Approaches: Placing Labels on Personality 393

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Fixing What's Inside by Fixing What's Outside?

Learning Approaches: We Are What We've Learned 396

Biological and Evolutionary Approaches: Are We Born with Personality? 399

**NEUROSCIENCE IN YOUR LIFE:** Wired to Be an Extrovert? The Biological Underpinnings of Personality 402

Humanistic Approaches: The Uniqueness of You 403

Comparing Approaches to Personality 404

**MODULE 33**

Assessing Personality: Determining What Makes Us Distinctive 406

**EXPLORING DIVERSITY:** Should Race and Ethnicity Be Used to Establish Norms? 407

Self-Report Measures of Personality 408

Projective Methods 410

Behavioral Assessment 411

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Assessing Personality Assessments 412

**CHAPTER 11**

Health Psychology: Stress, Coping, and Well-Being 416



**MODULE 34**

Stress and Coping 419

Stress: Reacting to Threat and Challenge 419

The High Cost of Stress 421

Coping with Stress 425

**NEUROSCIENCE IN YOUR LIFE:** Altering Memories of Fear for Those with PTSD 428

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Effective Coping Strategies 429

**MODULE 35**

Psychological Aspects of Illness and Well-Being 431

The As, Bs, and Ds of Coronary Heart Disease 431

Psychological Aspects of Cancer 432

Smoking 433

**EXPLORING DIVERSITY:** Hucksters of Death: Promoting Smoking Throughout the World 435

## MODULE 36

## Promoting Health and Wellness 437

Following Medical Advice 437

Well-Being and Happiness 440

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Does Money Buy Happiness? 442

## CHAPTER 12

## Psychological Disorders 446

## MODULE 37

## Normal Versus Abnormal: Making the Distinction 449

Defining Abnormality 449

Perspectives on Abnormality: From Superstition to Science 451

Classifying Abnormal Behavior: The ABCs of DSM 454

## MODULE 38

## The Major Psychological Disorders 459

Anxiety Disorders 459

Obsessive-Compulsive Disorder 461

Somatic Symptom Disorders 463

Dissociative Disorders 464

Mood Disorders 465

Schizophrenia 469

**NEUROSCIENCE IN YOUR LIFE:** Brain Changes with Schizophrenia 472

Personality Disorders 473

Disorders That Impact Childhood 475

Other Disorders 475

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Internet Addiction 476

## MODULE 39

## Psychological Disorders in Perspective 478

The Social and Cultural Context of Psychological Disorders 479

**EXPLORING DIVERSITY:** DSM and Culture—and the Culture of DSM 481**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Deciding When You Need Help 482

## CHAPTER 13

## Treatment of Psychological Disorders 486

## MODULE 40

## Psychotherapy: Psychodynamic, Behavioral, and Cognitive Approaches to Treatment 489

Psychodynamic Approaches to Therapy 490

Behavioral Approaches to Therapy 492  
Cognitive Approaches to Therapy 496  
**NEUROSCIENCE IN YOUR LIFE:** How Cognitive Behavioral Therapy Changes Your Brain 498

**MODULE 41**

**Psychotherapy: Humanistic, Interpersonal, and Group Approaches to Treatment 500**

Humanistic Therapy 500  
Interpersonal Therapy 501

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** High Tech Therapies 502

Group Therapies 503

Evaluating Psychotherapy: Does Therapy Work? 504

**EXPLORING DIVERSITY:** Racial and Ethnic Factors in Treatment: Should Therapists Be Color Blind? 506

**MODULE 42**

**Biomedical Therapy: Biological Approaches to Treatment 509**

Drug Therapy 509  
Electroconvulsive Therapy (ECT) 512  
Psychosurgery 513  
Biomedical Therapies in Perspective 514

Community Psychology: Focus on Prevention 514

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Choosing the Right Therapist 516

**CHAPTER 14**

**Social Psychology 520**

**MODULE 43**

**Attitudes and Social Cognition 523**

Persuasion: Changing Attitudes 523  
Social Cognition: Understanding Others 526

**EXPLORING DIVERSITY:** Attribution Biases in a Cultural Context: How Fundamental Is the Fundamental Attribution Error? 530

**MODULE 44**

**Social Influence and Groups 532**

Conformity: Following What Others Do 532  
Compliance: Submitting to Direct Social Pressure 535  
Obedience: Following Direct Orders 537

**MODULE 45**

**Prejudice and Discrimination 540**

**APPLYING PSYCHOLOGY IN THE 21ST CENTURY:** Decreasing the Damage of Negative Stereotypes 541

The Foundations of Prejudice 542



**NEUROSCIENCE IN YOUR LIFE:** The Prejudiced Brain and Empathy 543  
Measuring Prejudice and Discrimination: The Implicit Association Test 544  
Reducing the Consequences of Prejudice and Discrimination 544

**MODULE 46****Positive and Negative Social Behavior 546**

Liking and Loving: Interpersonal Attraction and the Development of Relationships 546

Aggression and Prosocial Behavior: Hurting and Helping Others 549

Helping Others: The Brighter Side of Human Nature 552

**BECOMING AN INFORMED CONSUMER OF PSYCHOLOGY:** Dealing Effectively with Anger 554



## McGraw-Hill Psychology's APA Documentation Style Guide

[Glossary G-1](#)

[References R-1](#)

[Credits C-1](#)

[Name Index I-1](#)

[Subject Index I-21](#)





# Preface

## Students First

If I were to use only two words to summarize my goal across the eleven editions of this introduction to psychology, as well as my teaching philosophy, that's what I would say: Students first.

I believe that an effective introduction to a discipline must be oriented to students—informing them, engaging them, and exciting them about the field and helping them connect it to their worlds.

The difference between this and earlier editions, though, is that now we have an array of digital tools available that allow students to study more effectively, and learn the material more deeply, than was ever before possible.

### BETTER DATA, SMARTER REVISION, IMPROVED RESULTS

SMARTBOOK™

Students study more effectively with Smartbook.

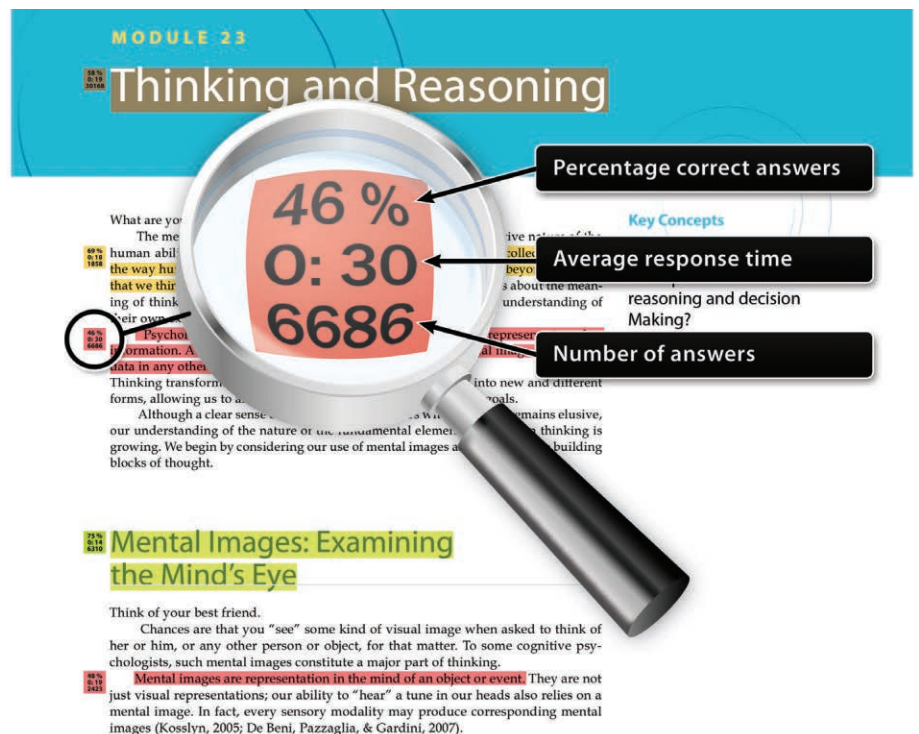
- **Make It Effective.** Powered by Learnsmart, SmartBook™ creates a personalized reading experience by highlighting the most impactful concepts a student needs to learn at that moment in time. This ensures that every minute spent with SmartBook™ is returned to the student as the most value-added minute possible.
- **Make It Informed.** Real-time reports quickly identify the concepts that require more attention from individual students—or the entire class. SmartBook™ detects the content a student is most likely to forget and brings it back to improve long-term knowledge retention.

