ELEVENTH EDITION

Abnormal Psychology in a Changing World

Jeffrey S. Nevid | Spencer A. Rathus | Beverly Greene

Abnormal Psychology

In a Changing World

ELEVENTH EDITION

Jeffrey S. Nevid
St. John's University

Spencer A. Rathus
The College of New Jersey

Beverly Greene
St. John's University

ScoutAutomatedPrintCode

Pearson

Brief Contents

This page is intentionally left blank

Contents

Preface

Welcome to the Eleventh Edition of *Abnormal Psychology in a Changing World*. In preparing each new edition of the text, we cull the most recent scientific developments in the field that inform and broaden our understanding of abnormal behavior. Our overriding aim in writing this text is to present scientific advances in ways that both stimulate student interest and make complex material accessible and understandable. We seek to put a human face on the study of abnormal psychology by sharing many first-person narratives of people struggling with mental health challenges along with brief case examples drawn from our clinical files and those of other practitioners.

We approach the teaching of abnormal psychology with five fundamental goals in mind:

1. To help students distinguish abnormal from normal behavior and acquire a better understanding of abnormal behavior

2. To increase student awareness of and sensitivity to the struggles of people facing the mental health challenges we discuss

3. To help students understand the conceptual bases of abnormal behavior patterns

4. To help students understand how our knowledge of abnormal behavior is informed by research developments in the field

5. To help students understand how psychological disorders are classified and treated

Revel

Revel is an interactive learning environment that deeply engages students and prepares them for class. Media and assessments integrated directly within the authors' narrative lets students read, explore interactive content, and practice in one continuous learning path. Thanks to the dynamic reading experience in Revel, students come to class prepared to discuss, apply, and learn from instructors and from each other.

The Eleventh Edition includes integrated videos, figures with hotspots, and interactive questionnaires, and media content throughout, allowing students to explore topics more deeply at the point of relevancy.

Learn more about Revel at
www.pearsonhighered.com/revel.

What's New in the Eleventh Edition

The new edition includes coverage of the latest research developments in the field of abnormal psychology, updated prevalence data of psychological disorders, as well as new personal examples and vignettes. In Revel, we have added new interactivity to many figures and images, questionnaires, and videos. Highlights of the new edition include the following:

CHAPTER 1 In Revel, Chapter 1 includes a new video TED Talk, Eleanor Longden's description of living with schizophrenia, "The Voices in My Head." New data on the percentages of inmates in the nation's jails with serious mental illness are reported, and information about psychiatric homelessness is updated. Also, the latest NIH data on the percentages of Americans currently affected by a serious mental or psychological disorder are reported.

CHAPTER 2 contains new research on genetic contributions to psychopathology and the latest developments on linkages between epigenetics and abnormal behavior. In addition, Figure 2.5, "Roles of Genetic and Environmental Factors in Psychological Disorders," shows the relative proportions of genetic versus environmental contributions to various psychological disorders, and Figure 2.9, "Any Mental Illness in the Past Year Among U.S. Adults, by Ethnicity," is updated to include the latest available data. The feature, "Thinking Critically about Abnormal Psychology: Should Therapists Treat Clients Online?" has been rewritten and updated with new information about therapy apps.

CHAPTER 3 The "Abnormal Psychology in the Digital Age" feature contains new research on smartphone therapy apps for symptom tracking. The section on the transdiagnostic model has been updated. In Revel, you'll find two new videos: "Labeling Psychological Disorders" and "Does IQ Really Measure How Smart You Are?"

CHAPTER 4 includes new research on the negative health effects of exposure to discrimination among ethnic minorities as well as the latest research on the incidence of PTSD among civilians of war-torn countries and updated research on acculturative stress. "A Closer Look: Can Disturbing Memories Be Erased?" has been updated with new information on the use of drug propranolol. Revel now also includes two newly interactive questionnaires: "Going Through Changes" and "Are You an Optimist?"

CHAPTER 5 contains updated prevalence rates of various anxiety-related disorders, latest research on treatments of these disorders, including virtual therapy, and the latest research on genetic factors in anxiety-related disorders such as OCD. The chapter also includes a new case example featuring NBA player Kevin Love and his struggles with panic attacks.

CHAPTER 6 The case study, "The Lady in the Water: A Case of Dissociative Amnesia," has been updated with new details of a woman's recurring disappearances, most recently in 2017, and the feature, "A Closer Look: Combating Stress-Related Disorders Through Meditation," includes new information on transcendental meditation and mindfulness meditation. The chapter also includes new research on racial disparities in cardiovascular care. In Revel, this chapter includes a new video of Jeffrey Ingram describing his experience of dissociative amnesia.

CHAPTER 7 includes new research linking screen time to suicide-related behaviors in teens, new research on the use of ketamine in cases of treatment-resistant depression, updated research on links between creativity and mental illness and on role of regular physical activity in combatting depression, introduction of the first federally approved drug for postpartum depression, and expanded coverage of TMS in treating severe depression, among many other developments. The "Abnormal Psychology in the Digital Age" feature is updated with new research linking Facebook with lower levels of emotional well-being. Figures 7.2, 7.4, 7.7, and 7.8 have been updated with 2017–2018 data and will be interactive in Revel. Revel also includes the interactive questionnaire, "Are You Depressed?"

CHAPTER 8 contains a new focus on the national opioid epidemic as well as the skyrocketing use of vaping among teens and the risks this behavior poses, as well as updated statistics on the prevalence of substance use disorders and binge drinking among high school seniors. The feature "Abnormal Psychology in the Digital Age" also includes new research on Internet addiction and Internet gaming disorder.

CHAPTER 9 includes new data on the prevalence of eating disorders and sleep–wake disorders, and of obesity in relation to ethnicity and gender, as well as expanded coverage of virtual reality in the treatment of eating disorders. Figures 9.1, "Thinner and Thinner," and 9.3 "Rates of Obesity in Relation to Gender and Ethnicity," are updated and made interactive in Revel. Revel also includes two new personal vignette videos: "Lindsey: I Hid My Eating Disorder for Eight Years" and "Belle: I Can't Stop Falling Asleep."

CHAPTER 10 The feature, "Abnormal Psychology in the Digital Age: Cybersex Addiction," is updated and concludes with a list of warning signs for the disorder. The section on paraphilias includes updated language and terminology. The section on sexual dysfunctions includes updated research, including updated statistics on prevalence rates. In Revel, Figure 10.2, "Relative Percentages of Stranger Rapes and Acquaintance Rapes," is updated and made interactive, and the "Rape Beliefs Scale" is now interactive.

CHAPTER 11 opens with a new personal "I" vignette, "My Schizophrenia Does Not Make Me a Monster," with accompanying video (available in Revel). The chapter also includes updated estimates of prevalence rates of schizophrenia and extensive coverage of new research on biochemical factors, genetic factors, and brain abnormalities in the development of the disorder.

CHAPTER 12 Figure 12.1 includes updated prevalence rates of antisocial personality disorder and is made interactive in Revel. Updated research on personality disorders is reported throughout the chapter, including evidence pointing to a possible common genetic basis to schizotypal personality disorder and schizophrenia. Also in Revel, the "The Sensation-Seeking Scale" is newly interactive.

CHAPTER 13 is retitled "Disorders Diagnosed in Childhood and Adolescence." Sections 13.2 on "Autism Spectrum Disorder" and 13.6.1 on ADHD are significantly updated with the latest research related to prevalence, potential causes, therapies, and treatments. Section 13.7.2 on childhood depression includes new connections between childhood depression and cyberbullying and social media use. In Revel, this chapter includes two new videos: "Zach and Clyde: An Unconventional Therapy for Autism" and "Julia and Michael: The Rarest Twins in the World." Figure 13.4, "Deaths Due to Suicide Among Teens," is updated and made interactive in Revel.

CHAPTER 14 includes the latest research developments on Alzheimer's disease and other neurocognitive disorders. In Revel, there is a new video, "Michael J. Fox Testifies Before Congress about Parkinson's Disease." Figure 14.1, "Age Distribution of People with Alzheimer's Dementia," includes the latest data and is made interactive in Revel, and the questionnaire, "Examining Your Attitudes Toward Aging" is newly interactive in Revel.

CHAPTER 15 New findings on the risks of violent behavior among patients with psychotic disorders and outcomes of the NGRI verdict are reported. The feature, "Thinking Critically about Abnormal Psychology: Should We Bring Back the Asylums?" has been rewritten.

Maintaining Our Focus

Abnormal Psychology in a Changing World is a complete learning and teaching package that brings into focus the following major objectives: (1) putting a human face on the study of abnormal psychology; (2) adopting an interactionist or biopsychosocial model of abnormal behavior; (3) exploring the many contributions from neuroscience research to the study of abnormal psychology; (4) maintaining currency with a changing field; (5) examining key issues in a changing world that inform our understanding of abnormal psychology, including changes brought about by digital technology; and (6) adopting a student-centric approach to pedagogy that focuses on helping students succeed in the course.

FOCUS ON THE HUMAN SIDE OF ABNORMAL PSYCHOLOGY: THE "I" FEATURE A hallmark of our approach is helping students understand the basic human dimension that underlies the study of abnormal psychology. We study psychological disorders, but we never lose sight

of the fact that we're talking about the lives of people affected by these types of problems. We also understand that an undergraduate textbook in abnormal psychology is not a training manual or compendium of psychological disorders, symptoms, and treatments. It is a teaching device to introduce students to the study of abnormal behavior and help them understand the challenges and struggles faced by people with psychological disorders.

We invite students to enter the world of people suffering from many different types of disorders by including many illustrative case examples and video case interviews of real people and by adopting a distinctive pedagogical feature that takes this approach an important step further—the **"I"** feature.

Each chapter opens with at least one **"I"** feature to bring students directly into the world of people affected by psychological disorders. Here, students encounter brief, first-person narratives from people with psychological disorders as they tell their own stories in their own words. Incorporating first-person narratives helps break down barriers between "us" and "them" and encourages students to recognize that mental health problems are a concern to us all. Students will encounter these poignant personal stories at the beginning of every chapter and throughout the text. A sampling of **"I"** features includes the following:

- "Jerry Has a Panic Attack on the Interstate" (Panic Disorder)
- "The Beast Is Back" (Major Depressive Disorder)
- "Jessica's Little Secret" (Bulimia Nervosa)
- "Walking on Eggshells" (Borderline Personality Disorder)
- "My Schizophrenia Does Not Make Me a Monster" (Schizophrenia)
- "Paralyzed with Anxiety" (Erectile Disorder)

In Revel, a short video introduction captures the core of each personal vignette and previews how different facets of the chapter topic will be examined. For example, Chapter 11 begins with a new "I" vignette by Cecilia's McGough in which she describes her life with schizophrenia and her advocacy work on behalf of others with the disorder.

Watch Chapter Introduction: Schizophrenia Spectrum Disorders
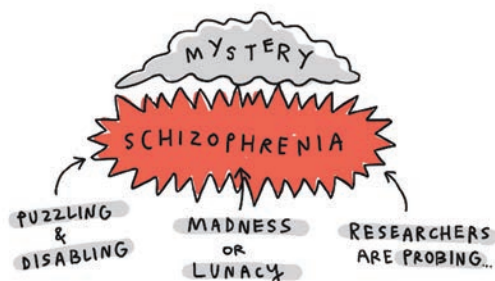
ABNORMAL PSYCHOLOGY IN THE DIGITAL AGE

When we began teaching, a *tablet* was something you took if you had a headache, a *text* was a book a professor assigned for class, and a *web* was something that a spider spun. Today, these words have taken on additional meanings, reflecting the many ways in which contemporary life has changed as the result of modern technology. Students today are digital natives who have never known a time without cell phones, laptops, and the Internet. Texting has become the preferred method of communication for many people today, especially college-age students.

Changes in personal technology are among the most important challenges of adjusting to a changing world. In this text, we consider the impact of changing technology on the study of abnormal psychology by examining how advances in electronic communication are applied in assessment and treatment of psychological disorders. We also examine the psychological effects of Internet use and social media on behavior, including concerns about the problem of Internet addiction.

We use a feature called *Abnormal Psychology in the Digital Age* to highlight ways in which personal technology is changing our study of abnormal psychology. We introduced this feature in the last edition and expand upon it in the new edition. Students will learn about the use of smartphones and social media as research tools (Ch. 1), risks posed by social media use on body image (Ch. 9), and problems of Internet addiction (Ch. 8) and cybersex addiction (Ch. 10).

In Revel, the *Abnormal Psychology in the Digital Age* feature appears in a Social Explorer window that allows for updates on a biannual basis.

Abnormal Psychology in the Digital Age: Smartphones and Social Media as Research Tools

Abnormal Psychology in the Digital Age
SMARTPHONES AND SOCIAL MEDIA AS RESEARCH TOOLS

Electronic technologies offer opportunities for researchers to collect real-time data from people as they go about their daily lives and to cull data collected by online services. Using these technologies, researchers are extending the reach of data collection beyond the confines of the research laboratory or the use of traditional survey methods. They employ smartphones to collect data from research participants by texting them or sending them electronic prompts to report about their behaviors, symptoms, moods, and activities at certain times of the day. They also mine data from social networking sites. For example, Cornell University researchers analyzed more than a half-billion Twitter messages to see if the emotional tone of words used in tweets (happy vs. sad words) shifted during the course of the day (Weaver, 2012). Indeed, people tended to use happier words in tweets earlier in the day, whereas later in the day, Twitter messages conveyed a gloomier tone. One of the researchers, Michael Macy, summed up by saying, "We found people are happiest around breakfast time in the morning and then it's all downhill from there" (cited in Weaver, 2012). Perhaps one reason for morning glee and afternoon glum is that people may feel chipper when they first awaken from a restful sleep, but their good mood may peter out as they become tired or stressed as the day drags on.

∷ Social Explorer

FOCUS ON AN INTERACTIONIST APPROACH We approach our writing with the belief that a better understanding of abnormal psychology is gained by adopting

a biopsychosocial orientation that accounts for the roles of psychological, biological, and sociocultural factors and their interactions in the development of abnormal behavior patterns. We emphasize the value of taking an interactionist approach as a running theme throughout the text. We feature a prominent interactionist model, the diathesis–stress model, to help students better understand the factors contributing to different forms of abnormal behavior.

FOCUS ON NEUROSCIENCE We incorporate important advances in neuroscience that inform our understanding of abnormal behavior patterns, building upon the solid foundations of previous editions. Students will learn about the search for endophenotypes in schizophrenia, the latest developments in the important emerging field of epigenetics, how brain scans may be involved in the diagnosis of psychological disorders and have been used to probe the workings of the meditative brain, the potential use of drugs to enhance the effectiveness of exposure therapy for PTSD, and emerging brain research that focuses on whether disturbing memories linked to PTSD might be erased.

FOCUS ON KEEPING PACE WITH AN EVER-CHANGING FIELD The text integrates the latest research findings and scientific developments in the field. We have combed the scientific literature to keep abreast of the latest research findings and developments in the field that have appeared in the scientific literature in the past few years, with nearly 1,000 new references to these advances appearing in these pages. We also updated data on prevalence rates of psychological disorders throughout the text. We present research findings in a way that makes complex material engaging and accessible for students.

FOCUS ON KEY ISSUES IN OUR CHANGING WORLD The *A CLOSER Look* boxed features provide opportunities for further exploration of selected topics that reflect cutting-edge issues in the field and challenges we face in contemporary society. A number of the *A CLOSER Look* features also focus on advances in neuroscience research.

FOCUS ON STUDENT-CENTRIC PEDAGOGY We continually examine our pedagogical approach to find even better ways of helping students succeed in this course. To foster deeper understanding, we include many pedagogical aids, including *TRUTH or FICTION* chapter openers to capture student attention and interest, *self-scoring questionnaires* to encourage active learning through self-examination, *capsulized summaries* of disorders that students can use as study charts, and *chapter summaries* organized around key learning objectives.

- *"TRUTH or FICTION?" Chapter Openers* Each chapter begins with a set of *TRUTH or FICTION?* questions to whet the student's appetite for the

subject matter within the chapter. Some items challenge preconceived ideas and common folklore and debunk myths and misconceptions, whereas others highlight new research developments in the field. Instructors and students have repeatedly reported to us that they find this feature stimulating and challenging.

The *TRUTH or FICTION?* questions are revisited and answered in the sections of the chapter in which the topics are discussed. Students are thus given feedback concerning the accuracy of their preconceptions in light of the material being addressed.

- *Self-Scoring Questionnaires* These questionnaires on various topics involve students in the discussion at hand and encourage them to evaluate their own attitudes and behavior patterns. In some cases, students may become more aware of troubling concerns, such as states of depression or problems with drug or alcohol use, which they may want to bring to the attention of a helping professional. We have carefully developed and screened the questionnaires to ensure that they provide students with useful information to reflect upon as well as serve as a springboard for class discussion. In Revel, the questionnaires are interactive; students respond to the questions to get a sense of their ideas and attitudes.

- *Revel Predictive Graphing* In Revel, predictive line- and bar-graphing activities combine graphing with interactivity so students can think critically about data by checking their assumptions against actual results. In these exercises, students are asked to "guestimate" data amounts by clicking and dragging the lines or bars to the amount they believe is true; when they are done, actual numbers are revealed by clicking a "Show me how I did" button.

