



SEVENTH EDITION

Thomas F.
Oltmanns

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Emery

abnormal psychology



Why Do You Need This New Edition?

If you are wondering why you should buy this new edition of *Abnormal Psychology*, here are 10 good reasons why:

1. The classification of abnormal behavior is changing. Revisions are in the works for the official method for classifying psychological disorders, known as the *Diagnostic and Statistical Manual* or DSM. The fifth version of this classification system, or DSM-V, is scheduled to be released in the coming years. At present, experts are proposing, debating, and studying new diagnoses; new groupings of current diagnoses; and revised diagnostic criteria for various mental disorders. We bring you into this process of change by introducing dozens of concepts behind the debate, not by detailing every proposal and counterproposal. No one can predict the future, but this 7th edition of *Abnormal Psychology* will prepare you for it!
2. Hundreds of new studies are included here. Psychological science is dynamic, ever-changing, and ever-growing. Our textbook grows with the field, bringing to life both the exciting process of discovery and important new findings about disorders and their causes and effective treatment. Earlier editions of our textbooks are out of date when it comes to the latest science. This 7th edition is at the cutting edge, because we have culled the best and most important new research from thousands of studies to include hundreds of new ones here.
3. We help you see the forest and the trees. You need to know about new research, but what details do you need to remember? We guide you in your learning—and in critical thinking—with “The Big Picture.” Our new “The Big Picture” feature opens each chapter with a set of questions that you may have been asking yourself and that you *should* be asking yourself. More “The Big Picture” questions appear in the margins of the text, and each chapter concludes with “The Big Picture Revisited,” which highlights the key issues, briefly summarizes the main point, and tells you where to find specific details.
4. *Abnormal Psychology* is about real people. We bring the human side of psychology problems to life with new *Speaking Out* videos that we edited personally. We promise that these videos will make you think and make you feel, too. Watch the dramatic new videos for Chapter 12 (S&M) and Chapter 18 (battered women who kill), and we promise that you will “get it.”
5. We have included more on the human side of psychological problems with new and updated case studies (for example, on medically unexplained syndromes), as well as updated “Getting Help” features that offer practical advice for you and your loved ones.
6. We offer you updated evidence on the nature and prevalence of mental disorders both generally (Chapter 1) and specifically for each disorder in every relevant chapter.
7. New concepts from the frontiers of understanding interactions between genes and the environment are presented; for example, are you a “dandelion” who can survive in most any environment or a fragile “orchid” who will wither under harsh conditions but bloom gloriously in the right environment?
8. You will find new discussions of new treatments that work. Do we at last have an effective treatment for adolescents with anorexia nervosa? Read our new discussion of the “Maudsley method” in Chapter 10.
9. “Sexual addiction” seems to be epidemic. Is this a mental disorder? We draw you into the latest issues, research, and debates in Chapter 12, just one example of our many new considerations of evolving thinking about the DSM and classification.
10. Speaking of epidemics, we bring you the latest on the purported “epidemic of autism,” reassuring you that vaccines are safe (and detailing the latest legal problems of those who claimed vaccines cause autism). We also tell you the main reason why there is an “epidemic”—mental health professionals are now using much broader criteria for making the diagnosis of autistic spectrum disorder.

SEVENTH EDITION

ABNORMAL PSYCHOLOGY

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To Gail, Josh, Sara, Billy, Presley, Riley,
and Kinley—T.F.O.

To Kimberly, Maggie, Julia, Bobby,
Lucy, and John—R.E.E.

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Preface

Emotional suffering touches all of our lives at some point in time. Psychological problems affect many of us directly and all of us indirectly—through our loved ones, friends, and the strangers whose troubled behavior we cannot ignore. Abnormal psychology is not about “them.” Abnormal psychology is about all of us.

Abnormal psychology today is also about scientific inquiry. We once again bring both the science and the personal aspects of abnormal psychology to life in this seventh edition of our text. We answer pressing intellectual and human questions as accurately, sensitively, and completely as possible, given the pace of new discoveries. Throughout this book, we offer an engaging yet rigorous treatment of abnormal psychology, the latest research and theory, and the urgent needs of the people behind the disorders.

Where Is DSM-V?

Every instructor wants to know: Where is DSM-V? The seventh edition of our text is permeated with DSM-V—at a conceptual level.

In revising our text, we have reviewed official and unofficial DSM-V websites, as well as the extensive published literature on calls for revising the DSM. However, we include only a very few, specific proposals for change (e.g., referring to “Intellectual Disabilities” instead of “Mental Retardation”). We decided to limit the inclusion of specific calls for change for two reasons. First, no one knows for certain what specifics will be included in the DSM-V when it is eventually published. All that we know for certain is that diagnoses and diagnostic criteria are sure to change. Second, while students need to know that change is in the wind, we did not want to confuse students with endless and pointless details.

What we have done instead is to highlight the diagnostic and conceptual controversies that are behind calls for reform in the DSM. These issues are important for students to

understand in their own right, and they will *not* change along with different revisions in the DSM. Actually, we have done this all along in our text and are pleased to note that many current controversies surrounding the DSM-V have been highlighted in our text for a long time. To offer just one example: Should abnormal behavior be classified along dimensions or into categories? This issue has been a key theme of *Abnormal Psychology* since the first edition. Actually, these issues are not about the DSM-V. The issues are all about critical thinking.

Critical Thinking

In teaching abnormal psychology, we believe that critical thinking is essential for science, for helping those in need, and for the intellectual and personal development of our students. Today’s students are overwhelmed with information from all kinds of media. Critical thinking is indispensable, so students can distinguish between information that is good, bad, or ugly (to borrow a phrase from our favorite Western). We want students to think critically about abnormal psychology—and everything else.

Directly and indirectly we encourage students to be *inquiring skeptics*. Students need to be skeptical in evaluating all kinds of claims. We help them to do so by teaching students to *think like psychological scientists*. Yet, we also want students to be inquiring, to be skeptical not cynical. Pressing human needs and fascinating psychological questions make it essential for us to seek answers, not just explode myths.

In this seventh edition of our text, we emphasize critical thinking in several ways. Most obviously, we added a new, opening feature called **The Big Picture** to go with our chapter ending, **The Big Picture: Critical Thinking Review**. **The Big Picture** draws students into each chapter by posing common yet critical questions about key substantive topics. The questions also orient the student to conceptual themes about the substance and the methods of abnormal psychology.

We place additional “big picture” questions in the margins to remind students’ of these themes while reading—and to help them locate relevant sections when reviewing. Then, at the end of each chapter, we have a section called **The Big Picture: Critical Thinking Review**, which summarizes key, big-picture questions and includes handy page references for review purposes.

We also have continued to revise and expand our **Critical Thinking Matters** boxes, which are found in every chapter. These features address some timely, often controversial, and always critically important topics, for example, the purported link between vaccines and autism (see Chapter 2). Critical thinking matters because psychological problems matter deeply to those who suffer and to their loved ones. Good research tells us—and them—which treatments work, and which ones don’t, as well as what might cause mental illness, and what doesn’t. Critical thinking matters because students in abnormal psychology surely will not remember all the details they learn in this course. In fact, they shouldn’t focus exclusively on facts, because the details will change with new scientific developments. If students can learn to think critically about abnormal psychology, the lesson will last a lifetime and be used repeatedly, not only in understanding psychological problems, but also in every area of their lives.

Our **Critical Thinking Matters** features help students to *think* about science, about pseudo-science, and about themselves. For example, in Chapter 2 we address the mistaken belief, still promoted widely on the Internet and in the popular media, that mercury in widely used measles/mumps/rubella (MMR) vaccinations in the 1990s caused an epidemic of autism (and perhaps a host of other psychological problems for children). **Critical Thinking Matters** outlines the concerns of the frightened public, but goes on to point out (1) the failure to find support for this fear in numerous, large-scale scientific studies; (2) the scientific stance that the burden of proof lies with the proponents of any hypothesis, including speculations about MMR; (3) the widely ignored fact that 10 of the original 13 authors who raised the theoretical possibility *publicly withdrew their speculation about autism and MMR*; (4) the fact that the findings of legal actions, sadly, do not necessarily reach conclusions consistent with scientific knowledge; and (5) very recent discrediting of the scientists, journal article, and legal findings that originally “supported” this false claim. As we discuss in Chapter 15, moreover, the apparent epidemic of autism very likely resulted from increased awareness of the disorder and loosened criteria for diagnosing autism, not from an actual increase in cases.

Movie Posters and Real People

We want students to think critically about disorders *and* to be sensitive to the struggles of individuals with psychological problems. As scientist-practitioners, we see these dual goals not only as compatible, but also as essential. One fun and engaging way in which we highlight the human side of abnormal psychology in this seventh edition is by using movie posters as chapter openers. Most of the movie posters will be familiar to students, although we include a few classics that may be new

to them. (Shouldn’t every psychology student know about *The Three Faces of Eve*?) Students may wonder about the accuracy of a movie about a mental disorder—or they may accept fiction as fact. Our chapter openers, accompanied by a brief introduction to the featured film, invite students to think about movies both for accuracy and for gaining a more personal, human understanding of abnormal psychology.

Another way that we underscore the personal nature of emotional problems is in our **Getting Help** features found in every chapter. In **Getting Help**, we directly address the personal side of psychological disorders and try to answer the sorts of questions that students often ask us privately after a lecture or during office hours. The **Getting Help** sections give responsible, empirically sound, and concrete guidance on such personal topics as

- What treatments should I seek out for a particular disorder? (See Chapters 2, 6, 10, and 12)
- What can I do to help someone I know who has a psychological problem? (See Chapters 5, 9, 10, and 16)
- How can I find a good therapist? (See Chapters 3, 5, and 12)
- Where can I get reliable information from books, the Internet, or professionals in my community? (See Chapters 1, 5, 7, and 11)
- What self-help strategies can I try or suggest to friends? (See Chapters 6, 11, and 12)

Students can also find research-based information on the effectiveness and efficacy of various treatments in Chapter 3, “Treatment of Psychological Disorders,” and in the Treatment headings near the end of every disorder chapter. We cover treatment generally at the beginning of the text but in detail in the context of each disorder, because different treatments are more or less effective for different psychological problems.

“Speaking Out” Videos

One of the best ways to understand the needs of the people behind the disorders is to hear their stories in their own words. We worked in consultation with Pearson and NKP Productions to produce (and expand) a video series called **Speaking Out: Interviews with People Who Struggle with Psychological Disorders**. The earlier 22 cases in the *Speaking Out* series were introduced with previous editions of our book. Now we have added six new cases, addressing the following problem areas: unipolar mood disorder and stressful life events, generalized anxiety disorder (two new cases to illustrate the range of difficulties), sleep disorder, sexual disorders (and the boundaries of normal behavior), and mental health and the law (a powerful interview with a member of the “Framingham Eight”). These interviews give students a window into the lives of people who in many ways may not be that different from anyone else, but who do struggle with various kinds of mental disorder. The new video cases also include a new, second segment called “A Day in the Life,” interviews with friends and family members who discuss their relationships, feelings, and perspectives. We introduce students to each of these people in the appropriate chapters of our book, using their photos and a brief description of relevant issues that

should be considered when viewing the **Video Cases**. The full versions of the interviews are available to instructors either on DVD or on MyPsychLab.com (www.mypsychlab.com).

We are especially proud of the **Speaking Out** videos and view them as a part of our text, not as a supplement, because we were intimately involved with their production. As with the original series, we screened the new video cases, helped to construct and guide the actual interviews, and gave detailed feedback on how to edit the films to make the disorders real for students and fit closely with the organization and themes in our seventh edition.

New Research

The unsolved mysteries of abnormal psychology challenge all of our intellectual and personal resources. In our seventh edition, we include the latest “clues” psychological scientists have unearthed in doing the detective work of research, including references to hundreds of new studies. But the measure of a leading-edge textbook is not merely the number of new references; it is the number of new studies the authors have reviewed and evaluated before deciding which ones to include and which ones to discard. For every new reference in this edition of our text, we have read many additional papers before selecting the one gem to include. Some of the updated research and perspectives in this edition include

- New information on the prevalence of mental disorders, using recently published data from the replication of the National Comorbidity Survey (NCS-R) (*Chapter 1*)
- Enhanced coverage of gene–environment interactions (including “orchids” versus “dandelions”) and failures to replicate the effects of specific genes (*Chapter 2*)
- New evidence on what makes placebos “work,” on disseminating evidenced based treatments, and “3rd wave” CBT (*Chapter 3*)
- Revised discussion of the strengths and weaknesses of DSM-IV-TR, and updated information regarding the production of DSM-V, which is due to be published in 2013 (*Chapter 4*)
- Revised coverage of the relation between life events and depression, including a new discussion of “stress generation,” interpersonal events, and gender differences in the prevalence of major depression (*Chapter 5*)
- Updated discussion of the trends in the classification of anxiety disorders, with increased emphasis being placed on common features of “internalizing disorders” and their distinction from “externalizing disorders” (*Chapter 6*)
- Further consideration of *resilience* in response to trauma, questions about secondary trauma, and new questions about somatoform and dissociative disorders (*Chapter 7*)
- New research on cultural differences in social support, religion and coping, and the daily experience of pain (*Chapter 8*)
- Coverage of innovative findings regarding the interaction of genetic factors and environmental events in the development of borderline personality disorder (*Chapter 9*)
- Latest evidence on redefining, treating (the Maudsley method), and preventing eating disorders; up-to-date

consideration of women’s portrayal in the media, including death of model Isabelle Caro (*Chapter 10*)

- Debate regarding limitations of the concept of substance abuse and the potential value of developing an integrated definition of substance use disorders (*Chapter 11*)
- Enhanced discussion of controversies regarding the classification of sexual dysfunctions and paraphilias (e.g., sexual aversion disorder, hypersexual disorder, and paraphilic coercive disorder) (*Chapter 12*)
- Further discussion of promising methods to identify forms of vulnerability to schizophrenia (*Chapter 13*)
- Added coverage of cutting-edge imaging tools that allow for the measurement of amyloid plaques in living brains (where up to now the neuropathology associated with Alzheimer’s disease could only be identified at autopsy) (*Chapter 14*)
- More on the “epidemic of autism,” Asperger’s disorder, mirror neurons, and genetic screening (*Chapter 15*)
- Updated discussion of adolescent depression, anti-depressants, suicide risk; new long-term results on treating adolescent depression and ADHD (including preschoolers); new data on stimulants and growth (*Chapter 16*)
- New discussions of “relational diagnoses,” complicated grief, and psychological pain (*Chapter 17*)
- New material on advanced psychiatric directives, and data on malpractice suits (*Chapter 18*)

Still the Gold Standard

We view integration as the gold standard of any forward-looking abnormal psychology text, and the gold standard remains unchanged in the seventh edition of our textbook. We see the most exciting and promising future for abnormal psychology in the integration of theoretical approaches, professional specialties, and science and practice, not in the old, fractured competition among “paradigms,” a split between psychology and psychiatry, or the division between scientists and practitioners.

INTEGRATING CAUSES AND TREATMENT

For much of the last century, abnormal psychology was dominated by theoretical paradigms, a circumstance that reminds us of the parable of the seven blind men and the elephant. One blind man grasps a tusk and concludes that an elephant is very much like a spear. Another feels a leg and decides an elephant is like a tree, and so on. Our goal from the first edition of *Abnormal Psychology* has been to show the reader the whole elephant. We do this through our unique *integrative systems approach*, in which we focus on what we know today rather than what we used to think. In every chapter, we consider the latest evidence on the *multiple* risk factors that contribute to psychological disorders, as well as the most effective psychological and biomedical treatments. Even if science cannot yet paint a picture of the whole elephant, we clearly tell the student what we know, what we don’t know, and how psychologists think the pieces might fit together.

PEDAGOGY: INTEGRATED CONTENT AND METHODS

We also continue to bring cohesion to abnormal psychology—and to the student—with pedagogy. Each disorder chapter unfolds in the same way, providing a coherent framework with a *consistent chapter outline*. We open with an Overview followed by one or two extended Case Studies. We then discuss Symptoms, Diagnosis, Frequency, Causes, and, finally, Treatment (the same sections as in previous editions but with new, straightforward headings). Each chapter covers the key details of **DSM-IV-TR** throughout, while anticipating **DSM-V** by highlighting major conceptual and substantive questions, not by guessing at specific details (including those tentatively listed on DSM-V websites).

Abnormal psychology is not only about the latest research, but also about the methods psychologists use (and invent) in order to do scientific detective work. Unlike any other text in this field, we cover the scientific method by offering brief **Research Methods** features in every single chapter. Teaching methods in the context of content helps students appreciate the importance of scientific procedures and assumptions, makes learning research methods more manageable, and gives the text flexibility. By the end of the text, our unique approach allows us to cover research methods in *more* detail than we could reasonably cover in a single, detached chapter. Many of our students have told us that the typical research methods chapter seems dry, difficult, and—to our great disappointment—irrelevant. These problems never arise with our integrated, contextualized approach to research methods.

Abnormal psychology also is, of course, about real people with real problems. We bring the human, clinical side of abnormal psychology alive with detailed **Case Studies**. The **Case Studies** take the reader along the human journey of pain, triumph, frustration, and fresh starts that is abnormal psychology. The cases help students to think more deeply about psychological disorders, much as our own clinical experience enriches our understanding. (We both have been active clinicians as well as active researchers throughout our careers.) In extended cases near the beginning of each chapter, in briefer cases later, and in first-person accounts throughout, the student sees how ordinary lives are disrupted by psychological problems—and how effective treatment can rebuild shattered lives. The case studies also make the details and complexity of the science concrete, relevant, and essential to the “real world.”

Sometimes a study or problem suggests a departure from current thinking or raises side issues that deserve to be examined in detail. We cover these emerging ideas in features identified by the topic at hand. One example of an emerging issue we discuss in this way is whether the female response to stress might be to “tend and befriend” rather than fight or flight (Chapter 8). Other topics include the common elements of suicide (Chapter 5) and a system for classifying different types of rapists (Chapter 12).

Supplements for Instructors

Instructor’s Resource Manual: 0-205-03750-X Designed to make your lectures more effective and save you preparation

time, this extensive resource gathers together the most effective activities and strategies for teaching your course. Materials are broken up by chapter and include chapter outlines, lecture suggestions and discussion topics, classroom activities, and video resources. Available for download on the Instructor’s Resource Center at www.pearsonhighered.com.

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Speaking Out: Interviews with People who Struggle with Psychological Disorders: Volume I: 0-13-193332-9; Volume II: 0-13-600303-6; NEW Volume III: 0-13-230891-6 These three sets of video segments allow students to see first-hand accounts of patients with various disorders. Filmed under the editorial direction of Tom Oltmanns and Robert Emery, the interviews were conducted by licensed clinicians and range in length from 10 to 25 minutes. These video segments are available on DVD, and an Instructor’s Resource Manual provides background notes and suggested discussion questions. Interviews include

Volume I

Everett—Major Depression
Sarah—Depression/Deliberate Self-Harm
Ann—Bipolar Mood Disorder with Psychotic Features
Steve—Social Phobia
Dave—Obsessive–Compulsive Disorder
Sara—PTSD
Henry—Hypochondriasis
Julia—HIV
Liz—Borderline Personality Disorder
Jessica—Bulimia Nervosa
Chris—Alcoholism
Larry—Schizophrenia
Josh—Schizoaffective Disorder
Xavier—Autism
Jimmy—Attention-Deficit/Hyperactivity Disorder (ADHD)
Denise—Gender Identity Disorder

Volume II

Feliziano—Bipolar Disorder
Bonnie—Posttraumatic Stress Disorder
Ed—Compulsive Gambling
Natasha—Anorexia Nervosa
Alvin—Dementia Disorder
David—Asperger’s Disorder

NEW Volume III

Martha—Major Depressive Disorder: Cultural issues and stressful life events

Phillip—Generalized Anxiety Disorder
Christy—Generalized Anxiety Disorder with Insomnia
Mali—Sleep Disorder—Narcolepsy
Jocelyn—Exploring Sadism and Masochism
Shannon—Intimate Violence and Self-Defense

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Pearson Education Online Catalog Page—Instructors' Resource Center (www.pearsonhighered.com)

This site is password-protected for instructors' use only and allows you online access to all Pearson psychology supplements at any time. You'll find a multitude of resources—both text-specific and non-text-specific—for teaching abnormal psychology. From this site, you can download any of this text's key supplements, including the Instructor's Resource Manual, Test Item File, and PowerPoint presentations. Contact your local sales representative for the User ID and Password to access this site or register by clicking on the "Log in or request access" hyperlink.

PowerPoint Presentation: 0-205-03748-8 The PowerPoints provide an active format for presenting concepts from each chapter and feature relevant figures and tables from the text. Available for download on the Instructor's Resource Center at www.pearsonhighered.com.

Classroom Response System Questions: 0-205-22535-7 The Classroom Response System (CRS) facilitates class participation in lectures as well as a method of measurement of student comprehension. CRS also enables student polling and in-class quizzes. CRS is highly effective in engaging students with class lectures, in addition to adding an element of excitement to the classroom. Simply, CRS is a technology that allows professors to ask questions to their students through text-specific PowerPoints provided by Pearson. Students reply using handheld transmitters called "clickers," which capture and immediately display student responses. These responses are saved in the system gradebook and/or can later be downloaded to either a Blackboard or WebCT gradebook for assessment purposes. Available for download on the Instructor's Resource Center at www.pearsonhighered.com.

MyPsychLab (www.mypsychlab.com) This new course management platform promises to revolutionize the way in which instructors teach and students learn. Developed by an elite team of Prentice Hall publishing and technology experts, the MyPsychLab platform is inspired by the higher education "outcomes assessment" revolution of the new millennium. This robust course management platform enables

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Current Directions in Abnormal Psychology, 2nd edition: 0-205-59741-6 Pearson is pleased to continue to support the **American Psychological Society (APS)** reader series *Current Directions in Psychological Science*. You can package the *Current Directions in Abnormal Psychology* reader with this text.

This reader contains selected articles from APS's journal *Current Directions in Psychological Science*. *Current Directions* was created as a means by which scientists could quickly and easily learn about new and significant research developments outside their major field of study. The journal's concise reviews span all of scientific psychology, and because of the journal's accessibility to audiences outside specialty areas, it is a natural fit for use in college courses. These readers offer a rich resource that connects students and scholars directly to leading scientists working in psychology today.

The American Psychological Society is the only association dedicated solely to advancing psychology as a science-based discipline. APS members include the field's most respected researchers and educators representing the full range of topics within psychological science. The society is widely recognized as a leading voice for the science of

psychology in Washington and is focused on increasing public understanding and use of the knowledge generated by psychological research.

Abnormal Psychology Casebook: A New Perspective: 0-13-093787-8 This text, by Andrew R. Getzfeld, uses clear, accessible language and explanations and features real cases based on a variety of psychopathologies—all involving patients/clients from a wide variety of cultural, ethnic, racial, religious, social, and socioeconomic backgrounds—and all based on the author’s own experiences as a practicing social worker and psychologist.

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Acknowledgments

Writing and revising this textbook is a never-ending task that fortunately is also a labor of love. This seventh edition is the culmination of years of effort and is the product of many people's hard work. The first people we wish to thank for their important contributions to making this the text of the future, not of the past, are the following expert reviewers who have unselfishly offered us a great many helpful suggestions, both in this and in previous editions: John Dale Alden, III, Lipscomb University; John Allen, University of Arizona; Hal Arkowitz, University of Arizona; Jo Ann Armstrong, Patrick Henry Community College; Gordon Atlas, Alfred University; Deanna Barch, Washington University; Catherine Barnard, Kalamazoo Community College; Thomas G. Bowers, Pennsylvania State University; Harrisburg; Stephanie Boyd, University of South Carolina; Gail Bruce-Sanford, University of Montana; Ann Calhoun-Seals, Belmont Abbey College; Caryn L. Carlson, University of Texas at Austin; Richard Cavaasina, California University of Pennsylvania; Laurie Chassin, Arizona State University; Lee H. Coleman, Miami University of Ohio; Bradley T. Conner, Temple University; Andrew Corso, University of Pennsylvania; Dean Cruess, University of Pennsylvania; Danielle Dick, Washington University; Juris G. Draguns, Pennsylvania State University; Sarah Lopez-Duran; William Edmonston, Jr., Colgate University; Ronald Evans, Washburn University; John Foust, Parkland College; Dan Fox, Sam Houston State University; Alan Glaros, University of Missouri, Kansas City; Ian H. Gotlib, Stanford University; Irving Gottesman, University of Virginia; Mort Harmatz, University of Massachusetts; Marjorie L. Hatch, Southern Methodist University; Jennifer A. Haythornwaite, Johns Hopkins University; Holly Hazlett-Stevens, University of Nevada, Reno; Brant P. Hasler, University of Arizona; Debra L. Hollister, Valencia Community College; Jessica Jablonski, University of Delaware; Jennifer Jenkins, University of Toronto; Jutta Joormann, University of Miami; Pamela Keel, Florida State University; Stuart Keeley, Bowling Green State University; Lynn Kemen, Hunter College; Carolin Keutzer, University of Oregon; Robert Lawyer, Delgado Community College; Marvin Lee, Tennessee State University; Barbara Lewis, University of West Florida; Mark H. Licht, Florida State University; Freda Liu, Arizona State University; Roger Loeb, University of Michigan, Dearborn; Carol Manning, University of Virginia; Sara Martino, Richard Stockton College of New Jersey; Richard D. McAnulty, University of North Carolina—Charlotte; Richard McFall, Indiana University; John Monahan, University of Virginia School of Law; Tracy L. Morris, West Virginia University; Dan Muhwezi, Butler Community College; Christopher Murray, University of Maryland; William O'Donohue, University of Nevada—Reno; Joseph J. Palladino, University of Southern Indiana; Demetrios Papageorgis, University of British Columbia; Ronald D. Pearse, Fairmont State College; Brady Phelps, South Dakota State University; Nnamdi Pole, Smith College; Seth Pollak, University of Wisconsin; Lauren Polvere, Concordia University; Melvyn G. Preisz, Oklahoma City University; Paul Rasmussen, Furman University; Rena Repetti, University of California, Los Angeles; Amy Resch, Citrus College; Robert J. Resnick, Randolph-Macon College; Karen Clay Rhines, Northampton Community

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—Tom Oltmanns

—Bob Emery

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ROBERT E. EMERY is Professor of Psychology and Director of the Center for Children, Families, and the Law at the University of Virginia, where he also served as Director of Clinical Training for nine years. He received a B.A. from Brown University in 1974 and a Ph.D. from SUNY at Stony Brook in 1982. His research focuses on family conflict, children's mental health, and associated legal issues, particularly divorce mediation and child custody disputes. More recently, he has become involved in genetically informed research of selection into and the consequences of major changes in the family environment. Emery has authored over 150 scientific articles and book chapters. His awards include a "Citation Classic" from the Institute for Scientific Information, an Outstanding Research Publication Award from the American Association for Marriage and Family Therapy, the Distinguished Researcher Award from the Association of Family and Conciliation Courts, and several awards and award nominations for his three books on divorce: *Marriage, Divorce and Children's Adjustment* (2nd edition., 1998, Sage Publications); *Renegotiating Family Relationships: Divorce, Child Custody, and Mediation* (2nd edition., 2011, Guilford Press); and *The Truth about Children and Divorce: Dealing with the Emotions So You and Your Children Can Thrive* (2006, Plume). Emery currently is associate editor of *Family Court Review*, and he is principal investigator of a major grant from NICHD. In addition to teaching, research, and administration, he maintains a limited practice as a clinical psychologist and mediator.

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- ▶ Abnormal behavior is often portrayed in popular movies, sometimes with compelling accuracy. *The Aviator* tells the incredible story of Howard Hughes, a wealthy American industrialist and film producer who struggled with obsessive-compulsive disorder throughout his life.



Mental disorders touch every realm of human experience; they are part of the human experience. They can disrupt the way we think, the way we feel, and the way we behave. They also affect relationships with other people. These problems often have a devastating impact on people's

lives. In countries like the United States, mental disorders are the second leading cause of disease-related disability and mortality, ranking slightly behind cardiovascular conditions and slightly ahead of cancer (Lopez et al., 2006). The purpose of this book is to help you become familiar with the nature

of these disorders and the various ways in which psychologists and other mental health professionals are advancing knowledge of their causes and treatment.

Many of us grow up thinking that mental disorders happen to a few unfortunate people. We don't expect them to happen to us or to those we love. In fact, mental disorders are very common. At least two out of every four people will experience a serious form of abnormal behavior, such as depression, alcoholism, or schizophrenia, at some point during his or her lifetime. When you add up the numbers of people who experience these problems firsthand as well as through relatives and close friends, you

realize that, like other health problems, mental disorders affect all of us. That is why, throughout this book, we will try to help you understand not only the kind of disturbed behaviors and thinking that characterize particular disorders, but also the people to whom they occur and the circumstances that can foster them.

Most importantly, this book is about all of us, not "them"—anonymous people with whom we empathize but do not identify. Just as each of us will be affected by medical problems at some point during our lives, it is also likely that we, or someone we love, will have to cope with that aspect of the human experience known as a disorder of the mind.

The Big Picture

- Is there an obvious line that divides normal from abnormal behavior?
- Who decides what's abnormal and what isn't?
- What are the most common mental disorders?
- Can people with mental disorders function in everyday life?
- What can I do if I'm worried about someone's mental health?

OVERVIEW

The symptoms and signs of mental disorders, including such phenomena as depressed mood, panic attacks, and bizarre beliefs, are known as **psychopathology**. Literally translated, this term means *pathology of the mind*. **Abnormal psychology** is the application of psychological science to the study of mental disorders.

In the first four chapters of this book, we will look at the field of abnormal psychology in general. We will look at the ways in which abnormal behaviors are broken down into categories of mental disorders that can be more clearly defined for diagnostic purposes, and how those behaviors are assessed. We will also discuss current ideas about the causes of these disorders and ways in which they can be treated.

This chapter will help you begin to understand the qualities that define behaviors and experiences as being abnormal. At what point does the diet that a girl follows in order to

perform at her peak as a ballerina or gymnast become an eating disorder? When does grief following the end of a relationship become major depression? The line dividing normal from abnormal is not always clear. You will find that the issue is often one of degree rather than exact form or content of behavior.

The case studies in this chapter describe the experiences of two people whose behavior would be considered abnormal by mental health professionals. Our first case will introduce you to a person who suffered from one of the most obvious and disabling forms of mental disorder, known as schizophrenia. Kevin's life had been relatively unremarkable for many years. He had done well in school, was married, and held a good job. Unfortunately, over a period of several months, the fabric of his normal life began to fall apart. The transition wasn't obvious to either Kevin or his family, but it eventually became clear that he was having serious problems.

CASE STUDY

A Husband's Paranoid Schizophrenia

Kevin and Joyce Warner (not their real names*) had been married for eight years when they sought help from a psychologist

for their marital problems. Joyce was 34 years old, worked full time as a pediatric nurse, and was six months pregnant with her first child. Kevin, who was 35 years old, was finishing his third year working as a librarian at a local university. Joyce was

extremely worried about what would happen if Kevin lost his job, especially in light of the baby's imminent arrival.

Although the Warners had come for couples therapy, the psychologist soon became concerned about certain eccentric

*Throughout this text we use fictitious names to protect the identities of the people involved.

aspects of Kevin's behavior. In the first session, Joyce described one recent event that had precipitated a major argument. One day, after eating lunch at work, Kevin had experienced sharp pains in his chest and had difficulty breathing. Fearful, he rushed to the emergency room at the hospital where Joyce worked. The physician who saw Kevin found nothing wrong with him, even after extensive testing. She gave Kevin a few tranquilizers and sent him home to rest. When Joyce arrived home that evening, Kevin told her that he suspected that he had been poisoned at work by his supervisor. He still held this belief.

Kevin's belief about the alleged poisoning raised serious concern in the psychologist's mind about Kevin's mental health. He decided to interview Joyce alone so that he could ask more extensive questions about Kevin's behavior. Joyce realized that the poisoning idea was "crazy." She was not willing, however, to see it as evidence that Kevin had a mental disorder. Joyce had known Kevin for 15 years. As far as she knew, he had never held any strange beliefs before this time. Joyce said that Kevin had always been "a thoughtful and unusually sensitive guy." She did not attach a great deal of significance to Kevin's unusual belief. She was more preoccupied with the couple's present financial concerns and insisted that it was time for Kevin to "face reality."

Kevin's condition deteriorated noticeably over the next few weeks. He became extremely withdrawn, frequently sitting alone in a darkened room after dinner. On several occasions, he told her that he felt as if he had "lost pieces of his thinking." It wasn't that his memory was failing, but rather he felt as though parts of his brain were shut off.

Kevin's problems at work also grew worse. His supervisor informed Kevin that his contract would definitely not be renewed. Joyce exploded when Kevin indifferently told her the bad news. His apparent lack of concern was especially annoying. She called Kevin's supervisor, who confirmed the news. He told her that Kevin was physically present at the library, but he was only completing a few hours of work each day. Kevin sometimes spent long periods of time just sitting at his desk and staring off into space and was sometimes heard mumbling softly to himself.

Kevin's speech was quite odd during the next therapy session. He would sometimes start to speak, drift off into silence, then reestablish eye contact with a bewildered smile and a shrug of his shoulders. He had apparently lost his train of thought completely. His answers to questions were often off the point, and when he did string together several sentences, their meaning was sometimes obscure. For example, at one point during the session, the psychologist asked Kevin if he planned to appeal his supervisor's decision. Kevin said, "I'm feeling pressured, like I'm lost and can't quite get here. But I need more time to explore the deeper side. Like in art. What you see on the surface is much richer when you look closely. I'm like that. An intuitive person. I can't relate in a linear way, and when people expect that from me, I get confused."

Kevin's strange belief about poisoning continued to expand. The Warners received a letter from Kevin's mother, who lived in another city 200 miles away. She had become ill after going out for dinner one night and mentioned that she must have eaten something that made her sick. After reading the letter, Kevin became convinced that his supervisor had tried to poison his mother, too.

When questioned about this new incident, Kevin launched into a long, rambling story. He said that his supervisor was a Vietnam veteran, but he had refused to talk with Kevin about his years in the service. Kevin suspected that this was because the supervisor had been a member of army intelligence. Perhaps he still was a member of some secret organization. Kevin suggested that an agent from this organization had been sent by his supervisor to poison his mother. Kevin thought that he and Joyce were in danger. Kevin also had some concerns about Asians, but he would not specify these worries in more detail.

Kevin's bizarre beliefs and his disorganized behavior convinced the psychologist that he needed to be hospitalized. Joyce reluctantly agreed that this was the most appropriate course of action. She had run out of alternatives. Arrangements were made to have Kevin admitted to a private psychiatric facility, where the psychiatrist prescribed a type of antipsychotic

medication. Kevin seemed to respond positively to the drug, because he soon stopped talking about plots and poisoning—but he remained withdrawn and uncommunicative. After three weeks of treatment, Kevin's psychiatrist thought that he had improved significantly. Kevin was discharged from the hospital in time for the birth of their baby girl. Unfortunately, when the couple returned to consult with the psychologist, Kevin's adjustment was still a major concern. He did not talk with Joyce about the poisonings, but she noticed that he remained withdrawn and showed few emotions, even toward the baby.

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When the psychologist questioned Kevin in detail, he admitted reluctantly that he still believed that he had been poisoned. Slowly, he revealed more of the plot. Immediately after admission to the hospital, Kevin had decided that his psychiatrist, who happened to be from Korea, could not be trusted. Kevin was sure that he, too, was working for army intelligence or perhaps for a counterintelligence operation. Kevin believed that he was being interrogated by this clever psychiatrist, so he had "played dumb." He did not discuss the suspected poisonings or the secret organization that had planned them. Whenever he could get away with it, Kevin simply pretended to take his medication. He thought that it was either poison or truth serum.

Kevin was admitted to a different psychiatric hospital soon after it became apparent that his paranoid beliefs had expanded. This time, he was given intramuscular injections of antipsychotic medication in order to be sure that the medicine was actually taken. Kevin improved considerably after several weeks in the hospital. He acknowledged that he had experienced paranoid thoughts. Although he still felt suspicious from time to time, wondering whether the plot had actually been real, he recognized that it could not really have happened, and he spent less and less time thinking about it.

Recognizing the Presence of a Disorder

Some mental disorders are so severe that the people who suffer from them are not aware of the implausibility of their beliefs. Schizophrenia is a form of **psychosis**, a general term that refers to several types of severe mental disorders in which the person is considered to be out of contact with reality. Kevin exhibited several psychotic symptoms. For example, Kevin's firm belief that he was being poisoned by his supervisor had no basis in reality. Other disorders, however, are more subtle variations on normal experience. We will shortly consider some of the guidelines that are applied in determining abnormality.

Mental disorders are typically defined by a set of characteristic features; one symptom by itself is seldom sufficient to make a diagnosis. A group of symptoms that appear together and are assumed to represent a specific type of disorder is referred to as a **syndrome**. Kevin's unrealistic and paranoid belief that he was being poisoned, his peculiar and occasionally difficult-to-understand patterns of speech, and his oddly unemotional responses are all symptoms of schizophrenia (see Chapter 13). Each symptom is taken to be a fallible, or imperfect, indicator of the presence of the disorder. The significance of any specific feature depends on whether the person also exhibits additional behaviors that are characteristic of a particular disorder.

The duration of a person's symptoms is also important. Mental disorders are defined in terms of *persistent* maladaptive behaviors. Many unusual behaviors and inexplicable experiences are short lived; if we ignore them, they go away. Unfortunately, some forms of problematic behavior are not transient, and they eventually interfere with the person's social and occupational functioning. In Kevin's case, he had become completely preoccupied with his suspicions about poison. Joyce tried for several weeks to ignore certain aspects of Kevin's behavior, especially his delusional beliefs. She didn't want to think about the possibility that his behavior was abnormal and instead chose to explain his problems in terms of lack of maturity or lack of motivation. But as the problems accumulated, she finally decided to seek professional help. The magnitude of Kevin's problem was measured, in large part, by its persistence.

Impairment in the ability to perform social and occupational roles is another consideration in identifying the presence of a mental disorder. Delusional beliefs and disorganized speech typically lead to a profound disruption of relationships with other people. Like Kevin, people who experience these symptoms will obviously find the world to be a strange, puzzling, and perhaps alarming place. And they often elicit the same reactions in other people. Kevin's odd behavior and his inability to concentrate on his work had eventually cost him his job. His problems also had a negative impact on his relationship with his

wife and his ability to help care for their daughter.

Kevin's situation raises several additional questions about abnormal behavior. One of the most difficult issues in the field centers on the processes by which mental disorders are identified. Once Kevin's problems came to the attention of a mental health professional, could he have been tested in some way to confirm the presence or absence of a mental disorder?

What kinds of clues suggest that a person may have a mental disorder?



People with paranoid delusions often withdraw from social interactions, which seem puzzling and frightening to them.

Psychologists and other mental health professionals do not at present have laboratory tests that can be used to confirm definitively the presence of psychopathology because the processes that are responsible for mental disorders have not yet been discovered. Unlike specialists in other areas of medicine where many specific disease mechanisms have been discovered by advances in the biological sciences, psychologists and psychiatrists cannot test for the presence of a viral infection or a brain lesion or a genetic defect to confirm a diagnosis of mental disorder. Clinical psychologists must still depend on their observations of the person's behavior and descriptions of personal experience.

Is it possible to move beyond our current dependence on descriptive definitions of psychopathology? Will we someday have valid tests that can be used to establish independently the presence of a mental disorder? If we do, what form might these tests take? The answers to these questions are being sought in many kinds of research studies that will be discussed throughout this book.

Before we leave this section, we must also mention some other terms. You may be familiar with a variety of words that are commonly used in describing abnormal behavior. One term is *insanity*, which years ago referred to mental dysfunction but today is a legal term that refers to judgments about whether a



Andy Warhol was one of the most influential painters of the 20th century. His colleague, Jean-Michel Basquiat, was also an extremely promising artist. His dependence on heroin and his ultimately fatal overdose is one extreme example of the destructive and tragic effects of mental disorder.

person should be held responsible for criminal behavior if he or she is also mentally disturbed (see Chapter 18). If Kevin had murdered his psychiatrist, for example, based on the delusional belief that the psychiatrist was trying to harm him, a court of law might consider whether Kevin should be held to be *not guilty by reason of insanity*.

Another old-fashioned term that you may have heard is *nervous breakdown*. If we said that Kevin had “suffered a nervous breakdown,” we would be indicating, in very general terms, that he had developed some sort of incapacitating but otherwise unspecified type of mental disorder. This expression does not convey any specific information about the nature of the person’s problems. Some people might also say that Kevin was acting *crazy*. This is an informal, pejorative term that does not convey specific information and carries with it many unfortunate, unfounded, and negative implications. Mental health professionals refer to psychopathological conditions as mental disorders or abnormal behaviors. We will define these terms in the pages that follow.

Defining Abnormal Behavior

Why do we consider Kevin’s behavior to be abnormal? By what criteria do we decide whether a particular set of behaviors or emotional reactions should be viewed as a mental disorder? These are important questions because they determine, in many ways, how other people will respond to the person, as well as who will be responsible for providing help (if help is required). Many attempts have been made to define abnormal behavior, but none is entirely satisfactory. No one has been able

to provide a consistent definition that easily accounts for all situations in which the concept is invoked (Pilgrim, 2005; Zachar & Kendler, 2007).

One approach to the definition of abnormal behavior places principal emphasis on the individual’s experience of personal distress. We might say that abnormal behavior is defined in terms of subjective discomfort that leads the person to seek help from a mental health professional. This definition is fraught with problems, however. Kevin’s case illustrates one of the major reasons that this approach does not work. Before his second hospitalization, Kevin was unable or unwilling to appreciate the extent of his problem or the impact his behavior had on other people. A psychologist would say that he did not have *insight* regarding his disorder. The discomfort was primarily experienced by Joyce, and she had attempted for many weeks to deny the nature of the problem. It would be useless to adopt a definition that considered Kevin’s behavior to be abnormal only after he had been successfully treated.

Another approach is to define abnormal behavior in terms of statistical norms—how common or rare it is in the general population. By this definition, people with unusually high levels of anxiety or depression would be considered abnormal because their experience deviates from the expected norm. Kevin’s paranoid beliefs would be defined as pathological because they are idiosyncratic. Mental disorders are, in fact, defined in terms of experiences that most people do not have.

This approach, however, does not specify *how* unusual the behavior must be before it is considered abnormal. Some conditions that are typically considered to be forms of psychopathology are extremely rare. For example, gender identity disorder, the belief that one is a member of the opposite sex trapped in the wrong body, affects less than 1 person out of every 30,000. In contrast, other mental disorders are much more common. In the United States, mood disorders affect 1 out of every 5 people at some point during their lives; alcoholism and other substance use disorders affect approximately 1 out of every 6 people (Kessler et al., 2005).

Another weakness of the statistical approach is that it does not distinguish between deviations that are harmful and those that are not. Many rare behaviors are not pathological. Some “abnormal” qualities have relatively little impact on a person’s adjustment. Examples are being extremely pragmatic or unusually talkative. Other abnormal characteristics, such as exceptional intellectual, artistic, or athletic ability, may actually confer an advantage on the individual. For these reasons, the simple fact that a behavior is statistically rare cannot be used to define psychopathology.

What is the difference between normal and abnormal behavior?

HARMFUL DYSFUNCTION

One useful approach to the definition of mental disorder has been proposed by Jerome Wakefield of Rutgers University (Wakefield, 2010). According to Wakefield, a condition should be considered a mental disorder if, and only if, it meets two criteria:

1. The condition results from the inability of some internal mechanism (mental or physical) to perform its natural function. In other words, something inside the person is not working properly. Examples of such mechanisms

include those that regulate levels of emotion and those that distinguish between real auditory sensations and those that are imagined.