Students help inform the revision strategy.

- **Make It Precise.** Systematic and precise, a heat map tool collates data anonymously collected from thousands of students who used Connect Psychology's Learnsmart.
- **Make It Accessible.** The data is graphically represented in a heat map as “hot spots” showing specific concepts with which students had the most difficulty. Revising these concepts, then, can make them more accessible for students.

### PERSONALIZED GRADING, ON THE GO, MADE EASIER

The first and only analytics tool of its kind, Connect Insight™ is a series of visual data





displays—each framed by an intuitive question—to provide at-a-glance information regarding how your class is doing.

- **Make It Intuitive.** You receive instant, at-a-glance views of student performance matched with student activity.
- **Make It Dynamic.** Connect Insight™ puts real-time analytics in your hands so you can take action early and keep struggling students from falling behind.
- **Make It Mobile.** Connect Insight™ travels from office to classroom, available on demand wherever and whenever it's needed.

## Student Tools: Mastering the Material

Student success in psychology means mastering the material at a deep level. These are some of the tools that help students maximize their performance:

### STUDY ALERTS

Throughout, marginal notes point out important and difficult concepts and topics. These Study Alerts offer suggestions for learning the material effectively and for studying for tests. In Module 14, for example, a Study Alert emphasizes the importance of differentiating the five stages of sleep; the feature in Module 15 makes clear the key issue about hypnosis—whether it represents a different state of consciousness or is similar to normal waking consciousness; and in Module 16 it highlights Figure 2 for its clear view of the different ways that drugs produce their effects at a neurological level.



#### Study Alert

Differentiate the five stages of sleep (stage 1, stage 2, stage 3, stage 4, and REM sleep), which produce different brain-wave patterns.

### FROM THE PERSPECTIVE OF . . .

Every chapter includes questions to help students connect psychological concepts with career realities. Called “From the Perspective of . . .,” this feature helps students understand how psychology impacts their chosen program of study and answers the “why does psychology matter to me?” question. Examples of the some career fields include health, technology, criminal justice, and marketing.



#### From the perspective of . . .

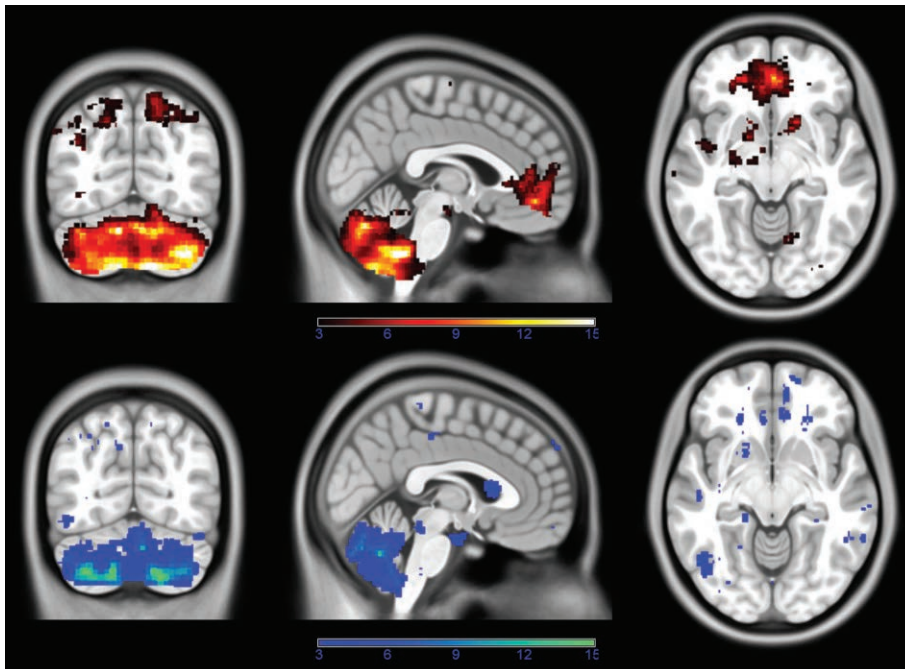
**An Educator** How might you use the findings in sleep research to maximize student learning?

### NEUROSCIENCE IN YOUR LIFE

This updated feature emphasizes the importance of neuroscientific research within the various subfields of the discipline and in students' lives. Compelling brain scans, with both caption and textual explanation, illustrate significant neuroscientific findings that are increasingly influencing the field of psychology. For example, one *Neuroscience in Your Life* feature explains how people with an eating disorder process information differently.

## Neuroscience in Your Life: When Regulation of Eating Behavior Goes Wrong

Research suggests that individuals with eating disorders process information differently. This difference in processing may lead to eating disorders or may be a result of such disordered eating. For example, as seen in these images, those with bulimia show greater connectivity in areas of the brain associated with eating behavior, such as the cerebellum (in red), whereas those who do not have bulimia show greater connectivity in other areas of the brain (in blue) (Amianto et al., 2013).



## Student Learning: Content and Concepts

The following sample of new and revised topics and textual changes, including new definitions based on heat map data, provides a good indication of the content's currency and clarification for students.

### Chapter 1—Introduction to Psychology

- Psychological explanations of Boston Marathon bomber and about autism spectrum disorder
- Psychology's reputation will grow with increase in evidence-based practices
- Increase in program evaluation psychologists
- Stream of consciousness

- Neuroscience, behavioral perspective, observable behavior, and universal principles
- Biological foundations of behavior and information about William James
- Lack of bystander intervention
- Dispositional factors in helping
- Definitions of confederate, dependent variable

- Participant expectations
- Deficiencies in web surveys

### Chapter 2—Neuroscience and Behavior

- Single-channel scanning to translate brain waves to communication
- Deleted information on location effects of neurotransmitters and the term *interneuron*