Figure 5.1 Prevalence of Panic Disorder by Gender

Past Year and Lifetime Prevalence of Alcohol Use Disorders in the General Population

Source: Grant et al., 2015
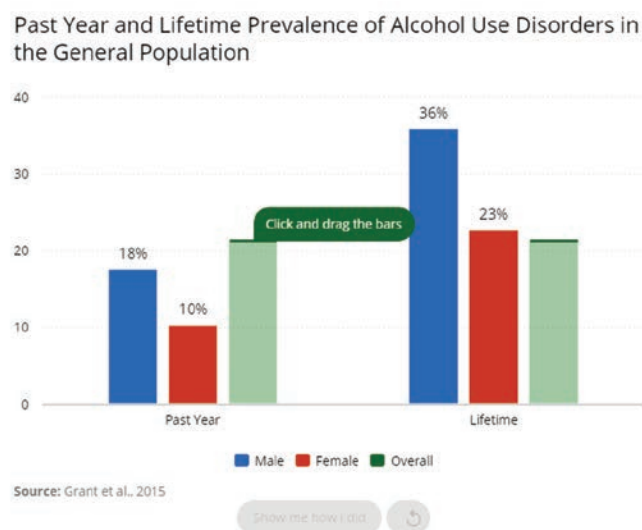
- *Overview Charts* These "see at a glance" overview charts provide capsulized summaries of various disorders. We are gratified by the many comments from students and professors regarding the value of these study charts.

- *"Summing Up" Chapter Summaries*   Our *Summing Up* chapter summaries provide brief answers to the learning objectives posed at the beginning of the chapter. The *Summing Up* sections provide students with feedback they can use to compare their answers with those provided in the text.

The Fully Integrated Textbook

We seek to provide students with a cohesive understanding of abnormal psychology by integrating a number of key features throughout the text.

INTEGRATING THE *DSM-5* We integrate the *DSM-5* throughout the text by applying *DSM-5* criteria in both the body of the text and the many accompanying overview charts. We also cover a wide range of newly diagnosed disorders in the *DSM-5*, including hoarding disorder, premenstrual dysphoric disorder, disruptive mood dysregulation disorder, major and mild neurocognitive disorders, somatic symptom disorder, illness anxiety disorder, pyromania, REM sleep behavior disorder, and social (pragmatic) communication disorder.

Although we recognize the importance of the *DSM* system in the classification of psychological or mental disorders, we believe a course in abnormal psychology should not taught as a training course in the *DSM* or as a psychodiagnostic seminar. We also bring to the student's attention the many limitations of the *DSM* system.

INTEGRATING DIVERSITY We examine abnormal behavior patterns in relation to factors of diversity such as ethnicity, culture, gender, sexual orientation, and socioeconomic status. We believe students need to understand how issues of diversity affect the conceptualization of abnormal behavior as well as the diagnosis and treatment of psychological disorders. We also believe that coverage of diversity should be fully integrated directly in the text, not separated off in boxed features.

INTEGRATING THEORETICAL PERSPECTIVES Students often think that one theoretical perspective must ultimately be right and all the others wrong. Our approach is to dispel this notion by taking into account the different theoretical viewpoints that inform contemporary understandings of abnormal psychology. We also help students integrate these diverse viewpoints in our *TYING it together* features. Importantly, we explore potential causal pathways involving interactions of psychological, sociocultural, and biological factors. We hope to impress upon students the importance of taking a broader view of the complex problems we address by considering the influences of multiple factors and their interactions.

INTEGRATING VIDEO CASE EXAMPLES WITHIN REVEL Students can learn about the clinical features of specific disorders by reading the many case examples interspersed throughout the text. Many of these illustrative case examples are drawn from our own clinical files and those of leading mental health professionals. In Revel, students can also watch video case examples illustrating many of the disorders discussed in the text. Video case examples provide students with opportunities to see and hear individuals with different types of psychological disorders. Video case examples also put a human face on the subject matter, making complex material more directly accessible. The Eleventh Edition features 13 new videos that includes cases of individuals speaking about what it is to live with schizophrenia, dissociative amnesia, eating disorders, and narcolepsy.

Watch   Belle: I Can't Stop Falling Asleep
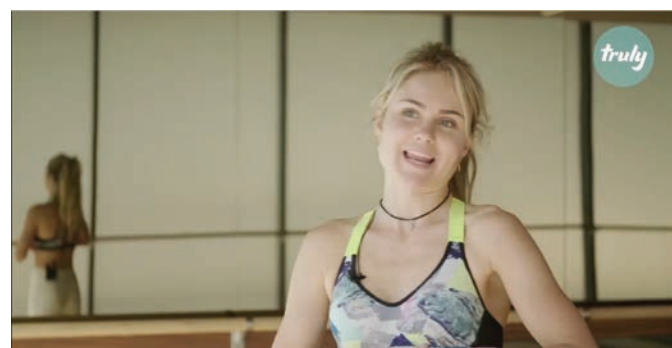
Barcroft/Boclips

INTEGRATING CRITICAL THINKING   We encourage students to think more deeply about key concepts in abnormal psychology by including two sets of critical thinking items in each chapter. First, the *@Issue* feature highlights current controversies in the field and includes several critical thinking questions that challenge students to think further about the issues discussed in the text. Second, the critical thinking activity at the end of each chapter challenges students to think carefully and critically about concepts discussed in the chapter and to reflect on how these concepts relate to their own experiences or experiences of people they know.

The *@Issue* critical thinking boxed feature highlights current controversies in the field and poses critical thinking questions students can answer. Students may begin the course with an expectation that our knowledge of abnormal psychology is complete and incontrovertible. They soon learn that while we have learned much about the underpinnings of psychological disorders, much more remains to be learned. They will also learn that there are many current controversies in the field. By spotlighting these controversies, we encourage students to think critically about these important issues and examine different points of view. Examples of *@Issue* boxed feature topics include the following:

- Should Therapists Treat Clients Online?
- What Accounts for the Gender Gap in Depression?
- Should We Use Drugs to Treat Drug Abuse?
- Is Mental Illness a Myth?

To integrate writing across the curriculum (WAC) objectives, instructors may wish to assign critical thinking questions in the **@Issue** features as well as additional critical thinking questions at the end of each chapter as required or for extra-credit writing assignments.

INTEGRATING LEARNING OBJECTIVES WITH BLOOM'S TAXONOMY We introduce learning objectives at the start of each chapter, organized in terms of the IDEA model of course assessment, which comprises four key learning goals in the study of abnormal psychology that spell out the convenient acronym *IDEA*:

- **Identify** parts of the nervous system, major contributors to the study of abnormal psychology, specific disorders within general diagnostic categories, etc.
- **Define** or **Describe** key terms and concepts.
- **Evaluate** or **Explain** underlying mechanisms and processes in abnormal behavior.
- **Apply** concepts of abnormal behavior to examples in real life.

The IDEA model is integrated with the widely used taxonomy of educational objectives developed by renowned educational researcher Benjamin Bloom. This taxonomy is arranged in increasing levels of cognitive complexity. The lowest levels comprise basic knowledge and understanding of core concepts; the middle level involves application of knowledge; and the upper levels involve higher-level skills of analysis, synthesis, and evaluation.

The learning objectives identified in IDEA represent three basic levels in Bloom's taxonomy. The **Identify, Describe**, and **Define** learning objectives represent basic levels of cognitive skills in Bloom's taxonomy (i.e., *knowledge* and *comprehension* in the original taxonomy, or *remembering* and *understanding* in the revised taxonomy). The **Apply** learning objective reflects intermediate level skills involved in application of psychological concepts to life examples. The **Evaluate** and **Explain** learning objectives assess more complex, higher-order skills in the hierarchy involving skills relating to analysis, synthesis, and evaluation of psychological knowledge (or *analyzing* and *evaluating* domains as represented in the revised Bloom taxonomy). By building exams around these learning objectives, instructors can assess not just overall student knowledge, but also student acquisition of higher-level skills in Bloom's taxonomy.

MODULE AND CHAPTER QUIZZES In Revel, these auto-graded, multiple-choice quizzes at the end of each major section and the end of each chapter promote content mastery through formative and low-stakes summative assessment. Feedback for incorrect answers is provided to enhance student learning. To ensure that all chapter topics are addressed, the number of end-of-chapter questions is tied to the number of learning objectives in the chapter.

Teaching and Learning Resources

No matter how comprehensive a textbook is, today's instructors and students require a complete teaching package to advance teaching and comprehension. *Abnormal Psychology in a Changing World* is accompanied by the following ancillaries:

INSTRUCTOR'S MANUAL (ISBN: 013583404X/ 9780135834046) A comprehensive tool for class preparation and management, each chapter includes learning objectives, a chapter outline and overview, lecture and discussion suggestions, "think about it" discussion questions, activities and demonstrations, and a list of Revel videos found in each chapter. Available for download from the Instructor's Resource Center at www.pearsonhighered.com.

TEST BANK (ISBN: 0135834112/9780135834114) The test bank has been rigorously developed, reviewed, and checked for accuracy to ensure the quality of both the questions and the answers. Each chapter of the test bank includes a Total Assessment Guide (TAG), an easy-to-reference grid that organizes all test questions by learning objective and skill level. It includes fully referenced multiple-choice, true/false, and concise essay questions. Each question is mapped to the book by learning objective and topic and is also accompanied by the correct answer, difficulty level (easy, moderate, or difficult), topic, and skill level (remember the facts, understand the concepts, apply what you know, and—new for this edition—analyze it). Also new for this edition, the American Psychological Association (APA) learning goals are included for each question. Available for download from the Instructor's Resource Center at www. pearsonhighered.com.

MYTEST (ISBN: 0135833973/9780135833971) The test bank is also available through Pearson MyTest, a powerful assessment-generation program that helps instructors easily create and print quizzes and exams. Questions and tests can be authored online, allowing instructors ultimate flexibility and the ability to efficiently manage assessments anytime and anywhere. Instructors can easily access existing questions and edit, create, and store questions using a simple drag-and-drop technique and Word-like controls. For more information, go to www.PearsonMyTest.com.

LECTURE POWERPOINT SLIDES (ISBN: 0135833922/ 9780135833926) Accessible lecture PowerPoint slides provide an active format for presenting concepts from each chapter and feature relevant figures and tables from the text. Available for download from the Instructor's Resource Center at www.pearsonhighered.com.

ENHANCED LECTURE POWERPOINT SLIDES WITH LINKED VIDEOS (ISBN: 0135834015/9780135834015) The lecture PowerPoint slides have been linked to select videos pertaining to each chapter, enabling instructors to

show videos within the context of their lectures. Available for download from the Instructor's Resource Center at www.pearsonhighered.com.

POWERPOINT SLIDES FOR PHOTOS, FIGURES, AND TABLES (ISBN: 0135834058) These slides contain only the photos, figures, and line art from the textbook. Available for download from the Instructor's Resource Center at www.pearsonhighered.com.

Acknowledgments

About the Authors

JEFFREY S. NEVID is Professor of Psychology at St. John's University in New York, where he teaches at the undergraduate and graduate levels and supervises doctoral students in clinical practicum work. He received his Ph.D. in Clinical Psychology from SUNY Albany and was a staff psychologist at Samaritan Hospital in Troy, New York. He was also a National Institute of Mental Health Post-Doctoral Fellow in Mental Health Evaluation Research at Northwestern University. He holds a Diplomate in Clinical Psychology from the American Board of Professional Psychology, is a Fellow of the American Psychological Association and the Academy of Clinical Psychology, and has served on the editorial boards of several journals and as Associate Editor of the *Journal of Consulting and Clinical Psychology*.

Dr. Nevid has amassed more than 200 research publications and professional presentations. His research publications have appeared in such journals as *Journal of Consulting and Clinical Psychology; Health Psychology; Journal of Occupational Medicine; Behavior Therapy; American Journal of Community Psychology; Professional Psychology: Research and Practice; Journal of Clinical Psychology; Journal of Nervous and Mental Disease; Teaching of Psychology; American Journal of Health Promotion; Journal of Personality Assessment; Journal of Substance Abuse Treatment*; and *Psychology and Psychotherapy: Theory, Research, and Practice*. Dr. Nevid is also author of the book *Choices: Sex in the Age of STDs* and the introductory psychology text, *Psychology: Concepts and Applications*, as well as several other college texts in the fields of psychology and health that he coauthored with Dr. Spencer Rathus. The Ninth Edition of *Abnormal Psychology in a Changing World* was honored in 2015 by receiving the Best Coverage of Child Maltreatment in Undergraduate Psychology Textbooks award. The award was bestowed by Division 56 (Trauma) of the American Psychological Association in recognition of the textbook's outstanding coverage of traumatic disorders linked to childhood maltreatment. Dr. Nevid is also actively involved in a program of pedagogical research that focuses on helping students become more effective learners.

SPENCER A. RATHUS received his Ph.D. from the University at Albany. He is on the faculty of the College of New Jersey. His areas of interest include psychological assessment, cognitive behavior therapy, and deviant behavior. He is the originator of the Rathus Assertiveness Schedule, which has become a Citation Classic. He has authored several college texts, including *PSYCH, HDEV*, and *Childhood and Adolescence: Voyages in Development*. He also coauthored

Making the Most of College with Lois Fichner-Rathus; *AIDS: What Every Student Needs to Know* with Susan Boughn; *Behavior Therapy, Psychology and the Challenges of Life, Your Health*, and *HLTH* with Jeffrey S. Nevid; and *Human Sexuality in a Changing World* with Jeffrey S. Nevid and Lois Fichner-Rathus. His professional activities include service on the American Psychological Association Task Force on Diversity Issues at the Precollege and Undergraduate Levels of Education in Psychology, and on the Advisory Panel, American Psychological Association, Board of Educational Affairs (BEA) Task Force on Undergraduate Psychology Major Competencies.

BEVERLY A. GREENE is Professor of Psychology at St. John's University and a Fellow of seven divisions of the American Psychological Association and the Academy of Clinical Psychology. She holds a Diploma in Clinical Psychology and serves on the editorial boards of numerous scholarly journals. She received her Ph.D. in Clinical Psychology from Adelphi University and was founding co-editor of the *APA Society for the Study of Lesbian, Gay, and Bisexual Issues* series, *Psychological Perspectives on Lesbian, Gay and Bisexual Issues*. Dr. Greene is also coeditor of *The Psychologists Desk Reference; A Minyan of Women: Family Dynamics, Jewish Identity and Psychotherapy Practice*; and *Psychological Health of Women of Color: Intersections, Challenges and Opportunities*. She has more than 100 professional publications, of which 10 have received national awards for distinguished contributions to the psychological literature.

Dr. Greene was the recipient of the APA 2003 Committee on Women in Psychology Distinguished Leadership Award; the 1996 Outstanding Achievement Award from the APA Committee on Lesbian, Gay, and Bisexual Concerns; the 2004 Distinguished Career Contributions to Ethnic Minority Research Award from the APA Society for the Study of Ethnic Minority Issues; the 2000 Heritage Award from the APA Society for the Psychology of Women; the 2004 Award for Distinguished Senior Career Contributions to Ethnic Minority Research (APA Division 45); and the 2005 Stanley Sue Award for Distinguished Professional Contributions to Diversity in Clinical Psychology (APA Division 12). Her coedited book, *Psychotherapy with African American Women: Innovations in Psychodynamic Perspectives and Practice*, was also honored with the Association for Women in Psychology's 2001 Distinguished Publication Award. In 2006, she was the recipient of the Janet Helms Award for Scholarship and Mentoring from the Teacher's College, Columbia University

Cross-Cultural Roundtable, and the 2006 Florence Halpern Award for Distinguished Professional Contributions to Clinical Psychology (APA Division 12). In 2009, Dr. Greene was honored as the recipient of the APA Award for Distinguished Senior Career Contribution to Psychology in the Public Interest. She has served as an elected representative to the APA Council and member at large of the Women's and Public Interest Caucuses of the Council. Dr. Greene is also the 2012 recipient of the Association for Women in Psychology's Jewish Women's Caucus award for scholarship and the association's 2012 Espin award for scholarship that makes a significant contribution toward the study of the convergence of ethnicity, religion, and sexual orientation. In 2013, she was honored as a Distinguished Elder at the National Multicultural Conference and Summit, and in 2015 she received the Henry Tomes Award for Distinguished Senior Career Contributions to the Advancement of Ethnic Minority Psychology.

Chapter 1

Introduction and Methods of Research

∨ Learning Objectives

1.1.1 **Identify** criteria professionals use to determine whether behavior is abnormal and **apply** these criteria to the case example discussed in the text.

1.1.2 **Describe** the current and lifetime prevalence of psychological disorders in the United States and **describe** differences in prevalence as a function of gender and age.

1.1.3 **Describe** the cultural bases of abnormal behavior.

1.2.1 **Describe** the demonological model of abnormal behavior.

1.2.2 **Describe** the origins of the medical model of abnormal behavior.

1.2.3 **Describe** the treatment of mental patients during medieval times.

1.2.4 **Identify** the leading reformers of the treatment of the mentally ill and **describe** the principle underlying moral therapy and the changes that occurred in the treatment of mental patients during the 19th and early 20th centuries.

1.2.5 **Describe** the role of mental hospitals in the mental health system.

1.2.6   **Describe** the goals and outcomes of the community mental health movement.

1.3.1   **Describe** the medical model of abnormal behavior.

1.3.2   **Identify** the major psychological models of abnormal behavior.

1.3.3   **Describe** the sociocultural perspective on abnormal behavior.

1.3.4   **Describe** the biopsychosocial perspective on abnormal behavior.

1.4.1   **Identify** four major objectives of science.

1.4.2   **Identify** the four major steps in the scientific method.

1.4.3   **Identify** the ethical principles that guide research in psychology.

1.4.4   **Explain** the role of the naturalistic method of research and **describe** its key features.

1.4.5   **Explain** the role of the correlational method of research and **describe** its key features.

1.4.6   **Explain** the role of the experimental method of research and **describe** its key features.

1.4.7   **Explain** the role of the epidemiological method of research and **describe** its key features.

1.4.8   **Explain** the role of kinship studies and **describe** their key features.

1.4.9   **Explain** the role of case studies and **describe** their limitations.

Before reading further, test your knowledge by completing the *Truth or Fiction?* quiz. Then, as you read through the chapter, check your answers against those in the *Truth or Fiction?* inserts.

Truth or Fiction?

T☐ **F**☐   Unusual behavior is abnormal.