2. The condition causes some harm to the person as judged by the standards of the person's culture. These negative consequences are measured in terms of the person's own subjective distress or difficulty performing expected social or occupational roles.

A mental disorder, therefore, is defined in terms of **harmful dysfunction**. This definition incorporates one element that is based as much as possible on an objective evaluation of performance. The natural function of cognitive and perceptual processes is to allow the person to perceive the world in ways that are shared with other people and to engage in rational thought and problem solving. The dysfunctions in mental disorders are assumed to be the product of disruptions of thought, feeling, communication, perception, and motivation.

In Kevin's case, the most apparent dysfunctions involved failures of mechanisms that are responsible for perception, thinking, and communication. Disruption of these systems was presumably responsible for his delusional beliefs and his disorganized speech. The natural function of cognitive and perceptual processes is to allow the person to perceive the world in ways that are shared with other people and to engage in rational thought and problem solving. The natural function of language abilities is to allow the person to communicate clearly with other people. Therefore, Kevin's abnormal behavior can be viewed as a pervasive dysfunction cutting across several mental mechanisms.

The harmful dysfunction view of mental disorder recognizes that every type of dysfunction does not lead to a disorder. Only dysfunctions that result in significant harm to the person are considered to be disorders. This is the second element of the definition. There are, for example, many types of physical dysfunctions, such as albinism, reversal of heart position, and fused toes, that clearly represent a significant departure from



Some entertainers participate in bizarre or outrageous skits, as in the hit movie *Jackass*. The behaviors are shocking, but they are voluntary. Unless accompanied by other symptoms, they would not be considered evidence of a mental disorder.

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VIDEO CASE

Bipolar Disorder



FELIZIANO

"Depression is the worst part. My shoulders feel weighted down, and your blood feels warmer than it is. You sink deeper and deeper."

As you watch the interview and the day-in-the-life segments, ask yourself what impact Feliziano's depression and hypomania seem to have on his ability to function. Are these mood states harmful?

the way that some biological process ordinarily functions. These conditions are not considered to be disorders, however, because they are not necessarily harmful to the person.

Kevin's dysfunctions were, in fact, harmful to his adjustment. They affected both his family relationships—his marriage to Joyce and his ability to function as a parent—and his performance at work. His social and occupational performances were clearly impaired. There are, of course, other types of harm that are also associated with mental disorders. These include subjective distress, such as high levels of anxiety or depression, as well as more tangible outcomes, such as suicide.

The definition of abnormal behavior presented in the official *Diagnostic and Statistical Manual of Mental Disorders*, published by the American Psychiatric Association and currently in its fourth revised edition—DSM-IV-TR (APA, 2000)—incorporates many of the factors that we have already discussed. This classification system is discussed in Chapter 4. This definition is summarized in Table 1.1, along with a number of conditions that are specifically excluded from the DSM-IV-TR definition of mental disorders.

The DSM-IV-TR definition places primary emphasis on the consequences of certain behavioral syndromes. Accordingly, mental disorders are defined by clusters of persistent, maladaptive behaviors that are associated with personal distress, such as anxiety or depression, or with impairment in social functioning, such as job performance or personal relationships. The official definition, therefore, recognizes the concept of dysfunction, and it spells out ways in which the harmful consequences of the disorder might be identified.

The DSM-IV-TR definition excludes voluntary behaviors, as well as beliefs and actions that are shared by religious, political, or sexual minority groups (e.g., gays and lesbians). In the 1960s, for example, members of the Yippie Party intentionally engaged in disruptive behaviors, such as throwing money off the balcony at a stock exchange. Their purpose was to challenge traditional values. These were, in some ways, maladaptive behaviors that could have resulted in social impairment if those involved had been legally prosecuted. But they were not dysfunctions. They were intentional political gestures. It makes sense to try to distinguish between voluntary behaviors and mental disorders, but the boundaries between these different forms of behavior are difficult

TABLE 1.1 Summary of the DSM-IV-TR Definition of Mental Disorders

Defining Characteristics

A behavioral or psychological syndrome (groups of associated features) that is associated with

1. Current distress (painful symptoms), or
2. Disability (impairment in one or more important areas of functioning), or with
3. A significantly increased risk of suffering death, pain, disability, or an important loss of freedom

Conditions Excluded from Consideration

This syndrome or pattern must not be merely

1. An expectable and culturally sanctioned response to a particular event (such as the death of a loved one)
2. Deviant behavior (such as the actions of political, religious, or sexual minorities)
3. Conflicts that are between the individual and society (such as voluntary efforts to express individuality)

to draw. Educated discussions of these issues depend on the consideration of a number of important questions (see Critical Thinking Matters on page 8).

In actual practice, abnormal behavior is defined in terms of an official diagnostic system. Mental health, like medicine, is an applied rather than a theoretical field. It draws on knowledge from research in the psychological and biological sciences in an effort to help people whose behavior is disordered. Mental disorders are, in some respects, those problems with which mental health professionals attempt to deal. As their activities and explanatory concepts expand, so does the list of abnormal behaviors. The practical boundaries of abnormal behavior are defined by the list of disorders that are included in the official *Diagnostic and Statistical Manual of Mental Disorders*. The categories in that manual are listed inside the back cover of this book. The DSM-IV-TR thus provides another simplistic, although practical, answer to our question as to why Kevin's behavior would be considered abnormal: He would be considered to be exhibiting abnormal behavior because his experiences fit the description of schizophrenia, which is one of the officially recognized forms of mental disorder.

MENTAL HEALTH VERSUS ABSENCE OF DISORDER

The process of defining abnormal behavior raises interesting questions about the way we think about the quality of our lives when mental disorders are *not* present. What is mental health? Is optimal mental health more than the absence of mental disorder? The answer is clearly “yes.” If you want to know whether one of your friends is physically fit, you would need to determine more than whether she is sick. In the realm of psychological functioning, people who function at the highest levels can be described as *flourishing* (Fredrickson & Losada, 2005; Keyes, 2007). They are typically people who experience many positive emotions, are interested in life, and tend to be calm and peaceful. Flourishing people also hold positive attitudes about themselves and other people. They find meaning and direction in their lives and develop trusting

relationships with other people. Complete mental health implies the presence of these adaptive characteristics. Therefore, comprehensive approaches to mental health in the community must be concerned both with efforts to diminish the frequency and impact of mental disorders and with activities designed to promote flourishing.

CULTURE AND DIAGNOSTIC PRACTICE

The process by which the *Diagnostic and Statistical Manual* is constructed and revised is necessarily influenced by cultural considerations. **Culture** is defined in terms of the values, beliefs, and practices that are shared by a specific community or group of people. These values and beliefs have a profound influence on opinions regarding the difference between normal and abnormal behavior (Lopez & Guarnaccia, 2008).

The impact of particular behaviors and experiences on a person's adjustment depends on the culture in which the person lives. To use Jerome Wakefield's (1992) terms, “only dysfunctions that are socially disvalued are disorders” (p. 384). Consider, for example, the DSM-IV-TR concept of female orgasmic disorder, which is defined in terms of the absence of orgasm accompanied by subjective distress or interpersonal difficulties that result from this disturbance (see Chapter 12). A woman who grew up in a society that discouraged female sexuality might not be distressed or impaired by the absence of orgasmic responses. According to DSM-IV-TR, she would not be considered to have a sexual problem. Therefore, this definition of abnormal behavior is not culturally universal and might lead us to consider a particular pattern of behavior to be abnormal in one society and not in another.

There have been many instances in which groups representing particular social values have brought pressure to bear on decisions shaping the diagnostic manual. The influence of cultural changes on psychiatric classification is perhaps nowhere better illustrated than in the case of homosexuality. In the first and second editions of the DSM, homosexuality was, by definition, a form of mental disorder, in spite of arguments expressed by scientists, who argued that homosexual behavior was not abnormal (see Chapter 12). Toward the end of the

Critical Thinking Matters

IS SEXUAL ADDICTION A MEANINGFUL CONCEPT?

Stories about mental disorders appear frequently in the popular media. One topic that once again attracted a frenzy of media attention in 2010 was a concept that has been called “sexual addiction.” Tiger Woods, the top-ranked golfer in the world and wealthiest professional athlete in history, confessed to having a series of illicit sexual affairs and announced that he would take an indefinite break from the professional tour. At the time, Woods was married to former Swedish model Elin Nordegren, who had given birth to their second child earlier that same year. More than a dozen women came forward to claim publicly that they had sexual relationships with Woods, and several large companies soon cancelled lucrative endorsement deals that paid him millions of dollars to endorse their products. Newspapers, magazines, and television programs sought interviews with professional psychologists who offered their opinions regarding Woods’ behavior. Why would this fabulously successful, universally admired, iconic figure risk his marriage, family, and career for a seemingly endless series of casual sexual relationships?

Many experts responded by invoking the concept of mental disorder, specifically “sexual addiction” (some called it “sexual compulsion,” and one called it the “Clinton syndrome” in reference to similar problems that had been discussed in the midst of President Clinton’s sex scandal in 1998). The symptoms of this disorder presumably include low self-esteem,

insecurity, need for reassurance, and sensation seeking, to name only a few. One expert claimed that fully 20 percent of highly successful men suffer from sexual addiction.

Most of the stories failed to mention that sexual addiction does not appear in DSM-IV-TR, the official diagnostic manual. That, by itself, is not an insurmountable problem. Disorders have come and gone over the years, and it’s possible that this one—or some version of it—might turn out to be useful. Experts are currently at work on the next edition of the manual (DSM-V, which is currently scheduled to appear in 2013). The work group created to revise the list of sexual disorders is considering a new category called “Hypersexual Disorder” (Kafka, 2010). We shouldn’t reject a new concept simply because it hasn’t become part of the official classification system (or accept one on faith, simply because it has). The most important thing is that we *think critically* about the issues that are raised by invoking a concept like sexual addiction.

At the broadest possible level, we must ask ourselves “What *is* a mental disorder?” Is there another explanation for such thoughtless and damaging behavior? Tiger Woods received several weeks of treatment for sexual addiction at a residential mental health facility. Has that treatment been shown to be effective for this kind of behavioral problem? Is it necessary? Does the

diagnosis simply provide him with a convenient excuse that might encourage the public to forgive his immoral behavior?

Another important question is whether sexual addiction is more useful than other similar concepts. For example, narcissistic personality disorder includes many of the same features (such as lack of empathy, feelings of entitlement, and a history of exploiting others). What evidence supports the value of one concept over another? In posing such questions, we are not arguing for or against a decision to include sexual addiction or hypersexual disorder as a type of mental disorder. Rather, we are encouraging you to think critically.

How is disordered behavior different from immoral behavior or illegal behavior?

Students who ask these kinds of questions are engaged in a process in which judgments and decisions are based on a careful analysis of the best available evidence. In order to consider these issues, you need to put aside your own subjective feelings and impressions, such as whether you find a particular kind of behavior disgusting, confusing, or frightening. It may also be necessary to disregard opinions expressed by authorities whom you respect (politicians, journalists, and talk-show hosts). Be skeptical. Ask questions. Consider the evidence from different points of view, and remember that some kinds of evidence are better than others.

1960s, as the gay and lesbian rights movement became more forceful and outspoken, its leaders challenged the assumption that homosexuality was pathological. They opposed the inclusion of homosexuality in the official diagnostic manual. After extended and sometimes heated discussions, the board of trustees of the American Psychiatric Association agreed

to remove homosexuality as a form of mental illness. They were impressed by numerous indications, in personal appeals as well as the research literature, that homosexuality, per se, was not invariably associated with impaired functioning. They decided that, in order to be considered a form of mental disorder, a condition ought to be associated with subjective distress

Who Experiences Abnormal Behavior?

or seriously impaired social or occupational functioning. The stage was set for these events by gradual shifts in society's attitudes toward sexual behavior (Bullough, 1976; Minton, 2002). As more and more people came to believe that reproduction was not the main purpose of sexual behavior, tolerance for greater variety in human sexuality grew. The revision of the DSM's system for describing sexual disorders was, therefore, the product of several forces, cultural as well as political. These deliberations are a reflection of the practical nature of the manual and of the health-related professions. Value judgments are an inherent part of any attempt to define "disorder" (Sedgwick, 1981).

Many people think about culture primarily in terms of exotic patterns of behavior in distant lands. The decisions regarding homosexuality and premenstrual dysphoric disorder remind us that the values of our own culture play an intimate role in our definition of abnormal behavior. These issues also highlight the importance of cultural change. Culture is a dynamic process; it changes continuously as a result of the actions of individuals. To the extent that our definition of abnormal behavior is determined by cultural values and beliefs, we should expect that it will continue to evolve over time.

Having introduced many of the issues that are involved in the definition of abnormal behavior, we now turn to another clinical example. The woman in our second case study, Mary Childress, suffered from a serious eating disorder known as *bulimia nervosa*. Her problems raise additional questions about the definition of abnormal behavior.

As you are reading the case, ask yourself about the impact of Mary's eating disorder on her subjective experience and social adjustment. In what ways are these consequences similar to those seen in Kevin Warner's case? How are they different? This case also introduces another important concept associated with the way that we think about abnormal behavior: How can we identify the boundary between normal and abnormal behavior? Is there an obvious distinction between eating patterns that are considered to be part of a mental disorder and those that are not? Or is there a gradual progression from one end of a continuum to the other, with each step fading gradually into the next?

CASE STUDY

A College Student's Eating Disorder

Mary Childress was, in most respects, a typical 19-year-old sophomore at a large state university. She was popular with other students and a good student, in spite of the fact that she spent little time studying. Everything about Mary's life was relatively normal—except for her bingeing and purging.

Mary's eating patterns were wildly erratic. She preferred to skip breakfast entirely and often missed lunch as well. By the middle of the afternoon, she could no longer ignore the hunger pangs. At that point, on two or three days out of the week, Mary would drive her car to the drive-in window of a fast-food restaurant. Her typical order included three or four double cheeseburgers, several orders of french fries, and a large milkshake (or maybe two). Then she binged, devouring all the food as she drove around town by herself. Later she would go to a private bathroom, where she wouldn't be seen by anyone, and purge the food from her stomach by vomiting. Afterward, she returned to her room, feeling angry, frustrated, and ashamed.

Mary was tall and weighed 110 pounds. She believed that her body was unattractive, especially her thighs and hips. She was extremely critical of herself and had worried about her weight for many years. Her weight fluctuated quite a bit, from a low of 97 pounds when she was a senior in high school to a high of 125 during

her first year at the university. Her mother was a "full-figured" woman. Mary swore to herself at an early age that she would never let herself gain as much weight as her mother had.

Purging had originally seemed like an ideal solution to the problem of weight control. You could eat whatever you wanted and quickly get rid of it so you wouldn't get fat. Unfortunately, the vomiting became a vicious trap. Disgusted by her own behavior, Mary often promised herself that she would never binge and purge again, but she couldn't stop the cycle.

For the past year Mary had been vomiting at least once almost every day and occasionally as many as three or four times a day. The impulse to purge was very strong. Mary felt bloated after having only a bowl of cereal and a glass of orange juice. If she ate a sandwich and drank a diet soda, she began to ruminate about what she had eaten, thinking, "I've got to get rid of that!" Usually, before long, she found a bathroom and threw up. Her excessive binges were less frequent than the vomiting. Four or five times a week she experienced an overwhelming urge to eat forbidden foods, especially fast food. Her initial reaction was usually a short-lived attempt to resist the impulse. Then she would space out or "go into a zone," becoming only vaguely aware of what she was doing and

feeling. In the midst of a serious binge, Mary felt completely helpless and unable to control herself.

There weren't any obvious physical signs that would alert someone to Mary's eating problems, but the vomiting had begun

Disgusted by her own behavior, Mary often promised herself that she would never binge and purge again, but she couldn't stop the cycle.

to wreak havoc with her body, especially her digestive system. She had suffered severe throat infections and frequent, intense stomach pains. Her dentist had noticed problems beginning to develop with her teeth and gums, undoubtedly a consequence of constant exposure to strong stomach acids.

Mary's eating problem started to develop when she was 15. She had been seriously involved in gymnastics for several years but eventually developed a knee condition that forced her to give up the sport. She gained a few pounds in the next month or two and decided to lose weight by dieting. Buoyed by unrealistic expectations about the immediate, positive benefits of a diet that she had seen advertised on television, Mary initially adhered rigidly to its recommended regimen. Six months later, after three of these fad diets had failed, she started throwing up as a way to control her intake of food.

Mary's problems persisted after she graduated from high school and began

her college education. She felt guilty and ashamed about her eating problems. She was much too embarrassed to let anyone know what she was doing and would never eat more than a few mouthfuls of

food in a public place like the dorm cafeteria. Her roommate, Julie, was from a small town on the other side of the state. They got along reasonably well, but Mary managed to conceal her bingeing and purging,

thanks in large part to the fact that she was able to bring her own car to campus. The car allowed her to drive away from campus several times a week so that she could binge.

Mary's case illustrates many of the characteristic features of bulimia nervosa. As in Kevin's case, her behavior could be considered abnormal not only because it fit the criteria for one of the categories in DSM-IV-TR but also because she suffered from a dysfunction (in this case, of the mechanisms that regulate appetite) that was obviously harmful. The impact of the disorder was greatest in terms of her physical health: Eating disorders can be fatal if they are not properly treated because they affect so many vital organs of the body, including the heart and kidneys. Mary's social functioning and her academic performance were not yet seriously impaired. There are many different ways in which to measure the harmful effects of abnormal behavior.

Mary's case also illustrates the subjective pain that is associated with many types of abnormal behavior. In contrast to Kevin, Mary was acutely aware of her disorder. She was frustrated and unhappy. In an attempt to relieve this emotional distress, she entered psychological treatment. Unfortunately, painful emotions associated with mental disorders can also interfere with, or delay, the decision to look for professional help. Guilt, shame, and embarrassment often accompany psychological problems and sometimes make it difficult to confide in another person, even though the average therapist has seen such problems many times over.

FREQUENCY IN AND IMPACT ON COMMUNITY POPULATIONS

Many important decisions about mental disorders are based on data regarding the frequency with which these disorders occur. At least 3 percent of college women would meet diagnostic criteria for bulimia nervosa (see Chapter 10). These data are a source of considerable concern, especially among those who are responsible for health services on college campuses.

Epidemiology is the scientific study of the frequency and distribution of disorders within a population (Gordis, 2008). Epidemiologists are concerned with questions such as whether the frequency of a disorder has increased or decreased during a particular period, whether it is more common in one geographic area than in another, and whether certain types of people—based on such factors as gender, race, and socioeconomic status—are at greater risk than other types for the development of the disorder. Health administrators often use such information to make decisions about the allocation of

resources for professional training programs, treatment facilities, and research projects.

Two terms are particularly important in epidemiological research. **Incidence** refers to the number of new cases of a disorder that appear in a population during a specific period of time. **Prevalence** refers to the total number of active cases, both old and new, that are present in a population during a specific period of time (Susser et al., 2006). The *lifetime prevalence* of a disorder is the total proportion of people in a given population who have been affected by the disorder at some point during their lives. Some studies also report 12-month prevalence rates, indicating the proportion of the population that met criteria for the disorder during the year prior to the assessment. Lifetime prevalence rates are higher than 12-month prevalence rates because some people who had problems in the past and then recovered will be counted with regard to lifetime disorders but not be counted for the most recent year.

Lifetime Prevalence and Gender Differences How prevalent are the various forms of abnormal behavior? The best and most recent data regarding this question come from a large-scale study known as the *National Comorbidity Survey Replication* (NCS-R) conducted between 2001 and 2003 (Kessler et al., 2005; Kessler, Merikangas, & Wang, 2007). Members of this research team interviewed a nationally representative sample of approximately 9,000 people living in the continental United States. Ques-

tions were asked pertaining to several (but not all) of the major disorders listed in the DSM-IV. The NCS-R found that 46 percent of the people interviewed received at least one *lifetime* diagnosis, with first onset of symptoms usually occurring during childhood or adolescence. This proportion of the population is much higher than many people expect, and it underscores the point that we made at the beginning of this chapter: All of us can expect to encounter the challenges of a mental disorder—either for ourselves or for someone we love—at some point during our lives.

Figure 1.1 lists some results from this study using lifetime prevalence rates—the number of people who had experienced each disorder at some point during their lives. The most prevalent specific type of disorder was major depression (17 percent). Substance use disorders and various kinds of anxiety disorders were also relatively common. Substantially lower lifetime prevalence rates were found for schizophrenia and eating disorders (bulimia and anorexia), which affect approximately 1 percent of the population. These lifetime prevalence



How thin is too thin? Does this young woman suffer from an eating disorder? Some experts maintain that the differences between abnormal and normal behavior are essentially differences in degree, that is, quantitative differences.

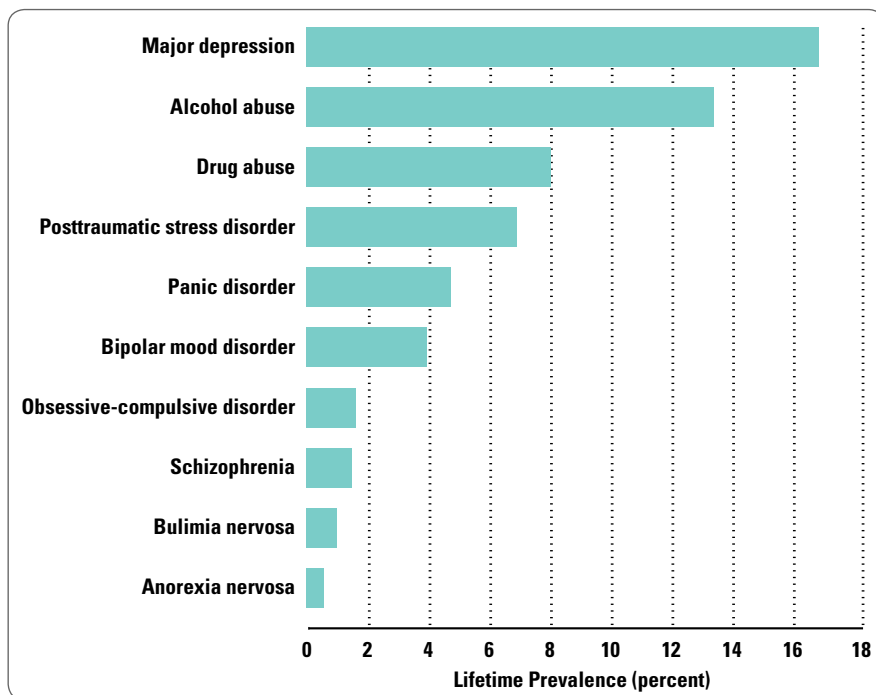


FIGURE 1.1 Frequency of Mental Disorders in the Community

Lifetime prevalence rates for various mental disorders (NCS-R data).

Source: From Kessler et al. (2005), "Lifetime Prevalence and Age of Onset Distributions of DSM IV Disorders in the National Comorbidity Survey Replication," *Archives of General Psychiatry*, 62, 593-602. Copyright © 2005. This material can be found at: <http://archpsyc.ama-assn.org/cgi/content/abstract/62/6/593>. Reprinted by permission of the American Medical Association.

rates are consistent with data reported by earlier epidemiological studies of mental disorders.

Although many mental disorders are quite common, they are not always seriously debilitating, and some people who qualify for a diagnosis do not need immediate treatment. The NCS-R investigators assigned each case a score with regard to severity, based on the severity of symptoms as well as the level of occupational and social impairment that the person experienced. Averaged across all of the disorders diagnosed in the past 12 months, 40 percent of cases were rated as "mild," 37 percent as "moderate," and only 22 percent as "severe." Mood disorders were the most likely to be rated as severe (45 percent) while anxiety disorders were less likely to be rated as severe (23 percent).

Epidemiological studies such as the NCS-R have consistently found gender differences for many types of mental disorder: Major depression, anxiety disorders, and eating disorders are more common among women; alcoholism and antisocial personality are more common among men. Some other conditions, like bipolar mood disorder, appear with equal frequency in both women and men. Patterns of this sort raise interesting questions about possible causal mechanisms. What conditions would make women more vulnerable to one kind of disorder and men more vulnerable to another? There are many possibilities, including factors such as hormones, patterns of learning, and social pressures. We will discuss gender differences in more detail in subsequent chapters of this book.

Comorbidity and Disease Burden Most severe disorders are concentrated in a relatively small segment of the population. Often these are people who simultaneously qualify for more than one diagnosis, such as major depression and alcoholism. The presence of more than one condition within the same period of time is known as **comorbidity** (or co-occurrence). Twenty-three percent of the people in the NCS-R sample had three or more 12-month disorders, and 50 percent of those cases were rated as being "severe." While mental

disorders occur relatively frequently, the most serious problems are concentrated in a smaller group of people who have more than one disorder. These findings have shifted the emphasis of epidemiological studies from counting the absolute number of people who have any kind of mental disorder to measuring the functional impairment associated with these problems.

Mental disorders are highly prevalent, but how do we measure the extent of their impact on people's lives? And how does that impact compare to the effects of other diseases? These are important questions when policymakers must establish priorities for various types of training, research, and health services.

Epidemiologists measure disease burden by combining two factors: mortality and disability. The common measure is based on time: lost years of healthy life, which might be caused by premature death (compared to the person's standard life expectancy) or living with a disability (weighted for severity). For purposes of comparison among different forms of disease and injury, the disability produced by major depression is considered to be equivalent to that associated with blindness or paraplegia. A psychotic disorder such as schizophrenia leads to disability that is comparable to that associated with quadriplegia.

The World Health Organization (WHO) sponsored an ambitious study called the Global Burden of Disease Study, which used these measures to evaluate and compare the impact of more than 100 forms of disease and injury throughout the world (Lopez et al., 2006). Although mental disorders are responsible for only 1 percent of all deaths, they produce 47 percent of all disability in economically developed countries, like the United States, and 28 percent of all disability worldwide. The combined index (mortality plus disability) reveals that, as a combined category, mental disorders are the second leading source of disease burden in developed countries (see Figure 1.2 on page 12). Investigators in the WHO study predict

How does the impact of mental disorders compare to that of other health problems?

that, relative to other types of health problems, the burden of mental disorders will increase by the year 2020. These surprising results strongly indicate that mental disorders are one of the world's greatest health challenges.

CROSS-CULTURAL COMPARISONS

As the evidence regarding the global burden of disease clearly documents, mental disorders affect people all over the world. That does not mean, however, that the symptoms of psychopathology and the expression of emotional distress take the same form in all cultures. Epidemiological studies comparing the frequency of mental disorders in different cultures suggest that some disorders, like schizophrenia, show important consistencies in cross-cultural comparisons. They are found in virtually every culture that social scientists have studied.

Other disorders, like bulimia, are more specifically associated with cultural factors, as revealed by comparisons of prevalence in different parts of the world and changes in prevalence over generations. Almost 90 percent of bulimic patients are women. Within the United States, the incidence of bulimia is much higher among university women than among working women, and it is more common among younger women than among older women. The prevalence of bulimia is much higher in Western nations than in other parts of the world. Furthermore, the number of cases increased dramatically during the latter part of the twentieth century (Keel & Klump, 2003). These patterns suggest that holding particular sets of values related to

eating and to women's appearance is an important ingredient in establishing risk for development of an eating disorder.

The strength and nature of the relationship between culture and psychopathology vary from one disorder to the next. Several general conclusions can be drawn from cross-cultural studies of psychopathology (Draguns & Tanaka-Matsumi, 2003), including the following points:

- All mental disorders are shaped, to some extent, by cultural factors.
- No mental disorders are entirely due to cultural or social factors.
- Psychotic disorders are less influenced by culture than are nonpsychotic disorders.
- The symptoms of certain disorders are more likely to vary across cultures than are the disorders themselves.

We will return to these points as we discuss specific disorders, such as depression, phobias, and alcoholism, throughout this book.

The Mental Health Professions

People receive treatment for psychological problems in many different settings and from various kinds of service providers. Specialized mental health professionals, such as psychiatrists,

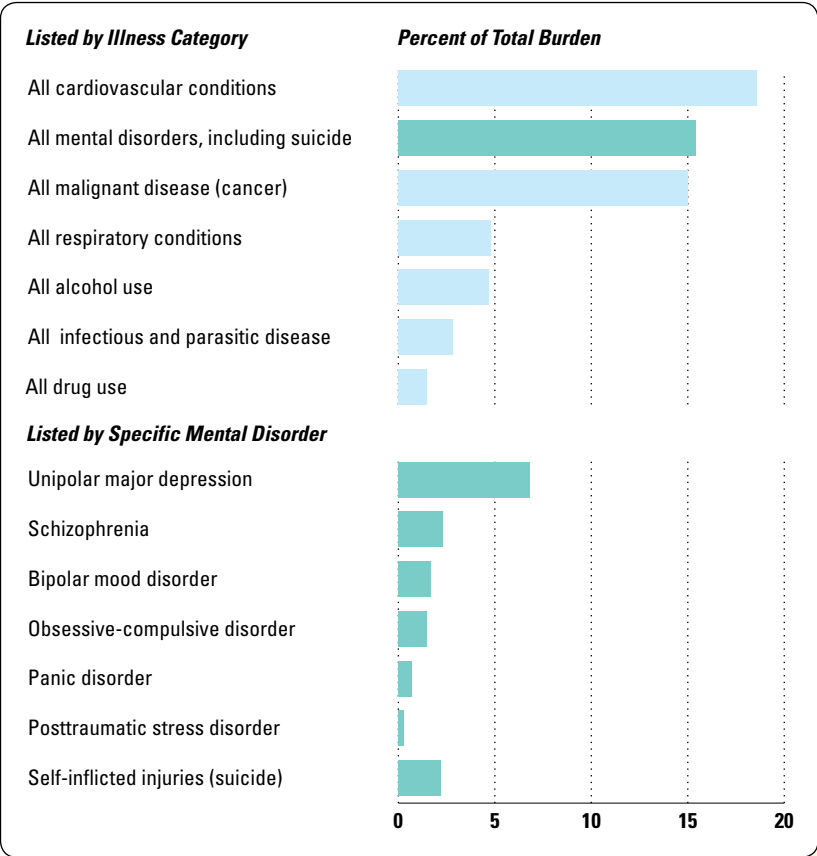


FIGURE 1.2 Comparison of the Impact of Mental Disorders and Other Medical Conditions on People's Lives

Disease burden in economically developed countries measured in disability-adjusted life years (DALYs). Source: From C. L. Murray, and A. D. Lopez, Eds., *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020*. Copyright © 1996. Reprinted by permission of Christopher J. L. Murray, and the Institute for Health Metrics and Evaluation.

TABLE 1.2 Estimated Number of Clinically Trained Professionals Providing Mental Health Services in the United States

Profession	Number
Psychiatrists	40,900
Clinical psychologists	77,500
Social workers	194,600
Marriage and family therapists	47,100
Psychiatric nurses	16,600
Counselors	111,900
Psychosocial rehabilitation providers	100,000

Source: F. F. Duffy et al., "Mental Health Practitioners and Trainees," in R. W. Manderscheid and M. J. Henderson, Eds., *Mental Health, United States, 2002*. Rockville, MD: U.S. Department of Health and Human Services, Chapter 21, Table 1.

psychologists, and social workers, treat fewer than half (40 percent) of those people who seek help for mental disorders (Kessler & Stafford, 2008). Roughly one-third (34 percent) are treated by primary care physicians, who are most likely to prescribe some form of medication. The remaining 26 percent of mental health services are delivered by social agencies and self-help groups, such as Alcoholics Anonymous.

Many forms of specialized training prepare people to provide professional assistance to those who suffer from mental disorders. Table 1.2 presents estimated numbers of different types of mental health professionals currently practicing in the United States. The overall number of professionals who provide mental health services expanded dramatically during the 1990s, with most of this growth occurring among nonphysicians (Robiner, 2006). Most of these professions require extensive clinical experience in addition to formal academic instruction. In order to provide direct services to clients, psychiatrists, psychologists, social workers, counselors, nurses, and marriage and family therapists must be licensed in their own specialties by state boards of examiners.

Psychiatry is the branch of medicine that is concerned with the study and treatment of mental disorders. Psychiatrists complete the normal sequence of coursework and internship training in a medical school (usually four years) before going on to receive specialized residency training (another four years) that is focused on abnormal behavior. By virtue of their medical training, psychiatrists are licensed to practice medicine and therefore are able to prescribe medication. Most psychiatrists are also trained in the use of psychosocial intervention.

Clinical psychology is concerned with the application of psychological science to the assessment and treatment of mental disorders. A clinical psychologist typically completes five years of graduate study in a department of psychology, as well as a one-year internship, before receiving a doctoral degree. Clinical psychologists are trained in the use of psychological assessment procedures and in the use of psychotherapy. Within clinical psychology, there are two primary types of clinical

training programs. One course of study, which leads to the Ph.D. (doctor of philosophy) degree, involves a traditional sequence of graduate training with major emphasis on research methods. The other approach, which culminates in a Psy.D. (doctor of psychology) degree, places greater emphasis on practical skills of assessment and treatment and does not require an independent research project for the dissertation. One can also obtain a Ph.D. degree in counseling psychology, a more applied field that focuses on training, assessment, and therapy.

Social work is a third profession that is concerned with helping people to achieve an effective level of psychosocial functioning. Most practicing social workers have a master's degree in social work. In contrast to psychology and psychiatry, social work is based less on a body of scientific knowledge than on a commitment to action. Social work is practiced in a wide range of settings, from courts and prisons to schools and hospitals, as well as other social service agencies. The emphasis tends to be on social and cultural factors, such as the effects of poverty on the availability of educational and health services, rather than on individual differences in personality or psychopathology. Psychiatric social workers receive specialized training in the treatment of mental health problems.

Like social workers, professional counselors work in many different settings, ranging from schools and government agencies to mental health centers and private practice. Most are trained at the master's degree level, and the emphasis of their activity is also on providing direct service. Marriage and family therapy (MFT) is a multidisciplinary field in which professionals are trained to provide psychotherapy. Most MFTs are trained at the master's level, and many hold a degree in social work, counseling, or psychology as well. Although the theoretical orientation is focused on couples and family issues, approximately half of the people treated by MFTs are seen in individual psychotherapy. Psychiatric nursing is a rapidly growing field. Training for this profession typically involves a bachelor's degree in nursing plus graduate level training (at least a master's degree) in the treatment of mental health problems.

Who provides help for people with mental disorders?



Clinical psychologists perform many roles. Some provide direct clinical services. Many are involved in research, teaching, and various administrative activities.

Another approach to mental health services that is expanding rapidly in size and influence is psychosocial rehabilitation (PSR). Professionals in this area work in crisis, residential, and case management programs for people with severe forms of disorder, such as schizophrenia. PSR workers teach people practical, day-to-day skills that are necessary for living in the community, thereby reducing the need for long-term hospitalization and minimizing the level of disability experienced by their clients. Graduate training is not required for most PSR positions; three out of four people providing PSR services have either a high school education or a bachelor's degree.

It is difficult to say with certainty what the mental health professions will be like in the future. Boundaries between professions change as a function of progress in the development of therapeutic procedures, economic pressures, legislative action, and courtroom decisions. This has been particularly true in the field of mental health, where enormous changes have taken place over the past few decades. Reform is currently being driven by the pervasive influence of managed care, which refers to the way that services are financed. For example, health insurance companies typically place restrictions on the types of services that will be reimbursed, as well as the specific professionals who can provide them. Managed care places a high priority on cost containment and the evaluation of treatment effectiveness. Legislative issues that determine the scope of clinical practice are also very important. Many psychologists are pursuing the right to prescribe medication (Fox et al., 2009). Decisions regarding this issue will also have a dramatic impact on the boundaries that separate the mental health professions. Ongoing conflicts over the increasing price of healthcare, priorities for treatment, and access to services suggest that debates over the rights and privileges of patients and their therapists will intensify in coming years.

One thing is certain about the future of the mental health professions: There will always be a demand for people who are trained to help those suffering from abnormal behavior. Many people experience mental disorders. Unfortunately, most of those who are in need of professional treatment do not get it (Kessler et al., 2005; Ormel et al., 2008). Several explanations have been proposed. Some people who qualify for a diagnosis may not be so impaired as to seek treatment; others, as we shall see, may not recognize their disorder. In some cases, treatment may not be available, the person may not have the time or resources to obtain treatment, or the person may have tried treatments in the past that failed (see Getting Help at the end of this chapter.)

Psychopathology in Historical Context

Throughout history, many other societies have held very different views of the problems that we consider to be mental disorders. Before leaving this introductory chapter, we must begin to place contemporary approaches to psychopathology in historical perspective.

The search for explanations of the causes of abnormal behavior dates to ancient times, as do conflicting opinions about the etiology of emotional disorders. References to abnormal

behavior have been found in ancient accounts from Chinese, Hebrew, and Egyptian societies. Many of these records explain abnormal behavior as resulting from the disfavor of the gods or the mischief of demons. In fact, abnormal behavior continues to be attributed to demons in some preliterate societies today.

THE GREEK TRADITION IN MEDICINE

More earthly and less supernatural accounts of the etiology of psychopathology can be traced to the Greek physician Hippocrates (460–377 B.C.E.), who ridiculed demonological accounts of illness and insanity. Instead, Hippocrates hypothesized that abnormal behavior, like other forms of disease, had natural causes. Health depended on maintaining a natural balance within the body, specifically a balance of four body fluids (which were also known as the four humors): blood, phlegm, black bile, and yellow bile. Hippocrates argued that various types of disorders, including psychopathology, resulted from either an excess or a deficiency of one of these four fluids. The specifics of Hippocrates' theories obviously have little value today, but his systematic attempt to uncover natural, biological explanations for all types of illness represented an enormously important departure from previous ways of thinking.

The Hippocratic perspective dominated medical thought in Western countries until the middle of the nineteenth century (Golub, 1994). People trained in the Hippocratic tradition viewed “disease” as a unitary concept. In other words, physicians (and others who were given responsibility for healing people who were disturbed or suffering) did not distinguish between mental disorders and other types of illness. All problems were considered to be the result of an imbalance of body fluids, and treatment procedures were designed in an attempt to restore the ideal balance. These were often called “heroic” treatments because they were drastic (and frequently painful) attempts to quickly reverse the course of an illness. They involved bloodletting (intentionally cutting the person to reduce the amount of blood in the body) and purging (the induction of vomiting), as well as the use of heat and cold. These practices continued to be part of standard medical treatments well into the nineteenth century (Starr, 1982).

THE CREATION OF THE ASYLUM

In Europe during the Middle Ages, “lunatics” and “idiots,” as the mentally ill and intellectually disabled were commonly called, aroused little interest and were given marginal care. Most people lived in rural settings and made their living through agricultural activities. Disturbed behavior was considered to be the responsibility of the family rather than the community or the state. Many people were kept at home by their families, and others roamed freely as beggars. Mentally disturbed people who were violent or appeared dangerous often were imprisoned with criminals. Those who could not subsist on their own were placed in almshouses for the poor.

In the 1600s and 1700s, “insane asylums” were established to house the mentally disturbed. Several factors changed the way that society viewed people with mental disorders and reinforced the relatively new belief that the community as a whole should be responsible for their care (Grob, 1994). Perhaps most



THE LEECH'S CHAMBER.

This 16-century illustration shows sick people going to the doctor who attempts to cure their problems by extracting blood from them using a leech. The rationale for such treatment procedures was to restore the proper balance of bodily fluids.

important was a change in economic, demographic, and social conditions. Consider, for example, the situation in the United States at the beginning of the nineteenth century. The period between 1790 and 1850 saw rapid population growth and the rise of large cities. The increased urbanization of the American population was accompanied by a shift from an agricultural to an industrial economy. Lunatic asylums—the original mental hospitals—were created to serve heavily populated cities and to assume responsibilities that had previously been performed by individual families.

Early asylums were little more than human warehouses, but as the nineteenth century began, the moral treatment movement led to improved conditions in at least some mental hospitals. Founded on a basic respect for human dignity and the belief that humanistic care would help to relieve mental illness, moral treatment reform efforts were instituted by leading mental health professionals of the day, such as Benjamin Rush in the United States, Phillipe Pinel in France, and William Tuke in England. Rather than simply confining mental patients, moral treatment offered support, care, and a degree of freedom. Belief in the importance of reason and the potential benefits of science played an important role in the moral treatment movement. In contrast to the fatalistic, supernatural explanations that had prevailed during the Middle Ages, these reformers touted an optimistic view, arguing that mental disorders could be treated successfully.

Many of the large mental institutions in the United States were built in the nineteenth century as a result of the philosophy of moral treatment. In the middle of the 1800s, the mental health advocate Dorothea Dix was a leader in this movement. Dix argued that treating the mentally ill in hospitals was both more humane and more economical than caring for them haphazardly in their communities, and she urged that special facilities be built to house mental patients. Dix and like-minded

reformers were successful in their efforts. In 1830, there were only four public mental hospitals in the United States that housed a combined total of fewer than 200 patients. By 1880, there were 75 public mental hospitals, with a total population of more than 35,000 residents (Torrey, 1988).

The creation of large institutions for the treatment of mental patients led to the development of a new profession—psychiatry. By the middle of the 1800s, superintendents of asylums for the insane were almost always physicians who had experience in the care of people with severe mental disorders. The Association of Medical Superintendents of American Institutions for the Insane (AMSAIL), which later became the American Psychiatric Association (APA), was founded in 1844. The large patient populations within these institutions provided an opportunity for these men to observe various types of psychopathology over an extended period of time. They soon began to publish their ideas regarding the causes of these conditions, and they also experimented with new treatment methods (Grob, 1994).

WORCESTER LUNATIC HOSPITAL: A MODEL INSTITUTION

In 1833, the state of Massachusetts opened a publicly supported asylum for lunatics, a term used at the time to describe people with mental disorders, in Worcester. Samuel Woodward, the asylum's first superintendent, also became the first president of the AMSAIL. Woodward became very well known throughout the United States and Europe because of his claims that mental disorders could be cured just like other types of diseases. We will describe this institution and its superintendent briefly because, in many ways, it became a model for psychiatric care on which other nineteenth-century hospitals were built.



The Massachusetts Lunatic Asylum (as it appeared in 1835) was the first large state mental institution in the United States.

From the collection of the Worcester Historical Museum, Worcester, Massachusetts.

Woodward's ideas about the causes of disorders represented a combination of physical and moral considerations. Moral factors focused on the person's lifestyle. Violations of "natural" or conventional behavior could presumably cause mental disorders. Judgments regarding the nature of these violations were based on the prevailing middle-class, Protestant standards that were held by Woodward and his peers, who were almost invariably well-educated, white males. After treating several hundred patients during his first 10 years at the Worcester asylum, Woodward argued that at least half of the cases could be traced to immoral behavior, improper living conditions, and exposure to unnatural stresses. Specific examples included intemperance (heavy drinking), masturbation, overwork, domestic difficulties, excessive ambition, faulty education, personal disappointment, marital problems, excessive religious enthusiasm, jealousy, and pride (Grob, 1994). The remaining cases were attributed to physical causes, such as poor health or a blow to the head.

Treatment at the Worcester Lunatic Hospital included a blend of physical and moral procedures. If mental disorders were often caused by improper behavior and difficult life circumstances, presumably they could be cured by moving the person to a more appropriate and therapeutic environment, the asylum. Moral treatment focused on efforts to reeducate the patient, fostering the development of self-control that would allow the person to return to a "healthy" lifestyle. Procedures included occupational therapy, religious exercises, and recreation. Mechanical restraints were employed only when considered necessary.

Moral treatments were combined with a mixture of physical procedures. These included standard heroic interventions, such as bleeding and purging, which the asylum superintendents had learned as part of their medical training. For example, some symptoms were thought to be produced by inflammation of the brain, and it was believed that bleeding would restore the natural balance of fluids. Woodward and his colleagues also employed various kinds of drugs. Patients who were excited, agitated, or violent were often treated with opium or morphine. Depressed patients were given laxatives.