- New example of sensory and motor neurons
  - Reticular formation, limbic system, sensory area of the cortex, neuroplasticity concept
  - Epilepsy relief via brain hemisphere lesions
  - Kosslyn theory of top-bottom brain differences
- Chapter 3–Sensation and Perception**
- Super-recognizers
  - Effects of listening to music while studying
  - Information about supertasters
  - Chronic pain
  - Visual spectrum
  - Feature detector
  - Eardrum and sound
  - Pheromones role in alarm communication
  - Synesthesia
  - Relative size
  - Perceptual constancy
- Chapter 4–States of Consciousness**
- Hypnosis and sports
  - Circadian cycles, creativity, cognitive tasks
  - Sleep deprivation and sleeping pill use
  - Benefits of short naps and that preschoolers learn material better because of naps
  - Study about amount of time of off-task thinking and daydreaming
  - Uses of Molly and bath salts
  - Concept of addictive drugs
  - Latent content and manifest content definitions of dreams
- Chapter 5–Learning**
- Facebook and social media
  - Observation learning and gender from the media
  - Spanking and yelling is ineffective and damaging to children
  - Unconditioned response
  - Process of conditioning
  - Continuous reinforcement schedule, partial (intermittent) reinforcement schedule, fixed-interval schedule
  - Relational and analytic learning styles
- Chapter 6–Memory**
- Hyperthymestic syndrome
  - Statistics and eyewitness memory prosecution
  - Concept cells
  - Working memory and computer analogy
- Priming
  - Autobiographical memory
  - Relation between culture and memory
  - New case of repressed memory
- Chapter 7–Thinking, Language, and Intelligence**
- Thinking
  - Icelandic language has 24 words for waves
  - Language immersion and hippocampus growth
  - Efficient processing following intensive language training
  - Enhanced problem solving and creativity follows sleep
  - Availability heuristic, semantics, mental set, telegraphic speech, overgeneralization, confirmation bias, concepts
  - Nativist approach to language development
  - Linguistic relativity hypothesis
  - South Asian Indian cultural belief of malleability of IQ
  - Fluid intelligence
  - Crystallized intelligence
  - Removed information processing approach to intelligence
  - Intelligence tests
  - Culture-fair IQ test
  - Heritability
- Chapter 8–Motivation and Emotion**
- U. S. obesity statistics
  - Objections to instinct approaches
  - Incentive approaches to motivation
  - Cognitive approaches to motivation
  - Intrinsic/extrinsic definitions
  - Objections to weight set-point theory
  - Changes in societal views on homosexuality
  - Mental and physical health disparities in gays and lesbians
  - Removed term progesterone
  - Genetic origin of sexual orientation
  - Transsexual and transgenderism
  - Emotion theories
- Chapter 9–Development**
- World’s oldest man
  - Distracted parenting due to smartphone use
  - Longitudinal research
  - Deleted definition of sequential research
- Effects of mother’s illness on her fetus
  - Attachment due to responsiveness to children’s cues
  - Cognitive development definition
  - Conventional morality
  - Postconventional morality
  - Employment characteristics of families
  - Senility’s lack of usefulness
  - Alzheimer’s disease
  - Activity theory of aging
  - Disengagement theory of aging
- Chapter 10–Personality**
- Different aspects of personality
  - Plastic surgery effects on personality
  - Personality
  - Psychodynamic approaches to personality
  - Fixations
  - Oedipus conflict
  - Repression
  - Archetype
  - Collective unconscious
  - Inferiority complex
  - Factor analysis
  - Self-efficacy
  - Norm
  - Self-report measures
  - Projective personality test
  - Narcissism increases in college students
  - MMPI to MMPI-2-RF and number of subscales
- Chapter 11–Health Psychology: Stress, Coping, and Well-Being**
- Happiness and what one does with financial windfalls
  - Stress on the immune system
  - Hardiness
  - Resilience
  - Proactive coping
  - Smoking statistics and electronic cigarettes
  - Subjective well-being and positive and negative changes in situation
- Chapter 12–Psychological Disorders**
- DSM-5 update
  - Role of right anterior insula in depression
  - Statistics on financial costs of depression
  - Deleted schizophrenia subtypes (e.g., paranoid, catatonic, etc.)
  - Autism spectrum disorder

- Abnormality
- Behavioral perspective
- Panic disorder of mood disorders
- Removed evolutionary explanation of depression
- Internet addiction disorder
- Comorbidity
- Borderline personality disorder
- Narcissistic personality disorder
- Two most common psychological disorders

### Chapter 13—Treatment of Psychological Disorders

- Effects of technology on treatment
- Behavioral treatment approaches

- Systematic desensitization
- Flooding therapy
- Removed dialectical behavior therapy
- Unconditional positive regard
- Contemporary person-centered therapy
- Mood stabilizer
- Deinstitutionalization
- Hospital emergency rooms conducts mental health care
- Critique of Alcoholic Anonymous
- Statistics on use of antidepressants

### Chapter 14—Social Psychology

- Stereotype threat
- Mathematical models of impression formation

- Cognitive dissonance example
- Norms
- Social roles
- Norm of reciprocity
- Stereotypes and discrimination
- IAT
- Frustration-aggression hypothesis
- Observational learning



Our self-service website allows you to quickly and easily create custom course materials with McGraw-Hill's comprehensive, cross-disciplinary content and other third-party sources. Add your own content quickly and easily. Tap into other rights-secured third party sources as well. Then, arrange the content in a way that makes the most sense for your course. Even personalize your book with your course name and information and choose the best format for your students—color print, black-and-white print, or eBook. And, when you are done, you'll receive a free PDF review copy in just minutes! To get started, go to [www.mcgrawhillcreate.com](http://www.mcgrawhillcreate.com) and register today.

### CHOOSE YOUR OWN CONTENT

Need specific chapters? Create a book that contains only the chapters you want, in the order you want. Create will even renumber the pages for you! Feldman, *Essentials of Understanding Psychology*, offers five additional modules on the following topic areas:

- Diversity and Culture
- Forensic Psychology
- Industrial/Organizational Psychology
- Sustainability/Environmental Psychology
- Statistics

### CHOOSE YOUR FORMAT

Print or eBook? Softcover, spiral-bound, or loose leaf? Black-and-white or color? Perforated, three-hole punched, or regular paper? No matter the format, Create has the best fit for you—and for your students.

### CUSTOMIZE YOUR COVER

Pick your own cover image and include your name and course information right on the cover. Students will know they're purchasing the right book—and using everything they purchase!



## Acknowledgments

---

One of the central features of *Essentials of Understanding Psychology* is the involvement of both professionals and students in the review process. The Eleventh Edition of *Essentials of Understanding Psychology* has relied heavily—and benefited substantially—from the advice of instructors and students from a wide range of backgrounds.

I am grateful to Anthony Yankowski, of Bergen Community College, who provided guidance on updating the material in the chapter on psychological disorders to reflect the publication of the new DSM-5. In addition, Jane W. Couperus of Hampshire College once again provided exceptional support in helping identify appropriate neuroscientific research to include in the *Neuroscience in Your Life* features. I thank her for her superb work.

Many teachers along my educational path have shaped my thinking. I was introduced to psychology at Wesleyan University, where several committed and inspiring teachers—and in particular Karl Scheibe—conveyed their sense of excitement about the field and made its relevance clear to me. Karl epitomizes the teacher-scholar combination to which I aspire, and I continue to marvel at my good fortune in having such a role model.

By the time I left Wesleyan I could envision no other career but that of psychologist. Although the nature of the University of Wisconsin, where I did my graduate work, could not have been more different from the much smaller Wesleyan, the excitement and inspiration were similar. Again, a cadre of excellent teachers—led, especially, by the late Vernon Allen—molded my thinking and taught me to appreciate the beauty and science of the discipline of psychology.

My colleagues and students at the University of Massachusetts Amherst provide ongoing intellectual stimulation, and I thank them for making the university a fine place to work. Several people also provided extraordinary research and editorial help. In particular, I am grateful to my superb students, past and present, including Erik Coats, Sara Levine, Jim Tyler, Chris Poirier, and Matt Zimble. John Bickford, in particular, provided editorial input that has enhanced the content considerably. Finally, I am grateful to John Graiff, whose hard work and dedication helped immeasurably on just about everything involving this content.