T☐ **F**☐   About one in 100 adults in the U.S. currently suffers from a serious mental or psychological disorder.

T☐ **F**☐   Psychological problems like depression may be experienced differently by people in different cultures.

T☐ **F**☐   A night's entertainment in London a few hundred years ago might have included gaping at the inmates at the local asylum.

T☐ **F**☐   Despite changing attitudes in society toward homosexuality, the psychiatric profession continues to classify homosexuality as a mental disorder.

T☐ **F**☐   In a recent experiment, pain patients reported some relief from pain after taking a placebo pill, even though they were told the pill was merely a placebo.

T☐ **F**☐   Recent evidence shows there are literally millions of genes in the nucleus of every cell in the body.

T☐ **F**☐   Case studies have been conducted on dead people.

Abnormal psychology is the branch of psychology that studies abnormal behavior and ways of helping people who are affected by psychological disorders. A **psychological disorder** (also called a "mental disorder") is a pattern of abnormal behavior associated with states of significant emotional distress, such as anxiety or depression, or with impaired behavior or ability to function, such as difficulty holding a job or distinguishing reality from fantasy.

We begin our study of abnormal psychology with a case example of a person struggling with a psychological disorder. In these "**I**" features, people with psychological disorders share their experiences in their own words.

"**I**"   "Pretty Grisly Stuff"

I never thought I'd ever see a psychologist or someone like that, you know. I'm a police photographer and I've shot some pretty grisly stuff, corpses and all. Crime scenes are not like what you see on TV. They're more grisly. I guess you kind of get used to it. It never bothered me, just maybe at first. Before I did this job, I worked on a TV news chopper. We would take shots of fires and rescues, you know. Now I get uptight sitting in the back seat of a car or riding in an elevator. I'll avoid taking an elevator unless I really have no other choice. Forget flying anymore. It's not just helicopters. I just won't go in a plane, any kind of plane.

I guess I was younger then and more daring when I was younger. Sometimes, I would hang out of the helicopter to shoot pictures with no fear at all. Now, just thinking about flying makes my heart race. It's not that I'm afraid the plane will crash. That's the funny thing. Not ha-ha funny, but peculiar, you know. I just start trembling when I think of them closing that door, trapping us inside. I can't tell you why.

From the Author's Files
Phil, 42, a police photographer

The study of abnormal psychology is illuminated not only by extensive research into the causes and treatments of psychological disorders reported in scientific journals but also by the personal stories of people affected by these problems. In this text, we will learn from these people as they tell their stories in their own words. Through first-person narratives, and case examples, we enter the world of people struggling with various types of psychological disorders that affect their moods, thinking, and behavior. Some of these stories may remind you of the experiences of people close to you, or perhaps even yourself. We invite you to explore with us the nature and origins of these disorders and ways of helping people who face the many challenges they pose.

Let's pause for a moment to raise an important distinction. Although the terms *psychological disorder* and *mental disorder* are often used interchangeably, we prefer using the term *psychological disorder*, primarily because it puts the study of abnormal behavior squarely within the purview of the field of psychology. Moreover, the term *mental disorder* (also called *mental illness*) is derived from the **medical model** perspective, which views abnormal behaviors as symptoms of an underlying illness or brain disorder (Insel & Cuthbert, 2015). Although the medical model is a major contemporary model for understanding abnormal behavior, we believe we need to take a broader view of abnormal behavior by incorporating psychological and sociocultural perspectives as well.

In this chapter, we first address the difficulties of defining *abnormal behavior*. We see that throughout history, abnormal behavior has been viewed from different perspectives. We chronicle the development of concepts of abnormal behavior and its treatment. We see that in the past, treatment usually referred to what was done *to* rather than *for* people with abnormal behavior. We then describe the ways in which psychologists and other scholars study abnormal behavior today.

1.1   How Do We Define Abnormal Behavior?

We all become anxious or depressed from time to time, but is this abnormal? Anxiety in anticipation of an important job interview or a final examination is perfectly normal. It is appropriate to feel depressed when you have lost someone close to you or when you

have failed at a test or on the job. Where is the line between normal and abnormal behavior?

One answer is that emotional states such as anxiety and depression may be considered abnormal when they are not appropriate to the situation. It is normal to feel down when you fail a test, but not when your grades are good or excellent. It is normal to feel anxious before a college admissions interview, but not normal to panic before entering a department store or boarding a crowded elevator.

Abnormality may also be suggested by the magnitude of the problem. Although some anxiety is normal enough before a job interview, feeling that your heart might leap from your chest—and consequently canceling your interview—is not, nor is it normal to feel so anxious in this situation that your clothing becomes soaked with perspiration. **T/F**

1.1.1 Criteria for Determining Abnormality

1.1.1 Identify criteria professionals use to determine whether behavior is abnormal and apply these criteria to the case examples discussed in the text.

Mental health professionals apply various criteria when making judgments about whether behavior is abnormal. The most commonly used criteria include the following:

1. *Unusualness.* Behavior that is unusual is often considered abnormal. Only a few of us report seeing or hearing things that are not really there; "seeing things" and "hearing things" are almost always considered abnormal in our culture, but such experiences are sometimes considered normal in certain types of spiritual experiences. Moreover, hearing voices and other forms of hallucinations under some circumstances are not considered unusual in some preliterate societies.

   However, becoming overcome with feelings of panic when entering a department store or when standing in a crowded elevator is uncommon and considered abnormal. Uncommon behavior is not in itself abnormal. Only one person can hold the record for swimming the fastest 100 meters. The record-holding athlete differs from the rest of us but, again, is not considered abnormal. Thus, rarity or statistical deviance is not a sufficient basis for labeling behavior abnormal; nevertheless, it is often one of the yardsticks used to judge abnormality.

2. *Social deviance.* All societies have norms (standards) that define the kinds of behavior that are acceptable in given contexts. Behavior deemed normal in one culture may be viewed as abnormal in another. For example, people in our culture who assume that all male strangers are devious are usually regarded as unduly suspicious or distrustful—but such suspicions were justified among the Mundugumor, a tribe of cannibals studied by anthropologist Margaret Mead (1935). Within that culture, male strangers *were* typically malevolent toward others, and it was normal to feel distrustful of them. Norms, which arise from the practices and beliefs of specific cultures, are relative standards, not universal truths.

   Thus, clinicians need to weigh cultural differences when determining what is normal and abnormal. Moreover, what strikes one generation as abnormal may be considered normal by the next. For example, until the mid-1970s, homosexuality was classified as a mental disorder by the psychiatric profession (see *Thinking Critically: What Is Abnormal Behavior?*). Today, however, the psychiatric profession no longer considers homosexuality a mental disorder, and many people argue that contemporary societal norms should include homosexuality as a normal variation in behavior.

WHEN IS ANXIETY ABNORMAL?
Negative emotions such as anxiety are considered abnormal when they are judged to be excessive or inappropriate to the situation. Anxiety is generally regarded as normal when it is experienced during a job interview, so long as it is not so severe that it prevents the interviewee from performing adequately. Anxiety is deemed to be abnormal if it is experienced whenever one boards an elevator.

Fotolia

When normality is judged on the basis of compliance with social norms, nonconformists may incorrectly be labeled as mentally disturbed. We may come to brand behavior that we do not approve of as "sick" rather than accept that the behavior may be normal, even though it offends or puzzles us.

3. *Faulty perceptions or interpretations of reality.* Normally, our sensory systems and cognitive processes permit us to form accurate mental representations of the environment. Seeing things and hearing voices that are not present are considered hallucinations, which in our culture are generally taken as signs of an underlying mental disorder. Similarly, holding unfounded ideas or *delusions*—such as believing that the CIA or the Mafia is out to get you—may be regarded as a sign of mental disturbance—unless, of course, they *are real*. (As a former U.S. Secretary of State, Henry Kissinger, is said to have remarked, "Even paranoid people have enemies.")

   It is normal in the United States to say that one talks to God through prayer. If, however, a person insists on having literally seen God or heard the voice of God—as opposed to, say, being divinely inspired—we may come to regard her or him as mentally disturbed.

4. *Significant personal distress.* States of personal distress caused by troublesome emotions, such as anxiety, fear, or depression, may be abnormal. As we noted earlier, however, anxiety and depression are sometimes appropriate responses to a situation. Real threats and losses do occur in life, and *lack* of an emotional response to them would be regarded as abnormal. Appropriate feelings of distress are not considered abnormal unless the feelings persist long after the source of anguish has been removed (after most people would have adjusted) or if they are so intense that they impair an individual's ability to function.

5. *Maladaptive or self-defeating behavior.* Behavior that leads to unhappiness rather than self-fulfillment can be regarded as abnormal. Behavior that limits one's ability to function in expected roles or to adapt to one's environments may also be considered abnormal. According to these criteria, heavy alcohol consumption that impairs health or social and occupational functioning may be viewed as abnormal. Agoraphobic behavior, characterized by intense fear of venturing into public places, may be considered abnormal; it is both uncommon and maladaptive because it impairs an individual's ability to fulfill work and family responsibilities.

6. *Dangerousness.* Behavior that is dangerous to oneself or other people may be considered abnormal. Here, too, the social context is crucial. In wartime, people who sacrifice their lives or charge the enemy with little apparent concern for their own safety may be characterized as courageous, heroic, and patriotic, but people who threaten or attempt suicide because of the pressures of civilian life are usually considered abnormal.

   Football and hockey players who occasionally get into fistfights or altercations with opposing players may be normal enough. Given the nature of these sports, unaggressive football and hockey players would not last long in college or professional ranks. However, players involved in frequent altercations may be regarded as abnormal. Physically aggressive behavior is most often maladaptive in modern life. Moreover, physical aggression is ineffective as a way of resolving conflicts—although it is by no means uncommon.

Abnormal behavior thus has multiple definitions. Depending on the case, some criteria may be weighted more heavily than others, but in most cases, a combination of these criteria is used to define abnormality.

APPLYING THE CRITERIA Let's return to the case of Phil introduced at the beginning of the chapter. Phil suffered from a psychological disorder called *claustrophobia*, a type of specific phobia characterized by an excessive fear of enclosed places. (Phobic disorders are discussed more fully in Chapter 5.) Let's consider the criteria for determining

Kenneth Benjamin Reed/Shutterstock

IS THIS MAN ABNORMAL?
Judgments of abnormality take into account the social and cultural standards of society. Do you believe this man's body adornment is a sign of abnormality or merely a fashion statement?

abnormal behavior that may apply in Phil's case. Phil's behavior met a combination of these criteria. First, his behavior was unusual (relatively few people are so fearful of confinement that they avoid flying or riding on elevators) and second, it was associated with significant personal distress. Third, his phobia impaired his ability to carry out his occupational and family responsibilities. However, he was not hampered by faulty perceptions of reality. He recognized that his fears exceeded a realistic appraisal of danger in these situations.

We shall see in other cases throughout this text that different criteria are brought to bear in determining whether a person's behavior crosses the line between normal and abnormal.

It is not unusual for people to have more than one disorder at a time. In the parlance of the psychiatric profession, these clients present with *comorbid* (co-occurring) diagnoses. Comorbidity complicates treatment because clinicians need to design a treatment approach that focuses on treating two or more disorders.

It is one thing to recognize and label behavior as abnormal; it is another to understand and explain it. Philosophers, physicians, natural scientists, and psychologists have used various approaches, or *models*, in the effort to explain abnormal behavior. Some approaches have been based on superstition; others have invoked religious explanations. Some current views are predominantly biological; others are psychological. In considering various historical and contemporary approaches to understanding abnormal behavior, let's first look further at the importance of cultural beliefs in determining which behavior patterns are deemed abnormal.

1.1.2 Abnormal Psychology—By the Numbers

1.1.2 **Describe the current and lifetime prevalence of psychological disorders in the United States and describe differences in prevalence as a function of gender and age.**

The problem of abnormal behavior might seem the concern of only a few. After all, relatively few people are ever admitted to a psychiatric hospital. Most people never seek the help of a mental health professional such as a psychologist or psychiatrist. Fewer still ever plead *not guilty* to crimes on grounds of insanity. Most of us probably have at least one relative we consider *eccentric*, but how many of us have relatives we consider *crazy*? And yet, the truth is that abnormal behavior affects all of us in one way or another. Let's break down the numbers.

If we limit our discussion to diagnosable mental disorders, nearly one in two adults in the U.S. (46 percent) in the most recent national survey are directly affected at some point in their lives (Kessler, Berglund, et al., 2005; see Figure 1.1). Nearly one in five U.S. adults (18.9 percent) are currently affected by a serious mental or psychological disorder (National Institutes of Health, 2019). **T/F**

According to the World Health Organization, the United States has the highest rates of diagnosable psychological disorders among 17 countries they surveyed (Kessler et al., 2009). American women are more likely than men to suffer from psychological disorders, especially mood disorders (discussed in Chapter 7; "Women More at Risk," 2012). In addition, twice as many young adults (aged 18–25) are affected by serious psychological disorders than are people over the age of 50 (National Institutes of Health, 2019).

If we also include the mental health problems of our family members, friends, and coworkers and take into account those who foot the bill for treatment in the form of taxes and health insurance premiums, as well as lost productivity due to sick days, disability leaves, and impaired job performance inflating product costs, then clearly all of us are affected to one degree or another.

SURGEON GENERAL'S REPORT ON MENTAL HEALTH The U.S. Surgeon General issued an important report to the nation at the turn of the new millennium that is still pertinent today.

TRUTH *or* FICTION?

About one in 100 adults in the U.S. currently suffers from a serious mental or psychological disorder.

☑ **FALSE**   It's actually about one in five adults.

Figure 1.1 Lifetime and Past Year Prevalences of Psychological Disorders
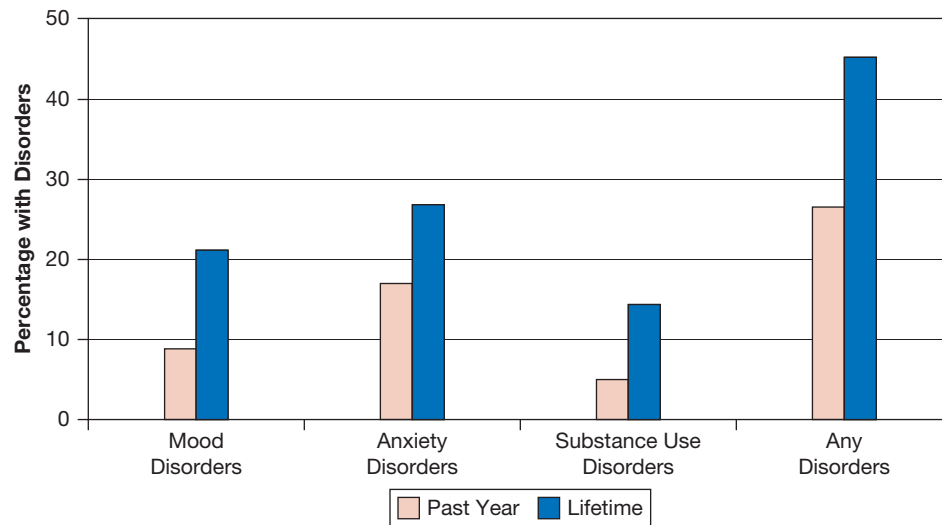
This graph is based on a nationally representative sample of 9,282 English-speaking U.S. residents aged 18 and older. We see percentages of individuals with diagnosable psychological disorders either during the past year or at some point in their lives for several major diagnostic categories. The *mood disorders* category includes major depressive episode and bipolar disorder (discussed in Chapter 7). *Anxiety disorders* include panic disorder, agoraphobia without panic disorder, social phobia, specific phobia, and generalized anxiety disorder (discussed in Chapter 5). *Substance use disorders* involve alcohol or other drugs and are discussed in Chapter 8.

SOURCE: Kessler, Chiu, et al., 2005; Kessler, Berglund, et al., 2005.

The report focused attention on mental health problems. Here are some of the key conclusions from the report (Satcher, 2000; U.S. Department of Health and Human Services [USDHHS], 1999):

- Mental health reflects the complex interaction of brain functioning and environmental influences.

- Effective treatments exist for most mental disorders, including psychological interventions such as psychotherapy and counseling and psychopharmacological or drug therapies. Treatment is often more effective when psychological and psychopharmacological treatments are combined.

- Progress in developing effective prevention programs in the mental health field has been slow because we do not know the causes of many mental disorders or ways of altering known influences such as genetic predispositions. Nonetheless, some effective prevention programs have been developed.

- Although 15 percent of American adults receive some form of help for mental health problems each year, many who need help do not receive it.

- Mental health problems are best understood when we take a broader view and consider the social and cultural contexts in which they occur.

- Mental health services need to be designed and delivered in a manner that takes into account the viewpoints and needs of racial and ethnic minorities.

The Surgeon General's report provides a backdrop for our study of abnormal psychology. As we shall see throughout the text, we believe that understandings of abnormal behavior are best revealed through a lens that takes into account interactions of biological and environmental factors. We also believe that social and cultural (or *sociocultural*)

A TRADITIONAL AMERICAN INDIAN HEALER. Many traditional American Indian cultures distinguish between illnesses believed to arise from influences external to their own culture ("White man's sicknesses") and those that emanate from a lack of harmony with traditional tribal life and thought ("Indian sicknesses"). Traditional healers such as the one shown here may be called on to treat Indian sicknesses, whereas "White man's medicine" may be sought to help people deal with problems whose causes are seen as lying outside the community, such as alcoholism and drug addiction.

factors need to be considered in attempts to both understand abnormal behavior and develop effective treatment services.

1.1.3 Cultural Bases of Abnormal Behavior

1.1.3   **Describe the cultural bases of abnormal behavior.**

As noted, behavior that is normal in one culture may be deemed abnormal in another. Australian Aborigines believe they can communicate with the spirits of their ancestors and that other people, especially close relatives, share their dreams. These beliefs are considered normal within Aboriginal culture. Were such beliefs to be expressed in our culture, they would likely be deemed delusions, which professionals regard as a common feature of schizophrenia. Thus, the standards we use in making judgments of abnormal behavior must take into account cultural norms.