What was the rationale for moral treatment programs?

Woodward claimed that "no disease, of equal severity, can be treated with greater success than insanity, if the remedies are applied sufficiently early." He reported that the recovery rates at the Worcester hospital varied from 82 percent to 91 percent between 1833 and 1845. His reports were embraced and endorsed by other members of the young psychiatric profession. They fueled enthusiasm for establishing more large public hospitals, thus aiding the efforts of Dorothea Dix and other advocates for public support of mental health treatment.

LESSONS FROM THE HISTORY OF PSYCHOPATHOLOGY

The invention and expansion of public mental hospitals set in motion a process of systematic observation and scientific inquiry that led directly to our current system of mental-health care. The creation of psychiatry as a professional group, committed to treating and understanding psychopathology, laid the foundation for expanded public concern and financial resources for solving the problems of mental disorders.

There are, of course, many aspects of nineteenth-century psychiatry that, in retrospect, seem to have been naive or misguided. To take only one example, it seems silly to have thought that masturbation would cause mental disorders. In fact, masturbation is now taught and encouraged as part of treatment for certain types of sexual dysfunction (see Chapter 12). The obvious cultural biases that influenced the etiological hypotheses of Woodward and his colleagues seem quite unreasonable today. But, of course, our own values and beliefs influence the ways in which we define, think about, and treat mental disorders. Mental disorders cannot be defined in a cultural vacuum or in a completely objective fashion. The best we can do is to be aware of the problem of bias and include a variety of cultural and social perspectives in thinking about and defining the issues (Mezzich et al., 2008).

The other lesson that we can learn from history involves the importance of scientific research. Viewed from the perspective of contemporary care, we can easily be skeptical of Samuel Woodward's claims regarding the phenomenal success of treatment at the Worcester asylum. No one today believes that 90 percent of seriously disturbed, psychotic patients can be cured by currently available forms of treatment. Therefore, it is preposterous to assume that such astounding success might have been achieved at the Worcester Lunatic Hospital. During the nineteenth century, physicians were not trained in scientific research methods. Their optimistic statements about treatment outcome were accepted, in large part, on the basis of their professional authority. Clearly, Woodward's enthusiastic assertions should have been evaluated with more stringent, scientific methods.

Unfortunately, the type of naive acceptance that met Woodward's idealistic claims has become a regrettable tradition. For the past 150 years, mental health professionals and the public alike have repeatedly embraced new treatment procedures that have been hailed as cures for mental disorders. Perhaps most notorious was a group of somatic (bodily) treatment procedures that was introduced during the 1920s and 1930s (Valenstein, 1986). They included inducing fever, insulin comas, and lobotomy, a crude form of brain surgery (see Table 1.3). These dramatic procedures, which have subsequently proved to be ineffective, were accepted with the same enthusiasm that greeted the invention of large public institutions in nineteenth-century America. Thousands of patients were subjected to these

TABLE 1.3 Somatic Treatments Introduced and Widely Employed in the 1920s and 1930s

Name	Procedure	Original Rationale
Fever therapy	Blood from people with malaria was injected into psychiatric patients so that they would develop a fever.	Observation that symptoms sometimes disappeared in patients who became ill with typhoid fever
Insulin coma therapy	Insulin was injected into psychiatric patients to lower the sugar content of the blood and induce a hypoglycemic state and deep coma.	Observed mental changes among some diabetic drug addicts who were treated with insulin
Lobotomy	A sharp knife was inserted through a hole that was bored in the patient's skull, severing nerve fibers connecting the frontal lobes to the rest of the brain.	Observation that the same surgical procedure with chimpanzees led to a reduction in the display of negative emotion during stress

Note: Lack of critical evaluation of these procedures is belied by the unusual honors bestowed upon their inventors. Julius Wagner-Jauregg, an Austrian psychiatrist, was awarded a Nobel Prize in 1927 for his work in developing fever therapy. Egaz Moniz, a Portuguese psychiatrist, was awarded a Nobel Prize in 1946 for introduction of the lobotomy.

procedures, which remained widespread until the early 1950s, when more effective pharmacological treatments were discovered. The history of psychopathology teaches us that people who claim that a new form of treatment is effective should be expected to prove it scientifically (see Research Methods on page 18).

Methods for the Scientific Study of Mental Disorders

This book will provide you with an introduction to the scientific study of psychopathology. The application of science to questions regarding abnormal behavior carries with it the implicit assumption that these problems can be studied systematically and objectively. Such a systematic and objective study is the basis for finding order in the frequently chaotic and puzzling world of mental disorders. This order will eventually allow us to understand the processes by which abnormal behaviors are created and maintained.

Clinical scientists adopt an attitude of open-minded skepticism, tempered by an appreciation for the research methods that are used to collect empirical data. They formulate specific hypotheses, test them, and then refine them based on the results of these tests. For example, suppose you formulated the hypothesis that people who are depressed will improve if they eat more than a certain amount of chocolate every day. This hypothesis could be tested in a number of ways, using the methods discussed throughout this book. In order to get the most from this book, you may have to set aside—at least temporarily—personal beliefs that you have already acquired about mental disorders. Try to adopt an objective, skeptical attitude. We hope to pique your curiosity and share with you the satisfaction, as well as perhaps some of the frustration, of searching for answers to questions about complex behavior problems.

THE USES AND LIMITATIONS OF CASE STUDIES

We have already presented one source of information regarding mental disorders: the **case study**, an in-depth look at the symptoms and circumstances surrounding one person's mental disturbance. For many people, our initial ideas about the nature and potential causes of abnormal behavior are shaped by personal experience with a close friend or family member who has struggled with a psychological disorder. We use a number of case studies in this book to illustrate the symptoms of psychopathology and to raise questions about their development. Therefore, we should consider the ways in which case studies can be helpful in the study of psychopathology, as well as some of their limitations.

A case study presents a description of the problems experienced by one particular person. Detailed case studies can provide an exhaustive catalog of the symptoms that the person displayed, the manner in which these symptoms emerged, the developmental and family history that preceded the onset of the disorder, and whatever response the person may have shown to treatment efforts. This material often forms the basis for hypotheses about the causes of a person's problems. For example, based on Mary's case, one might speculate that depression plays a role in eating disorders. Case studies are especially important sources of information about conditions that have not received much attention in the literature and for problems that are relatively unusual. Multiple personality disorder and transsexualism are examples of disorders that are so infrequent that it is difficult to find groups of patients for the purpose of research studies. Much of what we know about these conditions is based on descriptions of individual patients.

Case studies also have several drawbacks. The most obvious limitation of case studies is that they can be viewed from many different perspectives. Any case can be interpreted in several ways, and competing explanations may be equally plausible. Consider, for example, the life of Jane Addams, an extremely

RESEARCH METHODS

WHO MUST PROVIDE SCIENTIFIC EVIDENCE?

Scientists have established a basic and extremely important rule for making and testing any new hypothesis: The scientist who makes a new prediction must prove it to be true. Scientists are not obligated to disprove other researchers' assertions. Until a hypothesis is supported by empirical evidence, the community of scientists assumes that the new prediction is false.

The concepts of the experimental hypothesis and the null hypothesis are central to understanding this essential rule of science. An **experimental hypothesis** is any new prediction, such as the idea that eating chocolate can alleviate depression, made by an investigator. Researchers must adopt and state their experimental hypothesis in both correlational studies and experiments (discussed in Research Methods in Chapters 2 and 3). In all scientific research, the **null hypothesis** is the alternative to the experimental hypothesis. The null hypothesis always predicts that the experimental hypothesis is not true, for example, that eating chocolate does not make depressed people feel better. The rules of science dictate that scientists must assume that the null hypothesis holds until research contradicts it. That is, the burden of proof falls on the scientist who makes a new prediction, and offers an experimental hypothesis.

These rules of science are analogous to rules about the burden of proof that have been adopted in trial courts. In U.S. courtrooms, the law assumes that a defendant is innocent until proven guilty. Defendants do not need to prove their innocence; rather, prosecutors need to prove the defendant's guilt. Thus, the null hypothesis is analogous to the assumption of innocence, and

the burden of proof in science falls on any scientist who challenges the null hypothesis, just as it falls on the prosecutor in a court trial.

These rules in science and in law serve important purposes. Both are conservative principles designed to protect the field from false assertions. Our legal philosophy is that "it is better to let 10 guilty people go free than to punish one innocent person." Scientists adopt a similar philosophy—that false "scientific evidence" is more dangerous than undetected knowledge. Because of these safeguards, we can be reasonably confident when an experimental hypothesis is supported or when a defendant is found guilty.

We can easily apply these concepts and rules to claims that were made for the effectiveness of treatment methods such as lobotomy. In this example, the experimental hypothesis is that severing the nerve fibers that connect the frontal lobes to other areas of the brain will result in a significant decrease in psychotic symptoms. The null hypothesis is that this treatment is no more effective than having no treatment at all. According to the rules of science, a clinician who claims to have discovered a new treatment must prove that it is true. Scientists are not obligated to prove that the assertion is false, because the null hypothesis holds until it is rejected.

The value of this conservative approach is obvious when we consider the needless suffering and permanent neurological dysfunction that was ultimately inflicted upon thousands of patients who were given lobotomies or subjected

to fevers and comas during the 1940s (Valenstein, 1986). Had surgeons assumed that lobotomies did not work, many patients' brains would have been left intact. Similar conclusions can be drawn about less invasive procedures, such as institutionalization, medication, and psychotherapy. These treatments are also associated with costs, which range from financial considerations—certainly important in today's health care environment—to the disappointment brought about by false hopes. In all these cases,

Some advertisements claim the null hypothesis: "No other drug has been proven to be more effective." Don't they have a burden to prove that their drug is more effective than the others?

clinicians who provide mental health services should be required to demonstrate scientifically that their treatment procedures are both effective and not harmful (Chambless et al., 2006; Dimidjian & Hollon, 2010).

There is one more similarity between the rules of science and the rules of the courtroom. Courtroom verdicts do not lead to a judgment that the defendant is "innocent," but only to a decision that she or he is "not guilty." In theory, the possibility remains that a defendant who is found "not guilty" did indeed commit a crime. Similarly, scientific research does not lead to the conclusion that the null hypothesis is true. Scientists never prove the null hypothesis; they only fail to reject it. The reason for this position is that the philosophy of knowledge, epistemology, tells us that it is impossible ever to prove that an experimental hypothesis is false in every circumstance.

influential social activist during the early years of the twentieth century. She founded a program to serve poor people in Chicago, promoted the assimilation of immigrants into middle-class life, and for these efforts was awarded the Nobel Peace Prize in 1931. As a young adult, Addams suffered through an

eight-year period of profound depression. Some historians have argued that the foundation of her mood disorder was formed in a long-standing conflict with her father over her hopes to pursue a professional career—something that was discouraged among women at the time (Diliberto, 1999). His sudden death



Many people lead successful lives and make important contributions to society in spite of their struggles with mental disorder. Jane Addams (1860–1935), who won the Nobel Peace Prize for her work in social justice, suffered through extended periods of profound depression as a young woman.

seemed to trigger the onset of her symptoms. Of course, many other factors might also have been involved. Her mother died when she was 2 years old. The impact of this tragic experience was intensified by subsequent losses, including the death of her older sister.

Hereditry may also have played a role in the origins of Addams's depression. Her brother suffered from a mental

disorder, including severe bouts of depression, and was treated at psychiatric hospitals throughout his adult life. Speculation of this sort is intriguing, particularly in the case of a woman who played such an important role in the history of the United States. But we must remember that case studies are not conclusive. Jane Addams's experience does not indicate conclusively whether the loss of a parent can increase a person's vulnerability to depression, and it does not prove that genetic factors are involved in the transmission of this disorder. These questions must be resolved through scientific investigation.

The other main limitation of case studies is that it is risky to draw general conclusions about a disorder from a single example. How can we know that this individual is representative of the disorder as a whole? Are his or her experiences typical for people with this disorder? Again, hypotheses generated on the basis of the single case must be tested in research with larger, more representative samples of patients.

CLINICAL RESEARCH METHODS

The importance of the search for new information about mental disorders has inspired us to build another special feature into this textbook. Each chapter includes a Research Methods feature that explains one particular research issue in some detail. The Research Methods feature in this chapter, for example, is concerned with the null hypothesis, the need to consider not just that your hypothesis may be true, but also that it may be false. A list of the issues addressed in Research Methods throughout this textbook appears in Table 1.4. They are arranged to progress from some of the more basic research methods and issues, such as correlational

TABLE 1.4 List of Research Methods Featured in This Book

Chapter	Topic
1	Who Must Provide Scientific Evidence?
2	Correlations: Does a Psychology Major Make You Smarter?
3	The Experimental Method: Does Therapy <i>Cause</i> Improvement?
4	Reliability: Agreement Regarding Diagnostic Decisions
5	Analogue Studies: Do Rats Get Depressed, and Why?
6	Statistical Significance: When Differences Matter
7	Retrospective Reports: Remembering the Past
8	Longitudinal Studies: Lives over Time
9	Cross-Cultural Comparisons: The Importance of Context
10	Psychotherapy Placebos: Controlling for Expectations
11	Studies of People at Risk for Disorders
12	Hypothetical Constructs: What Is Sexual Arousal?
13	Comparison Groups: What Is Normal?
14	Finding Genes That Cause Behavioral Problems
15	Central Tendency and Variability: What Do IQ Scores Mean?
16	Samples: How to Select the People We Study
17	Heritability: Genes and the Environment
18	Base Rates and Prediction: Justice Blackmun's Error

and experimental designs, toward more complex issues, such as gene identification and heritability.

We decided to discuss methodological issues in small sections throughout the book, for two primary reasons. First, the problems raised by research methods are often complex and challenging. Some students find it difficult to digest and comprehend an entire chapter on research methods in one chunk, especially at the beginning of a book. Thus, we have broken it down into more manageable bites. Second, and perhaps more important, the methods we discuss generally make more sense and are easier to understand when they are presented in the context of a clinical question that they can help answer. Our discussions of research methods are, therefore,

introduced while we are explaining contemporary views of particular clinical problems.

Research findings are not the end of the road, either. The fact that someone has managed to collect and present data on a particular topic does not mean that the data are useful. We want you to learn about the problems of designing and interpreting research studies so that you will become a more critical consumer of scientific evidence. If you do not have a background in research design or quantitative methods, the Research Methods features will familiarize you with the procedures that psychologists use to test their hypotheses. If you have already had an introductory course in methodology, they will show you how these problems are handled in research on abnormal behavior.

Getting Help

Many students take an abnormal psychology class, in part, to understand more about their own problems or the problems of friends or family members. If you are considering whether you want to get help for yourself or for someone you know, these Getting Help sections should give you a head start in finding good therapists and effective treatments.

Of course, psychology is not just about problems. If you are wondering if you need help, if you are just curious about the problems people can have, or even if you are skeptical or disinterested, you will definitely learn more about yourself and others from this course and by studying psychology in general. That is what makes the subject so fascinating! But when the topic is abnormal psychology, you should be warned in advance about two risks.

The first is the “medical student’s syndrome.” As medical students learn about new illnesses, they often “develop” the symptoms of each successive disease they study. The same thing can happen when studying abnormal psychology. In fact, because many symptoms of emotional disorders share much in common with everyday experiences, students of abnormal psychology are even more likely to “discover” symptoms

in themselves or others. (“Gee, I think maybe I have an anxiety disorder.”

“He is so self-absorbed; he has a personality disorder.”) We all are frightened about experiencing illness and abnormality, and this fear can make us suggestible. So try to prepare yourself for bouts of the medical student’s syndrome. And remember that it is normal to experience mild versions of many of the symptoms you will read about in this text.

Our second warning is much more serious. If you are genuinely concerned about your own problems or those of a loved one, you probably have or will consult various “self-help” resources—books, websites, or perhaps groups online or offline. Do not accept uncritically the treatment programs they may suggest. You probably know that not everything you hear or read is true, and psychological advice is no exception.

Misleading, inaccurate, or simply wrong information is a particular problem in abnormal psychology for three reasons. First, to be honest, as you will learn throughout this course, psychological scientists simply do not know the causes of or absolutely effective treatments for many emotional problems. Second, people who have emotional problems, and those who have loved ones who have emotional problems, often are desperate to find a cure.

Third, some well-meaning—and some unscrupulous—people will provide authoritative-sounding “answers” that really are theories, speculations, or distortions.

How can you know what information is accurate and what information is inaccurate? We have worked hard to bring you the most recent scientific information in this text. In addition to the detailed information we present in each chapter, we give you practical tips including recommended self-help books and websites in these Getting Help sections in each chapter. Two general resources you might want to explore now are Martin Seligman’s book, *What You Can Change and What You Can’t*, and the homepage of the National Institute of Mental Health: www.nimh.nih.gov. But we don’t want you to rely only on this text or other authorities. We want you to rely on your own critical thinking skills, especially when it comes to getting help for yourself or someone you care about. Remember this: There is an army of scientists out there trying to solve the problems of emotional disorders, because, like us, they want to help. Breakthrough treatments that really are breakthrough treatments will not be kept secret. They will be announced on the front page of newspapers, not in obscure books or remote websites.

SUMMARY

- Mental disorders are quite common. At least 50 percent of all men and women will experience a serious form of abnormal behavior, such as depression, alcoholism, or schizophrenia, at some point during their lives.
- Mental disorders are defined in terms of typical signs and symptoms rather than identifiable causal factors. A group of symptoms that appear together and are assumed to represent a specific type of disorder is called a **syndrome**. There are no definitive psychological or biological tests that can be used to confirm the presence of psychopathology. At present, the diagnosis of mental disorders depends on observations of the person's behavior and descriptions of personal experience.
- No one has been able to provide a universally accepted definition of abnormal behavior. One useful approach defines mental disorders in terms of **harmful dysfunction**. The official classification system, DSM-IV-TR, defines mental disorders as a group of persistent maladaptive behaviors that result in personal distress or impaired functioning.
- Various forms of voluntary social deviance and efforts to express individuality are excluded from the definition of mental disorders. Political and religious actions, and the beliefs on which they are based, are not considered to be forms of abnormal behavior, even when they seem unusual to many other people. Nevertheless, **culture** has an important influence on the process of defining psychopathology.
- The scientific study of the frequency and distribution of disorders within a population is known as **epidemiology**. The global burden of mental disorders is substantial. Some severe forms of abnormal behavior, such as schizophrenia, have been observed in virtually every society that has been studied by social scientists. There are also forms of psychopathology—including eating disorders—for which substantial cross-cultural differences have been found.
- Many forms of specialized training prepare people to provide professional help to those who suffer from mental disorders. A **psychiatrist** is licensed to practice medicine and is therefore able to prescribe medication. A **clinical psychologist** has received graduate training in the use of assessment procedures and psychotherapy. Most psychologists also have extensive knowledge regarding research methods, and their training prepares them for the integration of science and practice.
- Throughout history, many societies have held different ideas about the problems that we consider to be mental disorders. Although the earliest asylums were little more than human warehouses, the moral treatment movement introduced improved conditions in some mental hospitals. The creation of large institutions for mental patients led to the development of psychiatry as a profession. These physicians, who served as the superintendents of asylums, developed systems for describing, classifying, and treating people with various types of mental disorders. Their efforts led to the use of scientific methods to test these new ideas.
- A person who proposes a new theory about the causes of a form of psychopathology, or someone who advocates a new form of treatment, should be expected to prove these claims with scientific evidence. The burden of proof falls on the clinical scientist who offers a new prediction. In other words, the **null hypothesis** (the alternative to the **experimental hypothesis**) is assumed to be true until it is contradicted by systematic data. Individual **case studies** do not provide conclusive evidence about the causes of, or treatments for, mental disorders.

The Big Picture

CRITICAL THINKING REVIEW

- **Why is this book about “us” and not “them”?**
Mental disorders are likely to touch all of us, or someone we love, at some point during our lives . . . (see pp. 2, 10–11)
- **What is the difference between normal and abnormal behavior?**
While the line between normal and abnormal is not always obvious, several important considerations help to clarify the distinction . . . (see pp. 5–6)
- **How does culture influence the definition of mental disorders?**
Social and political forces influence the extent to which certain kinds of experience are considered to be pathological . . . (see pp. 7–8)
- **How does the impact of mental disorders compare to that of other health problems?**
Mental disorders are responsible for almost half of all disability in economically developed countries, ranking second in total disease burden behind cardiovascular disease . . . (see pp. 11–12)
- **Who provides help for people with mental disorders?**
Many different forms of training can prepare people for professional careers in the delivery of mental health services . . . (see pp. 12–14)
- **Why don’t case studies provide conclusive evidence regarding the nature of mental disorders?**
While we often find stories about a single person’s life to be compelling, many different interpretations are possible for any case . . . (see pp. 17–19)
- **Why do scientific methods play such an important role in psychology’s approach to the study of mental disorders?**
The hallmark of psychology as an academic discipline is the use of rigorous scientific methods to test the validity of alternative hypotheses regarding issues such as the causes and treatment of mental disorders . . . (see pp. 19–20)

KEY TERMS

abnormal psychology
case study
clinical psychology
comorbidity

culture
epidemiology
experimental
hypothesis

harmful dysfunction
incidence
null hypothesis
prevalence

psychiatry
psychopathology
psychosis

social work
syndrome

Causes of Abnormal Behavior

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Social Factors 47

- We might suspect Claireece Jones' character to be at risk for abnormal behavior, but her role in *Precious* highlights the potential for resilience even when the odds seem stacked against you.

What causes abnormal behavior? We all want an answer to this question. People suffering from emotional problems may be desperate for one, as are their loved ones. Some “experts” will offer a ready response, pointing to the trauma of abuse, poor parenting, a “broken brain,” or a dozen other handy explanations. Unfortunately, there is a big problem here: Such simple accounts are almost



certainly wrong. The truth is that we do not yet know what causes most emotional disorders. In this chapter, we discuss “hot leads” in psychology’s detective work on this vexing mystery, but you should know this at the outset: A conspiracy of biological, psychological, and social influences, not a lone culprit, appears to be responsible for causing most emotional problems.

The Big Picture

- What's wrong with Freud's (and other) theories of abnormal behavior?
- What does "correlation does not mean causation" mean?
- Is mental illness caused by a chemical imbalance in the brain?
- Is there a gene that causes mental disorders?
- How do psychological factors contribute to the development of emotional problems?
- Is abnormal behavior really all about labeling and role playing?

OVERVIEW

You may be distressed to learn that the cause, or *etiology*, of most abnormal behavior remains a mystery. In fact, you may have read or heard some popular stories proclaiming things like, "Depression Found in the Brain!" Our reaction to such a breathless headline is, "Where did you expect to find depression—in your foot?" We *know* depression is in the brain, and it *is* exciting that neuroscientists are identifying specific brain regions and chemicals involved in mental illnesses. But scientists still cannot tell when a "broken brain" causes depression or when a difficult experience causes changes in the brain that we experience as depression (or virtually any other mental disorder). Media accounts typically are oversimplified—and misleading—stories about what causes abnormal behavior. They "solve" the mystery in today's headline, but retract it on the back page tomorrow.

Some scientists also claim to have solved the mystery of abnormal behavior. Throughout much of the twentieth century, many psychologists vowed allegiance to one of four broad theories purporting to explain the cause of psychological disorders—the biological, psychodynamic, cognitive-behavioral, and humanistic paradigms. A **paradigm** is a set of shared assumptions that includes both the substance of a theory and beliefs about how scientists should collect data and test the theory. Thus, the four paradigms disagreed not only about what causes abnormal behavior, but also about how to study

it. Returning to our mystery metaphor, the paradigms not only picked different suspects out of the lineup, but they argued for different ways of proving guilt or innocence!

Most psychologists now recognize that abnormal behavior is caused by a combination of biological, psychological, and social factors (Kendler & Prescott, 2006; Rutter & Rutter, 1993). Biological contributions to abnormal behavior range from imbalanced brain chemistry to genetic predispositions. Psychological contributions range from troubled emotions to distorted thinking. Social and cultural contributions range from conflict in family relationships to sexual and racial bias. Recognizing that biological, psychological, and social factors all contribute to abnormal behavior, contemporary psychological scientists are guided by the **biopsychosocial model**, an effort to integrate research on these various contributions to mental disorders.

In this chapter, we briefly review the four paradigms and explain how integrated approaches have emerged to replace them. We also introduce a number of biological, psychological, and social processes that appear to contribute to emotional problems. In later chapters, we return to these concepts when discussing specific psychological disorders. As we do in every chapter, we begin our investigation with a case study. Most cases, including the following one, come from our own therapy files.

CASE STUDY Meghan's Many Hardships

At the age of 14, Meghan B. attempted to end her life by taking approximately 20 Tylenol® capsules. Meghan took the pills after an explosive fight with her mother over Meghan's grades and a boy she was dating. Meghan was in her room when she impulsively took the pills, but shortly afterward she told her mother what she had done. Her parents rushed Meghan to the emergency room, where her vital signs were closely monitored. As the crisis

was coming to an end, Meghan's parents agreed that she should be hospitalized to make sure that she was safe and to begin to treat her problems.

Meghan talked freely during the 30 days she spent on the adolescent unit of a private psychiatric hospital. Most of her complaints focused on her mother. Meghan insisted that her mother was always "in her face," telling her what to do and when and how to do it. Her father was "great," but he was

too busy with his job as a chemical engineer to spend much time with her.

Meghan also had long-standing problems in school. She barely maintained a C average despite considerable efforts to do better. Meghan said she didn't care about school, and her mother's insistence that she could do much better was a major source of conflict between them. Meghan also complained that she had few friends, either in or outside of school. She described her

classmates as “straight” and said she had no interest in them. Meghan was obviously angry as she described her family, school, and friends, but she also seemed sad. She often denounced herself as “stupid,” and she cried about being a “reject” when discussing why no friends, including her boyfriend, came to see her at the hospital.

Mrs. B. provided details on the history of Meghan’s problems. Mr. and Mrs. B. could not have children of their own, and they adopted Meghan when she was 2 years old. According to the adoption agency, Meghan’s birth mother was 16 years old when she had the baby. Meghan’s biological mother was a drug user, and she haphazardly left the baby in the care of friends and relatives for weeks at a time. Little was known about Meghan’s biological father except that he had had some trouble with the law. Meghan’s mother had known him only briefly.

“When Meghan was 14 months old, her pediatrician reported her mother to a child protection agency after noting bruises on Meghan’s thighs and hips.”

After a six-month legal investigation, Meghan’s mother agreed to give her up

for adoption. Meghan came to live with Mr. and Mrs. B. shortly thereafter.

Mrs. B. happily doted on her daughter. Mr. B. also was a loving father, but like Meghan, Mrs. B. noted that he was rarely at home. Everything seemed fine with Meghan until first grade, when teachers began to complain about her. She disrupted the classroom with her restlessness, and she did not complete her schoolwork. In second grade, a school psychologist suggested that Meghan was a “hyperactive” child who also had a learning disability. Her pediatrician recommended medication. Mrs. B. was horrified by the thought of medication or of sending Meghan to a “resource room” for part of the school day. Instead, she redoubled her efforts at parenting.

Meghan’s grades and classroom behavior remained acceptable as long as Mrs. B. consulted repeatedly with the school. Mrs. B. noted with bitterness, however, that the one problem that she could not solve was Meghan’s friendships. The

daughters of Mrs. B.’s friends and neighbors were well behaved and excellent students. Meghan did not fit in, and she never got invited to play with the other girls.

Mrs. B. was obviously sad when discussing Meghan’s past, but she became

“When Meghan was 14 months old, her pediatrician reported her mother to a child protection agency after noting bruises on Meghan’s thighs and hips.”

agitated and angry when discussing the present. She was very concerned about Meghan, but she wondered out loud if the suicide attempt had been manipulative. Mrs. B. said that she had had major conflicts with Meghan ever since Meghan started middle school. Meghan would no longer work with her mother on her homework for the usual two hours each night. She began arguing about everything from picking up her room to her boyfriend, an 18-year-old whom Mrs. B. abhorred. Mrs. B. complained that she did not understand what had happened to her daughter. She clearly stated, however, that whatever it was, she would fix it.

What was causing Meghan’s problems? Her case study suggests many possibilities. Some difficulties seem to be a reaction to a mother whose attentiveness at age 8 seems intrusive at age 14. We also could trace some of her troubles to anger over her failures in school or to rejection by her peers. However, Meghan’s problems seem bigger than this. Surely she was affected by the physical abuse, inconsistent love, and chaotic living arrangements during the first, critical years of her life. But could those distant events account for her current problems? What about biological contributions? Did her birth mother’s drug abuse affect Meghan as a developing fetus? Was Meghan a healthy, full-term newborn? Given her biological parents’ history of troubled behavior, could Meghan’s problems be partly genetic? Unfortunately, we do not have easy answers to these questions, but we can tell you how psychological scientists are seeking to answer them.

Brief Historical Perspective

The search for explanations of the causes of abnormal behavior dates to ancient times. But it was not until the nineteenth and early twentieth centuries that three major scientific advances occurred. One was the discovery of the cause of general paresis, a severe mental disorder that eventually ends in death. The second was the work of Sigmund Freud, a thinker who had a

profound influence on abnormal psychology and Western society. The third was the emergence of a new academic discipline called psychology.

THE BIOLOGICAL PARADIGM

The discovery of the cause of *general paresis* (general paralysis) is a remarkable and historically important example of the *biological paradigm*, which looks for biological abnormalities that cause abnormal behavior, for example, brain diseases, brain injuries, or genetic disorders. General paresis is caused by *syphilis*, a sexually transmitted disease. We know this as a result of over a century of research—some good and some bad.

In 1798, John Haslam, a British physician, distinguished general paresis from other forms of “lunacy” based on its symptoms, which include delusions of grandeur, cognitive impairment (dementia), and progressive paralysis. (General paresis has an unremitting course and ends in death after many years.) The diagnosis inspired a search for the cause of the disorder, but it took scientists more than 100 years to solve the mystery.

The breakthrough began with the recognition that many people with general paresis had contracted syphilis earlier in their lives. Yet, researchers still questioned this linkage. For example, in 1894, the French syphilis expert, Jean Fournier, found that only 65 percent of patients with general paresis reported a history of syphilis. How could syphilis cause the



German microbiologist Paul Ehrlich (1854–1915) developed *arsphenamine*, an arsenic-based treatment for syphilis that prevented general paresis. He won the Nobel Prize for Medicine.

mental disorder if a third of patients never contracted it? But three years later, Austrian-German psychiatrist Richard von Krafft Ebbing attempted to inoculate patients with general paresis against syphilis. No one became infected when exposed to the inoculation's mild form of the disease. There could be only one explanation: *All* of the patients had been infected with syphilis previously. Fournier's statistic, based on imperfect self-reports, was wrong.

Soon, the spirochete that causes syphilis was discovered. Postmortem examinations subsequently found that the spirochete had invaded and destroyed parts of the brain. In 1910, Paul Ehrlich, a German microbiologist, developed an arsenic-containing chemical that destroyed the spirochete and prevented general paresis. (Unfortunately, the drug worked only if the patient was treated in the early stages of infection.) Later, scientists learned that syphilis could be cured by another new drug, penicillin—the first antibiotic. General paresis was virtually eliminated when antibiotics became widely available.

The dramatic discovery of the cause of general paresis gave hope that scientists would soon discover biological causes for other mental disorders. Accurate diagnosis is the first step. The second involves the search for specific biological causes. To date, however, specific biological causes have been identified only for only a few cognitive disorders (see Chapter 14) and about half of

all cases of intellectual disability (see Chapter 15). Will the future bring similar discoveries for depression, bipolar disorder, schizophrenia, perhaps even substance abuse? Some scientists hope to identify specific genes and brain processes that cause these disorders. Others believe that we will never discover a single cause, because so many factors are involved in the development of psychological disorders (Kendler & Prescott, 2006).

We agree more with the second group of scientists than the first. Specific biological causes, many genetic, probably will be discovered for some small percentage of mental disorders. Yet, we expect the great majority of cases of abnormal behavior to defy simple explanation. Like heart disease and cancer, most mental disorders appear to be “lifestyle diseases” that are caused by a combination of biological, psychological, and social influences.

THE PSYCHODYNAMIC PARADIGM

The *psychodynamic paradigm*, an outgrowth of the work of Sigmund Freud (1856–1939), asserts that abnormal behavior is caused by unconscious mental conflicts that have roots in early childhood experience. Freud was trained in Paris by Jean Charcot (1825–1893), a neurologist who successfully used hypnosis to treat *hysteria*. Hysteria is characterized by unusual physical symptoms in the absence of physical impairment. For example, “hysterical blindness” is the inability to see, but the blindness is not caused by an organic dysfunction. In fact, the afflicted individual may recover sight after resolving an emotional problem.

Freud observed that hysterical patients did not fake their symptoms. They also did not consciously associate the symptoms with emotional distress. Freud suggested, instead, that their psychological conflicts were unconsciously “converted” into physical symptoms. The peculiar problem led Freud to theorize that many memories, motivations, and protective psychological processes are unconscious. This basic assumption was the impetus for his elaborate **psychoanalytic theory**, which refers specifically to Freud's theorizing. The broader term *psychodynamic theory* includes not only Freudian theory but also the revisions of his followers (see Chapter 3).

Psychoanalytic theory is complicated and historically important, so we describe it in some detail here. You should know, however, that college students today are much more likely to learn about Freud's ideas in English departments than in psychology courses! Eighty-six percent of classes on psychoanalysis on U.S. campuses are taught *outside* of psychology departments (Shulman & Redmond, 2008). Why? The theory is a rich source of theorizing—and weak on science.

Psychoanalytic theory divides the mind into three parts: the id, the ego, and the superego. The **id** is present at birth and houses biological drives, such as hunger, as well as two key psychological drives: sex and aggression. In Freudian theory, the id operates according to the *pleasure principle*—the impulses of the id seek immediate gratification and create discomfort or unrest until they are satisfied. Thus, in Freud's view, sexual or aggressive urges are akin to biological urges, like hunger.

The **ego** is the part of the personality that must deal with the realities of the world as it attempts to fulfill id impulses as well as perform other functions. Thus, the ego operates on the *reality principle*. According to Freud, the ego begins to develop in the first year of life, and it continues to evolve, particularly during the preschool years. Unlike id impulses, which are primarily unconscious, much of the ego resides in conscious awareness.



Sigmund Freud arriving in Paris with his friend, Marie Bonaparte, Princess of Greece and Denmark, and U.S. Ambassador William Bullitt.

The third part of the personality is the **superego**, which is roughly equivalent to your conscience. The superego contains societal standards of behavior, particularly rules that children learn in their preschool years from trying to be like their parents. Freud viewed the superego's rules as efforts to govern the id's sexual and aggressive impulses, with the ego mediating between the two. Freud called conflict between the superego and the ego *moral anxiety*, and conflict between the id and the ego *neurotic anxiety*.

Freud suggested that the ego protects itself from neurotic anxiety by utilizing various **defense mechanisms**, unconscious self-deceptions that reduce conscious anxiety by distorting anxiety-producing memories, emotions, and impulses. For example, the defense of *projection* turns the tables psychologically. When you use projection, you project your own feelings on to someone else: "I'm not mad at you. You're mad at me!" A list of some of the more familiar defenses can be found in Table 2.1. Many of these terms are now a part of everyday language, testimony to Freud's influence on Western culture.

Freud viewed early childhood experiences, especially related to forbidden topics, as shaping personality and emotional health. In his theory of *psychosexual development*, in fact, Freud argued that each stage of development is defined by a sexual conflict (see Table 2.5 on p. 46). For example, the *Oedipal conflict* centers on boys' forbidden sexual desire for their mothers. Because these impulses are impossible and overwhelming, Freud argued that boys resolve the dilemma by becoming like their mothers' spouse: They *identify* with their fathers. Freud hypothesized that girls, unlike boys, do not desire their opposite gender parent sexually. Instead, girls confront the *Electra complex*, yearning for something their fathers have and they are "missing"—a penis. This is the Freudian notion of "penis envy."

It is not difficult to criticize these ideas as far-fetched, overly sexualized, and sexist. We also can (and do) criticize psychoanalytic theory on scientific grounds. Still, Freud offered many innovative ideas. Some psychoanalysts insist on interpreting Freud literally. We believe that Freud would have criticized such unchanging interpretations. After all, he often revised his own ideas. In this spirit, we view Freud's ideas as metaphors that are more valuable in the abstract than in their specifics.

THE COGNITIVE-BEHAVIORAL PARADIGM

Like the biological and psychodynamic paradigms, the foundations of the *cognitive-behavioral paradigm*, which views abnormal behavior as a product of learning can be traced to the nineteenth century, specifically to 1879, when Wilhelm Wundt (1842–1920)

TABLE 2.1 Some Freudian Defense Mechanisms

DENIAL	Insistence that an experience, memory, or need did not occur or does not exist. For example, you completely block a painful experience from your memory.
DISPLACEMENT	Feelings or actions are transferred from one person or object to another that is less threatening. For example, you kick your dog when you are upset with your boss.
PROJECTION	Attributing one's own feelings or thoughts to other people. For example, a husband argues that his wife is angry at him when, in fact, he is angry at her.
RATIONALIZATION	Intellectually justifying a feeling or event. For example, after not getting the offer, you decide that a job you applied for was not the one you really wanted.
REACTION FORMATION	Converting a painful or unacceptable feeling into its opposite. For example, you "hate" a former lover, but underneath it all you still really love that person.
REPRESSION	Suppressing threatening material from consciousness but without denial. For example, you "forget" about an embarrassing experience.
SUBLIMATION	Diverting id impulses into constructive and acceptable outlets. For example, you study hard to get good grades rather than giving in to desires for immediate pleasure.

began the science of psychology at the University of Leipzig. Wundt’s substantive contributions to psychology were limited, but he made a profound contribution by introducing the scientific study of psychological phenomena, especially learning.

Two prominent early scientists who made lasting substantive contributions to learning theory and research were the Russian physiologist Ivan Pavlov (1849–1936) and the U.S. psychologist B. F. Skinner (1904–1990). These psychological scientists articulated the principles of classical conditioning and operant conditioning—concepts that continue to be central to psychology today.

In his famous experiment, Pavlov (1928) rang a bell when he fed meat powder to dogs. After repeated trials, the sound of the bell alone elicited the salivation produced by the sight of food. This illustrates Pavlov’s theory of classical conditioning. **Classical conditioning** is learning through association, and it involves four key components. There is an *unconditioned stimulus* (the meat powder), the stimulus that automatically produces the *unconditioned response* (salivation). A *conditioned stimulus* (the bell) is a neutral stimulus that, when repeatedly paired with an unconditioned stimulus, comes to produce a *conditioned response* (salivation). Finally, **extinction** gradually occurs once a conditioned stimulus no longer is paired with an unconditioned stimulus. Eventually, the conditioned stimulus no longer elicits the conditioned response.

Skinner’s (1953) **operant conditioning** asserts that behavior is a function of its consequences. Specifically, behavior increases if it is rewarded, and it decreases if it is punished. In his numerous studies of rats and pigeons in his famous “Skinner box,” Skinner identified four different, crucial consequences. *Positive reinforcement* is when the *onset* of a stimulus *increases* the frequency of behavior (for example, you get paid for your work). *Negative reinforcement* is when the *cessation* of a stimulus *increases* the frequency of behavior (you get up to turn off your alarm clock). *Punishment* is when the *onset* of a stimulus *decreases* the frequency of behavior (you spend less money after your parents scold you); and *response cost* is when the *cessation* of a stimulus *decreases* the frequency of behavior (you come home on time after getting grounded). *Extinction* results from

How are old paradigms too narrow?

ending the association between a behavior and its consequences as in classical conditioning.

The U.S. psychologist John B. Watson (1878–1958) was an influential proponent of applying learning theory to human behavior. Watson argued for *behaviorism*, suggesting that observable behavior was the only appropriate subject matter for the science of psychology, because, he argued, thoughts and emotions cannot be measured objectively. However, very important research, including therapies we discuss in Chapter 3, has shown the importance of cognitive processes in learning. Thus, “cognitive” joined “behavioral.” True to their historical roots, cognitive-behavior therapists value and have promoted psychological research in many areas of abnormal psychology.

THE HUMANISTIC PARADIGM

The *humanistic paradigm* argues that human behavior is the product of *free will*, the view that we control, choose, and are responsible for our actions. In many respects, this stance is a reaction against *determinism*, the scientific assumption that human behavior is caused by potentially knowable factors (a position held by the other paradigms). Because free will, by definition, is not predictable, it is impossible to determine the causes of abnormal behavior according to the humanistic paradigm. For this reason, the approach perhaps is best considered as an alternative philosophy, not as an alternative psychological theory.

The humanistic paradigm is also distinguished by its explicitly positive view of human nature. Humanistic psychologists blame abnormal behavior on society, not on the individual, whom they see as inherently good (see Table 2.2). The term “humanistic” is appealing, but we should be clear about this: All psychologists are humanists in the sense that their ultimate goal is to improve the human condition.

THE PROBLEM WITH PARADIGMS

The historian and philosopher Thomas Kuhn (1962) showed how paradigms can both direct and misdirect scientists. Paradigms can tell us how to find answers, but sometimes the guidance can be a hindrance. The idea that paradigms can guide or blind us is illustrated by the following enigma, written by Lord Byron:

TABLE 2.2 Comparison of Biological, Psychodynamic, Cognitive-Behavioral, and Humanistic Paradigms

Topic	Biological	Psychodynamic	Cognitive-Behavioral	Humanistic
Inborn human nature	Competitive, but some altruism	Aggressive, sexual	Neutral—a blank slate	Basic goodness
Cause of abnormality	Genes, neurochemistry, physical damage	Early childhood experiences	Social learning	Frustrations of society
Type of treatment	Medication, other somatic therapies	Psychodynamic therapy	Cognitive-behavior therapy	Nondirective therapy
Paradigmatic focus	Bodily functions and structures	Unconscious mind	Observable behavior	Free will

I'm not in earth, nor the sun,
nor the moon.
You may search all the sky—
I'm not there.
In the morning and evening—
though not at noon,
You may plainly perceive me,
for like a balloon,
I am suspended in air.
Though disease may possess me,
and sickness and pain,
I am never in sorrow nor gloom;
Though in wit and wisdom
I equally reign
I am the heart of all sin and have
long lived in vain;
Yet I ne'er shall be found in the tomb.

What is this poem about? The topic is not the soul or ghosts, life or shadows, or a dozen other possibilities. The topic is the letter *i*. (Suspended in air, the heart of all sin.) Why is the puzzle so difficult to solve? Because most people assume that the solution lies in the content of the poem, not in its form. This illustrates how our assumptions (a paradigm) can lead us to overlook possible answers. Yet, paradigms also can open up new perspectives. Now that you

have been able to adopt a new “paradigm”—to focus on the form, not the content of words—you can easily solve the following puzzle:

The beginning of eternity, the end
of time and space,
The beginning of every end, the end
of every place.

The now obvious answer is the letter *e*.

Like your initial approach to the brain teaser, the four paradigms make assumptions about the causes of abnormal psychology that can be too narrow. The biological paradigm can overemphasize the *medical model*, the analogy between physical and psychological illnesses. The psychodynamic paradigm can be unyielding in focusing on childhood experiences, unconscious conflicts, and interpreting Freud literally. The cognitive-behavioral paradigm can overlook the rich social and biological context of human behavior. Finally, the humanistic approach can be antiscientific. In short, each paradigm has weaknesses—and strengths. As in the word puzzles, the trick is to know which is which.

Systems Theory

Systems theory is an integrative approach to science that embraces multiple influences on behavior, including the best elements of each of the four paradigms. You can think of systems theory as a synonym for the biopsychosocial model. However, several key concepts deserve explanation.