I also offer great thanks to the McGraw-Hill editorial team that participated in this new edition. Vice President and General Manager Mike Ryan and Director Krista Bettino created a creative, energetic, and supportive environment, and I am in awe of their enthusiasm, commitment, and never-ending good ideas. I'm also happy that the indefatigable and ever-creative Cory Reeves provided input about all sorts of things related to this and other projects. I thank them not only for their superb professionalism, but also for their friendship.

I also am grateful to Sue Ewing, Developmental Editor on this edition. Sue did a superb job of managing a myriad of details (as well as me). She brought motivation, intelligence, and good ideas to the project. Finally, every reader of this book owes a debt to Rhona Robbin and Judith Kromm, Developmental Editors on earlier editions of *Essentials of Understanding Psychology*. Their relentless pursuit of excellence helped form the core of this book, and they taught me a great deal about the craft and art of writing.

Central to the design, production, and marketing process were Program Manager Debra Hash, Text Content Licensing Specialist Ann Marie Janette, Image Content Licensing Specialist Keri Johnson and Designer David Hash. Image Editor LouAnn Wilson did her usual superb job in identifying photos and, as always, was a pleasure to work with. I would also like to thank my award-winning Marketing Managers AJ Laferrera and Ann Helgerson for their enthusiasm and commitment to this project. I am proud to be a part of this world-class McGraw-Hill team.

Finally, I remain completely indebted to my family. My parents, Leah Brochstein and the late Saul D. Feldman, provided a lifetime foundation of love and support, and I continue to see their influence in every corner of my life. I am grateful, too, to the late Harry Brochstein, who enriched my life and thinking in many ways.



My extended family also plays a central role in my life. They include, more or less in order of age, my nieces and nephews, my terrific brother, and my brothers- and sisters-in-law, and the late Ethel Radler. Finally, my mother-in-law, the late Mary Evans Vorwerk, had an important influence on this book, and I remain ever grateful to her.

Ultimately, my children, Jonathan, Joshua, and Sarah; my daughters-in-law Leigh and Julie; my son-in-law Jeff; my grandsons Alex and Miles; and my wife, Katherine, remain the focal points of my life. I thank them, with immense love, and thank my lucky stars that they are in my life.

**Robert S. Feldman**  
*Amherst, Massachusetts*

# Making the Grade: A Practical Guide

No matter why you are taking introductory psychology, it's a safe bet you're interested in maximizing your understanding of the material and getting a good grade. And you want to accomplish these goals as quickly and efficiently as possible.

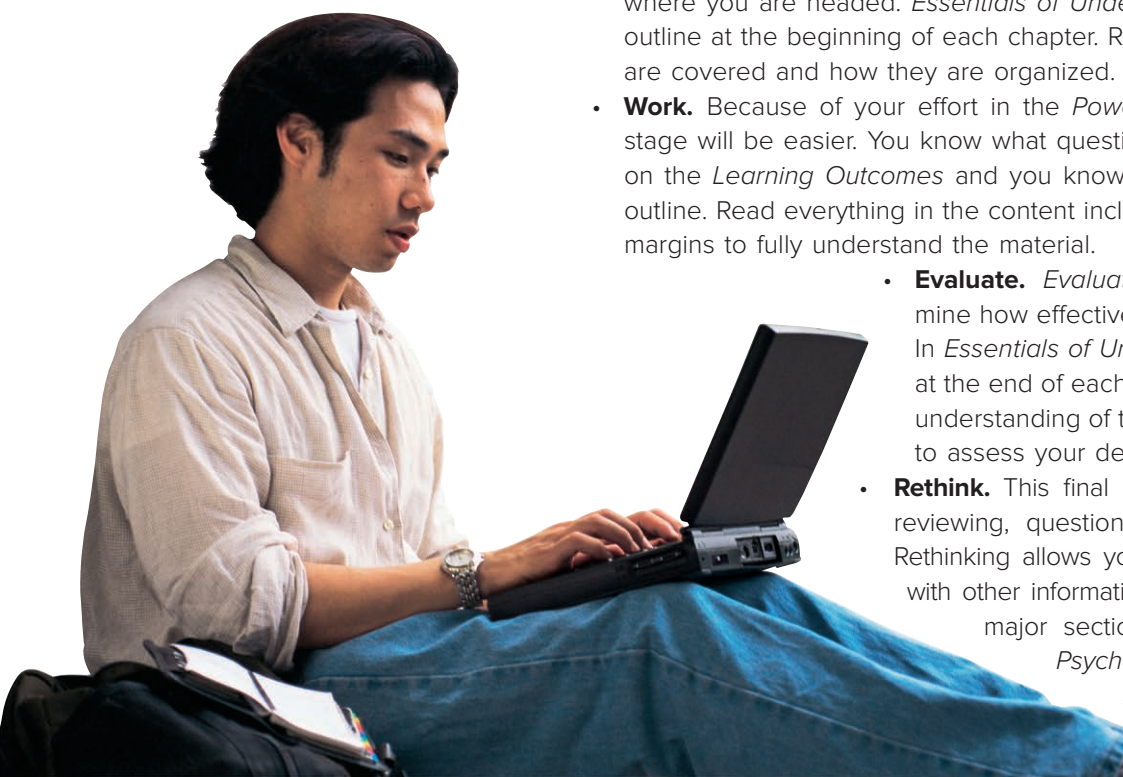
Good news: Several subfields of psychology have identified different ways to help you learn and remember material you will study throughout college. Here's my guarantee to you: If you learn and follow the guidelines in each of these areas, you'll become a better student and get better grades. Always remember that *good students are made, not born*.

## Adopt a General Study Strategy

Psychologists have devised several proven techniques to improve study skills, two of which are described here: "P.O.W.E.R.," or *Prepare, Organize, Work, Evaluate, and Rethink*; and "SQ3R," or *Survey, Question, Read, Recite, and Review*.

**P.O.W.E.R.** This learning system entails the following steps:

- **Prepare.** In *Essentials of Understanding Psychology*, Eleventh Edition, read the broad questions called *Learning Outcomes* to *Prepare* yourself for the material that follows. *Learning Outcomes* are at the start of each chapter and of each module.
- **Organize.** The *Organize* stage involves developing a mental roadmap of where you are headed. *Essentials of Understanding Psychology* includes the outline at the beginning of each chapter. Read it to get an idea of what topics are covered and how they are organized.
- **Work.** Because of your effort in the *Power* and *Organize* stages, the *Work* stage will be easier. You know what questions the material will answer based on the *Learning Outcomes* and you know how it is organized based on the outline. Read everything in the content including the material in boxes and the margins to fully understand the material.
- **Evaluate.** *Evaluate* provides the opportunity to determine how effectively you have mastered the material. In *Essentials of Understanding Psychology*, questions at the end of each module offer a rapid check of your understanding of the material. *Evaluate* your progress to assess your degree of mastery.
- **Rethink.** This final stage, *Rethink*, entails re-analyzing, reviewing, questioning, and challenging assumptions. Rethinking allows you to consider how the material fits with other information you have already learned. Every major section of *Essentials of Understanding Psychology* ends with a *Rethink* section. Answering its thought-provoking questions will help you think about the material at a deeper level.