Kleinman (1987, p. 453) offers an example of "hearing voices" among American Indians to underscore the ways in which judgments about abnormality are embedded within a cultural context:

Ten psychiatrists trained in the same assessment technique and diagnostic criteria who are asked to examine 100 American Indians shortly after the latter have experienced the death of a spouse, a parent or a child may determine with close to 100 percent consistency that those individuals report hearing, in the first month of grieving, the voice of the dead person calling to them as the spirit ascends to the afterworld. [Although such judgments may be consistent across observers,] the determination of whether such reports are a sign of an abnormal mental state is an interpretation based on knowledge of this group's behavioral norms and range of normal experiences of bereavement.

Within American Indian cultures, bereaved people who report hearing the spirits of the deceased calling to them as they ascend to the afterlife are normal. Behavior that is normative within the cultural setting in which it occurs should not be considered abnormal.

Concepts of health and illness vary across cultures. Traditional American Indian cultures distinguish between illnesses that are believed to arise from influences outside the culture, called "White man's sicknesses," such as alcoholism and drug addiction, and those that emanate from a lack of harmony with traditional tribal life and thought, which are called "Indian sicknesses" (Trimble, 1991). Traditional healers, shamans, and medicine men and women are called on to treat Indian sicknesses. When a problem is thought to have its cause outside the community, help is sought from "White man's medicine."

Abnormal behavior patterns take different forms in different cultures. Westerners experience anxiety, for example, in the form of worrying about paying the mortgage or losing a job. However, "in a number of African cultures, anxiety is expressed as fears of failure in procreation, in dreams and complaints about witchcraft" (Kleinman, 1987), and Australian Aborigines can develop intense fears of sorcery, accompanied by the belief that one is in mortal danger from evil spirits (Spencer, 1983). Trancelike states in which young Aboriginal women are mute, immobile, and unresponsive are also quite common. If these women do not recover from the trance within hours or, at most, a few days, they may be brought to a sacred site for healing.

The very words that we use to describe psychological disorders—words such as *depression* or *mental health*—have different meanings in other cultures, or no equivalent meaning at all. This doesn't mean that depression doesn't exist in other cultures. Rather, it suggests that we need to learn how people in different cultures experience emotional distress, including states of depression and anxiety, rather than impose our perspectives on their experiences. People in China and other countries in the Far East generally place greater emphasis on the physical or somatic symptoms of depression, such as headaches, fatigue, or weakness, than on feelings of guilt or sadness, compared to people from Western cultures such as our own (Kalibatseva & Leong, 2011; Ryder et al., 2008; Zhou et al., 2011). **T/F**

These differences demonstrate how important it is that we determine whether our concepts of abnormal behavior are valid before we apply them to other cultures. Research efforts along these lines have shown that the abnormal behavior pattern associated with our concept of schizophrenia exists in countries as far flung as Colombia, India, China, Denmark, Nigeria, and the former Soviet Union, as well as many others (Jablensky et al., 1992). Furthermore, rates of schizophrenia appear similar among the countries studied. However, differences have been observed in some of the features of schizophrenia across cultures (Myers, 2011).

Views about abnormal behavior vary from society to society. In Western culture, models based on medical disease and psychological factors feature prominently in explaining abnormal behavior. In traditional native cultures, however, models of abnormal behavior often invoke supernatural causes, such as possession by demons or the Devil. For example, in Filipino folk society, psychological problems are often attributed to the influence of "spirits" or the possession of a "weak soul" (Edman & Johnson, 1999).

> ## TRUTH *or* FICTION?
>
> Psychological problems like depression may be experienced differently by people in different cultures.
>
> ☑ **TRUE**   For example, depression is more likely to be associated with the development of physical symptoms among people in East Asian cultures than in Western cultures.

1.2   Historical Perspectives on Abnormal Behavior

Throughout the history of Western culture, concepts of abnormal behavior have been shaped, to some degree, by the prevailing worldview of a particular era. For hundreds of years, beliefs in supernatural forces, demons, and evil spirits held sway. (As you've just seen, these beliefs still hold true in some societies.) Abnormal behavior was often taken as a sign of possession. In modern times, the predominant—but by no means universal—worldview has shifted toward beliefs in science and reason. In Western culture, abnormal behavior has come to be viewed as the product of physical and psychosocial factors, not demonic possession.

1.2.1   The Demonological Model

1.2.1   Describe the demonological model of abnormal behavior.

Why would anyone need a hole in the head? Archaeologists have unearthed human skeletons from the Stone Age with egg-sized cavities in the skull. One interpretation of these holes is that our prehistoric ancestors believed abnormal behavior was caused by the inhabitation of evil spirits. These holes might be the result of **trephination**—drilling the skull to provide an outlet for those irascible spirits. Fresh bone growth indicates that some people did survive this "medical procedure."

Just the threat of trephining may have persuaded some people to comply with tribal norms. Because no written accounts of the purpose of trephination exist, other explanations are possible. For instance, perhaps trephination was simply a form of surgery to remove shattered pieces of bone or blood clots that resulted from head injuries (Maher & Maher, 1985).

The notion of supernatural causes of abnormal behavior, or *demonology*, was prominent in Western society until the Age of Enlightenment. The ancients explained nature in terms of the actions of the gods: The Babylonians believed the movements of the stars and the planets expressed the adventures and conflicts of the gods, and the Greeks believed that the gods toyed with humans, that they unleashed havoc on disrespectful or arrogant humans and clouded their minds with madness.

In ancient Greece, people who behaved abnormally were sent to temples dedicated to Aesculapius, the god of healing. The Greeks believed that Aesculapius would visit the afflicted while they slept in the temple and offer them restorative advice through dreams. Rest, a nutritious diet, and exercise were also part of the treatment. Incurables were driven from the temple by stoning.

TREPHINATION. Trephination refers to a procedure in which a hole is chipped into a person's skull. Some investigators speculate that the practice represented an ancient form of surgery. Perhaps trephination was intended to release the "demons" responsible for abnormal behavior.

Prisma Archivo/Alamy Stock Photo

1.2.2 Origins of the Medical Model: In "Ill Humor"

1.2.2 Describe the origins of the medical model of abnormal behavior.

Not all ancient Greeks believed in the demonological model. The seeds of naturalistic explanations of abnormal behavior were sown by Hippocrates and developed by other physicians in the ancient world, especially Galen.

Hippocrates (ca. 460–377 B.C.E.), the celebrated physician of the Golden Age of Greece, challenged the prevailing beliefs of his time by arguing that illnesses of the body and mind were the result of natural causes, not possession by supernatural spirits. He believed the health of the body and mind depended on the balance of **humors**, or vital fluids, in the body: phlegm, black bile, blood, and yellow bile. An imbalance of humors, he thought, accounted for abnormal behavior. A lethargic or sluggish person was believed to have an excess of phlegm, from which we derive the word *phlegmatic*. An overabundance of black bile was believed to cause depression, or *melancholia*. An excess of blood created a *sanguine* disposition: cheerful, confident, and optimistic. An excess of yellow bile made people *bilious* and *choleric*—quick-tempered.

Though scientists no longer subscribe to Hippocrates's theory of bodily humors, his theory is important because of its break from demonology. It foreshadowed the modern medical model, the view that abnormal behavior results from underlying biological processes. Hippocrates also made other contributions to modern thought and, indeed, to modern medical practice. He classified abnormal behavior patterns into three main categories, which still have equivalents today: *melancholia* to characterize excessive depression, *mania* to refer to exceptional excitement, and *phrenitis* (from the Greek for *inflammation of the brain*) to characterize the bizarre behavior that might today typify schizophrenia. To this day, medical schools honor Hippocrates by having students swear an oath of medical ethics that he originated—the Hippocratic oath.

Galen (ca. 130–200 C.E.), a Greek physician who attended Roman emperor–philosopher Marcus Aurelius, adopted and expanded on the teachings of Hippocrates. Among Galen's contributions was the discovery that arteries carry blood—not air, as had been formerly believed.

1.2.3 Medieval Times

1.2.3 Describe the treatment of mental patients during medieval times.

The Middle Ages, or medieval times, cover the millennium of European history from about 476 C.E. through 1450 C.E. After the passing of Galen, belief in supernatural causes and especially the doctrine of possession increased in influence and eventually dominated medieval thought. The doctrine of possession held that abnormal behaviors were a sign of possession by evil spirits or the Devil. This belief was part of the teachings of the Roman Catholic Church, the central institution in Western Europe after the decline of the Roman Empire. Although belief in possession preceded the Church and is found in ancient Egyptian and Greek writings, the Church revitalized it. The Church's treatment of choice for possession was exorcism. Exorcists were employed to persuade evil spirits that the bodies of the "possessed" were no longer habitable. Methods of persuasion included praying, reciting incantations, waving a cross at the victim, and beating and flogging, even starving, the victim. If the victim continued to display unseemly behavior, there were yet more persuasive remedies such as the rack, a torture device. No doubt, recipients of these "remedies" desperately wished the Devil would vacate them immediately.

The Renaissance—the great revival of classical learning, art, and literature—began in Italy in the 1400s and spread throughout Europe. Ironically, although the Renaissance is considered the transition from the medieval to the modern world, the fear of witches also reached its height during this period.

WITCHCRAFT The late 15th through the late 17th centuries were especially bad times to annoy your neighbors. These were times of massive

EXORCISM. This medieval painting illustrates the practice of exorcism, which was used to expel the evil spirits that were believed to have possessed people.

Bassa, Ferrer/Index Fototeca/Bridgeman Images

persecutions, particularly of women who were accused of witchcraft. Church officials believed that witches made pacts with the Devil, practiced satanic rituals, ate babies, and poisoned crops. In 1484, Pope Innocent VIII decreed that witches be executed. Two Dominican priests compiled a notorious manual for witch-hunting, called the *Malleus Maleficarum* (The Witches' Hammer), to help inquisitors identify suspected witches. Many thousands would be accused of witchcraft and put to death over the next two centuries.

Witch-hunting required innovative "diagnostic" tests. For the water-float test, suspects were dunked in a pool to certify they were not possessed by the Devil. The test was based on the principle of smelting, during which pure metals settle to the bottom and impurities bob up to the surface. Suspects who sank and drowned were ruled pure. Suspects who kept their heads above water were judged to be in league with the Devil. As the saying went, you were "damned if you do and damned if you don't."

Modern scholars once believed these so-called witches were actually people with psychological disorders who were persecuted because of their abnormal behavior. Many suspected witches did confess to bizarre behaviors, such as flying or engaging in sexual intercourse with the Devil, which suggests the types of disturbed behavior associated with modern conceptions of schizophrenia. However, these confessions must be discounted because they were extracted under torture by inquisitors who were bent on finding evidence to support accusations of witchcraft (Spanos, 1978). We know today that the threat of torture and other forms of intimidation are sufficient to extract false confessions. Although some who were persecuted as witches probably did show abnormal behavior patterns, most did not (Schoenman, 1984). Rather, it appears that accusations of witchcraft were a convenient means of disposing of social nuisances and political rivals, of seizing property, and of suppressing heresy (Spanos, 1978). In English villages, many of the accused were poor, unmarried elderly women who were forced to beg for food from their neighbors. If misfortune befell the people who declined to give help, the beggar might be accused of having cast a curse on the household. If the woman was generally unpopular, an accusation of witchcraft was likely to follow.

Demons were believed to play roles in both abnormal behavior and witchcraft. However, although some victims of demonic possession were perceived to be afflicted as retribution for their own wrongdoing, others were considered to be innocent victims—possessed by demons through no fault of their own. Witches were believed to have renounced God and voluntarily entered into a pact with the Devil. Witches generally were seen as more deserving of torture and execution (Spanos, 1978).

Historical trends do not follow straight lines. Although the demonological model held sway during the Middle Ages and much of the Renaissance, it did not completely supplant belief in naturalistic causes. In medieval England, for example, demonic possession was only rarely invoked in cases in which a person was held to be insane by legal authorities (Neugebauer, 1979). Most explanations for unusual behavior involved natural causes, such as physical illness or trauma to the brain. In England, in fact, some disturbed people were kept in hospitals until they were restored to sanity (Allderidge, 1979). The Renaissance Belgian physician Johann Weyer (1515–1588) also took up the cause of Hippocrates and Galen by arguing that abnormal behavior and thought patterns were caused by physical problems.

ASYLUMS   By the late 15th and early 16th centuries, asylums, or madhouses, began to appear throughout Europe. Many were former leprosariums, which were no longer needed because of the decline in leprosy after the late Middle Ages. Asylums often gave refuge to beggars as well as the mentally disturbed, but conditions were appalling. Residents were chained to their beds and left to lie in their own waste or to wander about unassisted. Some asylums became public spectacles. In one asylum in London, St. Mary's of Bethlehem Hospital—from which the word *bedlam* is derived—the public could buy tickets to observe the antics of the inmates, much as we would pay to see a circus sideshow or animals at the zoo. **T/F**

Ken Welsh/Newscom

THE WATER-FLOAT TEST. This so-called test was one way in which medieval authorities sought to detect possession and witchcraft. Managing to float above the waterline was deemed a sign of impurity. In the lower right corner, you can see the bound hands and feet of one poor unfortunate who failed to remain afloat, but whose drowning would have cleared any suspicions of possession.

TRUTH *or* FICTION?

A night's entertainment in London a few hundred years ago might have included gaping at the inmates at the local asylum.

☑ **TRUE**   A night on the town for the gentry of London sometimes included a visit to a local asylum, St. Mary's of Bethlehem Hospital, to gawk at the patients. We derive the word *bedlam* from Bethlehem Hospital.

1.2.4 The Reform Movement and Moral Therapy

1.2.4 Identify the leading reformers of the treatment of the mentally ill and describe the principle underlying moral therapy and the changes that occurred in the treatment of mental patients during the 19th and early 20th centuries.

The modern era of treatment begins with the efforts of the Frenchmen Jean-Baptiste Pussin and Philippe Pinel in the late 18th and early 19th centuries. They argued that people who behave abnormally suffer from diseases and should be treated humanely. This view was not popular at the time; mentally disturbed people were regarded as threats to society, not as sick people in need of treatment.

From 1784 to 1802, Pussin, a layman, was placed in charge of a ward for people considered "incurably insane" at La Bicêtre, a large mental hospital in Paris. Although Pinel is often credited with freeing the inmates of La Bicêtre from their chains, Pussin was actually the first official to unchain a group of the "incurably insane." These unfortunates had been considered too dangerous and unpredictable to be left unchained, but Pussin believed that if they were treated with kindness, there would be no need for chains. As he predicted, most of the shut-ins were manageable and calm after their chains were removed. They could walk the hospital grounds and take in fresh air. Pussin also forbade the staff from treating the residents harshly, and he fired employees who ignored his directives.

Pinel (1745–1826) became the medical director for the incurables' ward at La Bicêtre in 1793 and continued the humane treatment Pussin had begun. He stopped harsh practices such as bleeding and purging, and moved patients from darkened dungeons to well-ventilated, sunny rooms. Pinel also spent hours talking to inmates in the belief that showing understanding and concern would help restore them to normal functioning.

The philosophy of treatment that emerged from these efforts was labeled *moral therapy*. It was based on the belief that providing humane treatment in a relaxed and decent environment could restore functioning. Similar reforms were instituted at about this time in England by William Tuke and later in the United States by Dorothea Dix. Another influential figure was the American physician Benjamin Rush (1745–1813)— also a signatory to the Declaration of Independence and an early leader of the anti-slavery movement. Rush, considered the father of American psychiatry, penned the first American textbook on psychiatry in 1812: *Medical Inquiries and Observations Upon the Diseases of the Mind.* He believed that madness is caused by engorgement of the blood vessels of the brain. To relieve pressure, he recommended bloodletting, purging, and ice-cold baths. He advanced humane treatment by encouraging the staff of his Philadelphia Hospital to treat patients with kindness, respect, and understanding. He also favored the therapeutic use of occupational therapy, music, and travel (Farr, 1994). His hospital became the first in the United States to admit patients for psychological disorders.

Dorothea Dix (1802–1887), a Boston schoolteacher, traveled about the country decrying the deplorable conditions in the jails and almshouses where mentally disturbed people were placed. As a result of her efforts, 32 mental hospitals devoted to treating people with psychological disorders were established throughout the United States.

A STEP BACKWARD In the latter half of the 19th century, the belief that abnormal behaviors could be successfully treated or cured by moral therapy fell into disfavor. A period of apathy ensued in which patterns of abnormal behavior were deemed incurable (Grob, 1994, 2009). Mental institutions in the United States grew in size but provided

BEDLAM. The bizarre antics of the patients at St. Mary's of Bethlehem Hospital in London in the 18th century were a source of entertainment for the well-heeled gentry of the town, such as the two well-dressed women in the middle of the painting.

Derek Bayes/Lebrecht Music & Arts/Alamy Stock Photo

little more than custodial care. Conditions deteriorated. Mental hospitals became frightening places. It was not uncommon to find residents "wallowing in their own excrements," in the words of a New York State official of the time (Grob, 1983). Straitjackets, handcuffs, cribs, straps, and other devices were used to restrain excitable or violent patients.

Deplorable hospital conditions remained commonplace through the middle of the 20th century. By the mid-1950s, the population in mental hospitals had risen to half a million. Although some state hospitals provided decent and humane care, many were described as little more than human snake pits. Residents were crowded into wards that lacked even rudimentary sanitation. Mental patients in back wards were essentially *warehoused*—that is, left to live out their lives with little hope or expectation of recovery or a return to the community. Many received little professional care and were abused by poorly trained and supervised staffs. Finally, these appalling conditions led to calls for reforms of the mental health system. These reforms ushered in a movement toward **deinstitutionalization**, a policy of shifting the burden of care from state hospitals to community-based treatment settings, which led to a wholesale exodus from state mental hospitals. The mental hospital population across the United States has plummeted from nearly 600,000 in the 1950s to about 40,000 today ("Rate of Patients," 2012). Some mental hospitals closed entirely.