HOLISM

A central principle of systems theory is *holism*, the idea that the whole is *more* than the sum of its parts. Holism is a familiar but important concept. A water molecule is more than the sum of two hydrogen atoms and one oxygen atom. Holistic medicine views human beings as more than their disease. Similarly, abnormal behavior is more than the sum of chemical reactions in the brain.

Reductionism We can better appreciate the principle of holism if we contrast it with its scientific counterpoint, reductionism. Reductionism understands problems by focusing on smaller and smaller units, viewing the smallest possible unit as the true or ultimate cause. For example, when depression is linked with the depletion of certain chemicals in the brain, reductionists view brain chemistry as the cause of depression. Systems theory reminds us, however, that difficult experiences can and do cause the changes in brain chemistry that may lead to depression (Cacioppo & Bernston, 1992; Kagan, 2007).

Part of our concern with their example is cause and effect—does a “chemical imbalance in the brain” cause depression or does depression cause a chemical imbalance in the brain (see Research Methods). But our broader concern with reductionism is easiest to illustrate with a far-out example. Assume for a moment that three Martian scientists are sent to Earth to discover what causes metallic vehicles to speed across



The android, Data, from *Star Trek: The Next Generation*. Is free will (and emotion) a uniquely human quality?

RESEARCH METHODS

CORRELATIONS: DOES A PSYCHOLOGY MAJOR MAKE YOU SMARTER?

The correlational study and *the experiment* (see Chapter 3) are two basic and essential research methods. In a **correlational study**, the relation between two factors (their co-relation) is studied systematically. For example, you might hypothesize that psychology majors learn more about research methods than biology majors. To support this hypothesis, you might simply argue your point, or you could rely on case studies—“I know more research than my roommate, and she’s a biology major!”

If you were to conduct a correlational study, you would collect a large sample of both psychology and biology majors and compare them on an objective measure of knowledge of research methods. You would then use statistics to test whether research knowledge is correlated with academic major.

An important statistic for measuring how strongly two factors are related is the **correlation coefficient**. The correlation coefficient is a number that always ranges between -1.00 and $+1.00$. If all psychology majors got 100 percent correct on your test of research methods and all biology majors got 0 percent correct, the correlation between academic major and research knowledge would be 1.00 . If all psychology and biology majors got 50 percent of the items correct, the correlation between major and knowledge would be zero. Two factors are more strongly correlated when a correlation coefficient has a higher absolute value, regardless of

whether the sign is positive or negative.

Positive correlations (from 0.01 to 1.00) indicate that, as one factor goes up, the other factor also goes up. For example, height and weight are positively correlated, as are years of education and employment income. Taller people weigh more; educated people earn more money. *Negative correlations* (from -1.00 to -0.01) indicate that, as one number gets bigger, the other number gets smaller. For example, your course load and your free time are negatively correlated. The more courses you take, the less free time you have.

In this chapter, we discuss many factors that are correlated with and *might* cause psychological problems. Levels of neurotransmitters are positively correlated with some emotional problems (they are elevated in comparison to normal), and they are negatively correlated with other types of emotional problems (they are depleted in comparison to normal). However, you should always remember that *correlation does not mean causation*. This is true for the correlation between major and research knowledge and for the correlation between neurotransmitters and mental health (Kagan, 2007).

We might want to conclude that X causes Y—that depleted neurotransmitters cause depression. A correlation may result from causation, but there are always two alternative explanations:

reverse causality and third variables.

Reverse causality indicates that causation could be operating in the opposite direction: Y could be causing X. Depression could be causing the depletion of neurotransmitters. The **third variable** problem indicates that a correlation between any two variables might be explained by their joint relation with some unmeasured factor—a third variable. For example, stress might cause both depression and the depletion of neurotransmitters.

So if you found that psychology majors know more about research methods, could you conclude that majoring

Why does correlation not mean causation?

in psychology *caused* this result? No! People who know more about research methods to begin with might become psychology majors (reverse causality). Or more intelligent people might both major in psychology and learn more about research methods (third variable).

As we discuss in Chapter 3, the experiment *does* allow scientists to determine cause and effect. However, it often is impractical or unethical to conduct experiments on psychological problems, while correlational studies can be conducted with far fewer practical or ethical concerns. Thus, the correlational method has the weakness that correlation does not mean causation, but the strength that it can be used to study many real-life circumstances.

the planet’s landmass. A Martian ecologist reports that the vehicles (called “automobiles”) move at different speeds based on the width of the black paths on which they are set, whether the paths are straight or curved, and the presence of something called “radar traps.” A Martian psychologist disagrees, noting that the speed of automobiles is determined by the age, gender, and mood of the individual who sits behind the wheel. A third scientist, a reductionist, laughs at the other two. The Martian physicist notes that the speed of automobiles ultimately is caused by a chemical process that occurs inside an outdated machine, the internal combustion engine. The process involves oxygen, fuel, and heat and results in mechanical energy.

Some people believe that the most reductionistic accounts are true causes (Alessi, 1992; Uttal, 2001; Valenstein, 1998). The Martian example illustrates, however, that the most reductionistic, or *molecular*, explanation may be no more (or less) accurate than the most general, or *molar*, one.

Levels of Analysis Psychologists may focus on different—but not necessarily inconsistent—*levels of analysis* in trying to understand the causes of abnormal behavior (Hinde, 1992). Biological, psychological, and social views of abnormal behavior each use a different “lens”; one is a microscope, another a magnifying glass, and the third a telescope. No one “lens” is right.

TABLE 2.3 Ordering Academic Disciplines by Level of Analysis

Level of Analysis	Academic Discipline
Beyond Earth	Astronomy
Supranational	Ecology, economics
National	Government, political science
Organizations	Organizational science
Groups	Sociology
Organisms	Psychology, ethology, zoology
Organs	Cardiology, neurology
Cells	Cellular biology
Biochemicals	Biochemistry
Chemicals	Chemistry, physical chemistry
Atoms	Physics
Subatomic particles	Subatomic physics
Abstract systems	Mathematics, philosophy

Source: Based on G.E. Schwartz, 1982. Testing the biopsychosocial model: The ultimate challenge facing behavioral medicine, *Journal of Consulting and Clinical Psychology*, 50, 1040–1053.

They are just different. Each has value for different purposes. In fact, we can order all academic disciplines according to their level of analysis (Schwartz, 1982; see Table 2.3).

CAUSALITY

You may be a bit frustrated by the “Russian *matreska* doll” approach of systems theory, with one explanation nested within another. This is understandable. Human beings are not very patient with complicated explanations. Our orderly minds want



Like car accidents, mental illnesses have many causes, not one.

to pinpoint a single culprit. We want to know *the* cause of cancer, *the* cause of heart disease, and *the* cause of mental illness.

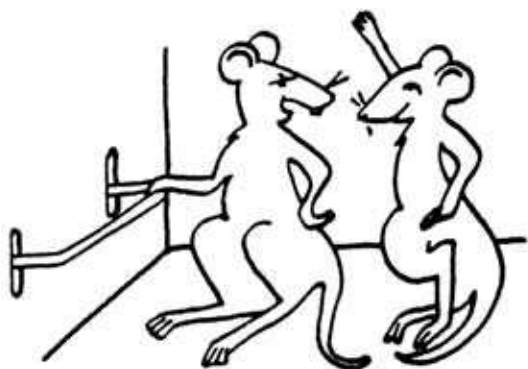
But a question might help to unhinge you from this human search for simplicity: What is *the* cause of automobile accidents? Car accidents have many causes: excessive speed, drunk drivers, slippery roads, and worn tires. It would be fruitless to search for *the* cause of car accidents. The same is true for most mental disorders (and cancer and heart disease). They are caused by a combination of factors, not by a single, manageable problem.

Can two explanations of abnormal behavior both be accurate?

Equifinality and Multifinality This frustrating fact illustrates the principle of *equifinality*, the view that there are many routes to the same destination (or disorder). In fact, we use the term *multiple pathways* as a synonym for equifinality. Both terms highlight that the same disorder may have several different causes.

Equifinality has a mirror concept, the principle of *multifinality*, which says that the same event can lead to different outcomes. For example, not all abused children grow up with the same problems later in life. In fact, not all abused children *have* psychological problems as adults. Throughout the text, you will repeatedly see examples of equifinality and multifinality. The human psyche is indeed a very complex system.

The Diathesis-Stress Model The diathesis-stress model is a common if somewhat simplified way of describing multiple influences on abnormal behavior. A **diathesis** is a predisposition toward developing a disorder, for example, an inherited tendency toward depression. A **stress** is a difficult experience, for example, the loss of a loved one through an unexpected death. The diathesis-stress model suggests that mental disorders develop only when a stress is added on top of a predisposition; neither a diathesis nor a stress alone is sufficient to cause a disorder (Zuckerman, 1999).



“Boy, have I got this guy conditioned! Every time I press the bar down he drops a piece of food.”

But mental disorders are not caused by the combination of only two risk factors, a diathesis and a stress. **Risk factors** are circumstances that are correlated with an increased likelihood of a disorder and may contribute to causing it. Mental disorders appear to be caused by the combination of *many* different biological, psychological, and social risk factors (Belsky & Pluess, 2009).

Reciprocal Causality We need to add one more complication. We like to think of causes as a one way street. For example, the experimenter causes a rat to press the bar in a Skinner box. B. F. Skinner recognized that causation in operant conditioning experiments is not that simple (Skinner, 1956). As his cartoon above illustrates, the experimenter teaches rats to press the bar, but the rats also “teach” the experimenter to feed them! This illustrates the principle of **reciprocal causality**, an interaction where causality is a two-way street. Troubled relationships can contribute to mental disorders, for example, but people with mental disorders can also make relationships difficult.

DEVELOPMENTAL PSYCHOPATHOLOGY

Developmental psychopathology is an approach to abnormal psychology that emphasizes change over time. The approach recognizes the importance of *developmental norms*—age-graded averages—to understanding influences on (and the definition of) abnormal behavior (Cicchetti & Cohen, 1995; Rutter & Garmezy, 1983). Developmental norms tell us that a full-blown temper tantrum is normal at 2 years of age, for example, but that kicking and screaming to get your own way is abnormal at the age of 22. Development does not end at the age of 22, however, as predictable changes in both psychological and social experiences occur throughout adult life. Recognizing this, we devote an entire chapter (Chapter 17) to discussing the normal but psychologically trying changes that result from developmental transitions during adult life.

A developmental approach also is important for abnormal behavior itself. Many psychological disorders follow unique developmental patterns. Sometimes there is a characteristic **pre-morbid history**, a pattern of behavior that precedes the onset of the disorder. A disorder may also have a predictable course, or **prognosis**, for the future. Abnormal behavior is a moving picture of development and not just a diagnostic snapshot.

The remainder of this chapter has sections on biological, psychological, and social factors involved in the development of psychopathology. This basic material sets the stage for our more specific discussions of the causes of abnormal behavior in later chapters.

Biological Factors

We begin our discussion of biological factors affecting mental functioning by considering the smallest anatomic unit within the nervous system, the neuron or nerve cell. Next, we consider the major brain structures and current knowledge of their primary behavioral functions. We then turn to psychophysiology, the effect of psychological experience on the functioning of various body systems. Finally, we consider the broadest of all biological influences, the effect of genes on behavior.

In considering biological influences, it is helpful to note the distinction between the study of biological structures and biological functions. The field of *anatomy* is concerned with the study of biological structures; the field of *physiology* investigates biological functions. *Neuroanatomy* and *neurophysiology* are subspecialties within these broader fields that focus specifically on brain structures and brain functions. The study of neuroanatomy and neurophysiology is the domain of an exciting, multidisciplinary field of research called *neuroscience*.

THE NEURON AND NEUROTRANSMITTERS

Billions of tiny nerve cells—**neurons**—form the basic building blocks of the brain. Each neuron has four major anatomic components: the soma, or cell body, the dendrites, the axon, and the axon terminal (see Figure 2.1). The *soma*—the cell body and largest part of the neuron—is where most of the neuron’s metabolism and maintenance are controlled and performed. The *dendrites* branch out from the soma; they serve the primary function of receiving messages from other cells. The *axon* is the trunk of the neuron. Messages are transmitted down the axon toward other cells. Finally, the *axon terminal* is the end of the axon, where messages are sent out to other neurons (Barondes, 1993).

Within each neuron, information is transmitted as a change in electrical potential that moves from the dendrites and cell body, along the axon, toward the axon terminal. The axon terminal is separated from other cells by a **synapse**, a small gap filled with fluid. Neurons typically have synapses with thousands of other cells (see Figure 2.2).

Unlike the electrical communication within a neuron, information is transmitted chemically across a synapse to other neurons. The axon terminal contains *vesicles* containing chemical substances called **neurotransmitters**, which are released into the synapse and are received at the **receptors** on the dendrites or soma of another neuron. Different receptor sites are more or less responsive to particular neurotransmitters. Dozens of different chemical compounds serve as neurotransmitters in the brain. *Serotonin* and *dopamine* are two that are known to be particularly important for abnormal behavior. Both can be altered by medication. You should know, however, that a single neurotransmitter is unlikely to be responsible for a single disorder.

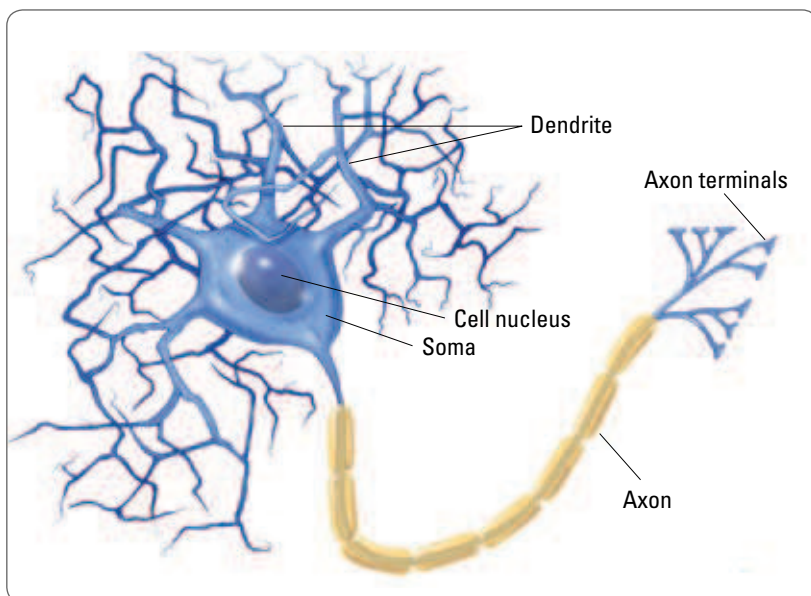


FIGURE 2.1 The Neuron

The anatomic structure of the neuron, or nerve cell.

Source: From *Fundamentals of Human Neuropsychology*, 2e by Bryan Kolb and Ian Q. Whishaw. © 1985 by W. H. Freeman and Company. Used with the permission of Worth Publishers.

Not all neurotransmitters cross the synapse and reach the receptors on another neuron. The process of **reuptake**, or reabsorption, captures some neurotransmitters in the synapse and returns the chemical substances to the axon terminal. The neurotransmitter then is reused in subsequent neural transmission.

In addition to the neurotransmitters, a second type of chemical affects communication in the brain. *Neuromodulators* are chemicals that can influence communication among many neurons by affecting the functioning of neurotransmitters (Ciaranello et al., 1995). Neuromodulators often affect regions of the brain that are quite distant from where they were released. This occurs, for example, when stress causes the adrenal gland to release hormones that affect many aspects of brain functioning (as we discuss shortly).

NEUROTRANSMITTERS AND PSYCHOPATHOLOGY

Scientists have found neurotransmitter disruptions in some people with mental disorders. An oversupply of certain neu-

rotransmitters is found in some cases, an undersupply in others, and disturbances in reuptake in still other cases. In addition, the density and/or sensitivity of receptors may play a role in some abnormal behavior.

Much research has investigated how drugs alter brain chemistry and, in turn, affect symptoms. For example, medications that alleviate some symptoms of schizophrenia block receptors sensitive to the neurotransmitter *dopamine*. This suggests that abnormalities in the dopamine system may be involved in schizophrenia (see Chapter 13). Evidence that effective treatments for depression inhibit the reuptake of the *serotonin* links a depletion of that neurotransmitter to mood disorders (see Chapter 5). As we discuss in the appropriate chapters, however, several neurotransmitters are likely to be involved in these and other mental disorders. Consistent with our discussion of levels of analysis, moreover, a biochemical difference does not mean that these problems are caused by “a chemical imbalance in the brain,” even though many people, including many mental health professionals, mistakenly leap to this conclusion (see box on Mind–Body Dualism).

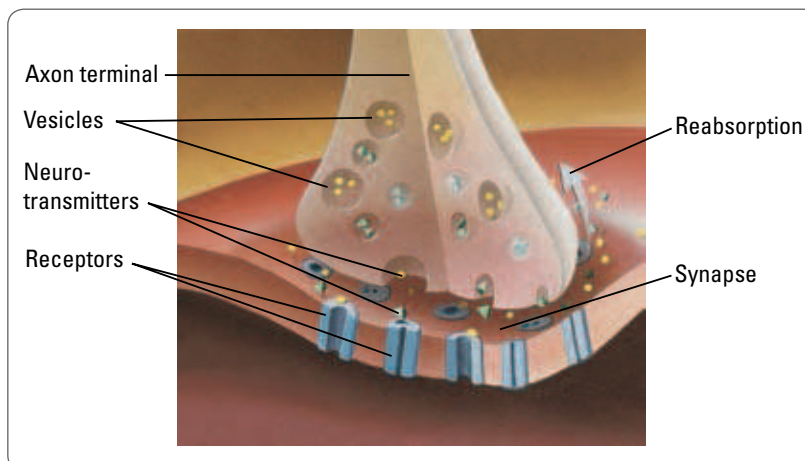


FIGURE 2.2 Synaptic Transmission

When an electrical nerve impulse reaches the end of a neuron, synaptic vesicles release neurotransmitters into the synapse. The chemical transmission between cells is complete when neurotransmitters travel to receptor sites on another neuron.

Source: Keith Kasnot/National Geographic Stock.

MIND–BODY DUALISM

Some people mistakenly conclude that, because brain functions are correlated with a psychological problem, this means that there is something wrong in the brain that causes the disorder. Certain regions of the brain “light up” with depression. This means that depression is a “brain disease,” right? Medications that affect brain chemistry lessen symptoms of depression. This means depression is caused by a “chemical imbalance in the brain,” right? Wrong—on both counts.

Much of this misguided thinking can be traced to the logical error formally known as **dualism**, the mistaken view that the mind and body are somehow separable. This wrong-headed reasoning has a long and *undistinguished* history. Dualism dates to the French philosopher René Descartes (1596–1650), who attempted to balance the dominant

religious views of his times with emerging scientific reasoning. Descartes recognized the importance of human biology, but he wanted to elevate human spirituality beyond the brain. To balance scientific and religious beliefs, he argued that many human experiences result from brain function, but higher spiritual thoughts and feelings somehow exist apart from the body.

Descartes argued for a distinction—a dualism—between mind and body.

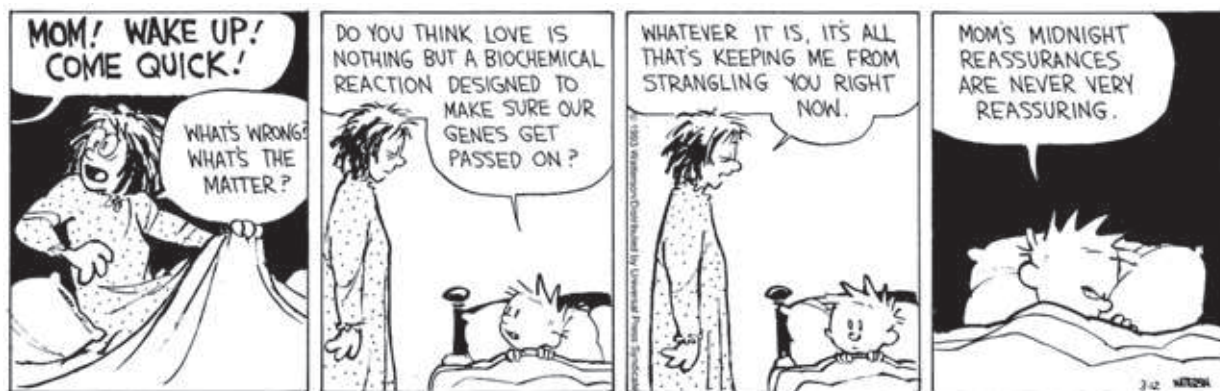
But he was wrong. No psychological experience exists apart from biology. Just like computer software cannot run without computer hardware, *no* psychological experience runs independently from the hardware of the brain (Turkheimer, 1998; Valenstein, 1998).

Even love has a biochemical explanation, a fact that Calvin ponders in the

accompanying cartoon. If you are unpersuaded by Calvin, you may be convinced by a study. Images of married women’s brains show bigger responses to threat when a woman is holding a stranger’s hand instead of her husband’s. Brain images also show a bigger response to threat when women are holding hands with husbands to whom they are less

Is psychological experience separate from biology?

happily married (Coan, Schaefer, & Davidson, 2006). Love will still be love (we hope) even after scientists identify the “chemical imbalance” that explains it. And as with love, just because certain parts of the brain “light up” when people suffer from a psychological problem, this does not necessarily mean that they have a “broken brain.”



CALVIN AND HOBBS © Bill Watterson. Reprinted with permission of UNIVERSAL UCLICK. All rights reserved.

MAJOR BRAIN STRUCTURES

Neuroanatomists broadly divide the brain into the hindbrain, the midbrain, and the forebrain (see Figure 2.3). Basic bodily functions are regulated by the structures of the *hindbrain*, which include the medulla, pons, and cerebellum. The *medulla* controls various bodily functions involved in sustaining life, including heart rate, blood pressure, and respiration. The *pons* serves various functions in regulating stages of sleep. The *cerebellum* serves as a control center in helping to coordinate physical movements, receiving information on body movements and integrating this feedback with directives from higher brain structures about desired actions. Few forms of abnormal behavior are linked with disturbances in the hindbrain.

The *midbrain* also is involved in the control of some motor activities, especially those related to fighting and sex. Much of the reticular activating system is located in the midbrain,

although it extends into the pons and medulla as well. The *reticular activating system* regulates sleeping and waking. Damage to areas of the midbrain can cause extreme disturbances in sexual behavior, aggressiveness, and sleep, but such abnormalities typically result from specific and unusual brain traumas or tumors (Matthysse & Pope, 1986).

Most of the human brain consists of the *forebrain*. The forebrain evolved more recently and is the site of most sensory, emotional, and cognitive processes. The forebrain is linked with the midbrain and hindbrain by the **limbic system**, which is made up of several structures that regulate emotion and basic learning processes. Two of the most important components of the limbic system are the thalamus and the hypothalamus. The *thalamus* is involved in receiving and integrating sensory information from both the sense organs and higher brain structures. The **hypothalamus** also plays a role in sensation, but its more important functions are behavioral ones. The hypothalamus

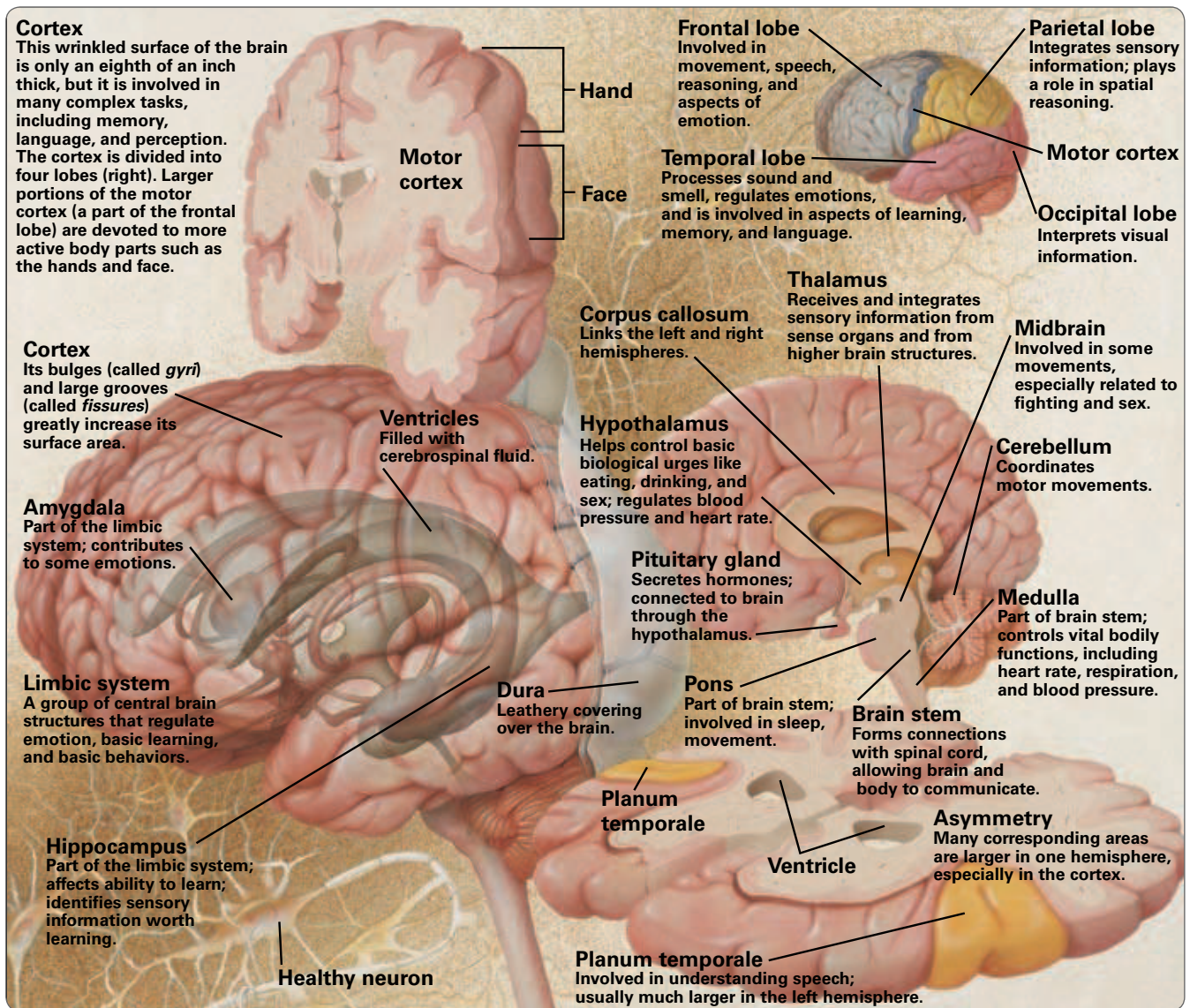


FIGURE 2.3 The Healthy Brain

Scientists are only beginning to discover how the healthy brain performs its complex functions. You should view this complex figure as a rough road map that will be redrawn repeatedly. Like a roadmap, you should not try to memorize the figure, but use it as a guide. You will appreciate more and more detail as you return to examine it repeatedly. Despite the continuing mysteries, increasingly sophisticated tools have allowed researchers to identify more and more of the functions performed by different areas of the brain. For example, the four lobes of the brain's cortex play very different roles in thought, emotion, sensation, and motor movement (see top right of figure). Still, our incomplete knowledge of the healthy brain limits our understanding of brain abnormalities.

controls basic biological urges, such as eating, drinking, and sexual activity. Much of the functioning of the autonomic nervous system (which we discuss shortly) is also directed by the hypothalamus.

CEREBRAL HEMISPHERES

Most of the forebrain is composed of the two **cerebral hemispheres**. Many brain functions are **lateralized**, so that one hemisphere serves a specialized role as the site of specific

cognitive and emotional activities. In general, the *left cerebral hemisphere* is involved in language and related functions, and the *right cerebral hemisphere* is involved in spatial organization and analysis.

The two cerebral hemispheres are connected by the *corpus callosum*, which is involved in coordinating the different functions that are performed by the left and the right hemispheres of the brain. When we view a cross-section of the forebrain, four connected chambers, or **ventricles**, become apparent. The ventricles are filled with cerebrospinal fluid, and they become enlarged in some psychological and neurological disorders.

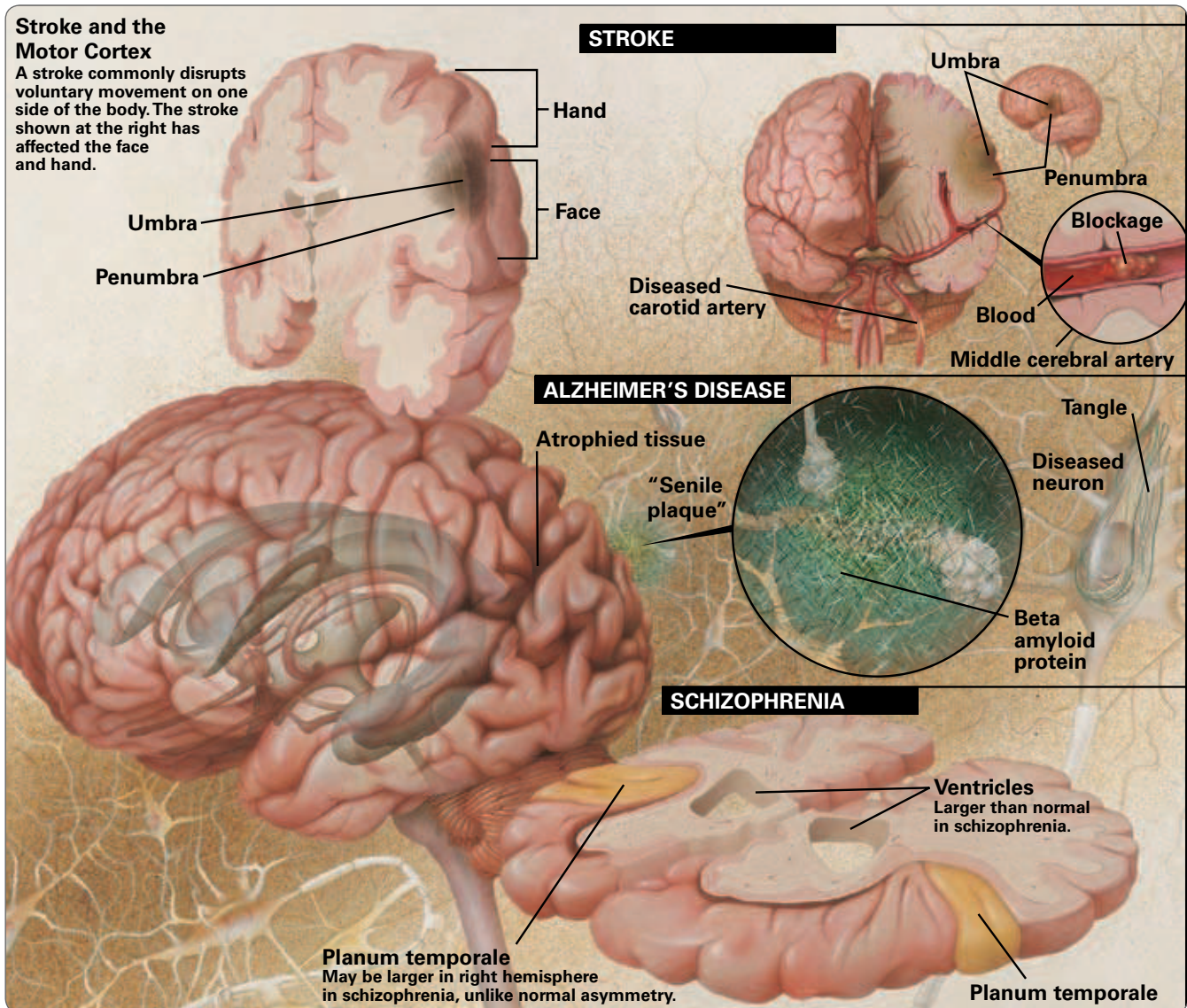


FIGURE 2.3 The Unhealthy Brain (*Continued.*)

Scientists have identified clear brain abnormalities only for some severe mental disorders. A stroke is caused by loss of blood supply to a region of the brain, and it kills off nearby cells (see Chapter 14). Cells die rapidly near the center of the damaged tissue, the umbra. Cells die less rapidly in the periphery, the penumbra, and may be saved by future medical advances. Alzheimer's disease is a severe cognitive disorder associated with aging (see Chapter 14) that is characterized by atrophied brain tissue, "senile plaques" (caused by clumps of beta amyloid protein), and tangles of diseased or dead neurons. Schizophrenia is a very serious psychotic illness (see Chapter 13) that remains a mystery as a brain disorder, despite some promising leads. For example, among people with schizophrenia the ventricles often are enlarged, and asymmetries in the planum temporale may be reversed.

Source: Keith Kasnot/National Geographic Stock.

The **cerebral cortex** is the uneven surface area of the fore-brain that lies just underneath the skull. It is the site of the control and integration of sophisticated memory, sensory, and motor functions. The cerebral cortex is divided into four lobes (see Figure 2.3). The *frontal lobe*, located just behind the forehead, is involved in controlling a number of complex functions, including reasoning, planning, emotion, speech, and movement. The

parietal lobe, located at the top and back of the head, receives and integrates sensory information and also plays a role in spatial reasoning. The *temporal lobe*, located beneath much of the frontal and parietal lobes, processes sound and smell, regulates emotions, and is involved in some aspects of learning, memory, and language. Finally, the *occipital lobe*, located behind the temporal lobe, receives and interprets visual information.

Major Brain Structures and Psychopathology At present, only the most severe mental disorders have clearly been linked to abnormalities in neuroanatomy. In most cases, brain damage is extensive. For example, during a *stroke*, blood vessels in the brain rupture, cutting off the supply of oxygen to parts of the brain and killing surrounding brain tissue. This disrupts the functioning of nearby healthy neurons because the brain cannot remove the dead tissue (see Figure 2.3). Tangles of neurons are found in patients with *Alzheimer's disease*, but the damage can be identified only during postmortem autopsies (see Figure 2.3). In patients with schizophrenia, the ventricles of the brain are enlarged, and asymmetries are also found in other brain structures (see Figure 2.3).

Learning more about how the brain works is one of the greatest challenges facing scientists today. Neuroscientists have made dramatic breakthroughs in developing instruments that allow us to observe the anatomic structure of the living brain and record some global physiological processes. These imaging procedures are being used to study psychological disorders ranging from schizophrenia to learning disabilities; they are discussed in Chapter 4, along with other methods of psychological assessment.

At present, brain imaging is more exciting technically than practically for identifying biological causes of mental disorders. However, there is every reason to hope that brain imaging techniques will greatly improve our understanding of both normal and abnormal brain structure and function.

PSYCHOPHYSIOLOGY

Psychophysiology is the study of changes in the functioning of the body that result from psychological experiences. Some of

these reactions are familiar. Psychophysiological responses include a pounding heart, a flushed face, tears, sexual excitement, and numerous other reactions. Such responses reflect a person's psychological state, particularly the degree and perhaps the type of his or her emotional arousal.

Endocrine System Psychophysiological arousal results from the activity of two different communication systems within the body, the endocrine system and the nervous system. The **endocrine system** is a collection of glands found at various locations throughout the body. Its major components include the ovaries or testes and the pituitary, thyroid, and adrenal glands (see Figure 2.4). Endocrine glands produce psychophysiological responses by releasing **hormones** into the bloodstream—chemical substances that affect the functioning of distant body systems and sometimes act as neuromodulators. The endocrine system regulates some aspects of normal development, particularly physical growth and sexual development. Parts of the endocrine system, particularly the adrenal glands, also are activated by stress and help prepare the body to respond to an emergency.

Certain abnormalities in the functioning of the endocrine system are known to cause psychological symptoms. For example, in *hyperthyroidism*, also known as *Graves' disease*, the thyroid gland secretes too much of the hormone thyroxin, causing restlessness, agitation, and anxiety. Research on depression also suggests that endocrine functioning sometimes contributes to causing this disorder.

Autonomic Nervous System The more familiar and basic system of communication within the body is the nervous system. The human nervous system is divided into the central nervous system, which includes the brain and the spinal cord,

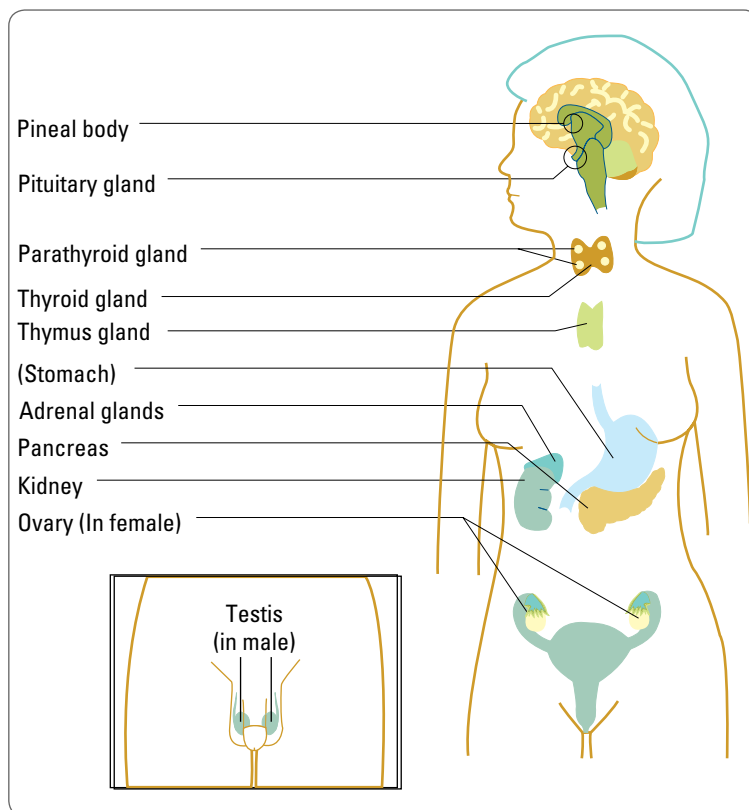


FIGURE 2.4 The Endocrine System

The glands that comprise the endocrine system, which affects physical and psychophysiological responses through the release of hormones into the bloodstream.

Source: Seamon, John G., Douglas T. Kendrick, *Psychology*, 2nd ed., © 1994, p. 67. Reprinted by permission of Pearson Education, Upper Saddle River, NJ.

and the peripheral nervous system. The peripheral nervous system includes all connections that stem from the central nervous system and innervate the body's muscles, sensory systems, and organs.

The peripheral nervous system itself has two subdivisions. The voluntary, *somatic nervous system* governs muscular control, and the involuntary, **autonomic nervous system** regulates the functions of various body organs, such as the heart and stomach. The somatic nervous system controls intentional or voluntary actions like scratching your nose. The autonomic nervous system is responsible for psychophysiological reactions—responses that occur with little or no conscious control.

The autonomic nervous system can be subdivided into two branches, the sympathetic and parasympathetic nervous systems. In general, the *sympathetic nervous system* controls activities associated with increased arousal and energy expenditure, and the *parasympathetic nervous system* controls the slowing of arousal and energy conservation. Thus, the two branches work somewhat in opposition, which works to maintain homeostasis.

Psychophysiology and Psychopathology Psychophysiological overarousal and underarousal both can contribute to abnormal behavior. For example, overactivity of the autonomic nervous system (a pounding heart and sweaty hands) has been linked to excessive anxiety. In contrast, chronic

autonomic underarousal may explain some of the indifference to social rules and the failure to learn from punishment found in antisocial personality disorder. Psychophysiological assessment also can be a useful way of objectively measuring reactions to psychological events (see Chapter 4).

BEHAVIOR GENETICS

Genes are ultramicroscopic units of DNA that carry information about heredity. Genes are located on **chromosomes**, chainlike structures found in the nucleus of cells. Humans normally have 23 pairs of chromosomes.

The field of *genetics* identifies specific genes and their hereditary functions, often focusing at the level of molecules. Geneticists typically have training in biochemistry, not psychology. **Behavior genetics** is a much broader approach that studies genetic influences on the evolution and development of normal and abnormal behavior (Plomin, DeFries, & McClearn, 1990; Rutter et al., 2001). Behavior geneticists study various human characteristics, often in an attempt to discover if the behavior is more or less strongly affected by genes. Today, many experts in genetics and behavior genetics are working together in the hope of identifying specific genes involved in normal and abnormal behavior (Kendler & Prescott, 2006; Kim-Cohen & Gold, 2009).

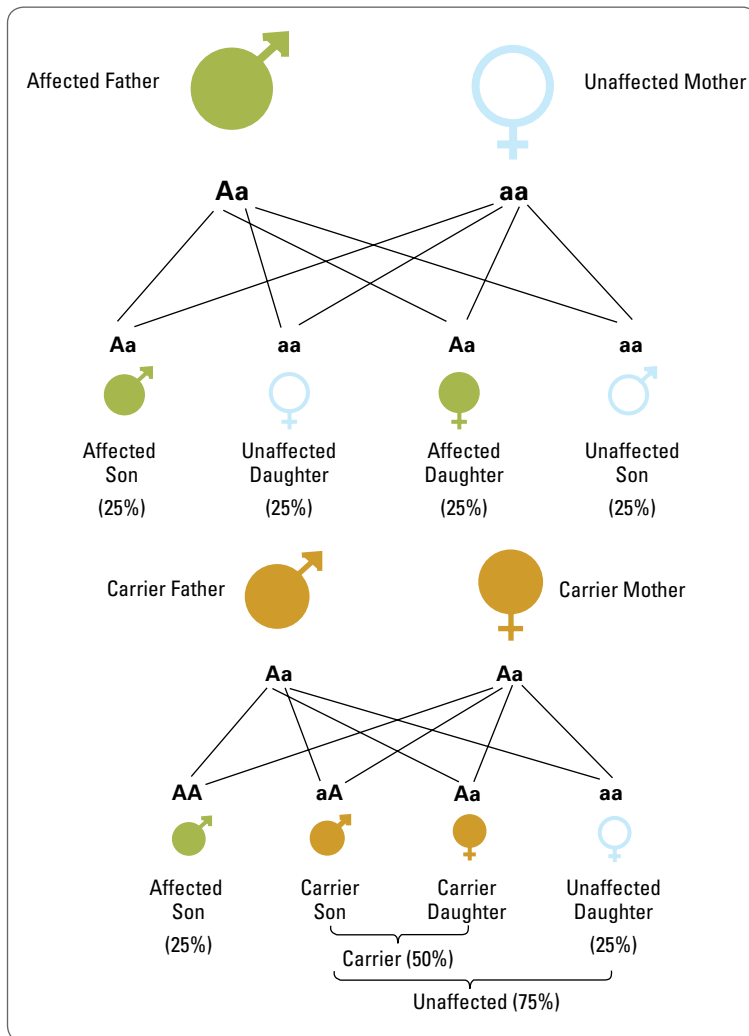


FIGURE 2.5 Dominant and Recessive Genetic Disorders

Patterns of transmission from parents to children for dominant (top figure) and recessive disorders (bottom figure). Note that the single gene (autosomal) disorder is either present or absent for both patterns of inheritance.

Source: *Genetics of Mental Disorders: A Guide for Students, Clinicians, and Researchers* by Garaone, Stephen V. Copyright 1999 Reproduced with permission of Guilford Publications, Inc. in the format Other book via Copyright Clearance Center.

Genotype and Phenotype One of the most important principles of genetics is the distinction between genotype and phenotype. A **genotype** is an individual's actual genetic structure. The entire human genome has now been mapped, allowing scientists to better understand the influence of genetic structure, although the pursuit of knowledge has really just begun.

The **phenotype** is the expression of a given genotype. It usually is impossible to infer a precise genotype from a given phenotype, because phenotypes, but not genotypes, are influenced by the environment. And different genotypes can produce similar phenotypes, as Austrian monk Gregor Mendel (1822–1884) discovered in his famous studies of garden peas.