# to Smarter Studying

**SQ3R.** The SQ3R learning system entails these specific steps:

- **Survey.** *Survey* the material by reading the outlines that open each module, the headings, figure captions, recaps, and Looking Ahead and Looking Back sections, providing yourself with an overview of the major points of the chapter.
- **Question.** In the *Q* step, formulate *questions* about the material, either aloud or in writing, prior to reading a section of text. The *Learning Outcomes*, written as questions at the beginning of each module and the *Evaluate* and *Rethink* questions that end each module are examples.
- **Read.** Read actively and critically. While you are reading, answer the questions you have asked yourself. Consider the implications of what you are reading, thinking about possible exceptions and contradictions, and examining underlying assumptions.
- **Recite.** Describe and explain to yourself or a study partner the material that you have just read. Answer questions you have posed. *Recite* aloud to help you know how well you understand what you have just read.
- **Review.** In this final step, review the material: read the Epilogue and answer those questions, review the Visual Summary, and answer any review questions at the end of each module.

## Manage Your Time

Managing your time as you study is a central aspect of academic success. But remember: The goal of time management is to permit us to make informed choices about how we use our time. Use these time management procedures to harness time for your own advantage.

**SET YOUR PRIORITIES.** First, determine your priorities. *Priorities* are the tasks and activities you need and want to do, rank-ordered from most important to least important.

The best procedure is to start off by identifying priorities for an entire term. What do you need to accomplish? Rather than making these goals too general, make them specific, such as “studying 10 hours before each chemistry exam.”

**IDENTIFY YOUR PRIME TIME.** Are you a morning person or do you prefer studying later at night? Being aware of the time or times of day when you can do your best work will help you plan and schedule your time most effectively.

**MASTER THE MOMENT.** Here’s what you’ll need to organize your time:

- A *master calendar* that shows all the weeks of the term on one page. It should include every week of the term and seven days per week. On the master calendar note the due date of every assignment and test you will have. Also include important activities from your personal life, drawn from your list of priorities. Add some free time for yourself.





- A *weekly timetable* that shows the days of the week across the top and the hours, from 6:00 a.m. to midnight, along the side. Fill in the times of all your fixed, prescheduled activities—the times that your classes meet, when you have to be at work, the times you have to pick up your child at day care, and any other recurring appointments. Add assignment due dates, tests, and any other activities on the appropriate days of the week. Then add blocks of time necessary to prepare for those events.
- A *daily to-do list* using a small calendar or your smartphone. List all the things that you intend to do during the day and their priority. Start with the things you *must* do and that have fixed times, such as classes and work schedules. Then add in the other things that you *should* accomplish, such as researching an upcoming paper or finishing a lab report. Finally, list things that are a low priority like taking in a new movie.

**CONTROL YOUR TIME.** If you follow the schedules that you've prepared, you've taken the most important steps in time management. Things, however, always seem to take longer than planned.

When inevitable surprises occur, there are several ways to take control of your days to follow your intended schedule:

- **Say no.** You don't have to agree to every favor that others ask of you.
- **Get away from it all.** Adopt a specific spot to call your own, such as a corner desk in a secluded nook in the library. If you use it enough, your body and mind will automatically get into study mode as soon as you get there.
- **Enjoy the sounds of silence.** Studies suggest that we are able to concentrate most when our environment is silent. Experiment and work in silence for a few days. You may find that you get more done in less time than you would in a more distracting environment.
  - **Take an e-break.** Take an e-break and shut down your communication sources for some period of time. Phone calls, text messages, IMs, and e-mail can be saved on a phone or computer. They'll wait.
  - **Expect the unexpected.** You'll never be able to escape from unexpected interruptions and surprises that require your attention. But by trying to anticipate them and thinking about how you'll react to them, you can position yourself to react effectively when they do occur.

## Take Good Notes in Class

---

Let's consider some of the basic principles of notetaking:

- **Identify the instructor's—and your—goals for the course.** The information you get during the first day of class and through the syllabus is critical. In addition to the instructor's goals, you should have your own. How will the information from the course help you to enhance your knowledge, improve yourself as a person, achieve your goals?





- **Complete assignments before coming to class.**
- **Choose a notebook that assists in notetaking.**
- **Listen for the key ideas.** Listen for phrases like “you need to know . . .,” “the most important thing to consider . . .,” “there are four problems with this approach . . .,” and—a big one—“this will be on the test . . .” should cause you to sit up and take notice. Also, if an instructor says the same thing in several ways, the material being discussed is important.
- **Use short, abbreviated phrases—not full sentences when taking notes.**
- **Pay attention to what is written on the board or projected from PowerPoint slides. Remember these tips:**
  - Listening is more important than seeing.
  - Don’t copy everything that is on every slide.
  - Remember that key points on slides are . . . key points.
  - Check to see if the presentation slides are available online.
  - Remember that presentation slides are not the same as good notes for a class.



## Memorize Efficiently

Here’s a key principle of effective memorization: Memorize what you need to memorize. *Forget about the rest.*

You have your choice of dozens of techniques of memorization. Also, feel free to devise your own strategies or add those that have worked for you in the past.

**REHEARSAL.** Say it aloud: rehearsal. Think of this word in terms of its three syllables: re—hear—sal. If you’re scratching your head about why you should do this, it’s to illustrate the point of *rehearsal*: to transfer material that you encounter into long-term memory.

**MNEMONICS.** This odd word (pronounced with the “m” silent—“neh MON ix”) describes formal techniques used to make material more readily remembered.

Among the most common mnemonics are the following:

- **Acronyms.** *Acronyms* are words or phrases formed by the first letters of a series of terms.
  - For example, Roy G. Biv helps people to remember the colors of the spectrum (red, orange, yellow, green, blue, indigo, and violet).
- **Acrostics.** *Acrostics* are sentences in which the first letters spell out something that needs to be recalled. The benefits of acrostics are similar to those of acronyms.



- **Rhymes and jingles.** “Thirty days hath September, April, June, and November.” If you know the rest of the rhyme, you’re familiar with one of the most commonly used mnemonic jingles in the English language.

**USE OF MULTIPLE SENSES.** Every time we encounter new information, all of our senses are potentially at work. Each piece of sensory information is stored in a separate location in the brain, and yet all the pieces are linked together in extraordinarily intricate ways.

- **When you learn something, use your body.** Move around. Stand up; sit down. Touch the page. Trace figures with your fingers. Talk to yourself. Think out loud. By involving every part of your body, you’ve increased the number of potential ways to trigger a relevant memory later, when you need to recall it.
- **Draw and diagram the material.** Structuring written material by graphically grouping and connecting key ideas and themes is a powerful technique. Creating drawings, sketches, and even cartoons can help us remember better.
- **Visualize.** Visualization is effective because it helps make abstract ideas concrete; it engages multiple senses; it permits us to link different bits of information together; and it provides us with a context for storing information.
- **Overlearning.** *Overlearning* consists of studying and rehearsing material past the point of initial mastery. Through overlearning, you can recall the information without even thinking about it.

## Study for Tests Strategically

Here are some guidelines that can help you do your best on tests:

**KNOW WHAT YOU ARE PREPARING FOR.** To find out about an upcoming test, ask if it is a “test,” an “exam,” a “quiz,” or something else. These names imply different things. In addition, each kind of test question requires a somewhat different style of preparation.

- **Essay questions.** The best approach to studying for an essay test involves four steps:
  1. Reread your class notes and any notes you’ve made on assigned readings that will be covered on the upcoming exam. Also go through the readings themselves, reviewing underlined or highlighted material and marginal notes.
  2. Think of likely exam questions. Some instructors give lists of possible essay topics; if yours does, focus on this list, and think of other possibilities.

3. Answer each potential essay question—aloud. You can also write down the main points that any answer should cover.
4. After you've answered the questions, look at the notes and readings once again. If you feel confident that you've answered specific questions adequately, check them off. If you had trouble with some questions, review that material immediately. Then repeat the third step 3, answering the questions again.