Another factor that laid the groundwork for the mass exodus from mental hospitals was the development of a new class of drugs—the *phenothiazines* (Sisti et al., 2018). This group of antipsychotic drugs, which helped quell the most flagrant behavior patterns associated with schizophrenia, was introduced in the 1950s. Phenothiazines reduced the need for indefinite hospital stays and permitted many people with schizophrenia to be discharged to halfway houses, group homes, and independent living.

THE UNCHAINING OF INMATES AT LA BIĈETRE BY 18TH-CENTURY FRENCH REFORMER PHILIPPE PINEL. Continuing the work of Jean-Baptiste Pussin, Pinel stopped harsh practices such as bleeding and purging, and moved inmates from darkened dungeons to sunny, airy rooms. Pinel also took the time to converse with inmates in the belief that understanding and concern would help restore them to normal functioning.

1.2.5 The Role of the Mental Hospital Today

1.2.5 Describe the role of mental hospitals in the mental health system.

Most state hospitals today are better managed and provide more humane care than those of the 19th and early 20th centuries, but here and there, deplorable conditions persist. Today's state hospital is generally more treatment oriented and focuses on preparing residents to return to community living. State hospitals function as part of an integrated, comprehensive approach to treatment. They provide a structured environment for people who are unable to function in a less-restrictive community setting. When hospitalization has restored patients to a higher level of functioning, the patients are reintegrated in the community and given follow-up care and transitional residences, if needed. If a community-based hospital is not available or if they require more extensive care, patients may be rehospitalized as needed in a state hospital. For younger and less intensely disturbed people, the state hospital stay is typically briefer than it was in the past, lasting only until their conditions allow them to reenter society. Older, chronic patients, however, may be unprepared to handle the most rudimentary tasks of independent life (shopping, cooking, cleaning, and so on)—in part because the state hospital may be the only home such patients have known as adults.

THE MENTAL HOSPITAL. Under the policy of deinstitutionalization, mental hospitals today provide a range of services, including short-term treatment of people in crisis or in need of a secure treatment setting. They also provide long-term treatment in a structured environment for people who are unable to function in less-restrictive community settings.

1.2.6 The Community Mental Health Movement

1.2.6 Describe the goals and outcomes of the community mental health movement.

In 1963, the U.S. Congress established a nationwide system of *community mental health centers* (CMHCs) intended to offer an alternative to long-term custodial care

in bleak institutions. CMHCs were charged with providing continuing support and mental health care to former hospital residents released from state mental hospitals. Unfortunately, not enough CMHCs were established to serve the needs of hundreds of thousands of formerly hospitalized patients and to prevent the need to hospitalize new patients by providing comprehensive, community-based care and structured residential treatment settings such as halfway houses.

The community mental health movement and the policy of deinstitutionalization were developed in the hope that mental patients could return to their communities and assume more independent and fulfilling lives, but deinstitutionalization has often been criticized for failing to live up to its lofty expectations. The discharge of mental patients from state hospitals left many thousands of marginally functioning people in communities that lacked adequate housing and other forms of support they needed to function. Although the community mental health movement has had some successes, a great many patients with severe and persistent mental health problems fail to receive the range of mental health and social services they need to adjust to life in the community (Lieberman, 2010; Sederer & Sharfstein, 2014). The community mental health system has not received the funding necessary to meet its overriding goal of providing comprehensive, community-based care to patients in need (Sisti et al., 2018). Added to that, many inmates in the nation's jails and prisons today—as many as 37 percent according to a recent U.S. Department of Justice study—suffer from serious mental illness, which raises troubling questions about whether prisons have become the "new asylums" (Husock & Gorman, 2018). As we shall see, another major challenge facing the community mental health system is the problem of psychiatric homelessness.

DEINSTITUTIONALIZATION AND THE PSYCHIATRIC HOMELESS POPULATION

Many of the homeless wandering city streets and sleeping in bus terminals and train stations are discharged mental patients or persons with disturbed behavior who might well have been hospitalized in earlier times, before deinstitutionalization was in place. Lacking adequate support, they often face more dehumanizing conditions on the street than they did in the hospital. Many compound their problems by turning to illegal street drugs such as crack. Some of the younger psychiatric homeless population might have remained hospitalized in earlier times but are now, in the wake of deinstitutionalization, directed toward community support programs when they are available.

An estimated 20 to 30 percent of the homeless population in the U.S. suffers from severe psychological disorders such as schizophrenia (Yager, 2015). Many also have serious medical problems and neuropsychological impairments affecting memory, learning, and concentration that leave them disadvantaged in seeking and holding a job (Bousman et al., 2011; Glick & Olfson, 2018). As many as 50 percent of the homeless population also suffer from substance abuse problems that largely go untreated (Yager, 2015).

The lack of available housing, transitional care facilities, and effective case management plays an important role in homelessness among people with psychiatric problems (Glick & Olfson, 2018; Maremmani et al., 2017; Stergiopoulos, Gozdzik, et al., 2015). Some homeless people with severe psychiatric problems are repeatedly hospitalized for brief stays in community-based hospitals during acute episodes. They move back and forth between the hospital and the community as though caught in a revolving door. Frequently, they are released from the hospital with inadequate arrangements for housing and community care. Some are essentially left to fend for themselves. Although many state hospitals closed their doors and others slashed the number of beds, states failed to provide sufficient funds to support services needed in the community to replace the need for long-term hospitalization (Sisti et al., 2018).

The mental health system alone does not have the resources to resolve the multifaceted problems faced by the psychiatric homeless population. Helping the psychiatric homeless escape from homelessness requires matching services to their needs in an integrated effort involving mental health and alcohol and drug abuse programs; access to decent, affordable housing; and provision of other employment and social services (Glick &

Olfson, 2018; Stergiopoulos, Gozdzik, et al., 2015). Another difficulty is that homeless people with severe psychological problems typically do not seek out mental health services. Many are disenfranchised from mental health services because of previous hospitalizations in which they were treated poorly or felt disrespected, dehumanized, or simply ignored. Clearly, we need to provide more humane, structured treatment alternatives to those in need of residential care (Glick & Olfson, 2018). We also need to do a better job reaching out to homeless people to connect them with the services they need as well as programs that provide better-quality care (Stergiopoulos, Gozdzik, et al., 2015). All in all, the problems of the psychiatric homeless population remain complex, vexing problems for the mental health system and society at large.

Janine Wiedel Photolibrary/Alamy Stock Photo

PSYCHIATRIC HOMELESSNESS. Many homeless people have severe psychological problems but fall through the cracks of the mental health and social service systems.

DEINSTITUTIONALIZATION: A PROMISE AS YET UNFULFILLED   Although the net results of deinstitutionalization may not yet have lived up to expectations, a number of successful community-oriented programs are available. However, they remain underfunded and unable to reach many people needing ongoing community support. If deinstitutionalization is to succeed, patients need continuing care and opportunities for decent housing, gainful employment, and training in social and vocational skills. Most people with severe psychiatric disorders, such as schizophrenia, live in their communities, but only about half of them are currently in treatment (Torrey, 2011).

New, promising services exist to improve community-based care for people with chronic psychological disorders—for example, psychosocial rehabilitation centers, family psychoeducational groups, supportive housing and work programs, and social skills training. Unfortunately, too few of these services exist to meet the needs of many patients who might benefit from them. The community mental health movement must have expanded community support and adequate financial resources if it is to succeed in fulfilling its original promise.

1.3   Contemporary Perspectives on Abnormal Behavior

As noted, beliefs in possession or demonology persisted until the 18th century, when society began to turn toward reason and science to explain natural phenomena and human behavior. The nascent sciences of biology, chemistry, physics, and astronomy promised knowledge derived from scientific methods of observation and experimentation. Scientific observation in turn uncovered the microbial causes of some kinds of diseases and gave rise to preventive measures. Scientific models of abnormal behavior also began to emerge, including models representing biological, psychological, sociocultural, and biopsychosocial perspectives. We briefly discuss each of these models here, particularly in terms of their historical background, which will lead to a fuller discussion in Chapter 2.

1.3.1   The Biological Perspective

1.3.1   Describe the medical model of abnormal behavior.

Against the backdrop of advances in medical science, the German physician Wilhelm Griesinger (1817–1868) argued that abnormal behavior was rooted in diseases of the brain. Griesinger's views influenced another German physician, Emil Kraepelin (1856–1926), who wrote an influential textbook on psychiatry in 1883 in which he likened mental disorders to physical diseases. Griesinger and Kraepelin paved the way for the

modern medical model, which attempts to explain abnormal behavior on the basis of underlying biological defects or abnormalities, not evil spirits. According to the medical model, people behaving abnormally suffer from mental illnesses or disorders that can be classified, like physical illnesses, according to their distinctive causes and symptoms. Adopters of the medical model don't necessarily believe that every mental disorder is a product of defective biology, but they maintain that it is useful to classify patterns of abnormal behavior as disorders that can be identified on the basis of their distinctive features or symptoms.

Kraepelin specified two main groups of mental disorders or diseases: **dementia praecox** (from roots meaning "precocious [premature] insanity"), which we now call *schizophrenia,* and manic–depressive insanity, which we now label *bipolar disorder* (Zivanovic & Nedic, 2012). Kraepelin believed that dementia praecox is caused by a biochemical imbalance, and manic–depressive psychosis by an abnormality in body metabolism. His major contribution was the development of a classification system that forms the cornerstone of current diagnostic systems.

The medical model gained support in the late 19th century with the discovery that an advanced stage of *syphilis*—in which the bacterium that causes the disease directly invades the brain—led to a form of disturbed behavior called **general paresis** (from the Greek *parienai*, meaning "to relax"). General paresis is associated with physical symptoms and psychological impairment, including personality and mood changes, and with progressive deterioration of memory functioning and judgment. With the advent of antibiotics for treating syphilis, the disorder has become extremely uncommon.

General paresis is of interest to scientists mostly for historical reasons. With the discovery of the connection between general paresis and syphilis, scientists became optimistic that other biological causes would soon be discovered for many other types of disturbed behavior. The later discovery of Alzheimer's disease (discussed in Chapter 14), a brain disease that is the major cause of dementia, lent further support to the medical model. However, it is known now that the great majority of psychological disorders involve a complex web of factors scientists are still struggling to understand.

Much of the terminology used in abnormal psychology has been "medicalized." Because of the medical model, we commonly speak of people whose behavior is abnormal as mentally ill and the features of their behavior as *symptoms* of underlying illness. Other commonly used terms spawned by the medical model include **syndromes**, which are clusters of symptoms that may be indicative of a particular disease or condition, as well as *mental health, diagnosis, patient, mental patient, mental hospital, prognosis, treatment, therapy, cure, relapse*, and *remission*.

The medical model is a major advance over demonology. It inspired the idea that abnormal behavior should be treated by learned professionals, not punished. Compassion supplanted hatred, fear, and persecution. However, the medical model has also led to controversy over the extent to which certain behavior patterns should be considered forms of mental illness. We address this topic in *Thinking Critically: What Is Abnormal Behavior?*

1.3.2 The Psychological Perspective

1.3.2 Identify the major psychological models of abnormal behavior.

Even as the medical model was gaining influence in the 19th century, some scientists argued that organic factors alone could not explain the many forms of abnormal behavior. In Paris, a respected neurologist, Jean-Martin Charcot (1825–1893), experimented with hypnosis in treating *hysteria*, a condition characterized by paralysis or numbness that cannot be explained by any underlying physical cause. Interestingly, cases of hysteria were common in the Victorian period, but are rare today (Spitzer et al., 1989). The thinking at the time was that people with hysteria must have an affliction of the nervous system, which caused their symptoms. Yet Charcot and his associates demonstrated that these symptoms could be removed in hysterical patients or, conversely, induced in normal patients, by means of hypnotic suggestion.

Among those who attended Charcot's demonstrations was a young Austrian physician named Sigmund Freud (1856–1939; Esman, 2011). Freud reasoned that if hysterical symptoms could be made to disappear or appear through hypnosis—the mere "suggestion of ideas"—then they must be psychological, not biological, in origin (Jones, 1953). Freud concluded that whatever psychological factors give rise to hysteria, they must lie outside the range of conscious awareness. This insight underlies the first psychological perspective on abnormal behavior—the **psychodynamic model**. "I received the proudest impression," Freud wrote of his experience with Charcot, "of the possibility that there could be powerful mental processes which nevertheless remained hidden from the consciousness of men" (as cited in Sulloway, 1983, p. 32).

Freud was also influenced by the Viennese physician Joseph Breuer (1842–1925), 14 years his senior. Breuer too had used hypnosis, to treat a 21-year-old woman, Anna O., with hysterical complaints for which there were no apparent medical basis, such as paralysis in her limbs, numbness, and disturbances of vision and hearing (Jones, 1953). Anna O. was Breuer's patient, but Freud studied her case. A "paralyzed" muscle in her neck prevented her from turning her head. Immobilization of the fingers of her left hand made it all but impossible for her to feed herself. Breuer believed there was a strong psychological component to her symptoms. He encouraged her to talk about her symptoms, sometimes under hypnosis. Recalling and talking about events connected with the appearance of the symptoms—especially events that evoked feelings of fear, anxiety, or guilt—provided symptom relief, at least for a time. Anna referred to the treatment as the "talking cure" or, when joking, as "chimney sweeping."

The hysterical symptoms were taken to represent the transformation of these blocked-up emotions, forgotten but not lost, into physical complaints. In Anna's case, the symptoms disappeared once the emotions were brought to the surface and "discharged." Breuer labeled the therapeutic effect *catharsis*, or emotional discharge of feelings (from the Greek word *kathairein*, meaning to clean or to purify).

Freud's theoretical model was the first major psychological model of abnormal behavior. As you'll see in Chapter 2, other psychological perspectives on abnormal behavior based on behavioral, humanistic, and cognitive models soon followed. Each of these perspectives, as well as the contemporary medical model, spawned particular forms of therapy to treat psychological disorders.

Bettmann/Getty Images

CHARCOT'S TEACHING CLINIC. Parisian neurologist Jean-Martin Charcot presents a female patient who exhibits the highly dramatic behavior associated with hysteria, such as falling faint at a moment's notice. Charcot was an important influence on the young Sigmund Freud.

Scherl/Sueddeutsche Zeitung/Alamy Stock Photo

Interfoto/Personalities/Alamy Stock Photo

SIGMUND FREUD AND BERTHA PAPPENHEIM (ANNA O.). Freud is shown here at around age 30. Pappenheim (1859–1936) is known more widely in the psychological literature as "Anna O." Freud and his colleague Breuer believed that her hysterical symptoms represented the transformation of blocked-up emotions into physical complaints.

1.3.3 The Sociocultural Perspective

1.3.3 Describe the sociocultural perspective on abnormal behavior.

Mustn't we also consider the broader social context in which behavior occurs to understand the roots of abnormal behavior? Sociocultural theorists believe the causes of abnormal behavior may be found in the failures of society rather than in the person. Accordingly, psychological problems may be rooted in the ills of society, such as unemployment, poverty, family breakdown, injustice, ignorance, and lack of opportunity. Sociocultural factors also focus on relationships between mental health and social factors such as gender, social class, ethnicity, and lifestyle.

Sociocultural theorists also observe that once a person is called "mentally ill," the label is hard to remove. It also distorts other people's responses to the "patient." People classified as mentally ill are stigmatized and marginalized. Job opportunities may disappear, friendships may dissolve, and the "patient" may feel increasingly alienated from society. Sociocultural theorists focus peoples' attention on the social consequences of being labeled as a "mental patient." They argue that society needs to provide access to meaningful societal roles as workers, students, and colleagues to those with long-term mental health problems, rather than shunt them aside.

1.3.4 The Biopsychosocial Perspective

1.3.4 Describe the biopsychosocial perspective on abnormal behavior.

Aren't patterns of abnormal behavior too complex to be understood from any one model or perspective? Many mental health professionals endorse the view that abnormal behavior is best understood by taking into account multiple causes representing the biological, psychological, and sociocultural domains (Levine & Schmelkin, 2006).

The **biopsychosocial model**, or interactionist model, informs this text's approach toward understanding the origins of abnormal behavior. We believe it's essential to consider the interplay of biological, psychological, and sociocultural factors in the development of psychological disorders. Although our understanding of these factors may be incomplete, we must consider all possible pathways and account for multiple factors and how they interact with each other.

Perspectives on psychological disorders provide a framework not only for explanation but also for treatment (see Chapter 2). The perspectives scientists use also lead to the predictions, or *hypotheses*, that guide their research or inquiries into the causes and treatments of abnormal behavior. The medical model, for example, fosters inquiry into genetic and biochemical treatment methods. In the next section, we consider the ways in which psychologists and other mental health professionals study abnormal behavior.

THINKING CRITICALLY about Abnormal Psychology

@ISSUE: WHAT IS ABNORMAL BEHAVIOR?

The question of where to draw the line between normal and abnormal behavior continues to be a subject of debate within the mental health field and broader society. Unlike medical illness, a psychological or mental disorder cannot be identified by a spot on an X-ray or from a blood sample. Classifying these disorders involves clinical judgments, not findings of fact—and as we have noted, these judgments can change over time and can vary from culture to culture. For example, medical professionals once considered masturbation a form of mental illness. Although some people today may object to masturbation on moral grounds, professionals no longer regard it as a mental disturbance.

Consider other behaviors that may blur the boundaries between normal and abnormal: Is body-piercing abnormal, or is it simply a fashion statement? (How much piercing do you consider "normal"?) Might excessive shopping behavior or overuse of the Internet be a form of mental illness? Is bullying a symptom of an underlying disorder, or is it just bad behavior? Mental health professionals base their judgments on the kinds of criteria we outline in this text, but even in professional circles, debate continues about whether some behaviors should be classified as forms of abnormal behavior or mental disorders.