Dominant and Recessive Inheritance Genes have alternative forms known as *alleles*. *Dominant/recessive inheritance* occurs when a trait is caused by a single or *autosomal* gene that has only two alleles (for example, A and a) and only one locus, a specific location on a chromosome. This is the pattern Mendel found in peas. The gene for color has only two alleles, A (yellow, dominant) and a (green, recessive). Thus, three genotypes are possible: AA, aA (or Aa), and aa. Because A is dominant over a, however, both AA and aA plants will be yellow, while aa plants will be green. Thus, although three genotypes are possible, only two phenotypes are observed. Figure 2.5 illustrates the patterns of inheritance for dominant and recessive disorders.

Polygenic Inheritance Dominant/recessive inheritance causes some rare forms of mental retardation (Plomin, DeFries, & McClearn, 1990; Thapar et al., 1994), but most mental disorders are not caused by a single gene—if they have genetic causes at all. Instead, they are **polygenic**, that is, they are influenced by more than one gene (Gottesman, 1991).

Polygenic inheritance has an important effect on a trait (or a disorder). In contrast to the categorically different phenotypes produced by a single gene (for example, yellow versus green; see the top panel in Figure 2.6), polygenic inheritance produces characteristics that differ by a matter of degree (for example, height). In fact, the distribution of a phenotype begins to resemble the normal distribution as more genes are involved (see the bottom panel in Figure 2.6). This distinction might seem a bit abstract, so let's bring it down to earth with a familiar example. Test score averages differ by degree. Letter grades

represent different categories. And the difference can be important, as you know if you ever ended up with an 89.9 average—and got a “B” for a letter grade.

Most mental disorders appear to be polygenic (and also are influenced by the environment). This holds important implications for how we think about genes and disorders. It is easy to think of emotional problems in terms of categories: A young woman either is depressed or not. It's also easy to think of genes in terms of dominant and recessive inheritance: She has the “gene for” depression. However, both easy assumptions appear to be wrong.

As best we can tell, there is no single “gene for” depression or most any other known mental disorder. Instead, there appear to be *multiple* genes involved in the risk for different mental disorders, just as multiple genes affect height. And just like height, this means there is no clear genetic basis for drawing the line—the *threshold*—between normal and abnormal. People can be “*really* short,” “not really short,” “kind of short,” and so on. Similarly, because mental disorders are influenced by multiple genes, people can be “*really* depressed,” “not really depressed,” “kind of depressed,” and so on.

Family Incidence Studies Behavior geneticists have developed important methods for studying genetic contributions to behavior, including family incidence studies, twin studies, and adoption studies. Family incidence studies ask whether diseases “run in families.” Investigators identify normal and ill **probands**, or index cases, and tabulate the frequency with which other members of their families suffer from the same disorder. If a higher prevalence of illness is found in the family of an ill proband, this is consistent with genetic causation. The finding also is consistent with environmental causation, however, because families share environments as well as genes. For this reason, no firm conclusions about the relative role of genes or the environment can be reached from family incidence studies alone.

Twin Studies Studies of twins, in contrast, can provide strong evidence about genetic and environmental contributions to a disorder. **Monozygotic (MZ) twins** are *identical*. One egg is fertilized by one sperm, and thus MZ twins have identical genotypes. **Dizygotic (DZ) twins** are *fraternal*. These twins are produced from two eggs and

How can twin studies show that genes—and experience—matter?

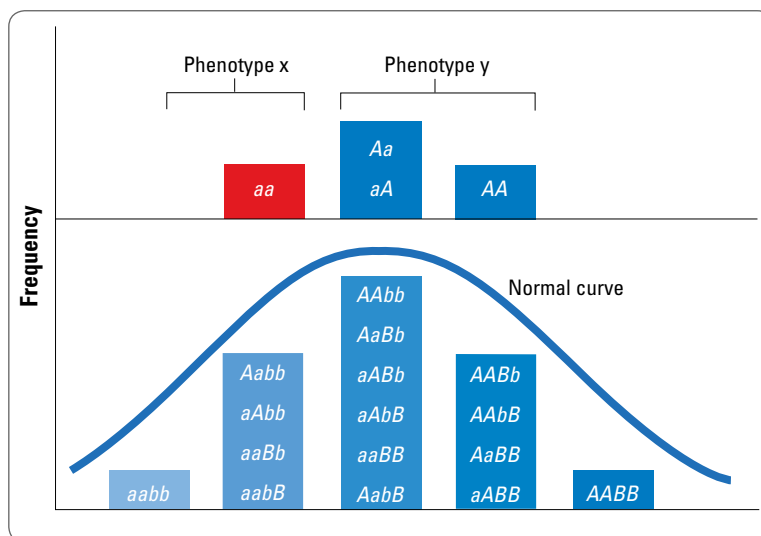


FIGURE 2.6 Single Gene and Polygenic Inheritance

Single genes produce phenotypes that differ qualitatively, as illustrated in the top panel. Multiple genes produce phenotypes that differ quantitatively. The distribution of traits approximates the normal curve as more genes are involved—as illustrated for only two genes in the bottom panel.



Monozygotic (MZ) twins are genetically identical.

two sperm. Thus, like all siblings, DZ twins share an average of 50 percent of their genes, while MZ twins share 100 percent of their genes. Of course, most MZ and DZ twin pairs are raised in the same family. Thus MZ and DZ twins differ in their genetic similarity, but they are alike in their environmental experiences.

Comparisons between MZ and DZ twin pairs shed light on genetic and environmental contributions to behavior. The key comparison involves determining the **concordance rate** of the two sets of twins, specifically whether MZ twins are more alike than DZ twins are alike. A twin pair is *concordant* when both twins either have the same disorder or are free from the disorder, for example, both suffer from schizophrenia. The twin pair is *discordant* when one twin has the disorder but the other does not, for example, one twin has schizophrenia but the co-twin does not.

If we assume that the environmental effects on a disorder are the same for DZ twin pairs as they are for MZ twin pairs, then any differences between the concordance rates for MZ and DZ twins must be caused by genetics. If a disorder is purely genetic, for example, scientists should find a concordance rate of 100 percent for MZ twins and 50 percent for DZ twins (see Table 2.4).

In contrast, similar concordance rates for MZ and DZ twins suggest environmental causes. Environmental causes are implicated regardless of whether the concordance rates for MZ and DZ twins are both 0 percent, both 100 percent, or both anywhere in between. However, the level of concordance does provide information about the nature of the environmental contribution. *High* concordance rates for both MZ and DZ twins point to the role of the **shared environment**, the

experiences twins share in common, for example, growing up in poverty. If the shared environment explained *all* of the variance in a trait, the concordance rate would be 100 percent for both MZ and DZ twins. They would be alike because both MZ and DZ twins share the same environment (see Table 2.4).

What cause is figured by similar but *low* concordance rates for both MZ and DZ pairs? In this case, the culprit is the **nonshared environment**, experiences unique to one twin, for example, your boyfriend or girlfriend. In this case, genetic causes are again ruled out, because MZ twins are no higher than DZ twins. And shared environmental causes are ruled out by low concordance rates (Plomin, 1994). If the nonshared environment explained *all* of the variance in a trait, the concordance rate would be 0 percent for both MZ and DZ twins (see Table 2.4). In real research, of course, nothing is perfect. Twin studies provide useful estimates of the role played by genes, the shared environment, and the nonshared environment by yielding data in between the perfect scenarios summarized in Table 2.4.

Twin studies often indicate that genes have a substantial influence on mental disorders. Somewhat surprising, behavior genetic research also indicates that the biggest environmental influences appear to be nonshared. That is, unique experiences (e.g., your marriage) apparently have greater influences than shared experiences (e.g., your parents).

Adoption Studies In adoption studies, people who were adopted are compared with their biological versus their adoptive relatives (usually their parents) in terms of concordance for a disorder. If concordance is higher for biological than adoptive relatives, then genetic factors are involved, because adopted children share their biological relatives' genes but not their environment. On the other hand, if children are more similar to their adoptive than to their biological relatives, then environment is causal, because adopted children share their adoptive relatives' environment but not their genes.

MyPsychLab

VIDEO CASE

Autism



XAVIER

"He is now talking, which was a blessing."

As you watch the video, observe Xavier's communication struggles and odd behavior, and keep in mind

that he is functioning pretty well in comparison to many children with autism.

TABLE 2.4 Twin Studies: Implications of Different Findings

Concordance for MZs versus DZs	Supports Influence of	Perfect Case ¹
MZ > DZ	Genes	MZ = 100%; DZ = 50%
MZ = DZ; both high	Shared environment	MZ = 100%; DZ = 100%
MZ = DZ; both low	Nonshared environment	MZ = 0%; DZ = 0%

¹The identified influence explains everything in the perfect case. Actual concordance rates almost always fall between these extremes, thus providing an index of the relative contributions of genes, the shared environment, and/or the nonshared environment.

Critical Thinking Matters

DO VACCINATIONS CAUSE AUTISM?

In 1998, the highly reputable British journal *Lancet* published a study by Dr. Andrew Wakefield and a dozen co-authors (1998). The authors speculated that the measles/mumps/rubella (MMR) vaccination might be responsible for 12 cases of autism they diagnosed. *Autism* is a severe psychological disorder that begins very early in life and is marked by extreme problems with communication, social interaction, and stereotyped behavior (see Xavier Video Case).

The researchers did not analyze any scientific data, or study children who were vaccinated but did not develop autism. In fact, a skeptical editorial was published with the article (Chen & DeStefano, 1998).

None of these limitations prevented a subsequent tsunami of fear and claims that vaccinations cause autism. Warnings spread on television, radio, in print, and especially over the Internet. The U.S. Congress held hearings. The National Institutes of Health funded new research. Many parents refused to vaccinate their children. This worried public health officials. Measles, mumps, and rubella are serious illnesses, and the MMR vaccination not only protects the vaccinated child but helps keep these highly contagious diseases from spreading (Offit, 2010).

What does science say about the vaccination hypothesis? One Danish study of *half a million* children found no differences in the rate of autism between children who did and did not receive the MMR vaccine containing the supposed autism causing agent, *thimerosal* (Hviid et al., 2003), as did a major study in the United Kingdom (Chen, Landau, & Sham, 2004) and two in Japan (Honda et al., 2005; Uchiyama et al., 2007). If this does not make you skeptical, consider this: 10 of the original 13 co-authors of the 1998 paper retracted their speculation (*New York Times*, March 4, 2004).

Misinformation, fear, and anger still abound even after public retractions and negative results for hundreds of

thousands of children (versus speculations about 12). Search the Internet, and you will find many vehement assertions that MMR causes autism. With so much information on the Internet (and opinion masquerading as information), you *have* to be skeptical in evaluating all kinds of assertions—including your own! We want you to think critically in abnormal psychology and in life.

And here's another reason to

think critically: Lawyers. Thousands of parents are suing a special federal compensation court that awards money for injuries caused by vaccines. The court was established in 1988 in response to fears that the diphtheria-pertussis-tetanus (DPT) vaccine causes neurological damage, fears that experts now conclude were false (Sugarman, 2007). Still, lawyers convinced some juries otherwise, and the legal costs led most manufacturers to stop making DPT. When the last manufacturer threatened to halt production, the U.S. government created the fund, fearing devastating public health consequences if children were no longer vaccinated (Sugarman, 2007).

In 2008, the court awarded money to the parents of Hannah Poling, who was diagnosed with autism. Hannah's behavior deteriorated rapidly around the time she was vaccinated. However, she also had a rare disorder of the *mitochondria*, the energy factories of cells. Mitochondrial disorders often surface only following a severe infection. An expert witness claimed that this is what happened to Hannah as a result of her multiple vaccinations, a claim that leading vaccine scientists note has no basis in science. Vaccines, in fact, may protect people with mitochondrial disorders by warding off serious infection (Offit, 2008).

Know this: Legal rulings are *not* scientific evidence. The law is about convincing a judge or jury that some allegation is true. Scientists must

prove facts publicly and repeatedly. In fact, the same federal vaccine court has now *rejected* the idea that vaccines cause autism in three specially selected test cases (*New York Times*, February 13, 2009).

And while we are on the topic of legal action, here's another one: In 2010, Britain's General Medical Council banned Dr. Andrew Wakefield

Why are scientists skeptics?

from practicing medicine in his native country due to unprofessional conduct surrounding his vaccine "research" (*New York Times*, May 24, 2010). Also in 2010, *Lancet* took the highly unusual step of withdrawing Wakefield et al.'s (1998) article. Why? Wakefield failed to disclose that his anti-MMR "research" was supported financially by lawyers suing manufacturers of the MMR vaccine—or that, in 1997, he had patented a new measles vaccine that might have replaced MMR (*New York Times*, February 2, 2010). Skeptical yet?

It is far easier to create false fears than to dispel them. In November 2010, the website of the National Institute of Child Health and Human Development read: "There is no conclusive scientific evidence that any part of a vaccine or combination of vaccines causes autism . . ." If you are paranoid, you can focus on the "conclusive" qualification. But science can *never* prove the negative. (Prove that those Martian scientists we discussed earlier did *not* write this textbook. *You* just can't see them!) This is why the burden of proof rests upon any scientist who offers a hypothesis. If I speculate that vaccinations cause autism (or Martians write textbooks), I need to prove I am right. You do not need to prove me wrong. Skepticism is a basic rule of science. Until I show that my hypothesis is true, the community of scientists assumes it is false. Critical thinking *matters*.

Think about the case of the adopted girl, Meghan, from the beginning of this chapter. Genetic influences are implicated if Meghan develops problems similar to her biological, but not adoptive, parents. On the other hand, environmental influences are causal if Meghan develops problems more similar to her adoptive than her biological parents.

Adoption studies have some potential problems, for example, the fact that adoption placement can be selective. Still, you can be confident in the findings of behavior genetic research when adoption and twin studies produce similar results (Kendler & Prescott, 2006; Plomin, 1994).

Misinterpreting Behavior Genetics Findings Behavior genetic research is powerful, but unfortunately, people often misinterpret it (Kagan, 2007; Rutter, Moffitt, & Caspi, 2006). One serious misinterpretation is that DNA is destiny. Genetic influences on abnormal behavior are *predispositions*, increased risks, not *predestinations*—inevitabilities. And because concordance rates are almost always well below 100 percent for MZ twins, we know that the environment contributes to the development—or prevention—of mental disorders (Faraone, Tsuang, & Tsuang, 1999).

It also is wrong to think that genetic characteristics cannot be modified. For example, even in cases where mental retardation has a known genetic cause, environmental experiences such as dietary restrictions or early intellectual stimulation can substantially increase IQ (Turkheimer, 1991). In short, the conclusion “It’s genetic” does not mean “It’s inevitable” or “It’s hopeless.” Nature and nurture are not separate influences on behavior. Nature and nurture always work together (Li, 2003).

Finally, behavior genetic findings do not tell us what genetic mechanism is at work. When we read that a disorder is “genetic,” we tend to think there is “a gene for” depression, alcoholism, or hyperactivity, but this too is wrong. Think about this. Criminal behavior also is “genetic,” as is divorce and political affiliation! For these behaviors, concordance rates are higher for MZ than for DZ twins. But no one thinks (we hope) that people have a “crime gene,” a “divorce gene,” or a “Republican gene.” Behavior genetic studies tell us that genes are important, but they reveal nothing about the genetic mechanism. For criminal behavior, for example, perhaps people inherit an

underaroused autonomic nervous system, which makes them less fearful and therefore less likely to learn from punishment. For eating disorders, people may inherit a body type that makes it harder to conform to society’s body image standards. This is a long way from having a “crime gene” or a “bulimia gene.”

Genetics and Psychopathology Genes have very broad influences on behavior. But, we doubt that specific genetic causes will be discovered for most mental disorders. Why? Extensive evidence indicates that most mental disorders are caused by multiple genes and multiple environmental events. As is the case with intellectual disabilities (Chapter 15), researchers may eventually identify specific subtypes of mental disorders caused by specific genes. Even so, a large heterogeneous “multiply caused” group is likely to remain (as is also true for intellectual disabilities). Genetic influences on behavior are pervasive, but we want you to think critically and beyond familiar models of dominant and recessive inheritance. In fact, you should be skeptical of anyone who claims to have found “the” cause of any mental disorder (see Critical Thinking Matters).

Genes and the Environment Before turning to psychological and social factors, we need to introduce two key concepts about how genes and the environment work together. The first is gene–environment interaction, the widely held view that a combination of a genetic risk and an environmental stress causes emotional disorders (see Figure 2.7). We discuss several examples of possible gene–environment interactions in later chapters. This work is very exciting, but here is an important caution: Researchers have failed to replicate many previous “discoveries” of gene–environment interactions (Risch et al., 2009). False leads are to be expected, of course, when you combine a new field, 25,000 genes, innumerable potential experiences—and the complexity of human behavior. We know that genes and the environment work together; we are only beginning to discover how (Champagne & Mashoodh, 2009; Cole, 2009).

A second key concept is **gene–environment correlation**, the fact that our experience is correlated with our genetic make-up (Rutter et al., 2006). Anxious parents give children “anxious” genes *and* an anxious upbringing. Thrill-seeking, a

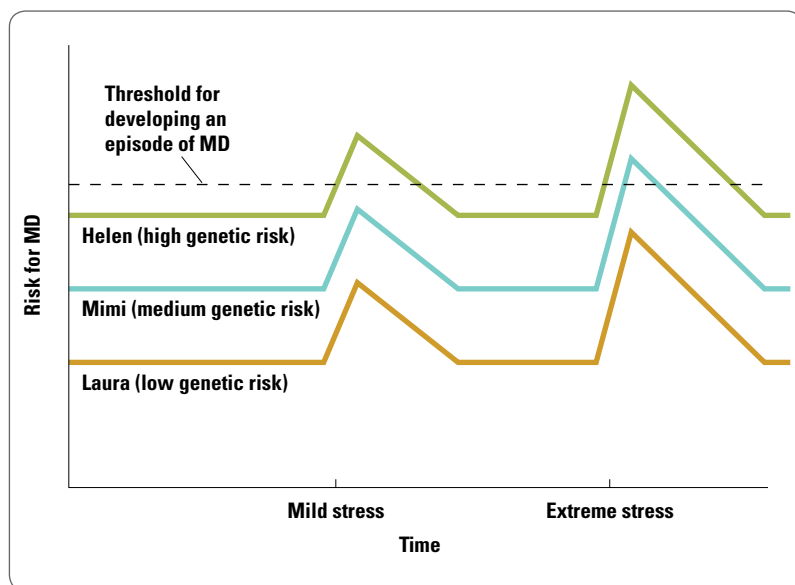


FIGURE 2.7

A gene–environment interaction occurs when genetic risk combines with environmental stress to produce a mental disorder. Note how different combinations of genetic risk and stress severity cross the threshold for disorder. (MD stands for “major depression” in this example.)

Source: *Genes, Environment, and Psychopathology: Understanding the Causes of Psychiatric and Substance Use Disorders* by Kendler, Kenneth S. Copyright 2006. Reproduced with permission of Guilford Publications, Inc., the format textbook and other book via Copyright Clearance Center.

genetically influenced trait, propels people into risky experiences. Experience is *not* genetically random. Anxious parenting, risk taking, and probably most other experiences are correlated with our genetic makeup. This means that any link between an experience and a disorder may be explained by correlated genes, not by the experience itself (e.g., see Research Methods on p. 30).

Psychological Factors

We must begin our overview of psychological factors in emotional disorders on a humbling note: Psychology does not have a widely accepted theory of *personality*, the essential traits that, taken as a whole, describe human behavior. We face the task of trying to explain abnormal behavior without a good understanding of normal behavior! This is a huge limitation, akin to describing circulatory diseases before agreeing about the normal structure and functions of blood, arteries, and the heart! As a result, any listing of the psychological factors involved in mental disorders, including our own, is necessarily incomplete and likely to be controversial. Still, we can organize many psychological factors affecting mental health into six categories: (1) human nature, (2) temperament, (3) emotion, (4) learning and cognition, (5) our sense of self, and (6) human development.

HUMAN NATURE

What is human nature—psychological motivations that we share with other animals and others that are uniquely human? Freud's answer to this question was that we have two basic drives, sex and aggression. In contrast, Watson suggested that we come into the world as blank slates—there is no human nature apart from experience. Today, psychologists are addressing questions about human nature in an exciting and controversial field of study called evolutionary psychology.

Evolutionary Psychology Evolutionary psychology is the application of the principles of evolution to understanding the animal and human mind (Confer et al., 2009). Evolutionary psychologists study species-typical characteristics—genetically influenced motivations that people share in common. Behavior geneticists, in contrast, study how genes influence *individual differences*, or what makes people different from one another. Evolutionary psychologists assume that animal and human psychology, like animal and human anatomy, evolved through natural selection and sexual selection.

Natural selection is the process in which successful, inherited adaptations to environmental problems become more common over successive generations. The adaptation is selected by evolution, because it increases *inclusive fitness*, the reproductive success of those who have the adaptation, their offspring, and/or their kin. For example, the large human brain, with its particularly large cerebral cortex, presumably was selected by evolution because of the adaptations it enabled (e.g., the use of tools and weapons). Early humans with larger brains presumably were more likely to survive and pass their adaptive genes on to more offspring.

Sexual selection improves inclusive fitness through increased access to mates and mating. Mating success can be increased by successful *intrasexual* competition, for example, a

dominant male limits the mating opportunities of other males; or by successful *intersexual* selection, for example, a more brightly colored bird attracts more members of the opposite sex (Gaulin & McBurney, 2001; Larsen & Buss, 2002).

Evolutionary psychology seeks to understand how evolution shaped human behavior. As we noted, psychologists do not agree about the nature of human nature, but two qualities that belong at the top of anyone's list are the need to form close relationships and the competition for dominance.

How is understanding human nature basic to abnormal behavior?

Attachment Theory The writings of British psychiatrist John Bowlby (1907–1990) greatly influenced psychologists' views about the human need to form close relationships. The heart of Bowlby's theory was the observation that infants form attachments early in life—special, selective bonds with their caregivers.

Bowlby based his approach, known as *attachment theory*, on findings from *ethology*, the study of animal behavior. Ethologists documented that close relationships develop between infants and caregivers in many species of animals. Human infants develop selective bonds to caregivers more slowly during the first year of life. These bonds, together with displays of distress when separated, keep infant and parent in close proximity. You can readily observe this: Ducklings swim in line behind their mother; toddlers explore the world in an irregular orbit around a parent. From an evolutionary standpoint, proximity has survival value, because parents protect their offspring from danger. Attachment behavior is an inborn characteristic, a product of natural selection.



Mammals form strong bonds between infants and caregivers. Disruptions in human attachments can contribute to abnormal behavior.



Evolution shapes behavior in animals and humans. Do humans compete for dominance, perhaps in more subtle ways than these stags compete?

Attachment theory has generated much psychological research (Cassidy & Shaver, 2008). Particularly relevant to abnormal behavior are studies of *insecure* or *anxious* attachments, parent-child relationships that are a product of inconsistent and unresponsive parenting during the first year of life (Ainsworth et al., 1978). Anxious attachments can make children mistrustful, dependent, and/or rejecting in subsequent relationships, patterns that may continue into adult life. Attachment difficulties can be overcome (Rutter & Rutter, 1993), but as we discuss throughout the text, research shows that supportive relationships promote mental health throughout the life span.

Dominance The development of attachments, or more generally of affiliation with other members of the same species, is one of the two broad categories of social behaviors studied by ethologists. The second is **dominance**, the hierarchical ordering of a social group into more and less privileged members (Sloman, Gardner, & Price, 1989). Dominance hierarchies are easily observed in human as well as other animal social groups. From the perspective of evolutionary psychology, dominance competition is basic to sexual selection, and therefore a prime candidate on our short list of species-typical human qualities (Buss, 2009).

Additional motivations surely belong on psychology's "periodic table" of human elements (Kenrick et al., 2010). Still, we are confident that attachment and dominance will rank high on the final list. Freud might agree. We view Freud's basic drives, sex and aggression, as metaphors for the broader motivations of affiliation and dominance.

TEMPERAMENT

One of the most important areas of research on individual differences in personality is the study of **temperament**, characteristic styles of relating to the world. Researchers generally agree that temperament consists of five dimensions (McAdams & Pals, 2006; Zuckerman, 1991). The "big five" are (1) openness to experience—imaginative and curious versus shallow and imperceptive; (2) conscientiousness—organized and reliable versus careless and negligent; (3) extraversion—active and talkative versus passive and reserved; (4) agreeableness—trusting



The cartoon pokes fun at intersexual selection and perhaps suggests a new break up line.

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www.cartoonbank.com

and kind versus hostile and selfish; and (5) neuroticism—nervous and moody versus calm and pleasant. The acronym OCEAN, which uses the first letter of each term, will help you to remember "the big five." Individual differences in temperament may play a role in a number of psychological disorders (Chapter 9).

EMOTIONS

Emotions, internal feeling states, are essential to human experience and to our understanding of mental disorders. But we have hundreds of words for different feelings in the English language. What emotions are most essential? Researchers have used statistical analysis to reduce our lexicon of feelings to six basic emotions (National Advisory Mental Health Council, 1995):

- | | |
|------------|-----------|
| • Love | • Anger |
| • Joy | • Sadness |
| • Surprise | • Fear |

This list can be pared further into two categories, positive emotions (the left column) and negative emotions (the right column). Of course, negative emotions are most relevant to abnormal psychology, but differentiating between negative emotions also is a key. One recent study found that, among people who experienced intense negative emotions, those who could better describe their feelings consumed less alcohol than others who could only talk generally about being upset or feeling bad (Kashdan et al., 2010).

Emotions come to us without intention, effort, or desire. Emotions are controlled primarily by subcortical brain structures that are older in evolutionary terms and more similar to brain structures found in other animals (who do not have humans' large cortex). Thus, our feelings are more "basic" or primitive than our thoughts, which are controlled by the



How did Taylor Swift feel when Kanye West questioned her MTV music award? Shocked, saddened, hurt, furious? Emotions are an essential and revealing part of our experience.

cerebral cortex, a more recent product of evolution (Buck, 1999). Cognition can regulate emotion, but we cannot wholly control our feelings intellectually (Panksepp, 1988). This fact often becomes an issue in treating abnormal behavior, as people may want to but cannot easily change their emotions.

LEARNING AND COGNITION

Motivations, temperament, and emotions can be modified, at least to some degree, by learning. Earlier, we discussed classical and operant conditioning, two modes of learning that are essential to the development of normal and abnormal behavior. We know, for example, that classical conditioning can create new fears, and antisocial behavior can be maintained by positive reinforcement.

A third learning mechanism described by the U.S. psychologist Albert Bandura of Stanford University (Bandura & Walters, 1963) is **modeling**, or learning through imitation, a process that you surely have observed many times. A particular concern for abnormal behavior is when parents or other important adults model dysfunctional behavior for children, for example, excessive drinking.

Cognitive psychologists study other, more complex learning mechanisms such as attention, information processing, and memory. In doing so, cognitive psychologists often draw analogies between human thinking and computers, but the

“human computer” apparently is programmed in ways that make decision making more efficient but less objective (Kahneman, 2003). That is, we routinely make cognitive errors not because we reason wrongly, but because we use shorthand calculations (*heuristics*) that require little effort and typically are accurate enough—but sometimes may be way off the mark.

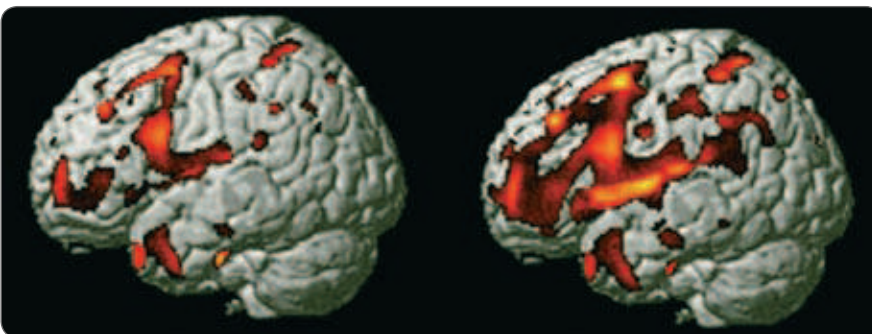
Cognitive psychology has profoundly affected thinking about the cause of mental disorders, as has the parallel field of *social cognition*—the study of how humans process information about the social world. The important concept of attribution illustrates this approach. **Attributions** are perceived causes, that is, people’s *beliefs* about cause–effect relations. We are “intuitive scientists.” We routinely draw shorthand conclusions about causality instead of examining things scientifically. If your boyfriend gets mad at you for “ditching” him at a party, for example, you are unlikely to examine his feelings objectively. Instead, you attribute his anger to some reasonable cause, perhaps his tendency to cling to you. Intuitive judgments are efficient because they require little cognitive effort, but research shows that attributions often are inaccurate (Nisbett & Wilson, 1977; Wilson, 2002).

One cognitive theory suggests that automatic and distorted perceptions of reality cause people to become depressed (Beck et al., 1979). For example, people prone to depression may conclude that they are inadequate based on a single unpleasant experience. A successful treatment based on this theory encourages depressed people to be more scientific and less intuitive in evaluating conclusions about themselves (see Chapter 5). One controversy, however, is whether depressed people actually see the world all too accurately. Perhaps non-depressed people are the ones who make routine cognitive errors by seeing the world, and themselves, in an unrealistically *positive* light (Taylor et al., 2003).

THE SENSE OF SELF

We share emotions and motivations with other animals, and we share some information-processing strategies with computers. Perhaps our sense of self is uniquely human. The exact definition of self can be elusive, however, both in psychological theory and personally.

One influential idea is Erik Erikson’s (1968) concept of **identity**, an integrated sense of self. Erikson viewed identity as the product of the adolescent’s struggle to answer the question “Who am I?” As we discuss in Chapter 17, Erikson urged young people to take some time and try new values and roles before adopting a single, enduring identity.



Brain imaging shows deterioration caused by frontotemporal lobar degeneration after just 15 months. The ability to self-reflect often is lost as a result of the disease.

Other theorists argue that we do not have one identity but many “selves.” The psychologist George Kelly (1905–1966), for example, emphasized the identities linked with the different roles that people play in life. These include obvious roles like being a daughter, a student, and a friend, as well as less obvious roles, like being a “caretaker,” a “jock,” or “the quiet one.” Kelly argued that people develop many different role identities, various senses of self corresponding with actual life roles. A related, contemporary theory is that people have multiple *relational selves*, unique actions and identities linked with different significant relationships (Chen, Boucher, & Tapias, 2006).

The idea that children and adults must develop **self-control**—internal rules for guiding appropriate behavior—is an important concept in research on abnormal behavior. Self-control is learned through the process of *socialization*, where parents, teachers, and peers use discipline, praise, and their own example to teach children prosocial behavior and set limits on their antisocial behavior. Over time, these standards are *internalized*—that is, the external rules become internal regulations. The result is self-control (Maccoby & Mnookin, 1992).

Self-esteem, valuing one’s abilities, is another important and sometimes controversial aspect of our sense of self. The concept of self-esteem has been derided recently, partly in reaction to misguided school programs that urged raising children’s self-esteem as a cure to everything from school dropout to teen pregnancy (Swann, Chang-Schneider, & McClarty, 2007). High self-esteem appears to be as much a product of success as a cause of it; raising children’s self-esteem in isolation of actual achievement produces little benefit (Baumeister et al., 2003). Similarly, low self-esteem can result from psychological problems as well as cause them.

One final note: Our sense of self may be uniquely human, but there still is no dualism between mind and body. Like all

psychological experiences, our sense of self is represented in the brain. In fact, the human sense of self may be localized in the frontal lobe. A terrible form of degenerative brain disease rapidly damages the front lobe, and causes patients to lose much self-reflection and self-control (Levenson & Miller, 2007).

STAGES OF DEVELOPMENT

As we noted while discussing developmental psychopathology, how people grow and change is of basic importance to normal and abnormal psychology. A key developmental concept is that psychological growth can be divided into **developmental stages**—periods of time marked by age and/or social tasks during which children or adults face common social and emotional challenges.

Two prominent theories that divided development into stages are Freud’s theory of *psychosexual* development and Erikson’s theory of *psychosocial* development. Freud highlighted the child’s internal struggles with sexuality as marking the various stages of development. In contrast, Erikson emphasized social tasks and the conflicts involved in meeting the demands of the external world. Erikson also suggested that development does not end with adolescence; rather, he proposed that development continues throughout the life span.

The key tasks, ages, and defining events of these two stage theories are summarized in Table 2.5. Note the differences between the theories, but also note that both theorists used similar ages to mark the beginning and end of different stages. Other theorists also have suggested that key developmental transitions occur around the ages of 1, 6, and 12. These are critical times of change for children.

Developmental transitions mark the end of one developmental stage and the beginning of a new one, for example, the

TABLE 2.5 Freud’s and Erikson’s Stage Theories of Development

AGE ¹	0–1½	1–3	2–6	5–12	11–20	18–30	25–70	65 On
Freud	Oral	Anal	Phallic	Latency	Genital			
	Oral gratification through breast-feeding. Meeting one’s own needs.	Learning control over environment and inner needs through toilet training.	Sexual rivalry with opposite-gender parent. Oedipal conflicts, penis envy, identification.	Not a stage, as psychosexual development is dormant during these ages.	Mature sexuality and formation of mutual heterosexual relationships.			
Erikson	Basic Trust vs. Basic Mistrust	Autonomy vs. Shame and Doubt	Initiative vs. Guilt	Industry vs. Inferiority	Identity vs. Role Confusion	Intimacy vs. Self-absorption	Generativity vs. Stagnation	Integrity vs. Despair
	Developing basic trust in self and others through feeding and caretaking.	Gaining a sense of competence through success in toileting and mastering environment.	Gaining parental approval for initiative rather than guilt over inadequacy.	Curiosity and eagerness to learn leads to a sense of competence or inadequacy.	Identity crisis is a struggle to answer question, “Who am I?”	Aloneness of young adult resolved by forming friendships and a lasting intimate relationship.	Success in work but especially in raising the next generation, or failure to be productive.	Satisfaction with the life one lived rather than despair over lost opportunities.

¹Ages are approximate, as indicated by overlap in age ranges

end of childhood and the beginning of adolescence. Developmental transitions often are a time of turmoil. As we are forced to learn new ways of thinking, feeling, and acting, stressful developmental transitions may worsen or contribute to abnormal behavior. They also can be extremely challenging psychologically, as we discuss in detail in Chapter 17.

Social Factors

Social perspectives emphasize that abnormal behavior can be influenced by *social roles*, behavior that, like a role in a play, is shaped by social “scripts.” In fact, *labeling theory* asserts that emotional disorders themselves are enactments of prescribed social roles (Rosenhan, 1973). Labeling theory suggests that people’s actions conform to the expectations created by the label, a process termed the *self-fulfilling prophecy* (Rosenthal, 1966). For example, when an elementary school boy is labeled “a troublemaker,” he may act in ways that make the label come true.

There is little doubt that expectations affect behavior, but labeling alone offers a limited understanding of much abnormal behavior. For example, how could labeling someone “schizophrenic” cause severe hallucinations, delusions, and life disruptions? The roles we play in life—including roles shaped by gender, race, social class, and culture—help to shape who we become. But psychopathology is much more than a social role.

Potential social influences on abnormal behavior are numerous, including interpersonal relationships, social institutions, and cultural values. Here we can only outline a few key examples, including close relationships, gender roles, ethnicity, and poverty.

CLOSE RELATIONSHIPS

Researchers consistently find that relationship problems, particularly conflict and anger in close relationships, are associated with various emotional disorders (Beach et al., 2006; Miklowitz, Otto, & Frank, 2007). Do troubled relationships cause abnormal behavior, or do an individual’s psychological problems cause relationship difficulties?

Marital Status and Psychopathology The association between marital status and psychopathology is a good example of the cause–effect dilemma. The demographics of the U.S. family have changed greatly over the last few decades. Cohabitation before marriage is frequent, many children are born outside of marriage, and almost half of all marriages end in divorce (Bramlett & Mosher, 2001). In part because of the uncertainty created by these rapid changes, researchers have carefully studied the psychological consequences of alternative family structures for children and adults.

Marital status and psychological problems clearly are *correlated*. Children and adults from divorced or never-married families have somewhat more psychological problems than people from always-married families (Amato, 2001; Emery, 1999; Waite & Gallagher, 2000; Whisman, Sheldon, & Goering, 2000). But does marital status *cause* these problems?



Intimate relationships can be a source of great social support or emotional distress.

In an exciting innovation to better address the question of causality, researchers now are comparing twins (or their children) who *differ* in terms of some major life experience (Rutter, 2007). If we find that MZ twins who divorce have more psychological problems than their married co-twins, we know that the difference is *not* due to genes. We also know that the difference is *not* caused by childrearing or other experiences that twins share. Why? Identical twins have identical genes and grow up in the same families. Any difference between them therefore must be caused by the nonshared environment, their unique experiences, one of which is divorce in the present example. In fact, twin research suggests that divorce does cause some psychological problems both in children (D’Onofrio et al., 2007) and adults (Spotts, Lichtenstein, & Pederson, 2005).

Social Relationships Research also shows that a good relationship with someone *outside* of the family is associated with better mental health among children (Landis, Gaylord-Harden, & Malinowski, 2007; Werner & Smith, 1992) and adults (Birditt & Antonucci, 2007; Reis, Collins, & Berscheid, 2000). A few things are critical about this social support—the emotional and practical assistance received from others. Significantly, one close relationship can provide as much support as many relationships. The greatest risk comes from having *no* social support. In addition, it is much worse to be actively rejected than to be neglected. Especially among children, it is far worse to be “liked least” than not to be “liked most” by your peers (Coie & Kupersmidt, 1983).

Once again, the association between abnormal behavior and the lack of supportive relationships may have several causes. In some circumstances, peer rejection may cause emotional difficulties. Being an outcast surely causes much distress. In other cases, the lack of a close relationship may be a consequence of psychopathology. Psychologically disturbed people can be socially awkward. Finally, social support may help still other people to cope more successfully with preexisting emotional problems.

GENDER AND GENDER ROLES

Gender and **gender roles**, expectations regarding the appropriate behavior of males or females, can dramatically affect our behavior. Some gender differences are determined by genetics and hormones, but socially prescribed gender roles also exert a strong influence on our behavior (Maccoby, 1998).

How can gender roles influence abnormal behavior?

Gender roles may influence the development, expression, or stigma of psychopathology. Some theorists suggest, for example, that women's traditional roles foster dependency and helplessness, which accounts for the considerably higher rates of depression among women (Nolen-Hoeksema, 1990). Others argue that gender roles may not cause abnormal behavior, but influence how psychopathology is expressed. For example, social expectations may allow women to become depressed when confronted with adversity, whereas men's roles dictate that they "carry on" or perhaps sooth their inner turmoil with alcohol or drugs. Finally, recent research shows that more stigma is attached to gender-typical emotional problems. People view depression in women and alcohol abuse in men as more controllable than the converse (depression in men, alcohol abuse in women), and, as a result, they are less sympathetic and less inclined to offer help (Wirth & Bodenhausen, 2009).

Some believe that *androgyny*—the possession of both "female" and "male" gender-role characteristics—is the answer to the problems associated with being either overly "feminine" or overly "masculine." Others embrace traditional gender roles. Our goal is to consider gender differences in the prevalence of various psychological disorders, not to address this value conflict. When appropriate, however, we interpret documented gender differences in terms of the roles played by men and women.

PREJUDICE, POVERTY, AND SOCIETY

Prejudice and poverty are broad social influences on psychological well-being in the United States today. We consider these two factors together because they are so commonly linked in American life. In 2000, 10.3 percent of white families with children were living below the poverty level, compared with 24.9 percent of black families and 22.9 percent of Latino families. Race and poverty also are closely linked



Socially prescribed gender roles exert a strong influence on our behavior and perhaps on the development, expression, and consequences of psychopathology.

to marital status. Among married African American families with children, 6.3 percent lived in poverty, in comparison to 41.0 percent of families headed by a single mother. Among whites, the comparable poverty rates were 5.8 percent for married versus 27.5 percent for single mother, and 16.9 percent for married versus 41.4 percent for single mother for Hispanics (U.S. Census Bureau, 2002).

Poverty affects a disproportionate number of African Americans, but the experiences of American blacks and whites differ in many ways. African Americans have endured a history of slavery and discrimination, and racial prejudices undermine physical and mental health (Clark et al., 1999). Of course, African Americans are not the only targets of prejudice. For example, extensive evidence links the prejudice experienced by gays and lesbians to an increased risk for mental health problems (Meyer, 2003).

An increased risk for psychological disorders is associated with prejudice and poverty, although their separate consequences still need to be disentangled (National Advisory Mental Health Council, 1995). Poverty is linked with many stressors, including gruesome traumas (Evans, 2004). For example, one researcher found that 12 percent of school-aged children living in a Washington, D.C., neighborhood reported seeing a dead body in the streets outside their homes (Richters, 1993). Poverty also increases exposure to chemical toxins, such as to the lead found in old, chipped paint and automotive exhaust fumes (Evans, 2004). When ingested at toxic levels, lead can damage the central nervous system.

We recognize that, even more broadly, society and culture influence abnormal behavior. Our lives, our education, and even our science are deeply embedded within our culture. Societal practices, beliefs, and values help to shape the definition of abnormal behavior and the scientific enterprise that attempts to uncover its roots.

Getting Help

The problems that you study in abnormal psychology can touch your life in a very personal way. At one time or another, you, someone in your family, or one of your close friends likely will experience a psychological problem. If so, we hope you will seek and find meaningful help. What can you do if you think you may want to get help?

A good place to start is to talk frankly with someone you trust—a friend, a family member, a mental health professional, maybe a professor. Taking this step can be difficult, but you surely will be relieved once you have opened up a little. In fact, this may be the end of your search. With the aid of a little perspective, you may be reassured that what you thought were “crazy” feelings or concerns really are pretty normal.

Normal? Yes. We mean it when we say that there is not a high wall dividing normal from abnormal behavior. Negative emotions are part of everyday life. Most of us experience mild to

moderate levels of anxiety, sadness, and anger fairly often. In fact, these emotions often are adaptive. These feelings can energize us to cope with the challenges in our lives. So, maybe all you really need is the understanding and perspective of a caring friend or relative, or of an objective third party.

Recognizing where you are in your life also may help you to achieve a little perspective. The late teens and early twenties—the age of many people taking this class—are frequently a time of uncertainty and self-doubt. It is quite common for young people to question their goals, beliefs, values, friendships, sexuality, family relationships, and almost everything else. If this sounds like you, you may want to read ahead in Chapter 17, which discusses many of the challenges of the transition to adult life. You also may want to look at Chapter 17 if you are a nontraditional student, because we also discuss many other common

but trying developmental transitions throughout the adult life span. Times of change and challenge can be very exciting, but they also can be very distressing and lonely.

What should you do if you do not feel better after talking with someone you trust? We suggest that you consider consulting a mental health professional. This is a good next step whether you think you are suffering from a psychological problem, are not sure, or simply want help with some normal but distressing life experience. We know that there can be a stigma about seeing “a shrink,” but we strongly believe that the stigma is wrong. Mental health problems are incredibly common, and a therapist, or maybe your family doctor, can offer you an informed perspective and some good treatment alternatives. We give suggestions about how to go about finding a reliable mental health professional in the Getting Help section of Chapter 3.