- **Multiple-choice, true–false, and matching questions.** Studying for multiple-choice, true–false, and matching questions requires attention to the details. Write down important facts on index cards: They're portable and available all the time, and the act of creating them helps drive the material into your memory.
- **Short-answer and fill-in questions.** Short-answer and fill-in questions are similar to essays in that they require you to recall key pieces of information but they don't demand that you integrate or compare different types of information. Consequently, the focus of your study should be on the recall of specific, detailed information.

**TEST YOURSELF.** When you believe you've mastered the material, test yourself on it. You can create a test for yourself, in writing, making its form as close as possible to what you expect the actual test to be.

**DEAL WITH TEST ANXIETY.** What does the anticipation of a test do to you? *Test anxiety* is a temporary condition characterized by fears and concerns about test-taking. You'll never eliminate test anxiety completely, nor do you want to. A little bit of nervousness can energize us, making us more attentive and vigilant.

On the other hand, for some students, anxiety can spiral into the kind of paralyzing fear that makes their minds go blank. There are several ways to keep this from happening to you:

- *Prepare thoroughly.*
- *Take a realistic view of the test.*
- *Learn relaxation techniques.*
- *Visualize success.*

**FORM A STUDY GROUP.** *Study groups* can be extremely powerful tools because they help accomplish several things:

- They help members organize and structure the material to approach their studying in a systematic and logical way.
- They allow students to share different perspectives on the material.
- They make it more likely that students will not overlook any potentially important information.





- They force members to rethink the course material, explaining it in words that other group members will understand. This helps both understanding and recall of the information when it is needed on the test.
- Finally, they help motivate members to do their best. When you're part of a study group, you're no longer working just for yourself; your studying also benefits the other study group members. Not wanting to let down your classmates in a study group may encourage you to put in your best effort.



# Essentials of Understanding Psychology



1

# Introduction to Psychology



## Learning Outcomes for Chapter 1

### MODULE 1

- LO 1-1** What is the science of psychology?
- LO 1-2** What are the major specialties in the field of psychology?
- LO 1-3** Where do psychologists work?

#### Psychologists at Work

The Subfields of Psychology: Psychology's Family Tree

Working at Psychology

### MODULE 2

- LO 2-1** What are the origins of psychology?
- LO 2-2** What are the major approaches in contemporary psychology?
- LO 2-3** What are psychology's key issues and controversies?
- LO 2-4** What is the future of psychology likely to hold?

#### A Science Evolves: The Past, the Present, and the Future

The Roots of Psychology

Today's Perspectives

Psychology's Key Issues and Controversies

#### Applying Psychology in the 21st Century:

Psychology Matters

Psychology's Future

**Neuroscience in Your Life:** Reading the Movies in Your Mind

### MODULE 3

- LO 3-1** What is the scientific method?
- LO 3-2** What role do theories and hypotheses play in psychological research?
- LO 3-3** What research methods do psychologists use?
- LO 3-4** How do psychologists establish cause-and-effect relationships in research studies?

#### Research in Psychology

The Scientific Method

Psychological Research

Descriptive Research

Experimental Research

### MODULE 4

- LO 4-1** What major issues confront psychologists conducting research?

#### Critical Research Issues

The Ethics of Research

**Exploring Diversity:** Choosing Participants Who Represent the Scope of Human Behavior

**Neuroscience in Your Life:** The Importance of Using Representative Participants

Should Animals Be Used in Research?

Threats to Experimental Validity: Avoiding Experimental Bias

**Becoming an Informed Consumer of Psychology:** Thinking Critically About Research

## Prologue *Boston Marathon Massacre*

The images of Dzhokhar Tsarnaev, the person who became known as the “Boston Bomber,” weren’t what anyone was expecting. In the days and weeks following the bombing of the Boston Marathon in 2013, videos were released of the shaggy-haired 19-year-old college student fooling around and dancing with his friends and hanging out with his older brother at the gym. He looked just like any teenaged boy—playful, fun, and engaging. *Rolling Stone* magazine would later incur considerable

controversy when it put Dzhokhar’s photo on the cover of its August issue. His casual reclined pose and sultry gaze made him look like a young rock star.

It was difficult for people to believe that this was, in fact, the face of the man who had placed a shrapnel-packed bomb at the feet of a cheerful 7-year-old boy at the crowded marathon finish line, and then walked away, smiling, just before it exploded.



## Looking Ahead

The bloody Boston massacre gives rise to a host of important psychological issues. For example, consider these questions asked by psychologists following the killing spree:

- What motivation lay behind Tsarnaev’s act of terror?
- What biological changes occurred in the bodies of those present who fled in fear for their lives after the bomb exploded?
- What memories did people have of the bombing afterward?
- What would be the long-term effects of the killings on the physical and psychological health of the survivors and witnesses?

- What are the most effective ways to help people cope with the sudden and unexpected loss of loved ones?
- Why did many people put their own lives potentially at risk to give first aid to those who were injured?
- Was Tsarnaev psychologically disturbed?
- Could this tragedy have been prevented if the bomber had received adequate psychological therapy?

As we’ll soon see, psychology addresses questions like these—and many, many more. In this chapter, we begin our examination of psychology, the different types of psychologists, and the various roles that psychologists play.

## MODULE 1

# Psychologists at Work

**Psychology** is the scientific study of behavior and mental processes. The simplicity of this definition is in some ways deceiving, concealing ongoing debates about how broad the scope of psychology should be. Should psychologists limit themselves to the study of outward, observable behavior? Is it possible to scientifically study thinking? Should the field encompass the study of such diverse topics as physical and mental health, perception, dreaming, and motivation? Is it appropriate to focus solely on human behavior, or should the behavior of other species be included?

Most psychologists would argue that the field should be receptive to a variety of viewpoints and approaches. Consequently, the phrase *behavior and mental processes* in the definition of psychology must be understood to mean many things: It encompasses not just what people do but also their thoughts, emotions, perceptions, reasoning processes, memories, and even the biological activities that maintain bodily functioning.

Psychologists try to describe, predict, and explain human behavior and mental processes, as well as helping to change and improve the lives of people and the world in which they live. They use scientific methods to find answers that are far more valid and legitimate than those resulting from intuition and speculation, which are often inaccurate (see Figure 1).