One of the longest of these debates concerns homosexuality. Until 1973, the American Psychiatric Association classified homosexuality as a mental disorder. In that year, the organization voted to drop homosexuality from its listing of classified mental disorders

in its diagnostic manual, the *Diagnostic and Statistical Manual of Mental Disorders*, or *DSM* (discussed in Chapter 3). At the time, the decision to declassify homosexuality was not unanimous among the nation's psychiatrists, however. Many argued that the decision was motivated more by political reasons than by good science. Some objected to basing such a decision on a vote. After all, would it be reasonable to drop cancer as a recognized medical illness on the basis of a vote? Shouldn't scientific criteria determine these kinds of judgments, rather than a popular vote? **T/F**

TRUTH *or* FICTION?

Despite changing attitudes in society toward homosexuality, the psychiatric profession continues to classify homosexuality as a mental disorder.

☑ **FALSE**   The psychiatric profession dropped homosexuality from its listing of mental disorders in 1973.

What do you think? Is homosexuality a variation in the normal spectrum of sexual orientation, or is it a form of abnormal behavior? What is the basis of your judgment? What criteria did you apply in forming a judgment? What evidence do you have to support your beliefs?

Within the *DSM* system, mental disorders are recognized on the basis of behavior patterns associated with emotional distress and/or significant impairment in psychological functioning. Researchers find that people with a gay male or lesbian sexual orientation tend to have a greater frequency of suicide and of states of emotional distress, especially anxiety and depression, than people with a heterosexual orientation (Cochran, Sullivan, & Mays, 2003; King, 2008). However, even if gay males and lesbians are more prone to develop psychological problems, it doesn't necessarily follow that these problems are the result of their sexual orientation.

Gay adolescents in our society come to terms with their sexuality against a backdrop of deep-seated prejudices and resentment toward gays. The process of achieving a sense of self-acceptance against this backdrop of societal intolerance can be so difficult that many gay adolescents seriously consider or attempt suicide. As adults, gay men and lesbians often continue to bear the brunt of prejudice and negative attitudes toward them, including negative reactions from family members that often follow the disclosure of their sexual orientation. The social stress associated

Pololia/Fotolia

IS HOMOSEXUALITY A MENTAL DISORDER? Until 1973, homosexuality was classified as a mental disorder by the American Psychiatric Association. What criteria should be used to form judgments about determining whether particular patterns of behavior comprise a mental or psychological disorder?

with stigma, prejudice, and discrimination that gay people encounter may directly cause mental health problems (Meyer, 2003).

Understood in this context, it is little wonder that many gay males and lesbians develop psychological problems. As a leading authority in the field, psychologist J. Michael Bailey (1999, p. 883) wrote: "Surely, it must be difficult for young people to come to grips with their homosexuality in a world where homosexual people are often scorned, mocked, mourned, and feared."

Should we then accept the claim that societal intolerance is the root cause of psychological problems in people with a homosexual orientation? As critical thinkers, we should recognize that other factors may be involved. Scientists need more evidence before they can arrive at any judgments concerning why gay males and lesbians are more prone to psychological problems, especially suicide.

Imagine a society in which homosexuality was the norm and heterosexual people were shunned, scorned, or ridiculed. Would we find that heterosexual people are more likely to have psychological problems? Would this evidence lead us to assume that heterosexuality is a mental disorder? What do you think?

In thinking critically about the issue, answer the following questions:

- How do you decide when any behavior, such as social drinking or even shopping or Internet use, crosses the line from normal to abnormal?
- Is there a set of criteria you use in all cases? How do your criteria differ from the criteria specified in the text?
- Do you believe that homosexuality is abnormal? Why or why not?

1.4   Research Methods in Abnormal Psychology

Abnormal psychology is a branch of the scientific discipline of psychology. Research in the field is based on the application of the **scientific method**. Before we explore the basic steps in the scientific method, let us consider the four overarching objectives of science: description, explanation, prediction, and control.

1.4.1 Description, Explanation, Prediction, and Control: The Objectives of Science

1.4.1 Identify four major objectives of science.

To understand abnormal behavior, we must first learn to describe it. Description allows us to recognize abnormal behavior and provides the basis for explaining it. Descriptions should be clear, unbiased, and based on careful observation. In the following vignette, put yourself in the position of a graduate student in psychology who is asked to describe the behavior of a laboratory rat the professor places on the desk.

Imagine you are a brand-new graduate student in psychology and are sitting in your research methods class on the first day of the term. The professor, a distinguished woman of about 50, enters the class. She is carrying a small wire-mesh cage containing a white rat. The professor removes the rat from the cage and places it on the desk. She asks the class to observe its behavior. As a serious student, you attend closely. The animal moves to the edge of the desk, pauses, peers over the edge, and seems to jiggle its whiskers at the floor below. It maneuvers along the edge of the desk, tracking the perimeter. Now and then the rat pauses and vibrates its whiskers downward in the direction of the floor.

The professor picks up the rat and returns it to the cage. She asks the class to describe the animal's behavior.

A student responds, "The rat seems to be looking for a way to escape."

Another student says, "It is reconnoitering its environment, examining it." "Reconnoitering"? You think. That student has seen too many war movies.

The professor writes each response on the blackboard. Another student raises her hand. "The rat is making a visual search of the environment," she says. "Maybe it's looking for food."

The professor prompts other students for their descriptions.

"It's looking around," says one.

"Trying to escape," says another.

Your turn arrives. Trying to be scientific, you say, "We can't say what its motivation might be. All we know is that it's scanning its environment."

"How so?" the professor asks.

"Visually," you reply, confidently.

The professor writes the response and then turns to the class, shaking her head. "Each of you observed the rat," she said, "but none of you described its behavior. Instead, you made inferences that the rat was 'looking for a way down' or 'scanning its environment' or 'looking for food,' and the like. These are not unreasonable inferences, but they are inferences, not descriptions. They also happen to be wrong. You see, the rat is blind. It's been blind since birth. It couldn't possibly be looking around, at least not in a visual sense."

The vignette about the blind rat illustrates that our descriptions of behavior may be influenced by our expectations. Our expectations reflect our preconceptions, or models of behavior, and they may incline us to perceive events—such as the rat's movements and other people's behavior—in certain ways. Describing the rat in the classroom as "scanning" and "looking" for something is an inference, or conclusion, we draw from our observations based on our model of how animals explore their environments. In contrast, description would involve a precise accounting of the animal's movements around the desk, measuring how far in each direction it moves, how long it pauses, how it bobs its head from side to side, and so on.

Nevertheless, inference is important in science. Inference allows us to jump from the particular to the general—to suggest laws and principles of behavior that can be woven into a model or **theory** of behavior. Without a way of organizing our descriptions of phenomena in terms of models and theories, we would be left with a buzzing confusion of unconnected observations.

Theories help scientists explain puzzling data and predict future events. Prediction entails the discovery of factors that anticipate the occurrence of events. Geology, for example, seeks clues in the forces affecting the earth, interpretation

of which can forecast natural events such as earthquakes and volcanic eruptions. Scientists who study abnormal behavior seek clues in overt behavior, biological processes, family interactions, and so forth, to predict the development of abnormal behaviors and determine factors that might predict response to various treatments. It is not sufficient that theoretical models help scientists explain or make sense of events or behaviors that have already occurred. Useful models and theories allow them to predict the occurrence of particular behaviors.

The idea of controlling human behavior—especially the behavior of people with serious problems—is controversial. The history of societal response to abnormal behaviors, including abuses such as exorcism and cruel forms of physical restraint, renders the idea particularly distressing. Within science, however, the word *control* does not imply that people are coerced into doing the bidding of others, like puppets dangling on strings. Psychologists, for example, are committed to the dignity of the individual, and the concept of human dignity requires that people be free to make decisions and exercise choices. Within this context, *controlling behavior* means using scientific knowledge to help people shape their own goals and more efficiently use their resources to accomplish them. Today, in the United States, even when helping professionals restrain people who are violently disturbed, the goal is to help them overcome their agitation and regain the ability to exercise meaningful choices in their lives. Ethical standards prohibit the use of injurious techniques in research or practice.

Psychologists and other scientists use the *scientific method* to advance the description, explanation, prediction, and control of abnormal behavior.

1.4.2 The Scientific Method

1.4.2 Identify the four major steps in the scientific method.

The scientific method tests assumptions and theories about the world through gathering objective evidence. Gathering evidence that is objective requires thoughtful observational and experimental methods. Here, let's focus on the basic steps involved in using the scientific method in experimentation:

1. *Formulating a research question.* Scientists derive research questions from previous observations and current theories. For instance, on the basis of their clinical observations and theoretical understanding of the underlying mechanisms in depression, psychologists may formulate questions about whether certain experimental drugs or particular types of psychotherapy help people overcome depression.

2. *Framing the research question in the form of a hypothesis.* A **hypothesis** is a prediction tested in an experiment. For example, scientists might hypothesize that people who are clinically depressed will show greater improvement on measures of depression if they are given an experimental drug than if they receive an inert placebo (a sugar pill).

3. *Testing the hypothesis.* Scientists test hypotheses through experiments in which variables are controlled and the differences are observed. For instance, they can test the hypothesis about the experimental drug by giving the drug to one group of people with depression and giving another group the placebo. They can then test to see whether the people who received the active drug showed greater improvement over a period of time than those who received the placebo.

4. *Drawing conclusions about the hypothesis.* In the final step, scientists draw conclusions from their findings about the accuracy of their hypotheses. Psychologists use statistical methods to determine the likelihood that differences between groups are significant. Psychologists can be reasonably confident that the observed differences between the groups are significant when there is a probability (or likelihood) of less than 5 percent that there are no true differences between the groups.

When well-designed research findings fail to bear out hypotheses, scientists rethink the theories from which the hypotheses are derived. Research findings often lead to modifications in theory, new hypotheses, and, in turn, subsequent research.

Before we consider the major research methods used by psychologists and others to study abnormal behavior, let's consider some of the principles that guide ethical conduct in research.

1.4.3 Ethics in Research

1.4.3 Identify the ethical principles that guide research in psychology.

Ethical principles are designed to promote the dignity of the individual, protect human welfare, and preserve scientific integrity (American Psychological Association, 2002). Psychologists are prohibited by the ethical standards of their profession from using methods that cause psychological or physical harm to their research participants or clients. Psychologists also must follow ethical guidelines that protect animals in research.

Institutions such as universities and hospitals have review committees, called *institutional review boards* (IRBs), that review proposed research studies to ensure that they meet ethical guidelines. Investigators must receive IRB approval before they are permitted to begin their research. Two of the major principles on which ethical guidelines are based are (1) *informed consent* and (2) *confidentiality*.

The principle of **informed consent** requires that people be free to choose whether they want to participate in research studies. They must be given sufficient information in advance about the study's purposes and methods and its risks and benefits to make an informed decision about their participation. Research participants must be free to withdraw from a study at any time without penalty. In some cases, researchers may withhold certain information until all the data are collected. For instance, participants in placebo-control studies of experimental drugs are told that they may receive an inert placebo rather than the active drug. In studies in which information was withheld or deception was used, participants must be debriefed afterward. That is, they must receive an explanation of the true methods and purposes of the study and why it was necessary to keep them in the dark. After the study is concluded, participants who received the placebo would be given the option of receiving the active treatment, if warranted.

Research participants also have a right to expect that their identities will not be revealed. Investigators are required to protect their **confidentiality** by keeping the records of their participation secure and by not disclosing their identities to others.

The federal government requires that most institutions in which animals are used in research must establish an Institutional Animal Care and Use Committee to oversee procedures for the humane care and treatment of animals and to inspect facilities in which animals are kept. We now turn to discussion of the research methods used to investigate abnormal behavior.

1.4.4 The Naturalistic Observation Method

1.4.4 Explain the role of the naturalistic method of research and describe its key features.

In the **naturalistic observation method**, the investigator observes behavior in the field, where it happens. Anthropologists have observed behavior patterns in preliterate societies to study human diversity. Sociologists have followed the activities of adolescent gangs in inner cities. Psychologists have spent weeks observing the behavior of homeless people in train stations and bus terminals. They have even observed the eating habits of slender and overweight people in fast-food restaurants, searching for clues to obesity.

NATURALISTIC OBSERVATION. In naturalistic observation, psychologists take their research into the streets, homes, restaurants, schools, and other settings where behavior can be directly observed. For example, psychologists have unobtrusively positioned themselves in school playgrounds to observe how aggressive or socially anxious children interact with peers.

PhotoAlto Agency RF Collections/Alix Minde/Getty Images

Scientists try to ensure that their naturalistic observations are unobtrusive, so as to minimize interference with the behavior they observe. Nevertheless, the presence of the observer may distort the behavior that is observed, and this must be taken into consideration.

Naturalistic observation provides information on how people behave, but it does not reveal why they do so. It may reveal, for example, that men who frequent bars and drink often get into fights, but such observations do not show that alcohol *causes* aggression. As we shall explain, questions of cause and effect are best approached by means of controlled experiments.

1.4.5 The Correlational Method

1.4.5 Explain the role of the correlational method of research and describe its key features.

One of the primary methods used to study abnormal behavior is the **correlational method**, which involves the use of statistical methods to examine relationships between two or more factors that can vary, called *variables*. For example, in Chapter 7 we will see that there is a statistical relationship, or *correlation*, between the variables of negative thinking and depressive symptoms. The statistical measure used to express the association or correlation between two variables is called the **correlation coefficient**, which can vary along a continuum ranging from −1.00 to +1.00. When higher values in one variable (negative thinking) are associated with higher values in the other variable (depressive symptoms), there is a *positive correlation* between the variables. If higher levels of one variable are associated with lower values of another variable, there is a *negative correlation* between the variables. Positive correlations carry positive signs; negative correlations carry negative signs. The higher the correlation coefficient—meaning the closer it is to either −1.00 or +1.00—the stronger the relationship between the variables.

The correlational method does not involve manipulation of the variables of interest. In the previous example, the experimenter does not manipulate people's depressive symptoms or negative thoughts. Rather, the investigator uses statistical techniques to determine whether these variables tend to be associated with each other. Because the experimenter does not directly manipulate the variables, a correlation between two variables does not prove that they are causally related to each other. It may be the case that two variables are correlated but have no causal connection. For example, children's foot size is correlated with their vocabulary, but growth in foot size does not cause the growth of vocabulary. Depressive symptoms and negative thoughts also are correlated, as we shall see in Chapter 7. Though negative thinking may be a causative factor in depression, it is also possible that the direction of causality works the other way, that depression gives rise to negative thinking. Or perhaps the direction of causality works both ways, with negative thinking contributing to depression and depression in turn influencing negative thinking. Then again, depression and negative thinking may both reflect a common causative factor, such as stress, and not be causally related to each other at all. In sum, we cannot tell from a correlation alone whether or not variables are causally linked. To address questions of cause and effect, investigators use experimental methods in which the experimenter manipulates one or more variables of interest and observes their effects on other variables or outcomes under controlled conditions.

Although the correlational method cannot determine cause-and-effect relationships, it does serve the scientific objective of prediction. When two variables are correlated, scientists can use one to predict the other. Although causal connections are complex and somewhat nebulous, knowledge, for example, of correlations among alcoholism, family history, and attitudes toward drinking helps scientists predict which adolescents are at greater risk of developing problems with alcohol. Knowing which factors predict future problems helps direct preventive efforts toward high-risk groups.

THE LONGITUDINAL STUDY The **longitudinal study** is a type of correlational study in which individuals are periodically tested or evaluated over lengthy periods of

time, perhaps for decades. By studying people over time, researchers seek to identify factors or events in people's lives that predict the later development of abnormal behavior patterns such as depression or schizophrenia. Prediction is based on the *correlation* between events or factors that are separated in time. However, this type of research is time-consuming and costly. It requires a commitment that may literally outlive the original investigators. Therefore, long-term longitudinal studies are relatively uncommon. In Chapter 11, we examine one of the best-known longitudinal studies, the Danish high-risk study that tracked a group of children whose mothers had schizophrenia and who were themselves at increased risk of developing the disorder.

1.4.6 The Experimental Method

1.4.6 **Explain the role of the experimental method of research and describe its key features.**

The **experimental method** allows scientists to demonstrate causal relationships by manipulating the causal factor and measuring its effects under controlled conditions that minimize the risk of other factors explaining the results.

The term *experiment* can cause some confusion. Broadly speaking, an experiment is a trial or test of a hypothesis. From this vantage point, any method that seeks to test a hypothesis could be considered experimental—including naturalistic observation and correlational studies. However, investigators usually limit the use of the term *experimental method* to refer to studies in which researchers seek to uncover cause-and-effect relationships by directly manipulating possible causal factors.

In experimental research, the factors or variables hypothesized to play a causal role are manipulated or controlled by the investigator. These are called **independent variables**. Factors that are observed in order to determine the effects of manipulating the independent variable are labeled **dependent variables**. Dependent variables are measured, but not manipulated, by the experimenter. Table 1.1 presents examples of independent and dependent variables of interest to investigators of abnormal behavior.

In an experiment, research participants are exposed to an *independent variable*—for example, the type of beverage (alcoholic vs. nonalcoholic) they consume in a laboratory setting. They are then observed or examined to determine whether the independent variable makes a difference in their behavior, or, more precisely, whether the independent variable affects the dependent variable—for example, whether they behave more aggressively if they consume alcohol. Studies need to have a sufficient number of research participants (subjects) to be able to detect statistically meaningful differences between experimental groups.