SUMMARY

- The **biological, psychodynamic, cognitive-behavioral**, and **humanistic** approaches to understanding the causes of abnormal behavior are alternative **paradigms**, and not just alternative theories. Biological approaches emphasize causes “within the skin.” Psychodynamic theory highlights unconscious processes. Cognitive-behavioral viewpoints focus on observable, learned behavior. The humanistic paradigm argues that behavior is a product of free will.
- Abnormal behavior is best understood in terms of the **biopsychosocial model**, the combination of different biological, psychological, and social factors. **Systems theory** is a way of integrating different contributions to abnormal behavior. Its central principle is **holism**, the idea that the whole is more than the sum of its parts.
- Biological factors in abnormal behavior begin with the **neuron**, or nerve cell. Communication between neurons occurs when the axon terminals release chemical substances called **neurotransmitters** into the synapse between nerve cells. Disrupted communication among neurons, particularly disruptions in the functioning of various neurotransmitters, is involved in several types of abnormal behavior, although you should be cautioned against mind–body dualism.
- The brain is divided into three subdivisions: the hindbrain, the midbrain, and the forebrain. Because of the rudimentary state of our knowledge about the brain, only the most severe mental disorders have been clearly linked with abnormalities in neuroanatomy.
- **Psychophysiology** involves changes in the functioning of the body that result from psychological experiences. Psychophysiological arousal is caused by the **endocrine system** and the nervous system. Endocrine glands release **hormones** into the bloodstream that regulate some aspects of normal development as well as some responses to stress. The autonomic nervous system is the part of the central nervous system that is responsible for psychophysiological reactions.
- Most forms of abnormal behavior are **polygenic**, that is, caused by more than one **gene**. While genes are involved in most mental illnesses, the fact that a psychological disorder

has a genetic component does not mean that it is inevitable.

- Psychology has not developed a list of its core components. Some promise toward this goal is offered by **evolutionary psychology**, the application of the principles of evolution to our understanding of the animal and human minds. Two basic psychological motivations seen in humans and other animals are the formation of **attachments** and competition for **dominance**.
- **Temperament** is an individual's characteristic style of relating to the world, and researchers agree on the "big five" dimensions of temperament.
- **Emotions** are internal feeling states that come to us without intention, effort, or desire. Emotional disruptions are at the core of many mental disorders.
- Learning mechanisms include **classical conditioning**, **operant conditioning**, **modeling**, and human cognition and contribute to both normal and abnormal behavior.
- The sense of self is a uniquely human quality that also may play a role in causing emotional problems.
- The idea of **developmental stages** not only charts the course of normal development, against which abnormal behavior must be compared, but it highlights the important issue of developmental transitions.
- **Social support** from people other than family members can be an important buffer against stress. **Gender roles** may influence the development, expression, or consequences of psychopathology. Race and poverty also are broad social influences on psychological well-being.

The Big Picture

CRITICAL THINKING REVIEW

- **What's wrong with Freud's (and other) theories of abnormal behavior?**
Paradigms can tell us how to find answers, but sometimes the guidance can be a hindrance . . . (see p. 28)
- **What does "correlation does not mean causation" mean?**
A correlation *may* result from causation, but there are always two alternative explanations: reverse causality and third variables . . . (see p. 30)
- **Is mental illness caused by a chemical imbalance in the brain?**
This means depression is caused by a "chemical imbalance in the brain," right? Wrong . . . (see p. 34)
- **Is there a gene for mental disorders?**
. . . there is no single "gene for" depression or most any other known mental disorder . . . (see p. 39)
- **How does psychology contribute to emotional problems?**
...any listing of the psychological factors involved in mental disorders, including our own, is necessarily incomplete and likely to be controversial . . . (see p. 43)
- **Is abnormal behavior really all about labeling and role playing?**
The roles we play in life—including roles shaped by gender, race, social class, and culture—help to shape who we become. But psychopathology is much more than a social role . . . (see p. 47)

KEY TERMS

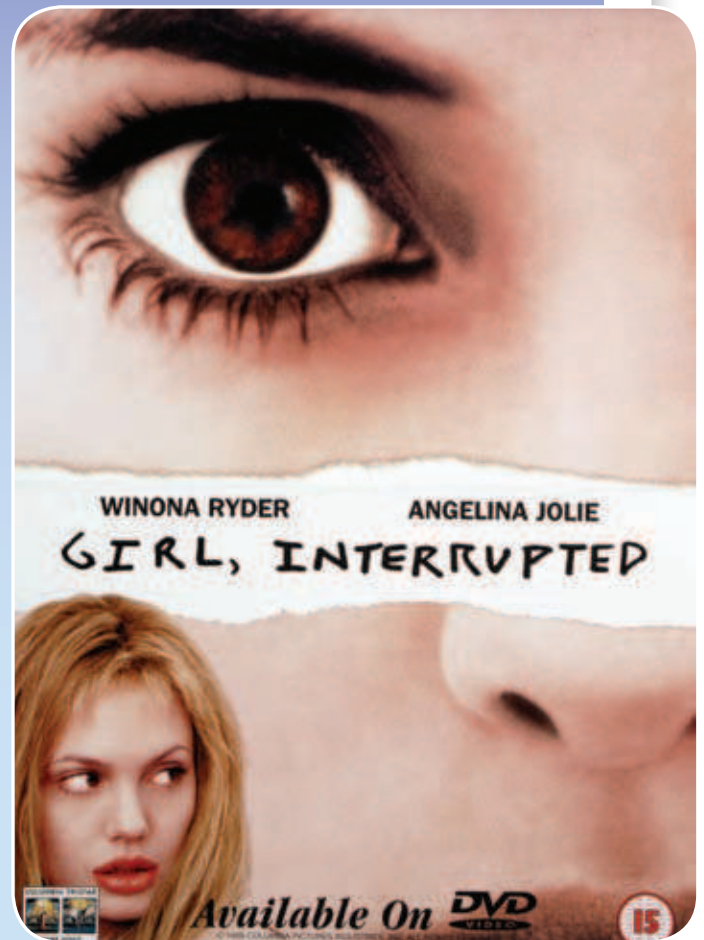
attachments	developmental psycho-	gene–environment	neurotransmitters	reuptake
attributions	pathology	correlation	nonshared environment	reverse causality
autonomic nervous	developmental stages	gene–environment	operant conditioning	risk factors
system	diathesis	interaction	paradigm	self-control
behavior genetics	dizygotic (DZ) twins	genotype	phenotype	shared environment
biopsychosocial model	dominance	hormones	polygenic	social support
cerebral cortex	dualism	hypothalamus	premorbid history	stress
cerebral hemispheres	ego	id	probands	superego
chromosomes	emotion	identity	prognosis	systems theory
classical conditioning	endocrine system	lateralized	psychoanalytic theory	temperament
concordance rate	evolutionary psychology	limbic system	psychophysiology	third variable
correlational study	extinction	modeling	receptors	ventricles
correlation coefficient	gender roles	monozygotic (MZ) twins	reciprocal causality	
defense mechanism	genes	neurons	reductionism	

Treatment of Psychological Disorders

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- Based on a true story, *Girl, Interrupted* chronicles the trials of female residents in a mental hospital as they receive treatment for depression, drug addiction, personality disorders, suicidality, and self-mutilation.

Many people seek psychological help when battling bulimia, depression, anxiety, or other psychological problems. Others consult a professional when struggling with relationships, or searching for a happier, more meaningful life. Can treatment help? Does it



matter if you see a psychiatrist, clinical psychologist, social worker, or counselor? Should you look for someone who specializes in your particular problem? Should you try medication? What should you expect a therapist to do and say? How can “talking” help?

The Big Picture

- What kinds of psychological treatments are there?
- How did Freud influence psychotherapy?
- What is cognitive-behavior therapy?
- Does psychotherapy work?
- What is the placebo effect? How do placebos work?
- Is it important to “click” with your therapist?

OVERVIEW

What can help? Few questions in abnormal psychology are more important than this one. We use psychological science to explore answers to this essential question in this chapter. However, we continue to ask, “What helps?” throughout the text, because research shows that different treatments work better for different disorders (Barlow, 2008; Nathan & Gorman, 2007).

One treatment that can help is **psychotherapy**, the use of psychological techniques and the therapist–client relationship to produce emotional, cognitive, and behavior change. We can define psychotherapy generally, but it can be a challenge to be more specific. One huge complication is that adherents to different paradigms offer very different treatments (Prochaska & Norcross, 2006). Mental health professionals often ask one another, “What is your theoretical orientation?” The answer is supposed to be “biological,” “psychodynamic,” “cognitive-behavioral,” or “humanistic,” an indication of the therapist’s preferred treatment approach.

Today, most mental health professionals describe themselves as *eclectic*, meaning they use different treatments for different disorders (Bechtoldt et al., 2001). We embrace the eclectic approach, as long as clinicians use research to select

the most effective treatment (Baker, McFall, & Shoham, 2008; Chambless & Ollendick, 2000). That is, the practice of psychotherapy must be *evidence-based*. Research may support alternative treatments, based on either therapy *outcome*, how well a treatment works, or therapy *process*, what makes therapy work (Kazdin, 2008).

Evidence-based treatment is the scientific—and practical—approach to therapy. Unfortunately, some therapists fail to educate their clients about evidence-based treatments. Yet, there is an even bigger problem: Most people with psychological problems do not get *any* help. Over one in 10 people in the United States get some kind of mental health treatment, and rates of receiving help have increased in recent decades. Yet, two-thirds of people with a diagnosable mental disorder still do *not* receive treatment (Kessler et al., 2005).

We introduce treatment with the following case study. As you read, ponder about what you think might be wrong with this young woman and what might help her. After the case, we discuss how different therapists might treat her using a biological, psychodynamic, cognitive-behavioral, or humanistic approach.

CASE STUDY Why Is Frances Depressed?

Frances was a 23-year-old woman when she first sought treatment. She had been depressed for almost three years, with periods of relative happiness or deeper despair. When she came into therapy, her depression was severe. She had little appetite, had lost 10 pounds over the previous six weeks, and her erratic sleeping patterns were worse than usual. She awoke around 2 or 3 A.M. every night, tossed in bed for several hours, and finally fell asleep again near dawn.

Frances reported feeling profoundly depressed about herself, her new marriage, and life in general. She freely

admitted to frequent thoughts of suicide. She once sat in her bathroom holding a razor blade for over an hour, contemplating whether to slash her wrists. But she decided she could never commit the act. Now, she often wished she were dead, but she felt that she “lacked the courage” to take her own life.

Frances said that she lacked all motivation. She withdrew from her husband and the few friends she had, and she frequently called in sick at work. Frances’s depression was underscored by her carelessness, frequent bouts of crying, and slowed speech and body movements.

Frances reported that she had a happy childhood. She had not known depression until the current episode began in her last year in college. At first, she convinced herself that she was only suffering from “senior year syndrome.” She wasn’t sure what to do with her life. Secretly, she longed to move to New York and finally break out and do something exciting. But when she told her parents about her plans, her mother begged Frances to return home. She insisted that the two of them needed to have fun together again after four long years with Frances away at school. Frances returned home.

Shortly after moving home, Frances realized that her difficulties were much more serious than she had thought. She found herself intermittently screaming at her doting mother and being “super-nice” after feeling guilty about losing her temper. Frances thought that her erratic behavior toward her mother was all her fault. She described her mother as “a saint.” Her mother apparently agreed. In both their minds, Frances was a failure as a daughter.

Frances described her mother as giving, but some of her comments about her were far from glowing. She said she was her mother’s best friend. When asked if her mother was her best friend, Frances began to cry.

She felt like her mother’s infant, her parent, or even her husband, but not her friend and certainly not like her grown daughter.

Frances had little to say about her father. She pictured him drinking beer,

eating meals, and falling asleep in front of the television.

Throughout the time she lived at home, Frances’s depression only deepened. After a year of living with her parents, she married her high school sweetheart. Frances felt pressured to get married. Both her future husband and her mother insisted that it was time for her to settle down and start a family. Frances had hoped that marriage might be the solution to her problems. The excitement of the wedding added to this hope. But after the marriage, Frances said that things were worse—if that were possible.

Frances’s husband was a young accountant who reminded Frances of her father. He didn’t drink but spent most of his brief time at home working or reading in his study. She said they had little communication, and she felt no warmth in her marriage. Her husband often was angry

and sullen, but Frances said she couldn’t blame him for feeling that way. His problem was being married to her. She wanted to love him, but she never had. She was a failure as a wife. She was a failure in life.

She felt like her mother’s infant, her parent, or even her husband, but not her friend and certainly not like her grown daughter.

The theme of self-blame pervaded Frances’s descriptions of her family. She repeatedly noted that, despite their flaws, her parents and her husband were good and loving people. She was the one with the problem. She had everything that she could hope for, yet she was unhappy. One reason she wanted to die was to ease the burden on them. How could they be happy when they had to put up with her foul moods? When she talked about these things, however, Frances’s tone of voice often sounded more angry than depressed.

FOUR VIEWS OF FRANCES

How might Frances’s problems be viewed through the lens of the four paradigms? Biological, psychodynamic, cognitive-behavioral, and humanistic therapists all would note her depressed mood, self-blame, and troubled relationships. However, therapists working within these different paradigms would evaluate Frances and approach treatment in very different ways (see Table 3.1).

Biological therapies approach mental illness by drawing an analogy with physical illness. Thus, a biologically oriented

psychiatrist or psychologist would focus first on making a diagnosis of Frances’s problems. This would not be difficult because Frances’s symptoms paint a clear picture of depression. The therapist also would take note of Frances’s description of her father, who seems chronically depressed. Perhaps a genetic predisposition runs in her family.

A biologically oriented therapist would sympathize with Frances’s interpersonal problems but would not blame either Frances or her family for their troubles. Rather, the therapist would blame something that neither Frances nor her family members could control: depression. It is exhausting to deal

TABLE 3.1 Comparison of Biological, Psychodynamic, Cognitive-Behavioral, and Humanistic Treatments

Topic	Biological	Psychodynamic	Cognitive-Behavioral	Humanistic
Goal of treatment	Alter biology to relieve psychological distress	Gain insight into defenses/unconscious motivations	Learn more adaptive behaviors/cognitions	Increase emotional awareness
Primary method	Diagnosis, medication	Interpretation of defenses	Instruction, guided learning, homework	Empathy, support, exploring emotions
Role of therapist	Active, directive, diagnostician	Passive, nondirective, interpreter (may be aloof)	Active, directive, nonjudgmental, teacher	Passive, nondirective, warm, supporter
Length of treatment	Brief, with occasional follow-up visits	Usually long term; some new short-term treatments	Short term, with later “booster” sessions	Varies; length not typically structured

with someone who is constantly agitated and depressed. In the end, the therapist might explain that depression is caused by a chemical imbalance in the brain, recommend medication, and schedule follow-up appointments to monitor the effects of the medication on Frances's mood.

A psychodynamic therapist would also note Frances's depression but likely would focus on her *defensive style*. The therapist might view Frances's justification of her parents' and husband's behavior as a form of *rationalization*. The therapist would also see a pattern of *denial* in Frances's refusal to acknowledge the imperfections of her loved ones and their failure to fulfill her needs. When Frances says that she is a burden on her family, a psychodynamic therapist might wonder if she was *projecting* onto them her own feelings of being burdened by her mother's demands and her husband's indifference.

A psychodynamic therapist probably would not challenge Frances's defenses early in therapy but instead begin by exploring her past. The goal would be to illuminate patterns in Frances's internal conflicts, unconscious motivations, and defenses. Sooner or later, the psychodynamic therapist would confront Frances's defenses in order to help her gain *insight* into her hidden resentment toward her mother, longing for a relationship with her father, and unfulfilled fantasies about marriage.

A cognitive-behavior therapist might note many of the same issues in Frances's life. Rather than focusing on defense mechanisms and the past, however, the therapist would hone in on Frances's cognitive and behavioral patterns now. Frances's self-blame—her pattern of attributing all of her interpersonal difficulties to herself—would be seen as a cognitive error. Her withdrawal from pleasing activities and unassertiveness also might be seen as contributing to her depression. In comparison to a psychodynamic therapist, a cognitive-behavior therapist would be far more directive in discussing these topics. For example, he or she would tell Frances that her thinking was distorted and causing her depression.

The therapist also would make direct suggestions to teach Frances new ways of thinking, acting, and feeling. The therapist might encourage Frances to blame others appropriately, not just herself, for relationship problems and urge her to try out new ways of relating to her mother, father, and husband. The therapist would want Frances to play an active role in this process by completing *homework*—activities outside the therapy, for example, writing about her anger or actually confronting her mother and husband. A cognitive-behavior therapist would expect Frances's depressed mood to begin to lift once she learned to assert herself and no longer blame herself for everything that went wrong.

A humanistic therapist would also note Frances's depression, self-blame, and unsatisfactory relationships. A more prominent focus, however, would be her lack of emotional genuineness—her inability to “be herself” with other people and within herself. The therapist would explore Frances's tendency to bury her true feelings. The goal would be to help Frances recognize how she *really* feels.

In therapy, the humanistic therapist would be nondirective about discussion but would continually focus on underlying emotions. Initially, the therapist might simply empathize with Frances's feelings of sadness, loneliness, and isolation. Over time, he or she might suggest that Frances had other feelings that she did not express, including frustration and guilt over

her mother's controlling yet dependent style, and anger at her husband's and father's self-centeredness. The humanistic therapist might tell Frances that all of her conflicting feelings were legitimate and encourage Frances to “own” them. The therapist would not directly encourage Frances to act differently. Instead, Frances might make changes in her life as a result of her increased emotional awareness.

These approaches to treating Frances are very different, but you may wonder if a therapist could use the best aspects of each one. In fact, psychologists often integrate elements of different approaches when working to find more effective treatments. One straightforward example is when psychotherapy is combined with medication, although most people who take antidepressants do not get therapy—and the number who do is declining (Olfson & Marcus, 2009). Before considering how approaches can be integrated, however, we first need to elaborate on their differences.

BRIEF HISTORICAL PERSPECTIVE

We can trace the roots of treating psychological problems to both the spiritual/religious and the naturalistic/scientific traditions (Frank, 1973). The spiritual/religious tradition is an ancient one that attributes both physical and mental ailments to supernatural forces. Examples include *trephining*, chipping a hole through the skull to allow evil spirits to escape from the mind of someone acting unusually, and witchcraft, including dunking a suspected witch under water (Neugebauer, 1979). (The only way to be found not to be a witch was to drown!)

The spiritual/religious tradition certainly produced bizarre treatments, but the influence of belief and ritual is no joke. Believing is a powerful part of healing. Later in the chapter, we explore the *placebo effect*, scientifically documented changes in mental and physical disease produced by a mere sugar pill. More generally, spiritual beliefs help people cope with all sorts of life difficulties. The power of shared beliefs also calls attention to the essential role of ethnicity and culture in therapy. Some minority group members may see therapy as ineffective, intrusive, or threatening unless it is sensitive to their unique experiences and culture (see *Ethnic Minorities in Psychotherapy*).

Naturalistic/scientific approaches to helping also have ancient roots. Hippocrates recommended treatments such as rest, exercise, and a healthy diet (see Chapter 1). In the 1600s, “insane asylums” were developed based on the hope that rest and isolation would alleviate mental disturbances. Although the beginnings of scientific approaches can be traced to ancient times, the biological, psychodynamic, cognitive-behavioral, and humanistic paradigms did not emerge until the nineteenth and early twentieth centuries.

Biological Treatments

The history of the discovery of the cause and cure of general paresis illustrates the hope and the methods of the medical model (see Chapter 2). First, a diagnosis is developed and

ETHNIC MINORITIES IN PSYCHOTHERAPY

Treating people from diverse backgrounds is a major challenge for psychologists. Among the dozens of ethnic groups in the United States, the most numerous are African Americans, Latinos, Asian Americans, and Native Americans. In fact, over 25 percent of Americans today are ethnic minorities, and minorities will outnumber whites by the middle of the twenty-first century. Despite the numbers, mainstream psychotherapy does not adequately meet their needs (Casas, 1995; Hwang, 2006; Neighbors et al., 2007; Vasquez, 2007).

Mental health professionals must recognize both commonalities and diversity in the values and experiences of ethnic minorities. For example, most immigrants came to the United States voluntarily; Native Americans, however, were driven from their homeland and confined to reservations. African Americans share a common history of racism but differ widely based on socioeconomic status, religion, and region of upbringing. Latinos share the Spanish language but may be black or white and have diverse origins in Mexico, the Caribbean, and Central and South America. Asian Americans share cultural traditions, for example, the value of collectivism over individualism, but differ greatly in language, country, and experiences with industrialization (Surgeon General, 2001).

A second concern is recognizing that many problems faced by ethnic minorities stem from social and cultural experiences, not individual psychological



Therapy may be more effective when the client and therapist share a similar cultural background.

problems (Comas-Díaz, 2000). All ethnic minorities face the challenge of acculturation, the process of learning or adopting the cultural patterns of the majority group (Casas, 1995; Sue, 1998).

Acculturation is a political goal of the American “melting pot.” However, language, ethnic values, and social customs may be undermined or even derided by the majority culture. African Americans and Native Americans have faced particularly difficult challenges in acculturation.

Acculturation challenges ethnic identity, minority members’ understanding of self in terms of their own culture.

Atkinson, Morten, and Sue (1993) proposed a five-stage model of the development of ethnic identity: (1) conformity, a time of self-deprecation and discrimination; (2) dissonance, a period of conflict between self-deprecation and appreciation of one’s ethnicity; (3) resistance and immersion, a stage of self-appreciation and ethnocentrism, accompanied by depreciation of the majority group; (4) introspection, a phase of questioning the basis of self-appreciation, as well as the basis for depreciation of the majority group; and (5) synergistic articulation and awareness, including both self-appreciation and appreciation of the basis for majority group values. Researchers have infrequently studied this model of ethnic identity development, but it provides a helpful framework for understanding struggles with acculturation (Casas, 1995).

Some evidence suggests that psychotherapy may be more effective when client and therapist share a similar

How can acculturation affect therapy with minorities?

cultural background and when the treatment is tailored to the specific culture (Hwang, 2006; Leong, 2007). Therapy also may be more effective when therapists are trained to be sensitive to minority issues (Hall, 2001; Parks, 2003). What is most clear, however, is the need to adapt psychotherapy to meet the needs of ethnic minority group members.

refined. Second, clues are put together like pieces of a puzzle that eventually fit together to identify a specific cause. Third, scientists experiment with treatments for preventing or curing the disorder until they find an effective one. These are far from simple tasks, of course, as shown by the century it took to diagnose general paresis, discover syphilis as its cause, and develop antibiotics as a treatment for the disease.

Today, scientists often search for biological treatments without knowing a disorder’s specific cause. (As we have noted,

there probably is no specific cause for most mental disorders.) These treatments focus on *symptom alleviation*, reducing the dysfunctional symptoms of a disorder but not eliminating its root cause (Valenstein, 1998). Happily, numerous medications have been discovered since the 1950s, and particularly since the 1980s, that offer effective symptom alleviation. Before discussing these drugs, however, we briefly consider two biological treatments with controversial histories: electroconvulsive therapy and psychosurgery.

ELECTROCONVULSIVE THERAPY

Electroconvulsive therapy (ECT) involves deliberately inducing a seizure by passing electricity through the brain. The technique was developed in 1938 by Ugo Cerletti and Lucio Bini, two Italian physicians who were seeking a treatment for schizophrenia. At the time, schizophrenia was erroneously thought to be rare among people who had epilepsy. This led to speculation that epileptic seizures somehow prevented the disorder. Cerletti and Bini were able to test this hypothesis when they discovered a means of inducing seizures. When visiting a slaughterhouse, they observed electric current being passed through the brains of animals. It produced a convulsion and unconsciousness. Shortly thereafter, the two physicians began to use a modified electroconvulsive technique as an experimental treatment for schizophrenia.

Typically, ECT involves a series of 6 to 12 sessions over the course of a few weeks. Approximately 100 volts of electric current is passed through a patient's brain in order to cause a convulsion. In *bilateral ECT*, electrodes are placed on the left and right temples, and the current passes through both brain hemispheres. In *unilateral ECT*, the current is passed through only one side of the brain, the nondominant hemisphere.

Unilateral ECT produces less *retrograde amnesia*—loss of memory of past events, a disturbing side effect of ECT (Lisanby et al., 2000). Unfortunately, unilateral ECT is less effective than bilateral ECT. Similarly, low-dose ECT (just enough current to produce a seizure) is less effective but causes fewer memory impairments than high-dose ECT (2.5 or more times the minimal current) (Sackheim, Prudic, & Devanand, 2000; UK ECT Review Group, 2003). Thus, effectiveness must be weighed against increased side effects.

Books and movies like *One Flew Over the Cuckoo's Nest* show how ECT was misused in the middle of the twentieth century. Today, however, ECT is used less frequently and more cautiously. ECT is an effective treatment for depression, but not for its original purpose, schizophrenia (UK ECT Review Group, 2003). Side effects can be serious and can include memory loss and even death in rare cases. Still, ECT can be very useful in treating severe depressions, especially when patients do not respond to other treatments.

PSYCHOSURGERY

Psychosurgery, the surgical destruction of specific regions of the brain, is another biological treatment with a checkered history. Egas Moniz (1874–1953), a Portuguese neurologist, introduced psychosurgery in 1935. He performed a procedure called *prefrontal lobotomy*, irrevocably severing the frontal lobes of the brain. In 1949, Moniz won a Nobel Prize for his work. As the popular movie *Shutter Island* reminded viewers, thousands of prefrontal lobotomies were performed around the world—between 10,000 and 20,000 in the United States alone.

Sadly, prefrontal lobotomy was subsequently discredited. It has limited benefits and causes frequent, often severe, side effects, including excessive tranquility, emotional unresponsiveness, and even death. Ironically, Moniz himself was shot and paralyzed by one of his lobotomized patients, a sad testament to the unpredictable outcome of the procedure.



American neurologist Walter Freeman performed almost 3,500 lobotomies, often severing the frontal lobes by knocking an instrument through the back of the eye socket. Today, lobotomy is completely discredited, but refined neurosurgery may play a role in treating severe disorders that do not respond to other treatments.

Prefrontal lobotomies are a thing of the past, but today very precise psychosurgeries may be used to treat severe affective or anxiety disorders—when all other treatments have failed. For example, *cingulotomy*, lesioning pinpointed regions of the cingulate cortex, may help very severe cases of obsessive-compulsive disorder (Mashour, Walker, & Martuza, 2005). Still, the irreversibility of brain damage makes psychosurgery a very rarely used procedure. Perhaps the future will bring effective refinements in psychosurgery and other direct brain treatments (Dougherty & Rauch, 2007).

PSYCHOPHARMACOLOGY

The most promising biological treatment is **psychopharmacology**—the use of medications to treat psychological disturbances. In recent years, scientists have developed new medications that have increasingly specific effects on emotional states and mental disorders (see Table 3.2).

There are many *psychotropic medications*, chemical substances that affect psychological state. Some psychotropic medications produce rapid changes in thinking, mood, and behavior. Traditional antianxiety agents have effects that become apparent soon after the medication is taken. Others, such as antidepressant medications, have more subtle influences that build up gradually over time. Still other psychotropic drugs affect people with mental disorders very differently from the way they affect someone who is functioning normally. Antipsychotic medications help to eliminate delusions and hallucinations among people suffering from schizophrenia, but the same medications would disorient most people and send them into a long, groggy sleep.

TABLE 3.2 Major Categories of Medications for Treating Psychological Disorders

Therapeutic Use	Chemical Structure or Psychopharmacologic Action	Example	
		Generic Name	Trade Name
Antipsychotics (also called major tranquilizers or neuroleptics)	Phenothiazines	Chlorpromazine	Thorazine
	Thioxanthenes	Thiothixene	Navane
	Butyrophenones	Haloperidol	Haldol
	Rauwolfia alkaloids	Reserpine	Sandril
	Atypical neuroleptics	Clozapine	Clozaril
Antidepressants	Tricyclic antidepressants (TCAs)	Amitriptyline	Elavil
	Monoamine oxidase inhibitors (MAOIs)	Phenelzine	Nardil
	Selective serotonin reuptake inhibitors (SSRIs)	Fluoxetine	Prozac
	Atypical antidepressants	Bupropion	Wellbutrin
Psychomotor stimulants	Amphetamines	Dextroamphetamine	Dexedrine
	Other	Methylphenidate	Ritalin
Antimanic	Metallic element	Lithium carbonate	Eskalith
	Anticonvulsants	Carbamazepine	Tegretol
Antianxiety (also called minor tranquilizers)	Benzodiazepines	Diazepam	Valium
	Triazolobenzodiazepine	Alprazolam	Xanax
Sedative hypnotic	Barbiturates	Phenobarbital	Halcion
	Benzodiazepines	Triazolam	
Antipanic	Benzodiazepines	Alprazolam	Xanax
	SSRIs	Paroxetine	Paxil
Antiobsessional	TCA	Clomipramine	Anafranil
	SSRIs	Fluvoxamine	Luvox

The growth of psychopharmacology is evident in the expanding development and use of psychotropic medications. In the United States, prescriptions for psychostimulants, used to treat inattentive and hyperactive behavior, tripled for preschoolers during the 1990s (Zito et al., 2000). One in 20 children today takes medication for mental health issues (Glier & Frank, 2009). Prescriptions for antidepressants doubled in the last decade (Olfson & Marcus, 2009). In fact, antidepressants are prescribed more often than *any* other type of medication (passing drugs that lower blood pressure in 2005) (Cherry et al., 2007). Today, fully 11 percent of American women and 5 percent of American men are taking an antidepressant (Barber, 2008).

We review evidence on particular psychotropic medications in each relevant chapter. For now, you should note a few general points. First, medication often is an effective and safe treatment. Second, psychotropic medications do not cure underlying causes, but symptom alleviation still is extremely important. Where would we be without pain relievers, another medication that only offers symptom relief? Third, many psychotropic drugs must be taken for long periods of time. Because the medications do not produce a cure, patients may need to keep taking the drug—for



Prozac, the first SSRI antidepressant, has become a part of popular culture: This propane tank was painted to look like the familiar pill. Antidepressants are prescribed more commonly than any other category of medication, bar none.

months, years, or sometimes for a lifetime. Fourth, all medications have side effects, some of which are very unpleasant. Partly for this reason, many patients do not take their medication as prescribed, and they may experience a relapse as a result. Fifth, most psychotropic medications are prescribed by primary care physicians, not psychiatrists, although psychiatrists increasingly specialize in prescribing and offer psychotherapy less often (Mojtabai & Olfson, 2008). Finally,

Do psychotropic drugs cure underlying causes or alleviate symptoms?

we worry, despite the benefits of psychopharmacology, that Americans are perhaps too eager to find a pill to solve all their problems (Barber, 2008).

Psychodynamic Psychotherapies

Psychodynamic psychotherapies all have origins in Freudian theory, and all seek to uncover inner conflicts and bring them into conscious awareness. An early influence on Freud was Joseph Breuer (1842–1925), who used hypnosis to induce troubled patients to talk freely about problems in their lives. Upon awakening from a hypnotic trance, many patients reported relief from their symptoms. Breuer attributed their improvement to *catharsis*, the release of previously unexpressed feelings. Breuer assumed that pent-up emotion was responsible for his patients' psychological problems.

FREUDIAN PSYCHOANALYSIS

Freud collaborated with Breuer early in his career, and he temporarily adopted the hypnotic method. But Freud soon concluded that hypnosis was unnecessary to encourage open expression. Instead, Freud simply told his patients to speak freely about whatever thoughts crossed their mind. This method, called *free association*, became a cornerstone of Freud's famous treatment, **psychoanalysis**.

Unlike Breuer, Freud did not see catharsis as an end in itself. The true benefit of free association, in Freud's view, was that it revealed aspects of the unconscious mind. Freud found clues to his patients' unconscious desires in their unedited speech. Freud also believed that dreaming (defenses presumably are weaker in dreams) and slips of the tongue (now called Freudian slips, for example, saying "sin" when you meant to say "sex") provide especially revealing information about the unconscious. Thus, according to Freud, free association, dreams, and slips of the tongue are all "windows into the unconscious."

Psychoanalytic Techniques Freud saw the psychoanalyst's first task as discovering unconscious conflicts that lie behind psychological difficulties. In order to overcome their problems, however, patients must come to share the psychoanalyst's understanding of these conflicts. They must achieve



what Freud called **insight**, bringing formerly unconscious material into conscious awareness. Freud asserted that insight is sufficient for curing psychological disorders.

The analyst's main tool for promoting insight is **interpretation**. In offering an interpretation, the analyst suggests hidden meanings to patients' accounts of their life. Typically, interpretations relate to past experiences, especially experiences with loved ones. Recall from Chapter 2, however, that Freud viewed the defense mechanisms as keeping intrapsychic conflicts from conscious awareness. Thus, psychoanalysts must overcome defenses like reaction formation as patients resist their interpretations. ("Hate my mother? My mother is a *saint*!").

Timing is everything in overcoming such *resistance*. The patient must be on the verge of discovering the hidden meaning himself or herself; otherwise, the interpretation will be rejected. For example, consider the dilemma of convincing Frances (from the earlier case study) that deep resentment lies beneath her professed love for her mother. Given her long history of subjugating her own needs to those of her mother, Frances would be unlikely to accept such an interpretation if it were made too early in treatment.

According to Freud, one essential element in probing the unconscious mind is *therapeutic neutrality*, maintaining a distant stance toward the patient in order to minimize the therapist's personal influence. The classical psychoanalyst "sits behind the patient where the patient cannot see him. He tries to create, as far as possible, a controlled laboratory situation in which the individual peculiarities of the analyst shall play as little role as possible in stimulating the patient's reactions" (Alexander & French, 1946, p. 83).

The analyst's distant stance is thought to encourage *transference*, the process whereby patients transfer their feelings about some key figure in their life onto the shadowy figure. For psychoanalysis to succeed, the analyst must not respond to transference in a manner that the patient views as critical or threatening. Analysts also must avoid reacting to their patients in the same way as key figures in their life, for example, by responding to Frances's helplessness by becoming overprotective (like her mother). Finally, psychoanalysts must guard against *countertransference*, or letting their own feelings influence their responses to their patients. Instead, the analyst's job is to maintain therapeutic neutrality and offer interpretations that will promote insight. For example, "You seem frustrated that I won't tell you what to do. I wonder if you have come to expect authority figures to solve your problems for you."

Insight into the transference relationship presumably helps patients understand how and why they are relating to the analyst in the same dysfunctional manner in which they related to a loved one. This awareness creates a new understanding both of past relationships and of unconscious motivations in present relationships. For example, Frances might have trouble accepting a therapeutic relationship in which she was receiving care instead of giving it. She might, therefore, try to get the analyst to reveal personal problems. The therapist's polite refusal of Frances's attempts at caretaking might cause Frances to feel hurt, rejected, and, eventually, angry. As therapy proceeded, these actions could be interpreted as reflecting Frances's style of relating to her mother and her tendency to deny her own needs.

A common misconception about psychoanalysis is that the ultimate goal of insight is to rid the patient of all defenses. This is not the case. According to Freud, defenses are essential for the functioning of a healthy personality. Thus, rather than ridding the patient of defenses, one goal of psychoanalysis is to replace them. Defenses such as denial and projection are confronted because they distort reality dramatically, whereas "healthier" defenses, such as rationalization and sublimation, are left unchallenged. A second goal of psychoanalysis is to help patients become more aware of their basic needs so that they may find appropriate outlets for them.

The Decline of Freudian Psychoanalysis In traditional psychoanalysis, patients meet with their analyst for an hour several times each week. These sessions often go on for years. Because psychoanalysis requires substantial time, expense, and self-exploration, it is accessible only to people who are well-functioning, introspective, and financially secure. Also, little research has been conducted on its effectiveness. For these reasons, you should view psychoanalysis more as a process for people seeking self-understanding than as a treatment for emotional disorders.

Psychoanalysis has declined greatly, but the approach has spawned numerous variations broadly referred to as **psychodynamic psychotherapy**. Psychodynamic psychotherapists often are more engaged and directive, and treatment may be relatively brief in comparison to psychoanalysis.

EGO ANALYSIS

Several notable therapists trained in psychoanalysis developed somewhat different theories from Freud, emphasizing the role of the ego over that of the id. One major function of the ego is

to mediate between the conflicting impulses of the id and the superego (see Chapter 2). Of equal importance to ego analysts is the ego's role in dealing with reality. Ego analysts, therefore, are concerned not only with unconscious motivations, but also with the patient's dealings with the external world.

Past and present relationships are of greatest importance according to Harry Stack Sullivan (1892–1949), an influential ego analyst, who suggested that personality characteristics can be conceptualized in interpersonal terms. Sullivan saw two basic dimensions of relationships. Interpersonal power ranges from dominance to submission. Interpersonal closeness ranges from love to hate. In looking at Frances's relationships, Sullivan might say that she was both overly submissive and perhaps unloved, since she busily met others' needs while ignoring her own.

Other influential ego analysts include Erik Erikson (1902–1994) and Karen Horney (1885–1952). Horney's (1939) lasting contribution was her view that people have conflicting ego needs: to move toward, against, and away from others. Essentially, Horney argued that there are competing human needs for closeness, for dominance, and for autonomy. In her view, the key to a healthy personality is finding a balance among the three styles of relating to others. Pause and consider these three needs in relation to Frances. You should be able to identify her conflicts between Horney's three needs.

We introduced Erikson's stage theory of development in Chapter 2. As with other ego analysts, Erikson focused on the interpersonal context, as evident in his emphasis on the *psychosocial* stages of development. Importantly, Erikson also argued that an individual's personality is not fixed by early experience but develops as a result of predictable psychosocial conflicts throughout the life span.

John Bowlby's (1907–1991) *attachment theory* perhaps has had the greatest effect on contemporary thought about interpersonal influences on psychopathology (see Chapter 2). Unlike Freud, Bowlby elevated the need for close relationships to a primary human characteristic. From an attachment theory perspective, people are inherently social beings. Our hunger to form close relationships is not so different from our hunger for food, as both reflect a basic human need.

PSYCHODYNAMIC PSYCHOTHERAPY

Many different approaches to psychotherapy have been developed based on the theories of Sullivan, Horney, Erikson, Bowlby, and other ego analysts. All these approaches seek to uncover hidden motivations, and all emphasize the importance of insight (Shedler, 2010). Psychodynamic psychotherapists are much more actively involved with their patients than are psychoanalysts, however. They are more ready to direct the patient's recollections, to focus on current life circumstances, and to offer interpretations quickly and directly. Most psychodynamic psychotherapists are also much more "human" in conducting therapy. They may be distant and reflective at times, but they also are willing to offer appropriate emotional support.

Short-term psychodynamic psychotherapy is a form of treatment that uses many psychoanalytic techniques. Therapeutic neutrality is typically maintained, and transference remains

How is insight obtained in psychodynamic therapy?

a central issue. But the short-term psychodynamic therapist actively focuses on a particular emotional issue rather than relying on free association. The short-term approach has gained attention because it typically is limited to 25 or fewer sessions and is less expensive and more amenable to research (Luborsky, Barber, & Beutler, 1993).

Psychodynamic therapy has not been studied extensively. Some recent reviews concluded that evidence supports the treatment's effectiveness (Leichsenring & Rabung, 2008; Shedler, 2010), but that view is controversial. We believe that more, high quality research is needed before psychodynamic therapy can be said to have empirical support equal to other, evidence-based treatments.

One outgrowth of psychodynamic therapy that does have solid research support is **interpersonal therapy (IPT)**, an evidenced-based treatment that focuses on changing emotions and styles of interacting in close relationships. IPT views parent-child and other close relationships as teaching patterns,

*How is the
cognitive-behavior
therapist like
a teacher?*

or characteristic styles, in relating to others. Certain patterns (e.g., dependency), in turn, can create psychological problems in some relationships (e.g., depression following rejection) or during certain life transitions (e.g., a divorce). IPT therapists help clients to recognize their characteristic patterns of relating—as well as associated emotional upheavals. But IPT shares two key features in common with our next topic: a focus on making changes in the present and solid research support (see Chapter 5) (Bleiberg & Markowitz, 2008).

Cognitive-Behavior Therapy

Cognitive-behavior therapy (CBT) uses various research-based techniques to help troubled clients learn new ways of thinking, acting, and feeling. The approach contrasts sharply with psychodynamic therapy. CBT encourages collaborative therapist-client relationships, a focus on the present, direct efforts to change problems, and the use of different, empirically supported treatments.

The beginnings of CBT can be traced to John B. Watson's (1878–1958) *behaviorism*, the view that the appropriate focus of psychological study is observable behavior. Watson viewed the therapist as a teacher and the goal of treatment as providing new, more appropriate learning experiences. Early behavior therapists relied heavily on animal learning principles, particularly Pavlov's classical conditioning and Skinner's operant conditioning. Today, CBT incorporates many learning principles based on cognitive psychology. Thus, the term “cognitive-behavior therapy” has largely replaced the older term “behavior therapy.”

Unlike psychoanalysis, CBT is not based on an elaborate theory about human personality. Rather, CBT is a practical approach oriented to changing behavior rather than trying to understand the dynamics of personality. One of the most important aspects of CBT is its embrace of empirical evaluation. Cognitive-behavior therapists have asked, “What works?” in hundreds of treatment outcome studies that use the *experimental method* (see Research Methods). The answers include a variety of different treatments for different problems.



Children must get back on their bikes to get over the fear of another fall. Cognitive-behavior therapists take a similar, practical approach; exposure is the key to overcoming anxiety.

SYSTEMATIC DESENSITIZATION

Joseph Wolpe (1915–1997), a South African psychiatrist whose research focused on eliminating phobias, developed an early and influential treatment used by cognitive-behavior therapists. Wolpe (1958) developed **systematic desensitization**, a technique for eliminating fears that has three key elements. The first is relaxation training using *progressive muscle relaxation*, a method of inducing a calm state by tightening and then relaxing all the major muscle groups. The second is constructing a *hierarchy of fears* ranging from very mild to very intense, a ranking that allows clients to confront their fears gradually. The third part is the *learning process*, maintaining relaxation while confronting ever-increasing fears. Wolpe had his clients confront fears in their imagination. Thus, systematic desensitization involves imagining increasingly fearful events while simultaneously maintaining a state of relaxation.

Systematic desensitization has been studied extensively; in fact, the technique can be credited with spurring psychotherapy outcome research in general. Evidence shows that it can be an effective treatment for fears and phobias.

OTHER EXPOSURE THERAPIES

Many factors contribute to effective systematic desensitization, but most investigators agree that *exposure* ultimately is the key to fear reduction: In order to conquer your fears, you must confront them (Barlow, Raffa, & Cohen, 2002). Other exposure therapies include *in vivo desensitization*, gradually confronting fears in real life while simultaneously maintaining a state of relaxation. *Flooding*, in contrast, involves confronting fears at full intensity. Someone who was afraid of heights might be brought to the top of the CN Tower in Toronto (the world's tallest freestanding structure) in a quick and dramatic attempt to extinguish fear.

RESEARCH METHODS

THE EXPERIMENTAL METHOD: DOES THERAPY CAUSE IMPROVEMENT?

How can researchers discover whether therapy *causes* improved psychological functioning? They must use the **experimental method**, a scientific procedure that allows researchers to determine cause and effect. The experiment has four essential features.

The first is a **hypothesis**—the experimenter’s prediction about cause and effect. For example, a researcher might predict that in comparison to no treatment at all, cognitive-behavior therapy will reduce symptoms of depression.

The second feature of the experiment is the **independent variable**, a variable controlled and carefully manipulated by the experimenter. The independent variable might be whether patients receive therapy or no treatment at all. People who receive an active treatment belong to the **experimental group**. Those who receive no treatment belong to the **control group**.

The third feature is **random assignment**, ensuring that each participant has a statistically equal chance of receiving different levels of the independent variable. Flipping a coin is one of many ways of randomly assigning participants to experimental or control groups. Random assignment ensures that the members of the experimental and control groups did not differ *before* they began the experiment. If people could choose whether they receive psychotherapy or nontreatment, for example, researchers could not know whether any differences obtained between the groups were caused by the treatment or by characteristics that led people to pick one treatment or no treatment. Random assignment guards against such possibilities.