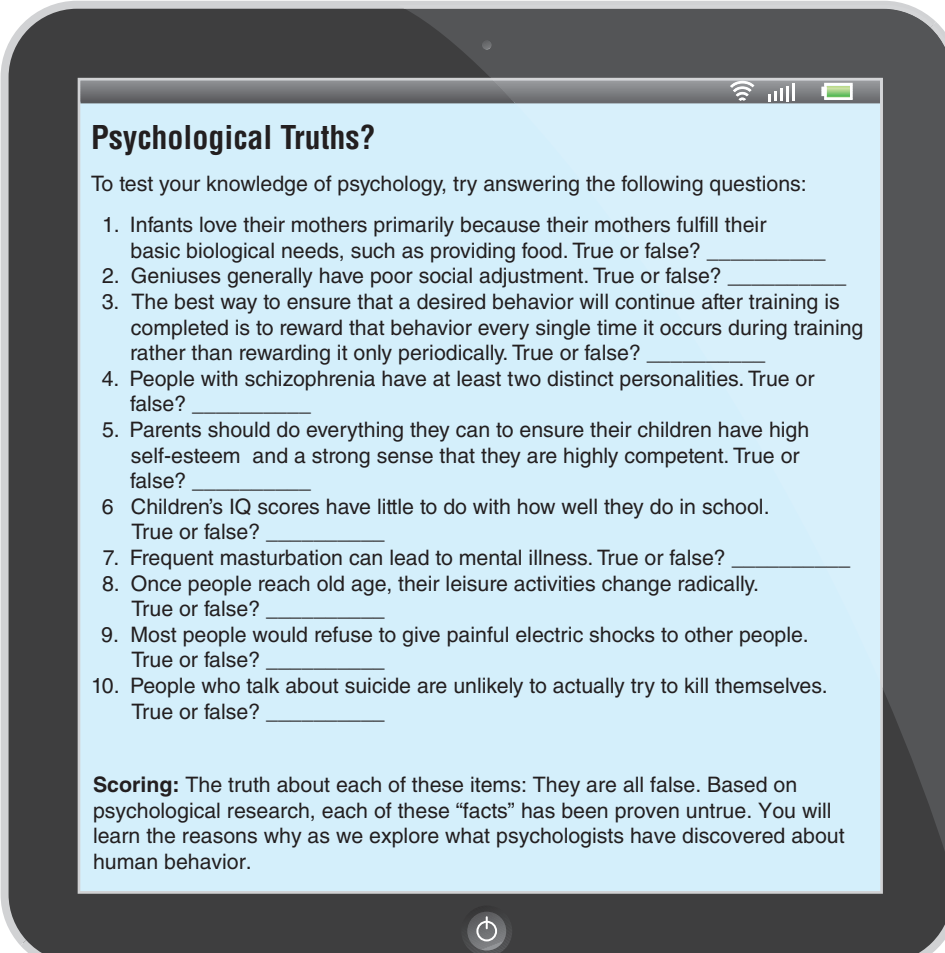
### Learning Outcomes

**LO 1-1** What is the science of psychology?

**LO 1-2** What are the major specialties in the field of psychology?

**LO 1-3** Where do psychologists work?

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



**Psychological Truths?**

To test your knowledge of psychology, try answering the following questions:

1. Infants love their mothers primarily because their mothers fulfill their basic biological needs, such as providing food. True or false? \_\_\_\_\_
2. Geniuses generally have poor social adjustment. True or false? \_\_\_\_\_
3. The best way to ensure that a desired behavior will continue after training is completed is to reward that behavior every single time it occurs during training rather than rewarding it only periodically. True or false? \_\_\_\_\_
4. People with schizophrenia have at least two distinct personalities. True or false? \_\_\_\_\_
5. Parents should do everything they can to ensure their children have high self-esteem and a strong sense that they are highly competent. True or false? \_\_\_\_\_
6. Children's IQ scores have little to do with how well they do in school. True or false? \_\_\_\_\_
7. Frequent masturbation can lead to mental illness. True or false? \_\_\_\_\_
8. Once people reach old age, their leisure activities change radically. True or false? \_\_\_\_\_
9. Most people would refuse to give painful electric shocks to other people. True or false? \_\_\_\_\_
10. People who talk about suicide are unlikely to actually try to kill themselves. True or false? \_\_\_\_\_

**Scoring:** The truth about each of these items: They are all false. Based on psychological research, each of these "facts" has been proven untrue. You will learn the reasons why as we explore what psychologists have discovered about human behavior.

**FIGURE 1** The scientific method is the basis of all psychological research and is used to find valid answers. Test your knowledge of psychology by answering these questions. (Source: Adapted from Lamal, 1979.)



## The Subfields of Psychology: Psychology's Family Tree

As the study of psychology has grown, it has given rise to a number of subfields (described in Figure 2). The subfields of psychology can be likened to an extended family, with assorted nieces and nephews, aunts and uncles, and cousins who, although they may not interact on a day-to-day basis, are related to one another, because they share a common goal: understanding behavior. One way to identify the key subfields is to look at some of the basic questions about behavior that they address.



### Study Alert

The different subfields of psychology allow psychologists to explain the same behavior in multiple ways. Review Figure 2 for a summary of the subfields.



### PsychTech

How well can you text and drive at the same time? Cognitive psychologists have demonstrated that it is impossible to do both without a serious and potentially deadly decline in driving ability.

### WHAT ARE THE BIOLOGICAL FOUNDATIONS OF BEHAVIOR?

In the most fundamental sense, people are biological organisms. *Behavioral neuroscience* is the subfield of psychology that focuses on how the brain and the nervous system, as well as other biological aspects of the body, determine behavior.

Thus, neuroscientists consider how our bodies influence our behavior. For example, they may examine the link between specific sites in the brain and the muscular tremors of people affected by Parkinson's disease or attempt to determine how our emotions are related to physical sensations.

### HOW DO PEOPLE SENSE, PERCEIVE, LEARN, AND THINK ABOUT THE WORLD?

If you have ever wondered why you are susceptible to optical illusions, how your body registers pain, or how to make the most of your study time, an experimental psychologist can answer your questions. *Experimental psychology* is the branch of psychology that studies the processes of sensing, perceiving, learning, and thinking about the world. (The term *experimental psychologist* is somewhat misleading: Psychologists in every specialty area use experimental techniques.)

Several subspecialties of experimental psychology have become specialties in their own right. One is *cognitive psychology*, which focuses on higher mental processes, including thinking, memory, reasoning, problem solving, judging, decision making, and language.

### WHAT ARE THE SOURCES OF CHANGE AND STABILITY IN BEHAVIOR ACROSS THE LIFE SPAN?

A baby producing her first smile . . . taking his first step . . . saying her first word. These universal milestones in development are also singularly special and unique for each person. *Developmental psychology* studies how people grow and change from the moment of conception through death. *Personality psychology* focuses on the consistency in people's behavior over time and the traits that differentiate one person from another.

### HOW DO PSYCHOLOGICAL FACTORS AFFECT PHYSICAL AND MENTAL HEALTH?

Frequent depression, stress, and fears that prevent people from carrying out their normal activities are topics that interest a health psychologist, a clinical psychologist, and a counseling psychologist. *Health psychology* explores the relationship between psychological factors and physical ailments or disease. For example, health psychologists are interested in assessing how long-term stress (a psychological factor) can affect physical health and in identifying ways to promote behavior that brings about good health (Belar, 2008; Yardley & Moss-Morris, 2009; Proyer et al., 2013).



Subfield	Description
Behavioral genetics	<i>Behavioral genetics</i> studies the inheritance of traits related to behavior.
Behavioral neuroscience	<i>Behavioral neuroscience</i> examines the biological basis of behavior.
Clinical psychology	<i>Clinical psychology</i> deals with the study, diagnosis, and treatment of psychological disorders.
Clinical neuropsychology	<i>Clinical neuropsychology</i> unites the areas of biopsychology and clinical psychology, focusing on the relationship between biological factors and psychological disorders.
Cognitive psychology	<i>Cognitive psychology</i> focuses on the study of higher mental processes.
Counseling psychology	<i>Counseling psychology</i> focuses primarily on educational, social, and career adjustment problems.
Cross-cultural psychology	<i>Cross-cultural psychology</i> investigates the similarities and differences in psychological functioning in and across various cultures and ethnic groups.
Developmental psychology	<i>Developmental psychology</i> examines how people grow and change from the moment of conception through death.
Educational psychology	<i>Educational psychology</i> is concerned with teaching and learning processes, such as the relationship between motivation and school performance.
Environmental psychology	<i>Environmental psychology</i> considers the relationship between people and their physical environment.
Evolutionary psychology	<i>Evolutionary psychology</i> considers how behavior is influenced by our genetic inheritance from our ancestors.
Experimental psychology	<i>Experimental psychology</i> studies the processes of sensing, perceiving, learning, and thinking about the world.
Forensic psychology	<i>Forensic psychology</i> focuses on legal issues, such as determining the accuracy of witness memories.
Health psychology	<i>Health psychology</i> explores the relationship between psychological factors and physical ailments or disease.
Industrial/organizational psychology	<i>Industrial/organizational psychology</i> is concerned with the psychology of the workplace.
Personality psychology	<i>Personality psychology</i> focuses on the consistency in people's behavior over time and the traits that differentiate one person from another.
Program evaluation	<i>Program evaluation</i> focuses on assessing large-scale programs, such as the Head Start preschool program, to determine whether they are effective in meeting their goals.
Psychology of women	<i>Psychology of women</i> focuses on issues such as discrimination against women and the causes of violence against women.
School psychology	<i>School psychology</i> is devoted to counseling children in elementary and secondary schools who have academic or emotional problems.
Social psychology	<i>Social psychology</i> is the study of how people's thoughts, feelings, and actions are affected by others.
Sport psychology	<i>Sport psychology</i> applies psychology to athletic activity and exercise.