EXPERIMENTAL AND CONTROL GROUPS Well-controlled experiments randomly assign research participants to experimental and control groups (Mauri, 2012). The **experimental group** is given the experimental treatment, whereas the **control group** is not. Care is taken to hold other conditions constant for each group. By using **random assignment** and holding other conditions constant, experimenters can be reasonably confident that it was the experimental treatment and not uncontrolled factors, such as room temperature or differences between the types of people in the experimental and control groups, that explains the experimental findings.

Table 1.1 Examples of Independent and Dependent Variables in Experimental Research

Independent Variables	Dependent Variables
Type of treatment: different types of drug treatments or psychological treatments	Behavioral variables: measures of adjustment, activity levels, eating behavior, smoking behavior
Treatment factors: brief vs. long-term treatment, inpatient vs. outpatient treatment	Physiological variables: measures of physiological responses such as heart rate, blood pressure, and brain wave activity
Experimental manipulations: types of beverage consumed (alcoholic vs. nonalcoholic)	Self-report variables: measures of anxiety, mood, or marital or life satisfaction

Why should experimenters assign research participants to experimental and control groups at random? Consider a study intended to investigate the effects of alcohol on behavior. Let's suppose we allowed research participants to decide for themselves whether they wanted to be in an experimental group in which they were to drink alcohol or in a control group in which they would drink a nonalcoholic beverage. If this were the case, differences between the groups might be due to an underlying **selection factor** (differences in the types of people who would select to be in one group or the other) rather than experimental manipulation.

For example, people who *chose* to consume the alcoholic beverage might differ in their personalities from those who chose the control beverage. They might be more willing to explore or to take risks, for example. Therefore, the experimenter would not know whether the independent variable (type of beverage) or a selection factor (difference in the kinds of people making up the groups) was ultimately responsible for observed differences in behavior. Random assignment controls for selection factors by ensuring that subject characteristics are randomly distributed across both groups. Thus, it is reasonable to assume that differences between groups result from the treatments they receive rather than from differences between the participants who make up the groups. Still, it is possible that apparent treatment effects may stem from a person's expectancies about the treatments they receive rather than from the active components in the treatments themselves. In other words, knowing that you are being given an alcoholic beverage to drink might affect your behavior, quite apart from the alcoholic content of the beverage itself.

CONTROLLING FOR SUBJECT EXPECTANCIES   To control for subject expectancies, experimenters rely on procedures that render research participants **blind**, or uninformed about the treatments they are receiving. For example, participants in a study designed to test an investigational medication for depression would be kept uninformed about whether they are receiving the actual drug or a **placebo**, an inert drug that physically resembles the active drug. Experimenters use placebos to control for the possibility that treatment effects result from a person's hopeful expectancies rather than from the chemical properties of the drug itself or from the specific techniques used in psychotherapy (Espay et al., 2015; Schabus et al., 2017).

In a *single-blind placebo-control study*, research participants are randomly assigned to treatment conditions in which they receive either an active drug (experimental condition) or an inert placebo (placebo-control condition), but are kept blind about which drug they receive. It is helpful to keep the researchers blind as well as to which substances the research participants receive so as to prevent the researchers' own expectations from affecting the results. In the case of a *double-blind placebo-control design*, neither the researcher nor the subject knows who is receiving the active drug or the placebo.

Double-blind studies control for both subject and experimenter expectancies. However, a major limitation of both single-blind and double-blind studies is that participants and experimenters sometimes can "see through" the blind. Obvious drug-induced effects or telltale side effects can give it away, as can slight differences in the taste or smell between the placebo and the active drug, all of which can make the double-blind seem like a Venetian blind with the slats slightly open. Still, the double-blind placebo control is widely considered the gold standard of experimental designs, especially in drug treatment research.

Placebo effects are generally strongest in studies of pain or negative emotional states, such as anxiety and depression (for example, Meyer et al., 2015; Peciña et al., 2015). One reason may be that these complaints involve subjective experiences that are influenced more by the power of suggestion than physiological factors measured by objective means, such as blood pressure. In what is surely a most compelling example of the power of suggestion, recent studies showed that people tend to report less pain after taking a placebo even when they are informed they received a placebo (Kam-Hansen et al., 2014; Locher, Nascimento, et al., 2017; Schafer, Colloca & Wager, 2015). In trying to account for the mechanisms explaining placebo effects on reducing

MAY WE OFFER YOU A PLACEBO?
Do you think that taking a placebo might help relieve pain, even if pain patients knew they were taking a placebo?

Image Source/Stockbyte/Getty Images

TRUTH *or* FICTION?

In a recent experiment, pain patients reported some relief from pain after taking a placebo pill, even though they were told the pill was merely a placebo.

☑ **TRUE**   Placebo effects may occur even when participants are told they are taking a placebo.

pain, researchers suspect that taking a placebo acts in a similar way as pain medications in blocking pain signals to the brain or leading to the release of endorphins, which are natural chemicals in the brain that have pain-killing effects (Fox, 2014; Marchant, 2016). **T/F**

Placebo-control groups are also used in psychotherapy research to control for subject expectancies. Assume you were to study the effects of therapy method A on mood. You could randomly assign research participants to either an experimental group in which they receive the new therapy or to a (no-treatment) "waiting list" control group. In such a case, the experimental group might show greater improvement because participation in treatment engendered hopeful expectations, not because of the particular therapy method used. Although a waiting list control group might control for positive effects due simply to the passage of time, it would not account for placebo effects, such as the benefits of therapy resulting from instilling a sense of hope and expectations of success.

To control for placebo effects, experimenters sometimes use an *attention-placebo* control group in which participants are exposed to a believable or credible treatment that contains the nonspecific factors that all therapies share—such as the attention and emotional support of a therapist—but not the specific therapeutic ingredients represented in the active treatment. Attention-placebo treatments commonly substitute general discussions of participants' problems for the specific ingredients of therapy contained in the experimental treatment. Unfortunately, although experimenters may keep attention-placebo study participants blind as to whether they are receiving the experimental treatment, their therapists are generally aware of which treatment is being administered. Therefore, the attention-placebo method may not control for therapists' expectations.

EXPERIMENTAL VALIDITY   Experimental studies are judged on whether they are valid, or sound. There are many aspects of validity, including *internal validity, external validity*, and *construct validity*. You will see in Chapter 3 that the term *validity* is also applied in the context of tests and measures to refer to the degree to which these instruments measure what they purport to measure.

Experiments have **internal validity** when the observed changes in the dependent variable(s) can be causally related to changes in the independent or treatment variable. Assume that a group of depressed individuals is treated with a new antidepressant medication (the independent variable), and changes in their mood and behavior (the dependent variables) are tracked over time. After several weeks of treatment, the researcher finds that most treated individuals have improved and claims that the new drug is an effective treatment for depression. Not so fast! How does the experimenter know that the independent variable and not some other factor was causally responsible for the improvement? Perhaps the depressed individuals improved naturally as time passed, or perhaps they were exposed to other events responsible for their improvement. Experiments lack internal validity when they fail to control for other factors (called *confounds*, or threats to validity) that might pose rival hypotheses for the results.

Experimenters *randomly assign* research participants to treatment and control groups to control for rival hypotheses (Mitka, 2011). Random assignment helps ensure that individual attributes—intelligence, motivation, age, race, and so on—are randomly distributed across the groups and are not likely to favor one group over the other. Through the random assignment to groups, researchers can be reasonably confident that significant differences between the treatment and control groups reflect the effects of independent (treatment) variables and not confounding selection factors. Well-designed studies include sufficiently large samples of research participants to be able to discern statistically significant differences between experimental and control groups.

External validity refers to the generalizability of results of an experimental study to other individuals, settings, and times. In most cases, researchers are interested in

generalizing the results of a specific study (e.g., effects of a new antidepressant medication on a sample of people who are depressed) to a larger population (people in general who are depressed). The external validity of a study is strengthened to the degree that the *sample* is representative of the target population. In studying the problems of the urban homeless, it is essential to recruit a representative sample of the homeless population, for example, rather than focusing on a few homeless people who happen to be available. One way of obtaining a representative sample is by means of random sampling. In a *random sample*, every member of the target population has an equal chance of being selected.

Researchers may extend the results of a particular study by means of *replication*, the process of repeating an experiment in other settings or at other times, or with samples drawn from other populations (Brandt et al., 2013; Cesario, 2014; Simons, 2014). A treatment for hyperactivity may be helpful with economically deprived children in an inner-city classroom but not with children in affluent suburbs or rural areas. The external validity of the treatment may be limited if its effects do not generalize to other samples or settings. That does not mean the treatment is less effective, but rather that its range of effectiveness may be limited to certain populations or situations.

Construct validity is a conceptually higher level of validity. It is the degree to which treatment effects can be accounted for by the theoretical mechanisms or constructs represented in the independent variables. A drug, for example, may have predictable effects, but perhaps not for the theoretical reasons claimed by the researchers.

Consider a hypothetical experimental study of a new antidepressant medication. The research may have internal validity in the form of solid controls and external validity in the form of generalizability across samples of seriously depressed people. However, it may lack construct validity if the drug does not work for the reasons proposed by the researchers. Perhaps the researchers assumed that the drug would work by raising the levels of certain chemicals in the nervous system, whereas the drug actually works by increasing the sensitivity of receptors for those chemicals. "So what?" we may ask. After all, the drug still works. True enough—in terms of immediate clinical applications. However, a better understanding of why the drug works can advance theoretical knowledge of depression and give rise to the development of yet more effective treatments.

Scientists can never be certain about the construct validity of research. They recognize that their current theories about why their results occurred may eventually be toppled by other theories that better account for the findings.

1.4.7 The Epidemiological Method

1.4.7   **Explain the role of the epidemiological method of research and describe its key features.**

The **epidemiological method** examines rates of occurrence of abnormal behavior in various settings or population groups. One type of epidemiological study is the **survey method**, which relies on interviews or questionnaires. Surveys are used to ascertain rates of occurrence of various disorders in the population as a whole and in various subgroups classified according to factors such as race, ethnicity, gender, or social class. Rates of occurrence of a given disorder are expressed in terms of **incidence**, the number of new cases occurring during a specific period of time, and **prevalence**, the overall number of cases of a disorder existing in the population during a given period of time. Prevalence rates, then, include both new and continuing cases.

Epidemiological studies may point to potential causal factors in medical illnesses and psychological disorders, even though they lack the power of experiments. By finding that illnesses or disorders "cluster" in certain groups or locations, researchers can identify distinguishing characteristics that place these groups or regions at higher risk. Yet such epidemiological studies cannot control for selection factors; that is, they cannot rule out the possibility that other unrecognized factors will play a causal role in

TWEET TWEET, WHAT MOOD AM I IN?
Psychologists are mining tweets to learn more about people's mood states. Investigators find that people tend to use happier words when they tweet earlier in the day.

putting a certain group at greater risk. Therefore, they must be considered suggestive of possible causal influences that must be tested further in experimental studies.

SAMPLES AND POPULATIONS In the best of possible worlds, researchers would conduct surveys in which every member of the population of interest would participate. In that way, they could be sure the survey results accurately represent the population they want to study. In reality, unless the population of interest is rather narrowly defined (say, for example, designating the population of interest as the students living on your dormitory floor), surveying every member of a given population is extremely difficult, if not impossible. Even census takers can't count every head in the general population. Consequently, most surveys are based on a sample, or subset, of the population. Researchers must take steps when constructing a sample to ensure that it *represents* the target population. For example, a researcher who sets out to study smoking rates in a local community by interviewing people drinking coffee in late-night cafés will probably overestimate its true prevalence.

One method of obtaining a representative sample is to use random sampling. A **random sample** is drawn in such a way that each member of the population of interest has an equal probability of selection. Epidemiologists sometimes construct random samples by surveying at random a given number of households within a target community. By repeating this process in a random sample of U.S. communities, the overall sample can approximate the general U.S. population based on even a tiny percentage of the overall population.

Random sampling is often confused with random assignment. *Random sampling* refers to the process of randomly choosing individuals within a target population to participate in a survey or research study. By contrast, *random assignment* refers to the process by which members of a research sample are assigned at random to different experimental conditions or treatments.

1.4.8 Kinship Studies

1.4.8 Explain the role of kinship studies and describe their key features.

Kinship studies attempt to disentangle the roles of heredity and environment in determining behavior. Heredity plays a critical role in determining a wide range of traits. The structures we inherit make our behavior possible (humans can walk and run) and at the same time place limits on us (humans cannot fly without artificial

Abnormal Psychology in the Digital Age
SMARTPHONES AND SOCIAL MEDIA AS RESEARCH TOOLS

Electronic technologies offer opportunities for researchers to collect real-time data from people as they go about their daily lives and to cull data collected by online services. Using these technologies, researchers are extending the reach of data collection beyond the confines of the research laboratory or use of traditional survey methods. They employ smartphones to collect data from research participants by texting them or sending them electronic prompts to report about their behaviors, symptoms, moods, and activities at certain times of the day. They also mine data from social networking sites. For example, Cornell University researchers analyzed more than a half billion Twitter messages

to see if the emotional tone of words used in tweets (happy vs. sad words) shifted during the course of the day (Weaver, 2012). Indeed, people tended to use happier words in tweets earlier in the day, whereas later in the day, Twitter messages conveyed a gloomier tone. One of the researchers, Michael Macy, summed up by saying, "We found people are happiest around breakfast time in the morning and then it's all downhill from there" (cited in Weaver, 2012). Perhaps one reason for morning glee and afternoon glum is that people may feel chipper when they first awaken from a restful sleep, but their good mood may peter out as they become tired or stressed as the day drags on.

equipment). Heredity plays a role in determining not only our physical characteristics (hair color, eye color, height, and the like) but also many of our psychological characteristics. The science of heredity is called *genetics*.

Genes are the basic building blocks of heredity. They regulate the development of traits. *Chromosomes*, rod-shaped structures that house our genes, are found in the nuclei of the body's cells. A normal human cell contains 46 chromosomes, organized into 23 pairs. Chromosomes consist of large, complex molecules of *deoxyribonucleic acid* (DNA). Genes occupy various segments along the length of chromosomes. Scientists believe there are about 20,000 to 25,000 genes in the nucleus of a human body cell (Lupski, 2007; Volkow, 2006). **T/F**

The set of traits specified by our genetic code is referred to as our **genotype**. Our appearance and behavior are not determined by our genotype alone. We are also influenced by environmental factors such as nutrition, learning, exercise, accidents and illnesses, and culture. The constellation of observable or expressed traits is called a **phenotype**. Our phenotype represents the interaction of genetic and environmental influences. People who possess genotypes for particular psychological disorders have a *genetic predisposition* that makes them more likely to develop the disorders in response to stressful life events, physical or psychological trauma, or other environmental factors (Kendler, Myers & Reichborn-Kjennerud, 2011).

The more closely people are related, the more genes they have in common. Children receive half of their genes from each parent. Thus, there is a 50 percent overlap in genetic heritage between each parent and his or her offspring. Siblings (brothers and sisters) similarly share half their genes in common.

To determine whether abnormal behavior runs in a family, as one would expect if genetics plays a role, researchers locate a person with a particular disorder and then study how the disorder is distributed among the person's family members. The case first diagnosed is referred to as the index case, or **proband**. If the distribution of the disorder among family members of the proband approximates their degree of kinship, there may be a genetic component to the disorder. However, the closer their kinship, the more likely people are to share environmental backgrounds as well. For this reason, twin and adoptee studies are of particular value.

TWIN STUDIES   Sometimes a fertilized egg cell (or zygote) divides into two cells that separate, and each develops into a separate person. In such cases, there is a 100 percent overlap in genetic makeup, and the offspring are known as identical twins, or monozygotic (MZ) twins. In some other cases, a woman releases two egg cells, or ova, in the same month, and they are both fertilized. In such cases, the zygotes develop into fraternal twins, or dizygotic (DZ) twins. DZ twins overlap 50 percent in their genetic heritage, just as other siblings do.

Identical, or MZ, twins are important in the study of the relative influences of heredity and environment because differences between MZ twins are the result of environmental rather than genetic influences. In twin studies, researchers identify individuals with a specific disorder who are members of an MZ or DZ twin pair and then study the other twin in the pairs. A role for genetic factors is suggested when MZ twins (who have 100 percent genetic overlap) are more likely than DZ twins (who have 50 percent genetic overlap) to share a disorder in common. The term *concordance rate* refers to the percentage of cases in which both twins have the same trait or disorder. As we shall see, investigators find higher concordance rates for MZ twins than DZ twins for some forms of abnormal behavior, such as schizophrenia and major depression.

Even among MZ twins, environmental influences cannot be ruled out. Parents and teachers, for example, often encourage MZ twins to behave in similar ways. Put another way, if one twin does X, everyone

TRUTH *or* FICTION?

Recent evidence shows there are literally millions of genes in the nucleus of every cell in the body.

☑ **FALSE**   Although no one yet knows the precise number, scientists believe there are about 20,000 to 25,000 genes in the nucleus of each body cell, but certainly not millions.

TWIN STUDIES. Identical twins have 100 percent of their genes in common, as compared with the 50 percent overlap among fraternal twins or any two other siblings. Establishing that identical twins are more likely to share a given disorder than are fraternal twins provides strong evidence for a genetic contribution to the disorder.

Louis-Paul st-onge Louis/Alamy Stock Photo

expects the other to do X also. Expectations have a way of influencing behavior and making for self-fulfilling prophecies. Because twins might not be typical of the general population, researchers are cautious when generalizing the results of twin studies to the larger population.

ADOPTEE STUDIES   **Adoptee studies** provide powerful arguments for or against a role for genetic factors in the appearance of psychological traits and disorders. Assume that children are reared by adoptive parents from a very early age—-perhaps from birth. The children share environmental backgrounds with their adoptive parents but not their genetic heritages. Then assume that we compare the traits and behavior patterns of these children with those of their biological parents and their adoptive parents. If the children show a greater similarity to their biological parents than to their adoptive parents on certain traits or disorders, we have strong evidence for genetic factors in these traits and disorders.