The fourth feature is the measurement of the **dependent variable**, the outcome that is hypothesized to vary according to manipulations in the indepen-

dent variable. The outcome *depends* on the experimental manipulation—thus the term “dependent variable.” Symptoms are commonly measured dependent variables in psychotherapy outcome research.

Statistical tests establish whether the independent variable has reliably changed the dependent variable, or whether the outcomes are a result of chance. A finding is considered to be **statistically significant** if it occurs by chance in fewer than 1 out of 20 experiments. That is, the probability of a chance outcome is less than 5 percent, a specification that is often written as $p < .05$. A statistically significant result is not the same as a *clinically significant* finding. A treatment may cause changes in symptoms, but the changes may be too small to make a meaningful difference in the patient’s life.

Whether therapy works can be studied using the experimental method, because researchers can control whether someone receives a particular treatment. However, completely controlling the independent variable—treatment—is a challenge. Some people drop out of treatment, and others seek additional help outside of the experiment. Therapists might individualize psychotherapy instead of treating everyone, or patients might not take a medication being studied. These are only a few of the many ways in which the independent variable can be *confounded* with other factors. Confounds threaten the *internal validity* of an experiment, whether the experiment accurately links changes in the dependent variable to changes in the independent variable. If the independent variable is confounded with other factors, we can no longer accurately determine cause and effect. The confound, not the

independent variable, may have changed the dependent variable.

External validity refers to whether the findings of an experiment generalize to other circumstances. Experiments require a degree of artificiality in order to give the experimenter maximum control. Therapy might last for exactly 10 sessions, and therapists might follow a prescribed script. These rules strengthen the experiment’s internal validity, but they can compromise its external validity. In the real world, the length and nature of treatment often are tailored to the individual client’s needs. Scientists and practitioners can, and

What is the major strength and major weakness of the experimental method?

often do, raise questions about the external validity of psychotherapy outcome research—whether the findings generalize to the real world.

The ability to demonstrate causation is a powerful strength of the experiment. (Recall that in Chapter 2 we introduced the *correlational method* but concluded that correlation does not mean causation.) The experimental method is limited, however, because many important variables cannot be manipulated practically or ethically in real life. Researchers can randomly assign clients to different treatments, but we cannot, for example, randomly assign children to live with abusive parents to test hypotheses about the consequences of abuse! This is why you must understand the strengths and the limitations of both the correlational and the experimental methods. Psychologists seek to understand cause and effect, but ethical and practical concerns often prohibit researchers from using the experimental method.

AVERSION THERAPY

The goal in *aversion therapy* is to create, not eliminate, an unpleasant response. The technique is used primarily in treating substance use disorders such as alcoholism and cigarette smoking. For example, one form of aversion therapy pairs the sight, smell, and taste of alcohol with severe nausea produced artificially by a drug.

Aversion therapy is controversial precisely because of its aversive nature. Moreover, it is not clear whether aversion therapy is effective (Finney & Moos, 2002). Aversion treatments often achieve short-term success, but relapse rates are high. Everyday life offers the substance abuser the opportunity, and perhaps the motivation, to desensitize himself or herself to the classically conditioned responses learned in aversion therapy.

CONTINGENCY MANAGEMENT

Contingency management directly changes rewards and punishments for identified behaviors. A *contingency* is the relationship between a behavior and its consequences; contingency management involves changing this relationship. The goal of contingency management is to reward desirable behavior systematically and to extinguish or punish undesirable behavior. In order to achieve this goal, the therapist must control relevant rewards and punishments. Thus, contingency management is used primarily in circumstances where the therapist has considerable direct or indirect control over the environment, such as in institutional settings or when children are brought for treatment by their parents.

The *token economy* is an example of contingency management that has been adopted in many institutional settings. In a token economy, desired and undesired behaviors are clearly identified, contingencies are defined, behavior is carefully monitored, and rewards or punishments are given according to set rules. For example, in a group home for juvenile offenders, a token economy may specify that residents earn tokens for completing schoolwork and household chores, and lose tokens for arguing or fighting. Each resident's behavior is monitored and recorded, and tokens are "paid" accordingly. The tokens can be exchanged for rewards desired by the residents—for example, going out unescorted on a Saturday night.

Research shows that contingency management successfully changes behavior for diverse problems such as institutionalized clients with schizophrenia (Paul & Lentz, 1977) and juvenile offenders in group homes (Phillips et al., 1973). However, improvements often do not generalize to real-life situations. A psychologist can set up clear contingencies for a juvenile living in a group home, but it may be impossible to alter the rewards and punishments the teenager encounters when he or she returns to live with a chaotic family or delinquent peers (Emery & Marholin, 1977). Sadly, in the real world a troubled adolescent's positive behavior may be ignored, his undesirable behavior may be rewarded, and punishment can be inconsistent or long delayed.

SOCIAL SKILLS TRAINING

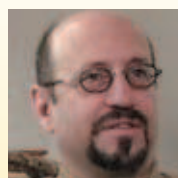
The goal of *social skills training* is to teach clients new ways of behaving that are both desirable and likely to be rewarded in everyday life. Two commonly taught skills are assertiveness and social problem solving.

The goal of *assertiveness training* is to teach clients to be direct about their feelings and wishes. The training may

MyPsychLab

VIDEO CASE

Hypochondriasis



HENRY

"I hear snickering in the background, 'Oh, it's him again.'"

Henry on hypochondriasis, see *Speaking Out: Case Studies in Abnormal Psychology*. Look for

Henry's nonverbal behavior and apparent nonchalance about his problems.

involve different levels of detail, from learning to make eye contact to asking a boss for a raise. In teaching assertiveness, therapists frequently use *role playing*, an improvisational acting technique that allows clients to rehearse new social skills. Clients try out new ways of acting as the therapist assumes the role of some person in their life. For example, a cognitive-behavior therapist might assume the role of Frances's mother and ask Frances to express some of her frustration to her "mother" during a role play.

Social problem solving is a multistep process that has been used to teach children and adults ways to go about solving a variety of life's problems. The first step involves defining the problem in detail, breaking a complex difficulty into smaller, more manageable pieces. "Brainstorming" is the second step. In order to encourage creativity, therapists ask clients to come up with as many alternative solutions as they can imagine—even wild and crazy options—without evaluating these alternatives. The third step involves carefully evaluating these options. Finally, the best solution is chosen and implemented, and its success is evaluated objectively. If the option does not work, the entire process can be repeated until an effective solution is found.

It is difficult to draw general conclusions about the effectiveness of social skills training because the technique has been applied to many specific problems with varying degrees of success. Clients can learn new social skills in therapy, but it is less clear whether these skills are used effectively in real life (Mueser & Bellack, 2007).

COGNITIVE TECHNIQUES

All the techniques we have discussed so far have foundations in either classical or operant conditioning. Other methods are rooted in cognitive psychology. One example is *attribution retraining*, based on the idea that people are "intuitive scientists" who are constantly drawing conclusions about the causes of events in their lives. These perceived causes, which may or may not be objectively accurate, are called *attributions*. Attribution retraining involves changing attributions, often by asking clients to abandon intuitive strategies. Instead, clients are instructed in more scientific methods, such as objectively testing hypotheses about themselves and others. For example, first-year college students often attribute their "blues" to their own failings. If they carefully observe the reactions of other first-year students, however, they may be persuaded to adopt a more accurate causal explanation: The first year of college can be trying, lonely, and stressful (Wilson & Linville, 1982).

Self-instruction training is another cognitive technique that is often used with children. In Meichenbaum's (1977) self-instruction training, the adult first models an appropriate behavior while saying the self-instruction aloud. Next, the child is asked to repeat the action and also to say the self-instruction aloud. Following this, the child repeats the task while whispering the self-instructions. Finally, the child does the task while repeating the instructions silently. This procedure is designed as a structured way of developing *internalization*, helping children to learn internal controls over their behavior.

BECK'S COGNITIVE THERAPY

CBT has been strongly influenced by the clinical work of Aaron Beck (1976). Beck's *cognitive therapy* was developed specifically as a treatment for depression (Beck et al., 1979). Beck suggested that depression is caused by errors in thinking. These distortions lead depressed people to draw incorrect, negative conclusions about themselves, conclusions that create and maintain depression. Simply put, Beck hypothesized that depressed people see the world through gray-colored glasses (as opposed to the rose-colored variety). According to his analysis, this negative filter makes the world appear much bleaker than it really is.

Beck's cognitive therapy challenges cognitive errors, often by having clients analyze their thoughts more carefully (Beck et al., 1979). For example, a cognitive therapist might ask Frances to keep a record of her various family conflicts, including a brief description of the dispute, her thoughts in the moment, and her feelings that followed. The cognitive therapist might help Frances use this information to challenge her tendency to engage in "black-and-white" (all bad or all good) thinking about her relationships. "Yes, your mother got angry, but does the fact that you didn't meet her expectations really mean that she *hates* you and you are a complete failure and totally worthless?"

RATIONAL-EMOTIVE THERAPY

Albert Ellis's (1913–2007) *rational-emotive therapy* (RET) is also designed to challenge cognitive distortions. According to Ellis (1962), emotional disorders are caused by *irrational beliefs*, absolute, unrealistic views of the world, such as "Everyone must love me all the time." The rational-emotive therapist searches for a client's irrational beliefs, points out the impossibility of fulfilling them, and uses any and every opportunity to persuade the client to adopt more realistic beliefs. Rational-emotive therapy shares concepts and techniques in common with Beck's approach. A major difference, however, is that rational-emotive therapists directly challenge the client's beliefs during therapy (Ellis, 1962). For example, a rational-emotive therapist might strongly challenge Frances's desire to make her mother happy with a sharp comment like, "That's impossible! That's irrational!"

"THIRD-WAVE" CBT

Recent years have witnessed a "third wave" of CBT, following the first wave (based on operant and classical conditioning), and the second (cognitive therapies; Hayes, 2004). Third-

wave CBT treatments focus on broad, abstract principles such as acceptance, mindfulness, values, and relationships (Herbert & Forman, 2011). For example, *dialectical behavior therapy*, a treatment for borderline personality disorder (see Chapter 9), includes an emphasis on "mindfulness," increased awareness of your feelings, thoughts, and motivations (Linehan, 1993). *Acceptance and commitment therapy*, a values-oriented approach used in treating a variety of disorders and problems, encourages accepting oneself, not just on making appropriate changes (Hayes, 2004). Empirical support is not as strong for third-wave CBT as it is for other forms of CBT, but importantly, the treatments are being evaluated systematically (Öst, 2008).

INTEGRATION AND RESEARCH

Increasingly what defines CBT is a commitment to research, not to a particular form of therapy, as evidenced by the growing number of techniques called cognitive-behavior therapy. Cognitive-behavior therapists increasingly embrace *any* treatment—as long as it is proven effective. In the future, we envision CBT becoming *the* eclectic approach to therapy, comprised of whatever treatments work.

Humanistic Therapies

Humanistic psychotherapy developed as a "third force" in psychotherapy, a counterpoint to both psychodynamic and cognitive-behavior therapy. Humanistic psychologists see both approaches as ignoring what is most essential about



Social support is vital in all kinds of relationships, including feeling supported by your therapist.

being human: making choices and shaping our own future. To be human is to be responsible for your own life—and for finding meaning in it. From this perspective, therapy cannot solve problems for you. Therapy can only help you to solve your own problems, to make better choices in your life (Rogers, 1951).

The key to making better choices is increased *emotional awareness*. Humanistic therapists encourage people to recognize and experience their true feelings. Like psychodynamic therapy, this involves “uncovering” hidden emotions; thus, both treatments strive to promote insight. Yet, humanistic therapists are more concerned with how people feel rather than why they are feeling that way. And like CBT, humanistic therapy focuses primarily on the present.

Humanists view the therapist–client relationship as *the* method for encouraging change. Other approaches also see the therapy relationship as important but view it as a way to make the real treatment—insight or behavior change—more effective. In humanistic therapy, the relationship is the treatment.

CLIENT-CENTERED THERAPY

Carl Rogers (1902–1987) and his *client-centered therapy* epitomize this focus on the therapy relationship. Rogers (1951) viewed three qualities as essential in a therapist: warmth, genuineness, and particularly **empathy**, emotional understanding. Empathy involves putting yourself in someone else’s shoes and conveying your understanding of that person’s feelings and perspectives. Therapists show empathy by reflecting their client’s feelings and, at a deeper level, by anticipating emotions their clients have not yet expressed.

Rogers encouraged appropriate therapist *self-disclosure*, intentionally revealing some personal feelings and experiences as a way of helping clients to better understand themselves. And because emotional understanding can grow out of many life experiences, Rogers felt that client-centered therapists need not always be professionals. They could be ordinary people who had faced life difficulties similar to those of their clients.

Client-centered therapists demonstrate *unconditional positive regard*, valuing clients for who they are and not judging them. Out of respect for the client’s humanity, client-centered therapists also avoid directing the therapy process; they are *nondirective*. Rogers believed that, if clients can experience and accept themselves, they will be able to resolve their own problems.

A MEANS, NOT AN END?

Rogers (1951) took a strong stand. He asserted that warmth, empathy, and genuineness were necessary and sufficient conditions for therapeutic change. Few have studied whether humanistic therapy effectively changes abnormal behavior.

Why are humanistic therapy techniques a means, not an end, in therapy?

Perhaps humanistic therapy is better viewed as a way to obtain a new emotional understanding, not as a treatment for specific mental disorders (Pascual-Leone & Greenberg, 2007).

Despite the lack of research on treatment effectiveness, Rogers and his colleagues were committed to psychotherapy

process research. Process research shows that the **therapeutic alliance** or bond between a therapist and client is crucial to the success of therapy (Baldwin, Wampold, & Imel, 2007). A therapist’s caring, concern, and respect for the individual are important to the success of *all* psychological (and medical) treatments.

Research on Psychotherapy

Now that we have described key approaches to psychotherapy, we can begin to ask some questions about them. Many people claim not to “believe” in psychotherapy. Is their skepticism well founded? Does psychotherapy work? And if therapy is helpful, what approach works best?

Researchers sometimes disagree, perhaps vehemently, about the answers to these questions. Based on the evidence we discuss in the following sections, however, we reach four major conclusions about psychotherapy. First, psychotherapy *does* work—for many people and for many problems. Second, most approaches to psychotherapy share key “active ingredients,” for example, a supportive therapist–client relationship. Third, different treatments are more or less effective for different disorders. Fourth, some “treatments” are complete shams that not only do not help but may well harm (Castonguay et al., 2010; see Critical Thinking Matters and Table 3.3).

DOES PSYCHOTHERAPY WORK?

Psychotherapy outcome research examines the outcome, or result, of psychotherapy—its effectiveness for relieving symptoms, eliminating disorders, and/or improving life functioning. Hundreds of studies have compared the outcome of psychotherapy with alternative treatments or with no treatment at all. In order to summarize findings across all of these studies, psychologists often use a statistical technique called **meta-analysis**, a statistical procedure that allows researchers to combine the results from different studies in a standardized way. Meta-analysis creates a common currency for research findings, similar to converting euros, yen, rubles, yuan, and so on into dollar amounts.

Meta-analysis indicates that the average benefit of psychotherapy is .85 standard deviation units (Smith & Glass, 1977). We describe the mathematical meaning of the *standard deviation* in Research Methods in Chapter 15. For now, we can begin to help you appreciate the finding by making a few comparisons. Nine months of reading instruction leads to a .67 standard deviation unit increase in reading achievement among elementary school children. Chemotherapy has about a .10 effect size in reducing mortality following breast cancer (Lipsey & Wilson, 1993).

The .85 standard deviation statistic also indicates that the average client who receives therapy is better off than 80 percent of untreated persons (see Figure 3.1). The .85 standard deviation change also indicates that roughly two-thirds of clients improve significantly with psychotherapy. Thus, therapy “works,” but we must offer a very important qualification: Many benefits

Critical Thinking Matters

ARE ALL THERAPIES CREATED EQUAL?

Research demonstrates that, in general, psychotherapy “works.” Evidence also shows that different approaches to therapy share “active ingredients” that contribute to their success. Does this mean that all therapies are equally effective? No way!

Contemporary research shows that specific treatments are more or less effective for specific disorders (DeRubeis, Brotman, & Gibbons, 2005; Nathan & Gorman, 2007). Because of this, we strongly believe that therapists are ethically obligated to inform their clients about the effectiveness of alternative treatments. We also believe that there is a long list of “therapies” that professionals *never* should offer as a treatment for *any* emotional problem.

Many so-called treatments are, to be blunt, hoaxes. The list of phony therapies has grown in recent years, as susceptible members of the public seem to have lost faith in science and instead placed their hopes in “alternative” therapies. The problem has led several scientifically minded psychologists to debunk various fake therapies (e.g., Lilienfeld, Lynn, & Lohr, 2003; Singer & Lalich, 1996). Among the most dubious of treatments are

- “Rebirthing therapy,” a technique that purports to free people from deep-seated emotional problems by teaching them to breathe using their diaphragm instead of their chest.

- “Primal therapy,” where patients overcome the trauma of their own birth by learning the appropriate way to scream and thereby release destructive emotions.
- “Attunement-enhancing, shame-reducing, attachment therapy,” which involves holding a child firmly and encouraging her rage and despair, as a way of getting the child to talk about trauma.
- “Alien abduction therapy,” which helps people to cope with the various mental disorders caused by being abducted by aliens. (We’re not making this up!)
- “Facilitated communication,” a technique in which a facilitator helps someone with impaired communication to speak by “assisting” his or her typing on a keyboard.

We hope that these treatments strike you as completely outlandish. They are. To see just how far some “experts” are willing to go with their outrageous claims, you might do a Web search on these and other “alternative” therapies.

The treatments may be silly, but they have a very serious effect. The desperation of people suffering from mental disorders, and their loved ones, can lead them to be duped into trying sham treatments—and to perhaps miss out on legitimate ones. For example, facilitated communica-

tion was so widely promoted as a treatment for autism in the 1990s that legitimate scientists, and a panel of experts appointed by the American Psychological Association, had to spend valuable time proving that the technique does *not* work. We detail the troubling story of facilitated communication in Chapter 15, but here’s a hint how it works: Ever hear of the Ouija board?

Are some psychological “treatments” really hoaxes?

Scientists cannot debunk every hare-brained idea offered by misguided or deceptive “therapists,” nor should they have to. Recall that the burden of proof falls on the shoulders of anyone who claims that alien abductions cause mental disorders. Until proven true, we reject such claims. And proof requires objective, replicable evidence—not testimonials.

Outlandish therapies—and seemingly legitimate but ineffective treatments—would cause fewer problems if two things happened. First, mental health professions need to take a strong stand and endorse clear standards of care for treating various mental disorders. Second, the public—you—needs to think critically. Hone your inquiring skepticism. Don’t be duped by self-anointed experts or sensational media stories, however believable they may seem.

of psychotherapy diminish in the year or two after treatment ends (Westen & Bradley, 2005).

Improvement Without Treatment? Many psychologists accept that about two-thirds of clients improve, at least in the short term, as a result of psychotherapy. Some skeptics have suggested, however, that a high percentage of emotional disorders have a *spontaneous remission*, that is, they improve without any treatment at all. In fact, the British psychologist Hans Eysenck (1916–1997) famously concluded that psychotherapy

was totally ineffective for this very reason. Eysenck (1952/1992) agreed that therapy helps about two out of three people. The problem, he claimed, is that two-thirds of people also improve *without* treatment.

Was Eysenck right? This simple question turns out to be not so easy to answer. Consider a basic experiment. Clients seeking therapy are randomly assigned to receive either psychotherapy or no treatment at all. People in the *no-treatment control group* might be put on a waiting list, with the promise that they will receive therapy in the future. But people on a

TABLE 3.3 Therapies That May Harm

Name	Brief Description	Potential Harm
Critical incident stress debriefing	"Processing" trauma soon after the experience	Increased risk for posttraumatic stress symptoms
Scared straight	Seasoned inmates scare youth about consequences of criminality	Increased conduct problems
Facilitated communication	Facilitator helps impaired individual type on keyboard	False accusations of child abuse
Rebirthing therapy	Wrapped tightly in sheets while group resists struggle to be "reborn"	Physical injury, death
Recovered memories	Encouragement to "recover" memories of trauma	Creation of false memories
Boot camps	Delinquent youth sent to military style camp	Increased conduct problems
DARE programs	Preadolescent children educated about danger of drugs	Increased substance use

Source: Adapted from S. O. Lilienfeld, 2007, "Psychological Treatments That Cause Harm," *Perspectives on Psychological Science*, 2, pp. 53–70.

waiting list are likely to seek counseling and advice from family members, friends, religious leaders, or maybe a different professional. If we find that their problems improve six months later, is this spontaneous remission or a result of *informal* psychological help?

Why are placebos so important in psychotherapy research?

Informal counseling often is helpful, as you surely know from your own life experiences. In fact, researchers have found that as many as one-half of people seeking psychotherapy improve as a result of simply having unstructured conversations with a professional (Lambert & Bergin, 1994). Thus, some experts argue that so-called no-treatment controls actually receive some form of treatment. Others assert that "just talking" is hardly psychotherapy. Should we consider informal counseling to be part of psychotherapy, or is "just talking" merely a placebo?

The Placebo Effect In medicine, *placebos* are pills that are pharmacologically inert; they have no medicinal value. More broadly, placebos are any treatment that contains no known active ingredients. But the absence of active ingredients does not prevent placebos from healing. The **placebo effect**, the powerful healing produced by inert treatments, has been documented widely in psychotherapy, psychopharmacology, dentistry, optometry, cardiovascular disease, cancer treatment, and even surgery (Baskin et al., 2003). The recipient's belief in a treatment, and expectation of improvement, is responsible for much of what works in psychological—and physical—treatments. Consider this: About half of internal medicine physicians report prescribing placebos (usually vitamins or over-the-counter pain relievers) regularly to their patients (Tilburt et al., 2008). And a recent study found that full-price placebos (costing \$2.50 per pill) produced significantly more pain relief than "discount" placebos (costing \$.10 per pill) (Waber et al., 2008).

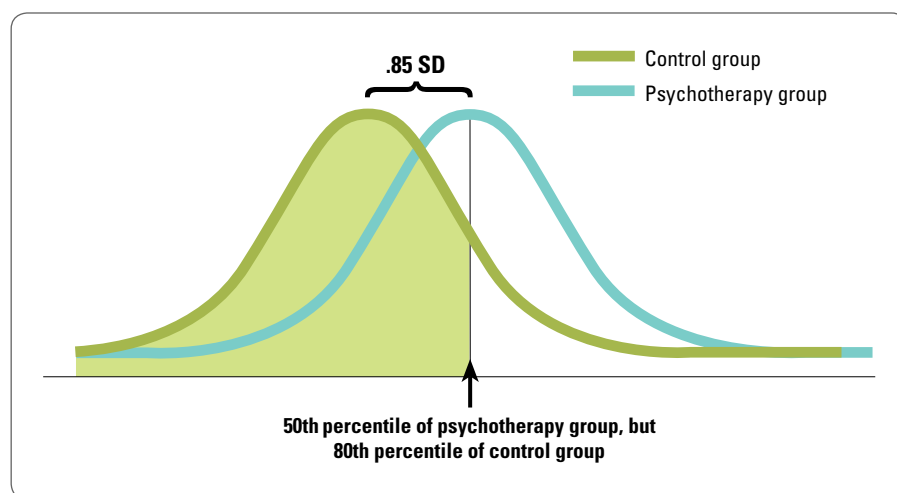


FIGURE 3.1

On average, psychotherapy produces .85 standard deviation units of change. This means that the average client who receives therapy (vertical line) functions better than 80 percent of untreated controls (shaded area).

Source: Adapted from M. L. Smith, G. V. Glass, and T. I. Miller, 1980, *The Benefits of Psychotherapy*, Baltimore: Johns Hopkins University Press.

THE ALLEGIANCE EFFECT

The **allegiance effect** is the tendency for researchers to find that their favorite treatment—the one to which they hold allegiance—is the most effective (Luborsky et al., 1999). In comparing psychodynamic therapy and cognitive-behavior therapy, for example, researchers allied with cognitive-behavior therapy tend to find that treatment to be more effective. In contrast, researchers allied with psychodynamic therapy, tend to find *that* treatment to be more effective. In fact, according to a meta-analysis of 29 studies (Luborsky et al., 1999), 69 percent of the variance in the effectiveness of one treatment over another was explained by allegiance effects.

What causes allegiance effects? In discussing the double-blind study,

we already suggested one influence: a therapist's expectations contribute to a treatment's effectiveness. Other, less subtle influences also contribute to the allegiance effect (Luborsky et al., 1999). When designing a study, researchers probably pick a weak alternative treatment. This may or may not be intentional, but investigators, of course, want their preferred approach to "win."

Another contribution may be that investigators are more likely to publish research papers when their findings are consistent with their hypotheses (Luborsky et al., 1999). For example, a researcher allied with psychodynamic therapy might quickly publish findings demonstrating the superiority of that treatment but be more reluctant

to publish results favoring cognitive-behavior therapy! This is called the *file drawer problem*. We know the results of published studies; we can only guess about the results of research sitting in someone's file drawer. The file drawer problem is not necessarily deliberate. Instead, researchers may be genuinely puzzled by, or just not believe, results that contradict their hypotheses.

Finally, sometimes allegiance may not *cause* biased results, but instead be an *effect* of convincing findings (Leykin & DeRubeis, 2009). Researchers may ally with the treatment they find to be most effective! We would be delighted if this circumstance fully explained the allegiance effect, but we doubt that this is so.

Some view the placebo effect as a mere nuisance. This is understandable, because our goal is to identify *active ingredients*—treatments that are more than placebos (Baskin et al., 2003). But we can also view the placebo effect as a treatment—one that heals psychologically. Of course, psychotherapy also heals psychologically. Viewed in this light, the placebo effect is something to study, not dismiss. Ironically, psychotherapy research must identify the "active ingredients" in placebos! In fact, a recent study showed that the passage of time (spontaneous remission), a healing ritual (acupuncture in this study), and the therapist-client relationship all contributed to heightening the placebo effect. The most effective placebo contained all three "active ingredients" (Kaptchuk et al., 2008). Neuroscientists have found that placebos actually decrease the brain's response to pain; the placebo effect produces real changes in experience, not just decreased reporting of pain (Wager, 2005). We need to understand the placebo effect, as well as devise treatments to surpass it.

Placebo Control Groups In order to identify active ingredients *beyond* the placebo effect, medical investigators routinely include placebo control groups in their studies—patients intentionally are given treatments that contain no active ingredients, for example, sugar pills. But there is another complication: The *doctor's* expectations also can influence a treatment's effectiveness. To control for this second effect, scientists use *double-blind studies*, investigations where neither the physician nor the patient knows whether the pill is real or a placebo.

Unfortunately, there is no way to construct a double-blind study of psychotherapy. You can disguise a pill, but you cannot disguise psychotherapy. Therapists know when a treatment is the real thing or a placebo—"just talk." Does this matter? Yes. Research shows that a therapist's "allegiance" to one form of

therapy or another has a powerful influence on whether it is effective (see The Allegiance Effect).

Because it is impossible to conduct double-blind studies, more and more psychotherapy research is involving competitions between rival "teams" of therapists, each believing in their own, unique treatment (Klein, 1999). This does not eliminate the placebo effect, but it hopefully makes the placebo effect similar for the rival treatments.

After all of these considerations, what is our "bottom line" about improvement without treatment? Our best estimate still is that about one-third of people improve without treatment. Thus, psychotherapy does, indeed, work.

Efficacy and Effectiveness Tightly controlled experiments provide important information about the *efficacy* of psychotherapy, that is, whether the treatment *can* work under prescribed circumstances. However, such studies provide little information about the *effectiveness* of the treatment—whether the therapy *does* work in the real world. In the real world, therapies are not assigned at random; therapists vary the type and length of treatment, and clients commonly have multiple problems (Weston, Novotny, & Thompson-Brenner, 2004). How does psychotherapy fare under these circumstances?

Studies on the effectiveness of psychotherapy attempt to answer this question. For example, the magazine *Consumer Reports* (1995, November) surveyed nearly 3,000 readers who had seen a mental health professional in the past three years, and the respondents generally rated psychotherapy highly. Among the major findings:

- Of the 426 people who were feeling "very poor" at the beginning of treatment, 87 percent reported feeling "very good," "good," or at least "so-so" when they were surveyed.

- Clients of psychologists, psychiatrists, and social workers reported no differences in treatment outcome, but all three professions were rated more effective than marriage counselors.
- People who received psychotherapy alone reported no more or less improvement than people who received psychotherapy plus medication (Seligman, 1995).

Because the *Consumer Reports* study was correlational, we cannot draw conclusions about causation. For example, perhaps people who had good experiences in therapy were more likely to complete the survey than were people who had bad experiences. Still, like other research, the *Consumer Reports* study suggests that psychotherapy helps many people in the real world, not just in the laboratory.

When Does Psychotherapy Work? What predicts when psychotherapy is more or less likely to be effective? The most important predictor is the nature of a client's problems—the diagnosis. For this reason, we discuss research on specific treatments for specific disorders in every chapter throughout the text. Here, we consider two of the many other predictors of treatment outcome: the length of treatment and the client's background characteristics.

If therapy is going to be effective, it usually works pretty fast. As Figure 3.2 indicates, improvement is greatest in the first several months of treatment (Howard et al., 1986). Improvement continues with longer term therapy, but at a notably slower rate (Baldwin et al., 2009). Unfortunately, the

average client sees a therapist for only about five sessions, because so many people drop out of treatment early (Hansen, Lambert, & Forman, 2002). Clearly, there are practical, economic, and empirical reasons to keep treatment brief—or at least relatively brief.

Clients' background characteristics also predict outcome in psychotherapy. The acronym YAVIS was coined to indicate that clients improve more in psychotherapy when they are “young, attractive, verbal, intelligent, and successful.” This finding has caused considerable concern, for it seems to indicate that psychotherapy works best for the most advantaged members of our society. Another concern is that men are considerably less likely than women to seek therapy. The masculine role seems to discourage appropriate help seeking (Addis & Mahalik, 2003).

PSYCHOTHERAPY PROCESS RESEARCH

If psychotherapy can be effective, just how does it work? This is the question asked by *psychotherapy process research*, an approach that examines what aspects of the therapist–client interaction account for better outcomes (Doss, 2004; Kazdin, 2008; Norcross & Hill, 2004).

Common Factors One historically important type of psychotherapy process research compared psychodynamic, cognitive-behavioral, and humanistic treatments. The central question was: Do these different psychotherapies share some *common factors* that help make them effective?

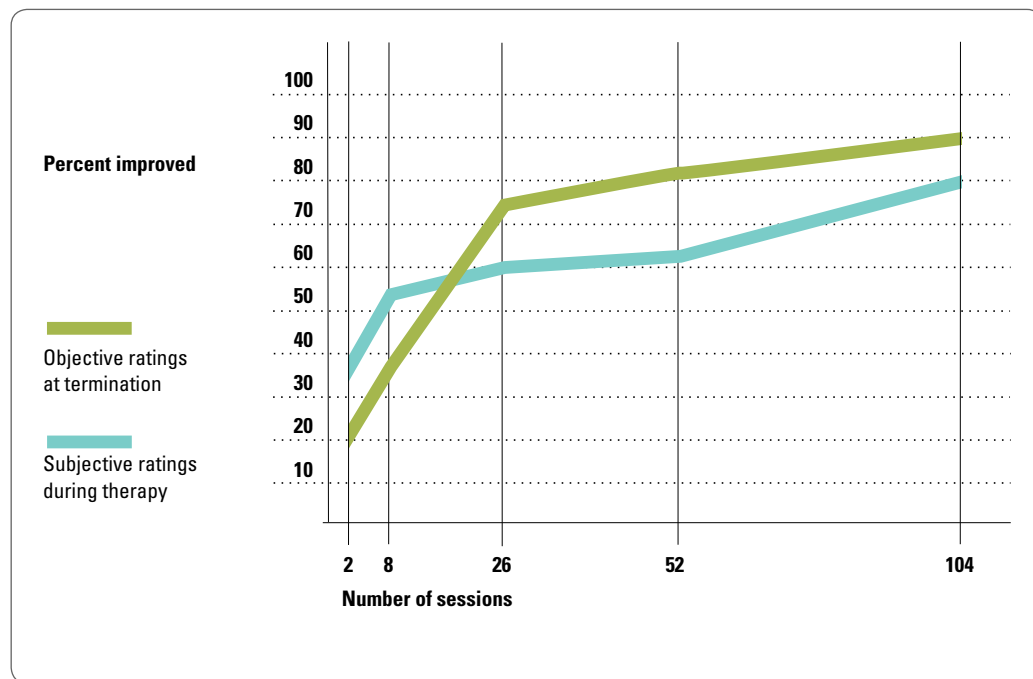


FIGURE 3.2 Improvement as a Function of Number of Psychotherapy Sessions

Most improvement occurs early in psychotherapy, suggesting that relatively short-term treatments are effective and cost effective, too.

Source: From K. J. Howard, S. M. Kopta, M. S. Krause, and D. E. Orlinsky, 1986, “The Dose-Effect Relationship in Psychotherapy,” *American Psychologist*, 41, pp. 159–164. © 1986 by American Psychological Association. Reprinted by permission.

TABLE 3.4 Definitions of Psychotherapy and Behavior Therapy

Technique	Psychotherapy	Behavior Therapy
Specific advice	Given infrequently	Given frequently
Transference interpretation	May be given	Avoided
Resistance interpretation	Used	Not used
Dreams	Interested and encouraged	Disinterested
Level of anxiety	Maintained when possible	Diminished when possible
Relaxation training	Only indirect	Directly undertaken
Desensitization	Only indirect	Directly undertaken
Assertion training	Indirectly encouraged	Directly encouraged
Report of symptoms	Discouraged	Encouraged
Childhood memories	Explored	Historical interest only

Source: "Differences in Technique in Behavior Therapy and Psychotherapy," as adapted from R. B. Sloane, F. R. Staples, A. H. Cristo, N. J. Yorkston, and K. Whipple, 1975, *Psychotherapy versus Behavior Therapy*, Cambridge, MA: Harvard University Press, pp. 237–240.

The answer is “yes” according to a classic study by Sloane and colleagues (1975). In this study, 90 patients with moderate anxiety, depression, or similar problems were assigned at random to either psychodynamic psychotherapy, behavior therapy, or no treatment. The study used six therapists, all highly experienced in their preferred form of treatment. Both treatments lasted for an average of 14 sessions. To ensure that the treatments were offered as planned, the differences between the two therapies were clearly defined (see Table 3.4), and tape recordings of the fifth sessions were coded so the actual treatments could be compared.

The two therapies clearly differed. Behavior therapists talked about as often as their clients talked, gave specific advice, and directed much of the therapy. In contrast, psychodynamic therapists talked only one-third as often as their clients, refused to answer specific questions, and followed their clients’ lead during sessions. Psychodynamic therapists focused on feelings, their underlying causes, and techniques such as free association. Behavior therapists focused on specific behaviors, ways of changing them, and techniques such as systematic desensitization.

Did the very different treatments share anything in common? Perhaps more than you would expect. For example, behavior therapists and psychodynamic therapists offered the same number of interpretations. (“You learned this from childhood experiences . . . [through reinforcement].”) Behavior therapy was more effective in a few instances, but outcome was not significantly different between the two groups. Instead, clients’ ratings of therapist warmth, empathy, and genuineness predicted successful outcome in both treatments. And clients rated the therapy relationship as the single most important aspect of both therapies (Sloane et al., 1975). Please do not think that this classic study is dated. A major, recent study similarly concluded that common factors—improved self-understanding and coping skills—account for much change in both CBT and psychodynamic therapy (Gibbons et al., 2009).

Of course, psychotherapy *is* more effective when it contains “active ingredients” for treating a specific disorder, especially when the problem is severe (Stevens, Hynan, & Allen,

2000). Still, much of the effectiveness of different psychotherapies is explained by common factors (Norcross & Hill, 2004; Wampold, 2007). Consider this analogy: Basketball and soccer differ greatly, but participating in some sport, any sport, is more important for your health than the particular activity. The common factor? Exercise.

Motivational interviewing is a contemporary example of the importance of common factors. Now viewed as an evidence-based treatment, motivational interviewing originally was designed as a placebo to compare against a theoretically “real” treatment for alcohol abuse (behavior therapy). But the therapeutic relationship proved to be a far better predictor of reduced, future drinking for both treatments. Initial and subsequent research showed that the motivational interviewing “placebo” was an effective treatment! In fact, the “placebo” contains active ingredients including empathy, instilling interpersonal spirit, and eliciting promises of change (Miller & Rose, 2009).

Therapy as Social Support Carl Rogers was right—in part. A positive therapist–client relationship predicts positive outcomes across approaches to treatment (Baldwin et al., 2007; see Table 3.5). Significantly, *clients’* ratings of supportiveness predict outcome better than objective indicators.

A supportive relationship is not defined simply by a therapist’s behavior but by a therapist’s behavior in relation to a particular client. Some people, perhaps most, feel understood when a therapist makes empathic statements; others are more comfortable with a more reserved therapist. In fact, members of different ethnic and cultural groups may be more comfortable with less emotional expressiveness. Asians and Asian Americans, for example, often feel *more* supported when asked to disclose less distress (Kim et al., 2008). Social support is a key ingredient in therapy, but expressing warmth, empathy, and genuineness is more subtle than saying, “I feel your pain.”

What are common factors across different therapies?

TABLE 3.5 Common Factors in Effective Brief Psychotherapies

1. Treatment is offered soon after the problem is identified.
2. Assessment of the problem is rapid and occurs early in treatment.
3. A therapeutic alliance is established quickly, and it is used to encourage change in the client.
4. Therapy is designed to be time limited, and the therapist uses this to encourage rapid progress.
5. The goals of therapy are limited to a few specified areas.
6. The therapist is directive in managing the treatment sessions.
7. Therapy is focused on a specific theme.
8. The client is encouraged to express strong emotions or troubling experiences.
9. A flexible approach is taken in the choice of treatment techniques.

Source: Adapted from M. P. Koss and J. M. Butcher, 1986, "Research on Brief Psychotherapy," in S. L. Garfield and A. E. Bergin, Eds., *Handbook of Psychotherapy and Behavior Change*, 3rd ed, New York: Wiley, pp. 627–670.

Therapy as Social Influence Psychotherapy also is a process of social influence. Even Carl Rogers, the advocate of nondirective therapy, directed his clients. Audiotapes indicate that Rogers empathized more with certain types of statements than others (Truax & Carkhuff, 1967). He responded to his clients conditionally and thereby directed therapy subtly.

Jerome Frank (1909–2005), an American trained both in psychology and psychiatry, argued that, in fact, psychotherapy is a process of persuasion—persuading clients to make beneficial changes in their emotional life. Frank (1973) highlighted a gentle aspect of persuasion in therapy—instilling hope. People seek professional help when they have been unable to solve their own problems, when they have lost hope. Frank saw therapy as a chance to instill hope and help people to make the changes they have been struggling to make (Frank, 1973).

Process research clearly demonstrates the therapist's social influence. For example, evidence shows that clients tend to adopt beliefs similar to those of their therapists. In fact, treatment is more effective when, over time, clients' beliefs become

more similar to those of their therapists (Beutler et al., 1991; Kelly, 1990). Positive outcomes are more likely when the new beliefs relate directly to psychotherapy—for example, the importance of expressing emotions—than when they reflect broader values (Beutler, Machado, & Neufeldt, 1994).

Recognition of the therapist's social influence raises questions about values in psychotherapy. Psychotherapy is not value free. There are values inherent in the nature of therapy itself—for example, the belief that talking is good. Moreover, the values of individual therapists about such topics as love, marriage, work, and family necessarily influence clients. Like the rest of the human race, psychotherapists cannot transcend their own beliefs and values. All we can do is recognize our biases and inform our clients about them.

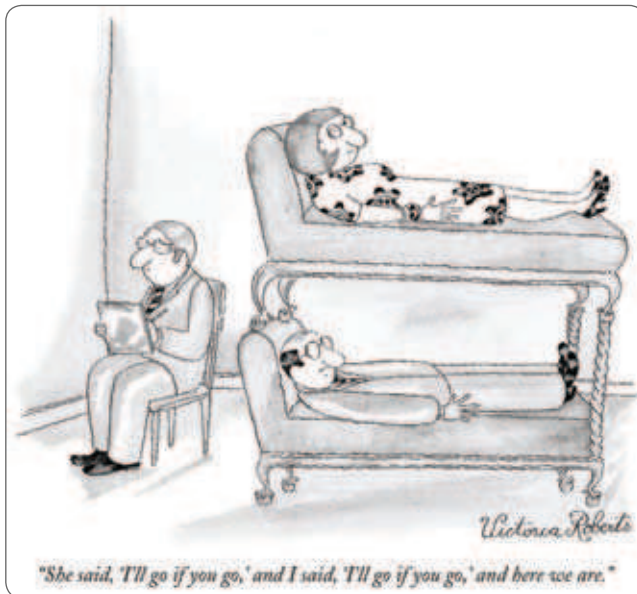
Pain Relief? Could common factors explain much of the effectiveness of psychotherapy because common factors bring people into treatment? We suspect that the desire for pain relief—relief from psychological pain—motivates many people to seek psychological help. In our language, we regularly draw analogies between emotional and physical pain. We talk, for example, about “hurt feelings” or “the stabbing wound of rejection.” Neuroscience research increasingly shows that such references are more than an analogy. The same regions of the brain are involved in the experience of both physical and psychological pain (MacDonald & Leary, 2005; Panksepp, 2005). And oral pain relievers—acetaminophen—reduce these neural responses (DeWall et al., 2010). We expect that future research will show that common factors such as empathy also offer relief from psychological pain, a huge benefit, and that pain relief accounts for much of the nonspecific effect of psychotherapy.



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Couple, Family, and Group Therapy

Medication and psychotherapy treat problems by changing the individual. Consistent with a systems perspective, professionals also can treat individual problems by changing social



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circumstances, particularly for children (Kazak et al., 2010). Consider the case of Frances. Medication or therapy might improve her troubled family relationships, but improving her relationships with her parents and husband also might alleviate Frances's depression. Some would argue, in fact, that Frances and women like her become depressed precisely because of the roles women play in families and in society. We briefly consider treatments for couples and families, group therapy, and efforts at preventing emotional disorders through social change.

COUPLE THERAPY

Couple therapy involves seeing intimate partners together in therapy. This approach is sometimes called *marital therapy* or *marriage counseling*, but the reference to couples captures the range of partners who may seek treatment together. Dating pairs, prospective mates, live-in partners, and gay and lesbian couples also may seek couple therapy.

The goal of couple therapy typically is to improve the relationship, not to treat the individual. In treating relationships, all couple therapists focus on resolving conflicts and promoting mutual satisfaction. Couple therapists do not tell their clients what compromises they should accept or how they should change their relationship. Instead, they typically help partners improve their *communication* and *negotiation* skills (Emery, 2011; Gurman & Jacobson, 2002; Jacobson & Christensen, 1996).

How does this work? A couple therapist might suggest that Frances had a problem with “mind reading” in her marriage. Without ever telling him, Frances hopes (or expects) her husband to know what she wants. She might want more attention, but she never asks for it—she wants him to “figure it out for himself.” The therapist would point out that no one can read another person's mind; instead, partners need to communicate their wishes directly (Gottman, 1997). This may sound simple, but learning to be direct can be tricky for many people. Frances may feel selfish when making requests, or perhaps she wants to

be “surprised” with her husband's attention. She may think that his attention is less meaningful if she asks for it.