**FIGURE 2** The major subfields of psychology.



*Clinical psychology* deals with the study, diagnosis, and treatment of psychological disorders. Clinical psychologists are trained to diagnose and treat problems that range from the crises of everyday life, such as unhappiness over the breakup of a relationship, to more extreme conditions, such as profound, lingering depression. Some clinical psychologists also research and investigate issues that vary from identifying the early signs of psychological disturbance to studying the relationship between family communication patterns and psychological disorders.

Like clinical psychologists, counseling psychologists deal with people's psychological problems, but the problems they deal with are more specific. *Counseling psychology* focuses primarily on educational, social, and career adjustment problems. Almost every college has a center staffed with counseling psychologists. This is where students can get advice on the kinds of jobs they might be best suited for, on methods of studying effectively, and on strategies for resolving everyday difficulties, such as problems with roommates and concerns about a specific professor's grading practices. Many large business organizations also employ counseling psychologists to help employees with work-related problems.

### HOW DO OUR SOCIAL NETWORKS AFFECT BEHAVIOR?

Our complex networks of social interrelationships are the focus for many subfields of psychology. For example, *social psychology* is the study of how people's thoughts, feelings, and actions are affected by others. Social psychologists concentrate on such diverse topics as human aggression, liking and loving, persuasion, and conformity.

*Cross-cultural psychology* investigates the similarities and differences in psychological functioning in and across various cultures and ethnic groups. For example, cross-cultural psychologists examine how cultures differ in their use of punishment during child rearing.

### EXPANDING PSYCHOLOGY'S FRONTIERS

The boundaries of the science of psychology are constantly growing. Three newer members of the field's family tree—evolutionary psychology, behavioral genetics, and clinical neuropsychology—have sparked particular excitement, and debate, within psychology.

**Evolutionary Psychology.** *Evolutionary psychology* considers how behavior is influenced by our genetic inheritance from our ancestors. The evolutionary approach suggests that the chemical coding of information in our cells not only determines traits such as hair color and race but also holds the key to understanding a broad variety of behaviors that helped our ancestors survive and reproduce.

Evolutionary psychology stems from Charles Darwin's arguments in his groundbreaking 1859 book, *On the Origin of Species*. Darwin suggested that a process of natural selection leads to the survival of the fittest and the development of traits that enable a species to adapt to its environment.

Evolutionary psychologists take Darwin's arguments a step further. They argue that our genetic inheritance determines not only physical traits such as skin and eye color but certain personality traits and social behaviors as well. For example, evolutionary psychologists suggest that behavior such as shyness, jealousy, and cross-cultural similarities in qualities desired in potential mates are at least partially determined by genetics, presumably because such behavior helped increase the survival rate of humans' ancient relatives (Buss, 2003; Sefcek, Brumbach, & Vasquez, 2007; Ward, Kogan, & Pankove, 2007).

Although they are increasingly popular, evolutionary explanations of behavior have stirred controversy. By suggesting that many significant behaviors unfold automatically, because they are wired into the human species, evolutionary approaches minimize the role of environmental and social forces. Still, the evolutionary approach has stimulated

a significant amount of research on how our biological inheritance influences our traits and behaviors (Buss, 2004; Neher, 2006; Mesoudi, 2011).

**Behavioral Genetics.** Another rapidly growing area in psychology focuses on the biological mechanisms, such as genes and chromosomes, that enable inherited behavior to unfold. *Behavioral genetics* seeks to understand how we might inherit certain behavioral traits and how the environment influences whether we actually display such traits (Moffitt & Caspi, 2007; Rende, 2007; Maxson, 2013).

**Clinical Neuropsychology.** *Clinical neuropsychology* unites the areas of neuroscience and clinical psychology: It focuses on the origin of psychological disorders in biological factors. Building on advances in our understanding of the structure and chemistry of the brain, this specialty has already led to promising new treatments for psychological disorders as well as debates over the use of medication to control behavior (Boake, 2008; Holtz, 2011).

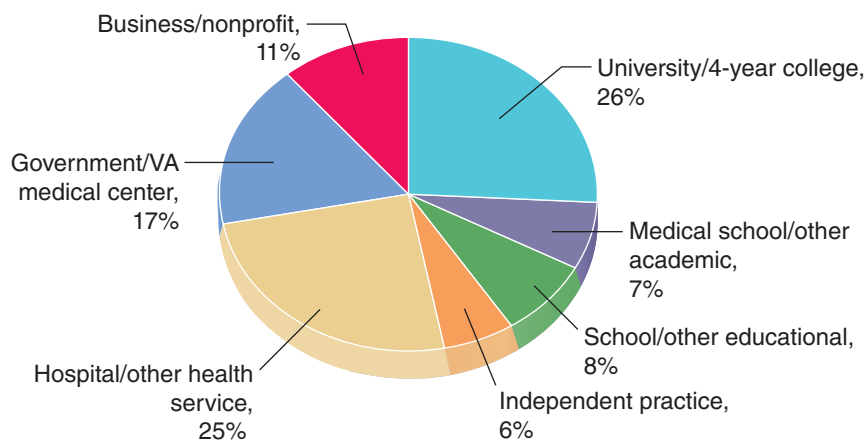
## Working at Psychology

*Help Wanted:* Assistant professor at a small liberal arts college. Teach undergraduate courses in introductory psychology and courses in specialty areas of cognitive psychology, perception, and learning. Strong commitment to quality teaching, as well as evidence of scholarship and research productivity, necessary.

*Help Wanted:* Industrial-organizational consulting psychologist. International firm seeks psychologists for full-time career positions as consultants to management. Candidates must have the ability to establish a rapport with senior business executives and help them find innovative and practical solutions to problems concerning people and organizations.

*Help Wanted:* Clinical psychologist. PhD, internship experience, and license required. Comprehensive clinic seeks psychologist to work with children and adults providing individual and group therapy, psychological evaluations, crisis intervention, and development of behavior treatment plans on multidisciplinary team.

As these job ads suggest, psychologists are employed in a variety of settings. Many doctoral-level psychologists are employed by institutions of higher learning (universities and colleges) or are self-employed, usually working as private practitioners treating clients (see Figure 3). Other work sites include hospitals, clinics, mental health centers, counseling centers, government human-services organizations, businesses, schools, and even prisons. Psychologists are employed in the military, working with soldiers, veterans, and their families, and they work for the federal government Department of



**FIGURE 3** The breakdown of where U.S. psychologists (who have a PhD or PsyD degree) work. (Source: Adapted from Michaels, 2011.)