The study of MZ twins reared apart can provide even more dramatic testimony to the relative roles of genetics and environment in shaping abnormal behavior. However, this situation is so uncommon that few examples exist in the literature. Although adoptee studies may represent the strongest source of evidence for genetic factors in explaining abnormal behavior patterns, we should recognize that adoptees, like twins, may not be typical of the general population. In later chapters, we explore the role that adoptee and other kinship studies play in ferreting out genetic and environmental influences in many psychological disorders.

1.4.9 Case Studies

1.4.9 **Explain the role of case studies and describe their limitations.**

Case studies have been important influences in the development of theories and treatment of abnormal behavior. Freud developed his theoretical model primarily on the basis of case studies, such as the case of Anna O. Therapists representing other theoretical viewpoints have also reported cases studies.

TYPES OF CASE STUDIES   **Case studies** are intensive studies of individuals. Some case studies are based on historical material, involving subjects who have been dead for hundreds of years. Freud, for example, conducted a case study of the Renaissance artist and inventor Leonardo da Vinci. More commonly, case studies reflect an in-depth analysis of an individual's course of treatment. They typically include detailed histories of the subject's background and response to treatment. From a particular client's experience in therapy, the therapist attempts to glean information that may be of help to other therapists treating similar clients. **T/F**

Despite the richness of material that case studies can provide, they are much less rigorous as research designs than experiments. Distortions or gaps in memory are bound to occur when people discuss historical events, especially those of their childhoods. Some people may intentionally color events to make a favorable impression on the interviewer; others aim to shock the interviewer with exaggerated or fabricated recollections. Interviewers themselves may unintentionally guide the people they interview into reporting histories that mirror their theoretical preconceptions.

SINGLE-CASE EXPERIMENTAL DESIGNS   The lack of control available in the traditional case study method led researchers to develop more sophisticated methods, called **single-case experimental designs** (sometimes called *single-participant research designs*), in which research participants serve as their own controls. One of the most common forms of the single-case experimental design is the A-B-A-B design, or **reversal design** (see Figure 1.2). This method involves repeated measurement of behavior across four successive phases.


TRUTH *or* FICTION?

Case studies have been conducted on dead people.

☑ **TRUE**   Case studies have been conducted on people who have been dead for hundreds of years. One example is Freud's study of Leonardo da Vinci. Such studies rely on historical records rather than interviews.

Figure 1.2 An A-B-A-B Reversal Design

1. *Baseline phase (A).* This phase occurs prior to treatment and allows the experimenter to establish a baseline rate for the behavior before treatment begins.
2. *Treatment phase (B).* Target behaviors are measured as the client undergoes treatment.
3. *Second baseline phase (A, again).* Treatment is temporarily withdrawn or suspended. This is the *reversal* in the reversal design, and it is expected that the positive effects of treatment should now be reversed because the treatment has been withdrawn.
4. *Second treatment phase (B, again).* Treatment is reinstated, and the target behaviors are assessed again.

| Baseline (A) | → | Treatment (B) | → | Baseline (Reversal) (A) | → | Treatment (B) |
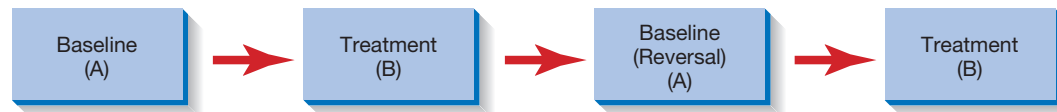
The investigator looks for evidence that change in the observed behavior occurred coincident with treatment. If the problem behavior declines whenever treatment is introduced (during the first and second treatment phases) but returns (is "reversed") to baseline levels during the reversal phase, the experimenter can be reasonably confident the treatment had the intended effect.

A reversal design is illustrated by a case study in which Azrin and Peterson (1989) used a controlled blinking treatment to eliminate a severe eye tic—a form of squinting the eyes shut tightly for a fraction of a second—in a 9-year-old girl. The tic occurred about 20 times a minute when the girl was at home. In the clinic, the rate of eye tics or squinting was measured for 5 minutes during a baseline period (A). Then the girl was prompted to blink her eyes softly every 5 seconds (B). The experimenters reasoned that voluntary "soft" blinking would activate motor (muscle) responses incompatible with those producing the tic, thereby suppressing the tic. As you can see in Figure 1.3, the tic was virtually eliminated in just a few minutes of practicing the incompatible,

Figure 1.3 Use of an A-B-A-B Reversal Design in the Azrin and Peterson Study
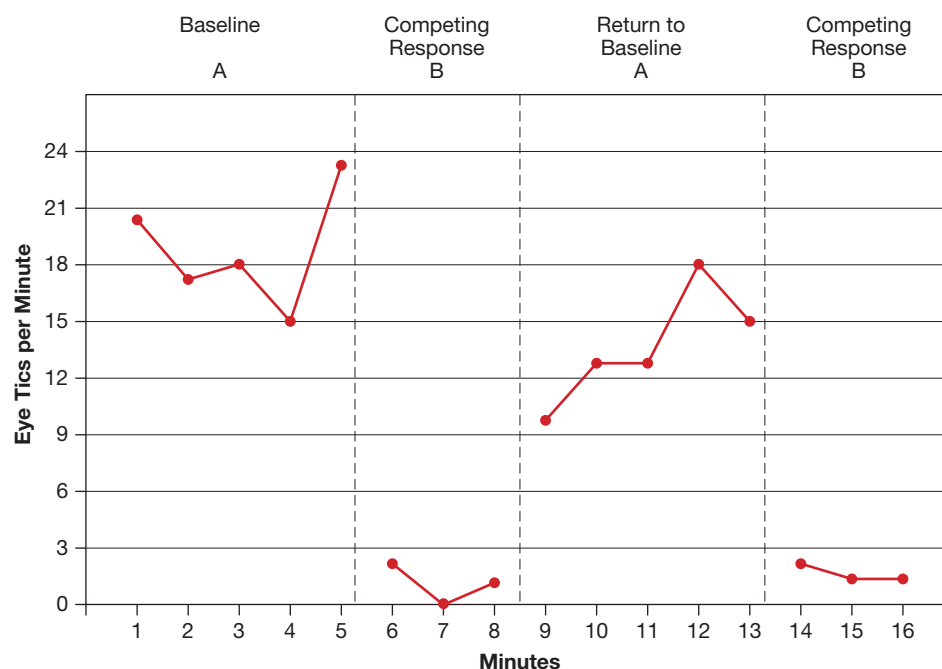
Notice how the target response, eye tics per minute, decreased when the competing response was introduced in the first B phase. The rate then increased to near baseline levels when the competing response was withdrawn during the second A phase. It decreased again when the competing response was reinstated in the second B phase.

or competing, response (soft blinking) but returned to near baseline levels during the reversal phase (A), when the competing response was withdrawn. The positive effects were quickly reinstated during the second treatment period (B). The child was also taught to practice the blinking response at home during scheduled 3-minute practice periods and whenever the tic occurred or she felt an urge to squint. The tic was eliminated during the first six weeks of the treatment program and remained absent at a follow-up evaluation two years later.

No matter how well controlled the design or how impressive the results, single-case designs suffer from weak external validity because they cannot show whether a treatment that is effective for one person is effective for others. Replication can help strengthen external validity, but results from controlled experiments on groups of individuals are needed to provide more convincing evidence of treatment effectiveness and generalizability.

Scientists use different methods to study phenomena of interest to them, but all scientists share a skeptical, hard-nosed way of thinking called **critical thinking**. When thinking critically, scientists adopt a willingness to challenge the conventional wisdom that many take for granted. Scientists maintain open minds and seek *evidence* to support or refute beliefs or claims rather than rely on feelings or gut impressions.

A CLOSER Look

THINKING CRITICALLY ABOUT ABNORMAL PSYCHOLOGY

We are exposed to a flood of information about mental health streaming through the popular media—television, radio, print media (including books, magazines, and newspapers), and, increasingly, the Internet. We may hear a news report touting a new drug as a "breakthrough" in the treatment of anxiety, depression, or obesity, only to later learn that the so-called breakthrough doesn't live up to expectations or carries serious side effects. Some reports in the media are accurate and reliable, whereas others are misleading or biased or contain half-truths, exaggerated claims, or unsupported conclusions.

To sort through the welter of confusion, we need to use critical thinking skills, to adopt a questioning attitude toward the information we hear and read. Critical thinkers weigh evidence to see if claims stand up to scrutiny. Becoming a critical thinker means never taking claims at face value. It means looking at both sides of the argument. Most of us take certain "truths" for granted. Critical thinkers, however, evaluate assertions and claims for themselves.

We encourage you to apply critical thinking skills as you study this text. Adopt a skeptical attitude toward information you receive. Carefully examine the definitions of terms. Evaluate the logical bases of arguments. Evaluate claims in the light of available evidence. Here are some key features of critical thinking:

1. *Maintain a skeptical attitude.* Don't take anything at face value, not even claims made by respected scientists or textbook authors. Consider the evidence yourself. Seek additional information. Investigate the credibility of your sources.

2. *Consider the definitions of terms.* Statements may be true or false depending on how the terms they use are defined. Consider the statement, "Stress is bad for you." If we define *stress* in terms of hassles and work or family pressures that stretch our ability to cope to the max, then there is substance to the statement. However, if we define *stress* (see

Chapter 4) as conditions that require us to adjust, which may include life events such as a new marriage or the birth of a child, then certain types of stress can be positive, even if they are difficult. Perhaps, as you'll see, we all need some amount of stress to be energized and alert.

3. *Weigh the assumptions or premises on which arguments are based.* Consider a case in which we compare differences in the rates of psychological disorders across racial or ethnic groups in our society. Assuming we find differences, should we conclude that ethnicity or racial identity accounts for these differences? This conclusion might be valid if we can assume that all other factors that distinguish one racial or ethnic group from another are held constant. However, ethnic or racial minorities in the United States and Canada are disproportionately representedv among the poor, and the poor are more apt to develop more severe psychological disorders. Thus, differences we find among racial or ethnic groups may be a function of poverty, not race or ethnicity. These differences also may be due to stereotyping of minorities by clinicians when making diagnostic judgments, rather than due to true differences in underlying rates of the disorder.

4. *Bear in mind that correlation is not causation.* Consider the relationship between depression and stress. Evidence shows a positive correlation between these variables, which means depressed people tend to encounter high levels of stress (e.g., Drieling, van Calker, & Hecht, 2006; Kendler, Kuhn, & Prescott, 2004). But does stress cause depression? Perhaps it does. Or perhaps depression leads to greater stress. After all, depressive symptoms are stressful in themselves and may lead to additional stress as a person finds it increasingly difficult to meet life responsibilities, such as keeping up with work at school or on the job. Perhaps the two variables are not causally linked at all but are linked

through a third variable, such as an underlying genetic factor. Is it possible that people inherit clusters of genes that make them more prone to both depression and stress?

5. *Consider the kinds of evidence on which conclusions are based.* Some conclusions, even seemingly "scientific" conclusions, are based on anecdotes and personal endorsements, not sound research. There is much controversy today about so-called recovered memories that are said to suddenly resurface in adulthood, usually during psychotherapy or hypnosis, and usually involving incidents of sexual abuse committed during childhood by the person's parents or family members. Are such recovered memories accurate? (See Chapter 6.)

6. *Do not oversimplify.* Consider the statement, "Alcoholism is inherited." In Chapter 8, we review evidence suggesting that

genetic factors may create a predisposition to alcoholism, at least in males. However, the origins of alcoholism, as well as of schizophrenia, depression, and physical health problems such as cancer and heart disease, are complex and reflect the interplay of biological and environmental factors. For instance, people may inherit a predisposition to develop a particular disorder but may be able to avoid developing it if they live in a healthy environment or learn to manage stress effectively.

7. *Do not overgeneralize.* In Chapter 6, we consider evidence showing that a history of severe abuse in childhood figures prominently in the great majority of people who later develop multiple personalities. Does this mean that most abused children go on to develop multiple personalities? Not at all. Actually, very few do.

Summing Up

1.1 How Do We Define Abnormal Behavior?

1.1.1 Criteria for Determining Abnormality

1.1.1 Identify criteria professionals use to determine whether behavior is abnormal and apply these criteria to the case example discussed in the text.

A psychological disorder is a pattern of abnormal behavior associated with significant personal distress or impaired functioning or behavior. Psychologists consider behavior abnormal when it meets some combination of the following criteria: when behavior is (1) unusual or statistically infrequent, (2) socially unacceptable or in violation of social norms, (3) fraught with misperceptions or misinterpretations of reality, (4) associated with states of severe personal distress, (5) maladaptive or self-defeating, or (6) dangerous. Psychological disorders are patterns of abnormal behavior associated with states of emotional distress or impaired behavior or ability to function.

The case of Phil illustrated the psychological disorder of claustrophobia, which involves an excessive fear of enclosed places. His behavior was abnormal on the basis of the criteria of unusualness, personal distress, and impaired ability to meet occupational and family responsibilities.

1.1.2 Abnormal Psychology—By the Numbers

1.1.2 Describe the current and lifetime prevalence of psychological disorders in the United States and describe differences in prevalence as a function of gender and age.

Nearly half of adults in the U.S. are affected by diagnosable psychological disorders at some point in their

lifetimes; about one in five is currently affected. Women are more likely to develop psychological disorders, and young adults aged 18 to 25 are about twice as likely to be affected as adults over the age of 50.

1.1.3 Cultural Bases of Abnormal Behavior

1.1.3 Describe the cultural bases of abnormal behavior.

Behaviors deemed normal in one culture may be considered abnormal in another. Concepts of health and illness are also different in different cultures. Abnormal behavior patterns also take different forms in different cultures, and societal views or models explaining abnormal behavior vary across cultures.

1.2 Historical Perspectives on Abnormal Behavior

1.2.1 The Demonological Model

1.2.1 Describe the demonological model of abnormal behavior.

The demonological model represents the belief in ancient times that abnormal behavior was the result of evil or demonic spirits or supernatural forces. In medieval times, abnormal behavior was considered a sign of possession by the Devil, and exorcism was intended to rid the possessed of the evil spirits that afflicted them.

1.2.2 Origins of the Medical Model: In "Ill Humor"

1.2.2 Describe the origins of the medical model of abnormal behavior.

Although demonological explanations of abnormal behavior held sway in early Western culture, some physicians, such as Hippocrates, argued in favor of natural causes.

Hippocrates foreshadowed the modern medical model by proposing a system for classifying abnormal behavior patterns and arguing that abnormal behavior results from underlying biological processes.

1.2.3 Medieval Times

1.2.3 **Describe the treatment of mental patients during medieval times.**

Asylums, or madhouses, arose throughout Europe in the late 15th and early 16th centuries to house people whose behavior was severely disturbed. Conditions in these asylums were dreadful, and the behavior of the residents was sometimes put on display for the amusement of the general public.

1.2.4 The Reform Movement and Moral Therapy

1.2.4 **Identify the leading reformers of the treatment of the mentally ill and describe the principle underlying moral therapy and the changes that occurred in the treatment of mental patients during the 19th and early 20th centuries.**

The leading reformers were Frenchmen Jean-Baptiste Pussin and Philippe Pinel in France, William Tuke in England, and Dorothea Dix in the United States. Proponents of moral therapy believed that mental patients could be restored to functioning if they were treated with dignity and understanding. With the rise of moral therapy in the 19th century, conditions in mental hospitals generally improved. However, the decline of moral therapy in the latter part of the 19th century led to the belief that the "insane" could not be treated successfully. During this period of apathy, mental hospitals deteriorated, offering little more than custodial care. It was not until the middle of the 20th century that public concern about the plight of mental patients led to the development of community mental health centers as alternatives to long-term hospitalization.

1.2.5 The Role of the Mental Hospital Today

1.2.5 **Describe the role of mental hospitals in the mental health system.**

Mental hospitals today provide structured treatment environments for people in acute crisis and for those who are unable to adapt to community living.

1.2.6 The Community Mental Health Movement

1.2.6 **Describe the goals and outcomes of the community mental health movement.**

The community mental health movement seeks to provide community-based treatment of people with severe mental health problems. As a result of deinstitutionalization, the population of state mental hospitals has been greatly reduced. However, under the policy of deinstitutionalization, many people with severe and persistent mental health problems have not received the quality of care and range of services they need to adjust to community living. One example of the challenges yet to be met by the community mental health movement is the large number of homeless people with severe psychological problems who are not receiving adequate care in the community.

1.3 Contemporary Perspectives on Abnormal Behavior

1.3.1 The Biological Perspective

1.3.1 **Describe the medical model of abnormal behavior.**

The medical model conceptualizes abnormal behavior patterns, like physical diseases, in terms of clusters of symptoms, called syndromes, that have distinctive causes presumed to be biological in nature.

1.3.2 The Psychological Perspective

1.3.2 **Identify the major psychological models of abnormal behavior.**

Psychological models focus on the psychological roots of abnormal behavior and derive from psychoanalytic, behavioral, humanistic, and cognitive perspectives.

1.3.3 The Sociocultural Perspective

1.3.3 **Describe the sociocultural perspective on abnormal behavior.**

The sociocultural model emphasizes a broader perspective that takes into account social contexts in which abnormal behavior occurs, including factors relating to human diversity, socioeconomic level, and exposure to discrimination and prejudice.

1.3.4 The Biopsychosocial Perspective

1.3.4 **Describe the biopsychosocial perspective on abnormal behavior.**

Many theorists today subscribe to a broad-based perspective, called the biopsychosocial model, that posits that multiple causes—representing biological, psychological, and sociocultural domains—interact in the development of abnormal behavior patterns.

1.4 Research Methods in Abnormal Psychology

1.4.1 Description, Explanation, Prediction, and Control: The Objectives of Science

1.4.1 **Identify four major objectives of science.**

The scientific approach focuses on four general objectives: description, explanation, prediction, and control.