Another component of most couple therapies is negotiation or *conflict resolution*. Negotiation is the art of give and take. Effective negotiation defines problems clearly, considers a wide range of solutions, uncovers hidden agendas (unstated concerns), and experiments with alternative solutions. These strategies are similar to the social problem-solving model discussed earlier, an approach that has been effectively applied to couples (Emery, 2011). Politeness also is an essential component of effective negotiation, and setting clear ground rules can facilitate polite communication. Examples of ground rules include not raising your voice, not interrupting the other person, and speaking about your own feelings—that is, not telling your partner how he or she feels (Emery, 2011; Gottman et al., 1976).

Research shows that couple therapy can improve satisfaction in marriages (Baucom & Epstein, 1990; Gurman & Jacobson, 2002). However, questions remain about the long-term effectiveness of couple therapy, the efficacy of alternative approaches, and the values of couple therapy for gender, marriages, individuals, and society (Alexander, Holtzworth-Munroe, & Jameson, 1994).

Couple therapy also may be used in treating specific disorders, including depression, anxiety, substance abuse, and child behavior problems. Couple therapy in this circumstance is typically either a supplement or an alternative to individual therapy. Couple therapy, alone or combined with individual treatment, often is more effective than individual therapy alone (Beach, Sandeen, & O'Leary, 1990; Jacobson, Holtzworth-Munroe, & Schmalings, 1989).

FAMILY THERAPY

Family therapy might include two, three, or more family members in a treatment designed to improve communication, negotiate conflicts, and perhaps change family relationships and roles. Like couple therapy, family therapy has the goal of improving relationships. Some forms of family therapy also focus on resolving specific conflicts, such as disputes between adolescents and their parents. *Parent management training* is an approach that teaches parents new skills for rearing troubled children (Patterson, 1982). Other types of family therapy are designed to educate families about how best to cope with the serious psychopathology of one family member.

There are many different styles of family therapy, but most share an emphasis on systems theory (Gurman & Jacobson, 2002). Family therapists emphasize the importance of viewing the individual within the family system. For example, family systems therapists often call attention to the pattern of *alliances* or strategic loyalties among family members. In well-functioning families, the primary alliance is between the two parents, even when the parents do not live together. In contrast, dysfunctional families often have alliances that cross generations—“teams” that include one parent and some or all of the children opposing the other parent or another child. Like a poorly organized business, families function inadequately when their leaders fail to cooperate. Thus, a common goal in systems approaches to family therapy is to strengthen the alliance between the parents, to get parents to work together and not against each other (Emery, 1992).



Family therapists attempt to improve mental health by altering family relationships.

GROUP THERAPY

Group therapy involves treating several people facing similar emotional problems or life issues. Therapy groups may be as small as three or four people or as large as 20 or more. Group therapy has numerous variations and targets for treatment, and here we can highlight only a few facets of the group approach.

Psychoeducational groups teach specific psychological information or life skills. The term *psychoeducational* aptly conveys the goals of this type of group. Teaching is the primary mode of treatment, but the content of the “course” is psychological. For example, assertiveness might be taught in a group format, or college students might be taught to manage an eating disorder in a therapy group.

There are two basic reasons for offering therapy in groups instead of individually. Less expense is one obvious justification. A second is the support, encouragement, and practice that group members can offer one another. Many people with psychological problems feel isolated, alone, and “weird.” Learning that you are not alone can be a powerful experience that is one of the unique “active ingredients” in group therapy.

In *experiential group therapy*, relationships are the primary mode of treatment. For example, group members might be encouraged to look beyond one another’s “façades”—to reveal secrets about themselves or otherwise to break down the barriers that we all erect in relationships. Experiential groups typically include members who are well functioning and who view the group as an opportunity for personal growth. Little research has been conducted on their effectiveness.

Self-help groups bring together people who face a common problem and who seek to help themselves and each other by sharing information and experiences. Self-help groups are very popular—including Internet-based groups (Taylor &

Luce, 2003). The potential organizing topics are as numerous as the problems life throws at us. Technically, self-help groups

Can mental disorders be prevented?

are not therapy groups, because typically a professional does not lead them. If there is a leader, it may be someone who

already has faced the particular problem, perhaps a former group member.

PREVENTION

Social influences on psychopathology extend far beyond interpersonal relationships. Social institutions, school, and work environments are important contributors to mental health, as are such broad societal concerns as poverty, racism, and sexism. *Community psychology* is one approach within clinical psychology that attempts to improve individual well-being by promoting social change (Wandersman & Florin, 2003).

The concept of prevention is an important consideration in promoting social change. Community psychologists often distinguish among three levels. *Primary prevention* tries to improve the environment in order to prevent new cases of a mental disorder from developing. The goal is to promote wellness, not just treat illness. Efforts range from offering prenatal care to impoverished pregnant women to teaching schoolchildren about the dangers of drug abuse.

Secondary prevention focuses on the early detection of emotional problems in the hope of preventing them from becoming more serious and difficult to treat. The screening of “at-risk” schoolchildren is one example of an effort at secondary prevention. Crisis centers and hotlines are other attempts to detect and treat problems before they become more serious.



Telephone hotlines are an example of secondary prevention, trying to detect and treat emotional problems early, before they get more serious.

Finally, *tertiary prevention* may involve any of the treatments discussed in this chapter, because the intervention occurs after the illness has been identified. In addition to providing treatment, however, tertiary prevention also addresses some of the adverse, indirect consequences of mental illness. Helping the chronically mentally ill to find adequate housing and employment is an example of tertiary prevention.

No one can doubt the importance of prevention, whether directed toward biological, psychological, or social causes of abnormal behavior. Unfortunately, many prevention efforts face an insurmountable obstacle: We simply do not know the specific cause of most psychological disorders. Prevention efforts directed at broader social change face another obstacle that also seems insurmountable at times. Social problems like poverty, racism, and sexism defy easy remedies.

Specific Treatments for Specific Disorders

Psychotherapy began with treatments based solely in theory and case studies. It progressed as researchers documented the superiority of psychotherapy over no treatment at all. Contemporary researchers are advancing knowledge by studying

factors common to all therapies. The ultimate goal, however, is to identify therapies that have specific active ingredients for treating specific disorders (Nathan & Gorman, 2007). Consistent with this goal, in subsequent chapters we discuss only treatments that either are promising or have proved to be effective for alleviating the symptoms of the disorder at hand.

We strongly believe that the client's problems, not the therapist's "theoretical orientation," should determine the choice of treatment. We feel very strongly that mental health professionals must inform their clients about research on treatment alternatives for any particular problem. If a therapist is not skilled in offering the most effective approach, he or she should offer to refer the client to someone with specialized training (McHugh & Barlow, 2010).

For some emotional problems, researchers have not yet identified a clear treatment of choice, but this does not mean that "anything goes." Rather, experimental therapies must be acknowledged as experimental, and the rationale for the approach must be clear to both the therapist and the client.

The identification of effective treatments for specific disorders is necessary if clinical psychology is to fulfill its scientific promise (Baker et al., 2008). Even as we explore evidence-based treatments, however, we must remember the central importance of a human relationship in effective psychotherapy. Individual people, not diagnostic categories, seek treatment for psychological disorders.

Getting Help

How can you find the right therapist for yourself, a friend, or a family member? Our basic advice is to be a good consumer. Find out more about the nature of the psychological problem and about treatments that work. You will find a lot of useful information in later chapters on treatments for specific disorders, including the Getting Help sections, where we make a lot of practical suggestions.

As a good consumer, you also should think carefully about what type of treatment you think you prefer and whom you prefer to see. A good "fit" between you and your therapist is an important part of effective therapy. For example, you may be more or less comfortable seeing a man or a woman. Many therapists offer, or even expect you to have, an initial interview before deciding about beginning therapy with them. If you are not

comfortable with a particular therapist, you should feel free to "shop around" until you find one who not only offers well-supported treatments, but who also seems to understand you well. In fact, you may want to consult briefly with a few professionals before starting therapy, so you can pick the one who seems best for you.

People from a lot of different professional backgrounds offer psychotherapy. The person usually is more important than the profession, but we recommend that you see a professional from one of the three major mental health professions—a clinical psychologist, a psychiatrist, or a clinical social worker.

If you feel you may need medication, your family physician should be willing to prescribe antidepressants or other commonly used medications. You will need to talk to a psychiatrist, a

physician specializing in mental illnesses, if your family physician is uncomfortable prescribing psychotropic medication or if you would prefer to talk with a physician who is a specialist.

If you are considering psychotherapy, read about different types, particularly those that research shows to be more helpful for certain disorders. In addition to the relevant Getting Help and treatment sections of Chapters 5 through 17, you might also want to explore some self-help books or resources on the Internet. You will need to be a good consumer when consulting these sources, however, as there is a lot of conflicting and inaccurate information about psychological problems and their treatment. A good starting point might be the website of the National Institute of Mental Health, which contains a lot of useful, up-to-date information on disorders and treatments.

SUMMARY

- Major psychological treatments include the *biological paradigm*, especially **psychopharmacology**, medications that have psychological effects; the *psychodynamic paradigm* including Freudian **psychoanalysis**, **psychodynamic psychotherapy**, and **interpersonal therapy**, all which encourage the exploration of past relationships in order to obtain **insight** to current motivations; the *cognitive-behavioral paradigm*, where **cognitive-behavior therapy** focuses on the present and teaching more adaptive thoughts, behaviors, and feelings; the *humanistic paradigm*, where **humanistic psychotherapy** focuses on empathy and heightening emotional awareness.
- Research shows that different therapies “work” and include both common factors important across treatments and “active ingredients” for specific disorders. The text focuses mostly on specific treatments for specific disorders, yet for empirical and humanistic reasons, we must recognize the universal importance of the therapist–client relationship.
- The **placebo effect** produces change through expectations about a treatment’s effectiveness. This makes placebos important both as controls for common factors and to study as an “active ingredient,” since placebos produce change psychologically.
- Traditional treatments focus on the individual, but couple therapy, family therapy, and group therapy all produce individual change by changing relationships. Some prevention efforts attempt to change dysfunctional aspects of society.

The Big Picture

CRITICAL THINKING REVIEW

- **What kinds of psychological treatments are there?**
How might Frances’s problems be viewed through the lens of the four paradigms? . . . (see p. 53)
- **How did Freud influence psychotherapy?**
Freud simply told his patients to speak freely about whatever thoughts crossed their mind. This method, called *free association*, became a cornerstone of Freud’s famous treatment, psychoanalysis . . . (see p. 58)
- **What is cognitive-behavior therapy?**
Cognitive-behavior therapy (CBT) uses various research-based techniques to help troubled clients learn new ways of thinking, acting, and feeling . . . (see p. 60)
- **Does psychotherapy work?**
. . . we reach four major conclusions about psychotherapy. First, psychotherapy *does* work—for many people and for many problems . . . (see p. 64)
- **What is the placebo effect? How do placebos work?**
. . . placebos are any treatment that contains no known active ingredients. But the absence of active ingredients does not prevent placebos from healing . . . (see p. 66)
- **Is it important to “click” with your therapist?**
Carl Rogers was right—in part. A positive therapist–client relationship predicts positive outcomes across approaches to treatment . . . (see p. 69)

KEY TERMS

allegiance effect
cognitive-behavior
therapy
control group
couple therapy
dependent
variable

electroconvulsive
therapy (ECT)
empathy
experimental group
experimental method
family therapy
group therapy

humanistic
psychotherapy
hypothesis
independent variable
insight
interpersonal
therapy (IPT)

interpretation
meta-analysis
placebo effect
psychoanalysis
psychodynamic
psychotherapy
psychopharmacology

psychotherapy
random assignment
statistically significant
systematic
desensitization
therapeutic
alliance

Classification and Assessment of Abnormal Behavior

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- The fictional psychological thriller, *Shutter Island*, uses many actual, historical elements, for example, the widespread use of lobotomies, to spin a tale about psychological assessment: What is real and what isn't?



Imagine that you are a therapist who has begun to interview a new patient. She tells you that she has had trouble falling asleep for the past few weeks. She has become increasingly frustrated and depressed, in part because she is always so tired when she goes to work in the morning. Your job is to figure out how to help this woman. How serious is her problem? What else do you need to

know? What questions should you ask and how should you collect the information? The process of gathering this information is called **assessment**. You will want to use data from your assessment to compare her experiences with those of other patients whom you have treated (or read about). Are there any similarities that might help you know what to expect in terms of the likely origins

of her problems, how long they will last, and the kinds of treatment that might be most helpful? In order to make those comparisons, you will need a kind of psychological road map to guide your search for additional information. This road map is known as a *classification system*—a list of various

types of problems and their associated symptoms. This chapter will describe the classification system that has been developed to describe various forms of abnormal behavior. It will also summarize the different kinds of assessment tools that psychologists use.

The Big Picture

- How are mental disorders diagnosed?
- Can you be just a little bit depressed?
- How has the diagnostic manual changed in recent years?
- Does it matter if a person's therapist is from a different culture?
- Are interviews more useful than psychological tests in making a diagnosis?
- On what basis do psychologists decide whether a test is useful?
- Can brain imaging techniques or genetic tests be used to verify the presence of a mental disorder?

OVERVIEW

One important part of the assessment process is making a diagnostic decision based on the categories in the official classification system that describes mental disorders. **Diagnosis** refers to the identification or recognition of a disorder on the basis of its characteristic symptoms. In the field of mental health, a clinician assigns a diagnosis if the person's behavior meets the specific criteria for a particular type of disorder, such as schizophrenia or major depressive disorder. This decision is important because it tells the clinician that the person's problems are similar to those that have been experienced by some other people. The diagnosis enables the clinician to refer to the base of knowledge that has accumulated with regard to the disorder. For example, it will provide clues about associated symptoms and treatments that are most likely to be effective. To formulate a comprehensive treatment plan, the clinician utilizes the person's diagnosis plus many other types of information that we will discuss in this chapter.

In some fields, diagnosis refers to *causal* analysis. If your car doesn't start, you expect that your mechanic's "diagnosis" will

explain the origins of the problem. Has the battery lost its charge? Is the fuel line blocked? Is the ignition switch dead? In this situation, the "diagnosis" leads directly to the problem's solution. In the field of psychopathology, assigning a diagnosis does not mean that we understand the etiology of the person's problem (see Chapter 2). Specific causes have not been identified for mental disorders. Psychologists can't "look under the hood" in the same way that a mechanic can examine a car. In the case of a mental disorder, assigning a diagnostic label simply identifies the nature of the problem without implying exactly how the problem came into existence.

Our consideration of the assessment enterprise and diagnostic issues will begin with an example from our own clinical experience. In the following pages we will describe Michael, a young man who found himself thinking and acting in ways that he could not seem to control. This case study illustrates the kinds of decisions that psychologists have to make about ways to collect and interpret information used in diagnosis and assessment.

CASE STUDY Obsessions, Compulsions, and Other Unusual Behaviors

Michael was an only child who lived with his mother and father. He was 16 years old, a little younger than most of the other boys in the eleventh grade, and he looked even younger. From an academic point of view,

Michael was an average student, but he was not a typical teenager in terms of social behavior. He felt alienated from other boys, and he was extremely anxious when he talked to girls. He despised everything about

school. His life at home was also unpleasant. Michael and his parents argued frequently, especially Michael and his father.

One awful incident summed up Michael's bitter feelings about school. As a

sophomore, he decided to join the track team. Michael was clumsy and not athletic. When he worked out with the other long-distance runners, he soon became the brunt of their jokes. One day, a belligerent teammate forced Michael to take off his clothes and run naked to a shelter in the park. When he got there, Michael found an old pair of shorts, which he put on and wore back to the locker room. The experience was humiliating. Later that night, Michael started to worry about those shorts. Who had left them in the park? Were they dirty? Had he been exposed to some horrible disease? Michael quit the track team the next day, but he couldn't put the experience out of his mind.

In the following year, Michael became more and more consumed by anxiety. He was obsessed about "contamination," which he imagined to be spreading from his books and school clothes to the furniture and other objects in his house. When the clothes that he had worn to school rubbed against a chair or a wall at home, he felt as though that spot had become contaminated. He didn't believe this was literally true; it was more like a reminder by association. When he touched something that he had used at school, he was more likely to think of school. That triggered unpleasant thoughts and the negative emotions with which they were associated (anger, fear, sadness).

Michael tried in various ways to minimize the spread of contamination. For example, he took a shower and changed his clothes every evening at 6 o'clock immediately after he finished his homework. After this "cleansing ritual," he was careful to avoid touching his books or dirty clothes as well as anything that they had touched.

If he bumped into one of the contaminated objects by accident, he went into the bathroom and washed his hands. Michael washed his hands 10 or 15 times in a typical evening. He paced back and forth watching television without sitting down so that he would not touch contaminated furniture.

Whenever he was not in school, Michael preferred to be alone at home, playing games on his computer. He did not enjoy sports, music, or outdoor activities. The only literature that interested him was fantasy and science fiction. *Dungeons and Dragons* was the only game that held his attention. He read extensively about the magical powers of fantastic characters and spent hours dreaming up new variations on themes described in books about this imaginary realm. When Michael talked about the *Dungeons and Dragons* characters and their adventures, his speech would sometimes become vague and difficult to follow. Other students at Michael's school shared his interest in *Dungeons and Dragons*, but he didn't want to play the game with them. Michael said he was different from the other students. He expressed contempt for other teenagers, as well as for the city in which he lived.

Michael and his parents had been working with a family therapist for more than two years. Although the level of interpersonal conflict in the family had been reduced, Michael's anxiety seemed to be getting worse. He had become even more isolated from other boys his own age and had become quite suspicious about their motives. He often felt that they were talking about him, and that they were planning to do something else in order to humiliate him.

His worries about contamination had become almost unbearable to his parents, who were deeply confused and frustrated by his behavior. They knew that he was socially isolated and extremely unhappy. They believed that he would never be able to resume a more normal pattern of development until he gave up these "silly" ideas. Michael's fears disrupted his parents' own activities in several ways. They weren't allowed to touch him or his things

After this "cleansing ritual," he was careful to avoid touching his books or dirty clothes as well as anything that they had touched.

after being in certain rooms of the house. His peculiar movements and persistent washing were troublesome to them. Michael's father usually worked at home, and he and Michael quarreled frequently, especially when Michael ran water in the bathroom next to his father's study.

Michael and his mother had always been very close. He was quite dependent on her, and she was devoted to him. They spent a lot of time together while his father was working. His mother had begun to find it difficult to be close to Michael. He shunned physical contact. When she touched him, he sometimes cringed and withdrew. Once in a while he would shriek, reminding her that she was contaminated by her contact with chairs and other objects like his laundry. Recently, Michael had also become aloof intellectually. His mother felt that he was shutting her out, as he seemed to withdraw further into his fantasy world of *Dungeons and Dragons* and his obsessive thoughts about contamination.

After learning about Michael's problems, his worries about contamination, his efforts to avoid contamination, and his fear of being with other people, his therapist would be faced with several important decisions. One involves the level of analysis at which she should think about the problem. Is this primarily Michael's problem, or should she consider this problem in terms of all members of the family? One possibility is that Michael has a psychological disorder that is disrupting the life of his family. It may be the other way around, however. Perhaps the family system as a whole is dysfunctional, and Michael's problems are only one symptom of this dysfunction.

Another set of choices involves the type of data that his therapist will use to describe Michael's behavior. What kinds of information should be collected? The therapist can consider several sources of data. One is Michael's own report,

which can be obtained in an interview or through the use of questionnaires. Another is the report of his parents. The therapist may also decide to employ psychological tests.

In conducting an assessment and arriving at a diagnosis, one question the therapist must ask is whether Michael's abnormal behavior is similar to problems that have been exhibited by other people. She would want to know if Michael's symptoms fall into a pattern that has been documented by many other mental health professionals. Rather than reinventing the wheel each time a new patient walks into her office, the therapist can use a classification system to streamline the diagnostic process. The classification system serves as a common language among therapists, giving them a form of professional "shorthand" that enables them to discuss issues with colleagues. Because different disorders sometimes respond to different forms of

treatment, the distinctions can be very important. In the next section we will review the development and modification of classification systems for abnormal behavior.

Basic Issues in Classification

A **classification system** is used to subdivide or organize a set of objects. The objects of classification can be inanimate things, such as songs, rocks, or books; living organisms, such as plants, insects, or primates; or abstract concepts, such as numbers, religions, or historical periods. Formal classification systems are essential for the collection and communication of knowledge in all sciences and professions.

There are many ways to subdivide any given class of objects. Classification systems can be based on different principles (Bowker & Star, 1999). Some systems are based on descriptive similarities. For example, both a diamond and a ruby may be considered jewels because they are valuable stones. Other systems are based on less obvious characteristics, such as structural similarities. A diamond and a piece of coal, for example, may belong together because they are both made of carbon.

The point is simple: Classification systems can be based on various principles, and their value will depend primarily on the purpose for which they were developed. Different classification systems are not necessarily right or wrong; they are simply more or less useful. In the following section we will consider several fundamental principles that affect all attempts to develop a useful classification or typology of human behavior.



Taxonomy is the science of arranging living organisms into groups. Humans and dolphins belong to the same “class” (mammals) because they share certain characteristics (are warm-blooded, nourish their young, and have body hair).

CATEGORIES VERSUS DIMENSIONS

Classification is often based on “yes or no” decisions. After a category has been defined, an object is either a member of the category or it is not. A **categorical approach to classification** assumes that distinctions among members of different categories are qualitative. In other words, the differences reflect a difference in kind (quality) rather than a difference in amount (quantity). In the classification of living organisms, for example, we usually consider species to be qualitatively distinct; they are different kinds of living organisms. Human beings are different from other primates; an organism is either human or it is not. Many medical conditions are categorical. Infection is one clear example. A person is either infected with a particular virus, or she is not. It doesn’t make sense to talk about whether someone is partially infected or almost infected.

Although categorically based classification systems are often useful, they are not the only kind of system that can be used to organize information systematically. As an alternative, scientists often employ a **dimensional approach to classification**—that is, one that describes the objects of classification in terms of continuous dimensions. Rather than assuming that an object either has or does not have a particular property, it may be useful to focus on a specific characteristic and determine *how much* of that characteristic the object exhibits. This kind of system is based on an ordered sequence or on quantitative measurements rather than on qualitative judgments (Kraemer, 2008).

For example, in the case of intellectual ability, psychologists have developed sophisticated measurement procedures. Rather than asking whether a particular person is intelligent (a “yes or no” judgment), the psychologist sets out to determine how much intelligence the person exhibits on a particular set of tasks. This process allows scientists to record subtle distinctions that would be lost if they were forced to make all-or-none decisions.

FROM DESCRIPTION TO THEORY

The development of scientific classification systems typically proceeds in an orderly fashion over a period of several years. The initial stages, which focus on simple descriptions or observations, are followed by more advanced theoretical stages. At the latter point, greater emphasis is placed on scientific concepts that explain causal relationships among objects. In the study of many medical disorders, this progression begins with an emphasis on the description of specific symptoms that cluster together and follow a predictable course over time. The systematic collection of more information regarding this syndrome may then lead to the discovery of causal factors.

Clinical scientists hope that similar progress will be made in the field of psychopathology (Murphy, 2006). Mental disorders are currently classified on the basis of their descriptive features or symptoms because specific causal mechanisms have not yet been discovered. While we may eventually develop a more sophisticated, theoretically based understanding of certain disorders, this does not necessarily mean we will ever know the precise causes of disorders or that it will be possible to develop a classification system based entirely on causal explanations (Kendler et al., 2011). In fact, the most likely explanations for mental disorders involve complex interactions of psychological, biological, and social systems (see Chapter 2).

LABELS AND STIGMA

What does it mean to be labeled with a psychiatric diagnosis? Labeling theory is a perspective on mental disorders that is primarily concerned with the negative consequences of assigning a diagnostic label, especially the impact that diagnosis has on ways in which people think about themselves and the ways in which other people react to the designated patient (Link & Phelan, 2010). It assigns relatively little importance to specific behaviors as symptoms of a disorder that resides within the person. Labeling theory is primarily concerned with social factors that determine whether a person will be given a psychiatric diagnosis rather than the psychological or biological reasons for the abnormal behaviors. In other words, it is concerned with events that take place after a person has behaved in an unusual way rather than with factors that might explain the original appearance of the behavior itself.

According to contemporary versions of labeling theory, public attitudes toward mental illness shape a person's reaction to being assigned a diagnosis. Influenced by negative beliefs about people with mental disorders (such as "they are less competent," or "they are dangerous"), the person may try to avoid rejection by withdrawing from interactions with other people. Unfortunately, this withdrawal can lead to further isolation and diminished levels of social support (Kroska & Harkness, 2006).

The probability that a person will receive a diagnosis is presumably determined by several factors, including the severity of the unusual behavior. Beyond the nature of the disorder itself, however, the social context in which the problem occurs and the tolerance level of the community are also important. The labeling theory perspective places considerable emphasis on the social status of the person who exhibits abnormal behavior and the social distance between that person and mental health professionals. People from disadvantaged groups, such as racial and sexual minorities and women, are presumably more likely to be labeled than are white males.

The merits and limitations of labeling theory have been debated extensively. The theory has inspired research



Demonstrators rally outside the U.S. capitol to combat stigma and support a bill that would require health insurance companies to provide equal coverage for mental health and addiction treatment.

on a number of important questions. Some studies have found that people from lower status groups, including racial minorities, are indeed more likely to be assigned severe diagnoses (Phelan & Link, 1999). On the other hand, it would also be an exaggeration to say that the social status of the patient is the most important factor influencing the diagnostic process. In fact, clinicians' diagnostic decisions are determined primarily by the form and severity of the patient's symptoms rather than by such factors as gender, race, and social class (Ruscio, 2004).

Another focus of the debate regarding labeling theory is the issue of **stigma** and the negative effects of labeling. Stigma refers to a stamp or label that sets the person apart from others, connects the person to undesirable features, and leads others to reject the person. Labeling theory notes that negative attitudes toward mental disorders prevent patients from obtaining jobs, finding housing, and forming new relationships. Various kinds of empirical evidence support the conclusion that a psychiatric label can have a harmful impact on a person's life. Negative attitudes are associated with many types of mental disorders, such as

alcoholism, schizophrenia, and sexual disorders. When people become psychiatric patients, many expect to be devalued and discriminated against (Couture & Penn, 2003; Yang et al., 2007). These expectations could cause the person to behave in strained and defensive ways, which may in turn lead others to reject him or her.

Can diagnostic labels have a negative impact on a person's life? How do these effects compare to the positive consequences of receiving a diagnosis?

Labeling theory has drawn needed attention to several important problems associated with the classification of mental disorders. Of course, it does not provide a complete explanation for abnormal behavior. Many factors other than the reactions of other people contribute to the development and maintenance of abnormal behavior. It is also important to realize that a diagnosis of mental illness can have positive consequences, such as encouraging access to effective treatment. Many patients and their family members are relieved to learn that their problems are similar to those experienced by other people and that help may be available. The effects of diagnostic labeling are not always harmful.

Classifying Abnormal Behavior

We need a classification system for abnormal behavior for two primary reasons. First, a classification system is useful to clinicians, who must match their clients' problems with the form of intervention that is most likely to be effective. Second, a classification system must be used in the search for new knowledge. The history of medicine is filled with examples of problems that were recognized long before they could be treated successfully. The classification of a specific set of symptoms has often laid the foundation for research that eventually identified a cure or a way of preventing the disorder.

Modern classification systems in psychiatry were introduced shortly after World War II. During the 1950s and 1960s, psychiatric classification was widely criticized. One major criticism focused on the lack of consistency in diagnostic decisions (Nathan & Langenbucher, 2003). Independent clinicians frequently disagreed with one another about the use of diagnostic categories. Objections were also raised from philosophical, sociological, and political points of view. For example, some critics charged that diagnostic categories in psychiatry would be more appropriately viewed as "problems in living" than as medical disorders (Szasz, 1963). Others were concerned about the negative impact of using diagnostic labels. In other words, once a psychiatric diagnosis is assigned, the person so labeled might experience discrimination of various kinds and also find it more difficult to establish and maintain relationships with other people (see Labels and Stigma on page 79). These are all serious problems that continue to be the topic of important, ongoing discussions involving mental health professionals as well as patients and their families. Debates regarding these issues did fuel important improvements in the diagnosis of mental disorders, including emphasis on the use of detailed criterion sets for each disorder.

Currently, two diagnostic systems for mental disorders are widely recognized. One—the *Diagnostic and Statistical Manual (DSM)*—is published by the American Psychiatric Association. The other—the *International Classification of Diseases (ICD)*—is published by the World Health Organization. Both systems were first developed shortly after World War II, and both have been revised several times. Because the American diagnostic manual is now in its fourth edition, it is called DSM-IV-TR. The "TR" stands for "text revision" and refers to the fact that some of the background material provided in the manual was updated in 2000. The World Health Organization's manual is in its tenth edition and is therefore known as ICD-10. The two manuals are very similar in most respects. Deliberate attempts were made to coordinate the production of DSM-IV-TR and ICD-10. Most of the categories listed in the manuals are identical, and the criteria for specific disorders are usually similar.

THE DSM-IV-TR SYSTEM

More than 200 specific diagnostic categories are described in DSM-IV-TR. These are arranged under 18 primary headings. A complete list appears inside the back cover of this book. Disorders

that present similar kinds of symptoms are grouped together. For example, conditions that include a prominent display of anxiety are listed under "Anxiety Disorders," and conditions that involve a depressed mood are listed under "Mood Disorders."

The manual lists specific criteria for each diagnostic category. We can illustrate the ways in which these criteria are used by examining the diagnostic decisions that would be considered in Michael's case. The criteria for obsessive-compulsive disorder (OCD) are listed in Table 4.1. Michael would meet all of the criteria in "A" for both obsessions and compulsions. His repetitive hand-washing rituals were performed in response to obsessive thoughts regarding contamination. Consistent with criterion "B," Michael admitted that these concerns were irrational. He also meets criterion "C" in that these rituals were time consuming and interfered with his family's routine. His relationships with friends were severely limited because he refused to invite them to his house, fearing that they would spread contamination.

For various types of disorders, the duration of the problem is considered as well as the clinical picture. For example, criterion "C" for OCD specifies that the patient's compulsive rituals must take more than one hour each day to perform.

In addition to the inclusion criteria, symptoms that must be present, many disorders are also defined in terms of certain exclusion criteria. In other words, the diagnosis can be ruled out if certain conditions prevail. For example, in the case of OCD, the diagnosis would not be made if the symptoms occurred only during the course of another disorder, such as a person with alcoholism being preoccupied with thoughts of obtaining another drink (criterion "D").

The DSM-IV-TR employs a multiaxial classification system; that is, the person is rated on five separate axes. Each axis is concerned with a different domain of information. Two are concerned with diagnostic categories, which will be discussed extensively in this book. The other three axes provide for the collection of additional relevant data, including general medical conditions that might affect the person's psychological adjustment, psychosocial and environmental problems that might influence the person's diagnosis or treatment, and a global assessment of the person's overall level of functioning. This additional information, beyond the specific diagnostic categories, is collected in order to help clinicians manage individual cases.



Axis IV calls for information about life events that may have an impact on diagnosis or treatment. This 7-year-old boy is drawing a picture of his friends who were killed by a bomb in Afghanistan.

TABLE 4.1 DSM-IV-TR Criteria for Obsessive–Compulsive Disorder

A. Either obsessions or compulsions:

Obsessions as defined by (1), (2), (3), and (4):

1. Recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate, and that cause marked anxiety or distress.
2. The thoughts, impulses, or images are not simply excessive worries about real-life problems.
3. The person attempts to ignore or suppress thoughts, impulses, or images or to neutralize them with some other thought or action.
4. The person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion).

Compulsions as defined by (1) and (2):

1. Repetitive behaviors (such as hand washing, ordering, checking) or mental acts (such as praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.
2. The behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.

B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable.

C. The obsessions or compulsions cause marked distress; are time-consuming (take more than one hour a day); or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships with others.

D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (for example, preoccupation with food in the presence of an Eating Disorder; preoccupation with drugs in the presence of a Substance Use Disorder; or guilty ruminations in the presence of Major Depressive Disorder).

Source: Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*, (Copyright © 2000). American Psychiatric Association.

Clinical disorders are defined largely in terms of symptomatic behaviors. Most diagnoses appear on Axis I, which includes conditions, such as OCD, schizophrenia, and mood disorders. Many of the diagnoses described on Axis I are characterized by episodic periods of psychological turmoil. Axis II is concerned with more stable, long-standing problems, such as personality disorders and mental retardation. The separation of disorders on Axis I and Axis II is designed to draw attention to long-standing conditions, such as a paranoid or dependent personality style, that might be overlooked in the presence of a more dramatic symptomatic picture, such as the hallucinations and delusions frequently found in schizophrenia. A person can be assigned more than one diagnosis on either Axis I or Axis II (or on both axes) if he or she meets criteria for more than one disorder.

Michael would receive a diagnosis of obsessive–compulsive disorder on Axis I. His obsessions and compulsions were, in fact, his most obvious symptoms. On Axis II, Michael would also be coded as meeting criteria for schizotypal personality disorder (see Chapter 9). This judgment depends on a consideration of his long-standing, relatively rigid patterns of interacting with other people and his inability to adjust to the changing requirements of different people and situations. For example, he was suspicious of other people's motives, he did not have any close friends in whom he could confide, and he was very anxious in social situations because he was afraid that other people might take advantage of him. These are important considerations for a therapist who wants to plan a treatment program for Michael, but they are relatively subtle considerations in comparison to the

obsessions and compulsions, which were currently the primary source of conflict with his parents.

CULTURE AND CLASSIFICATION

DSM-IV-TR addresses the relation between cultural issues and the diagnosis of psychopathology in two principal ways. First, the manual encourages clinicians to consider the influence of cultural factors in both the expression and recognition of symptoms of mental disorders. People express extreme emotions in ways that are shaped by the traditions of their families and other social groups to which they belong. Intense, public displays of anger or grief might be expected in one culture but considered signs of disturbance in another. Interpretations of emotional distress and other symptoms of disorder are influenced by the explanations that a person's culture assigns to such experiences. Religious beliefs, social roles, and sexual identities all play an important part in constructing meanings that are assigned to these phenomena (Hwang et al., 2008). The accuracy and utility of a clinical diagnosis depend on more than a simple count of the symptoms that appear to be present. They also hinge on the clinician's ability to consider the cultural context in which the problem appeared. This is a particularly challenging task when the clinician and the person with the problem do not share the same cultural background.

The diagnostic manual attempts to sensitize clinicians to cultural issues by including a glossary of **culture-bound syndromes**. These are patterns of erratic or unusual thinking

and behavior that have been identified in diverse societies around the world and do not fit easily into the other diagnostic categories that are listed in the main body of DSM-IV-TR. They are called “culture-bound” because they are considered to be unique to particular societies, particularly in non-Western or developing countries. Their appearance is easily recognized and understood to be a form of abnormal behavior by members of certain cultures, but they do not conform to typical patterns of mental disorders seen in the United States or Europe. Culture-bound syndromes have also been called *idioms of distress*. In other words, they represent a manner of expressing negative emotion that is unique to a particular culture and cannot be easily translated or understood in terms of its individual parts.

One syndrome of this type is a phenomenon known as *ataques de nervios*, which has been observed most extensively among people from Puerto Rico and other Caribbean countries (Lewis-Fernández et al., 2002; San Miguel et al., 2006). Descriptions of this experience include four dimensions, in which the essential theme is loss of control—an inability to interrupt the dramatic sequence of emotion and behavior. These dimensions include emotional expressions (an explosion of screaming and crying, coupled with overwhelming feelings of anxiety, depression,

How is bulimia nervosa similar to culture-bound syndromes?

and anger), bodily sensations (including trembling, heart palpitations, weakness, fatigue, headache, and convulsions), actions and behaviors (dramatic, forceful gestures that include aggression toward others, suicidal thoughts or gestures, and trouble eating or sleeping), and alterations in consciousness (marked feelings of “not being one’s usual self,” accompanied by fainting, loss of consciousness, dizziness, and feelings of being outside of one’s body).

Ataques are typically provoked by situations that disrupt or threaten the person’s social world, especially the family. Many *ataques* occur shortly after the person learns unexpectedly that a close family member has died. Others result from an imminent divorce or after a serious conflict with a child. Women are primarily responsible for maintaining the integrity of the family in this culture, and they are also more likely than men to experience *ataques de nervios*. Puerto Rican women from poor and working-class families define themselves largely in terms of their success in building and maintaining a cohesive family life. When this social role is threatened, an *ataque* may result. This response to threat or conflict—an outburst of powerful, uncontrolled negative emotion—expresses suffering while simultaneously providing a means for coping with the threat. It serves to signal the woman’s distress to important other people and to rally needed sources of social support.

What is the relation between culture-bound syndromes and the formal categories listed in DSM-IV-TR? The answer is unclear and also varies from one syndrome to the next. Are they similar problems that are simply given different names in other cultures? Probably not, at least not in most instances (Guarnaccia & Pincay, 2008). In some cases, people who exhibit behavior that would fit the definition of a culture-bound syndrome would also qualify for a DSM-IV-TR diagnosis, if they were diagnosed by a clinician trained in the use of that manual (Tolin et al., 2007). But everyone who displays the culture-bound syndrome would not meet criteria for a DSM-IV-TR disorder, and of those who do, not all would receive the same DSM-IV-TR diagnosis.

The glossary on culture-bound syndromes has been praised as a significant advance toward integrating cultural considerations into the classification system (Lopez & Guarnaccia, 2000). It has also been criticized for its ambiguity. The most difficult conceptual issue involves the boundary between culture-bound syndromes and categories found elsewhere in the diagnostic manual. Some critics have argued that they should be fully integrated, without trying to establish a distinction (Hughes, 1998). Others have noted that if culturally unique disorders must be listed separately from other, “mainstream” conditions, then certain disorders now listed in the main body of the manual—especially eating disorders, such as bulimia—should actually be listed as culture-bound syndromes. Like *ataques de nervios*, bulimia nervosa is a condition that is found primarily among a limited number of cultures (Keel & Klump, 2003). The difference is that bulimia is found in *our* culture—people living in Western or developed countries—rather than in other cultures. Dissociative amnesia—the inability to recall important personal information regarding a traumatic event—also resembles culture-bound syndromes because it appears to be experienced only by people living in modern, developed cultures (Pope et al., 2007).

Thinking about this distinction helps to place the more familiar diagnostic categories in perspective and shows how our own culture has shaped our views of abnormal behavior. We must not be misled into thinking that culture shapes only conditions that appear to be exotic in faraway lands; culture shapes various facets of all disorders. Though it is imperfect, the glossary of culture-bound syndromes does serve to make clinicians more aware of the extent to which their own views of what is normal and abnormal have been shaped by the values and experiences of their own culture (Mezzich, Berganza, & Ruizperez, 2001).

DEVELOPMENT OF DSM-V (THE NEXT STEP)

The *Diagnostic and Statistical Manual* is an evolving document produced by the American Psychiatric Association. The current version, DSM-IV, was published in 1994. Discussions regarding the next edition began in 1999, and DSM-V is currently scheduled to appear in 2013. Information about progress on this revision process and the people who are guiding it can be obtained on a website for DSM-V (www.dsm5.org). Decisions about changes in the diagnostic manual will be made by a task force that is composed of 27 experts on the classification and diagnosis of mental disorders. Several additional work groups were appointed, and each is concerned with one of the major diagnostic categories, such as anxiety disorders, mood disorders, psychotic disorders, and so on. The work groups began meeting in 2007, and their preliminary recommendations for the revised classification of specific forms of mental disorders are posted on the DSM-V website. Proposed changes are accompanied by a specific rationale and a list of references to the relevant literature on each topic.

DSM-V will undoubtedly contain many important changes (Regier, 2009). Some of the major issues have already been discussed in the professional literature, and they have produced several interesting and occasionally heated debates (Francis, 2009; Wittchen, 2010). One pervasive issue is the integration of dimensional and categorical assessment procedures, such as rating the severity of specific symptoms for patients who are assigned to a diagnosis such as schizophrenia, alcohol dependence, or major depression. Beyond the recognition of these general issues, it is too early to know exactly what form the changes will actually take.



Just as judges sometimes disagree in their assessment of evidence presented during a trial, psychologists and psychiatrists do not always agree on how various disorders should be diagnosed. Of course, both judges and mental health professionals attempt to be reliable (consistent) in their judgments.

Evaluating Classification Systems

One of the most important things to understand about the classification of mental disorders is that the official diagnostic manual is revised on a regular basis. That process is guided by research on mental disorders, and the evidence takes many forms. How can we evaluate a system like DSM-IV-TR? Is it a useful classification system? Utility can be measured in terms of two principal criteria: reliability and validity.

RELIABILITY

Reliability refers to the consistency of measurements, including diagnostic decisions. If a diagnosis is to be useful, it will have to be made consistently. One important form of reliability, known as interrater reliability, refers to agreement among clinicians. Suppose, for example, that two psychologists interview the same patient and that each psychologist independently assigns a diagnosis using DSM-IV-TR. If both psychologists decide that the patient fits the criteria for a major depressive disorder, they have used the definition of that category consistently. Of course, one or two cases would not provide a sufficient test of the reliability of a diagnostic category. The real question is whether the clinicians would agree with each other over a large series of patients. The process of collecting and interpreting information regarding the reliability of diagnosing mental disorders is discussed in Research Methods on page 84.

VALIDITY

The most important issue in the evaluation of a diagnostic category is whether it is *useful* (Kendell & Jablensky, 2003). By knowing that a person fits into a particular group or class, do we learn anything meaningful about that person? For example, if a person fits the diagnostic criteria for schizophrenia, is that person likely to improve when he or she is given antipsychotic medication? Or is that person likely to have a less satisfactory

level of social adjustment in five years than a person who meets diagnostic criteria for bipolar mood disorder? Does the diagnosis tell us anything about the factors or circumstances that might have contributed to the onset of this problem? These questions are concerned with the validity of the diagnostic category. The term **validity** refers to the meaning or importance of a measurement—in this case, a diagnostic decision (Kraemer, 2010). Importance is not an all-or-none phenomenon; it is a quantitative issue. Diagnostic categories are more or less useful, and their validity (or utility) can be determined in several ways.

Validity is, in a sense, a reflection of the success that has been achieved in understanding the nature of a disorder. Have important facts been discovered? Systematic studies aimed at establishing the validity of a disorder may proceed in a sequence of phases (Robins & Guze, 1989), such as those listed in Table 4.3. After a clinical description has been established, diagnostic categories are refined and validated through this process of scientific exploration. It should be emphasized, however, that the sequence listed in Table 4.3 represents an ideal scenario. Relatively few, if any, of the disorders listed in DSM-IV-TR are supported by an extensive set of research evidence supporting all these points. Clinical scientists have not identified “points of rarity” between related syndromes (McGuffin & Farmer, 2005). For most disorders, the evidence regarding long-term outcome and treatment response varies considerably from one person to the next. You should not assume that the types of studies listed in Table 4.3 on page 85 have all provided unequivocal support for the validity of the disorders listed in DSM-IV-TR.

It may be helpful to think of different forms of validity in terms of their relationship in time with the appearance of symptoms of the disorder. *Etiological validity* is concerned with factors that contribute to the onset of the disorder. These are things that have happened in the past. Was the disorder regularly triggered by a specific set of events or circumstances? Did it run in families? The ultimate question with regard to etiological validity is whether there are any specific causal factors that are regularly, and perhaps uniquely, associated with this disorder. If we know that a person exhibits the symptoms of the disorder, do we in turn learn anything about the circumstances that originally led to the onset of the problem?

Concurrent validity is concerned with the present time and with correlations between the disorder and other symptoms, circumstances, and test procedures. Is the disorder currently associated with any other types of behaviors, such as performance on psychological tests? Do precise measures of biological variables, such as brain structure and function, distinguish reliably between people who have the disorder and those who do not? Clinical studies that are aimed at developing a more precise description of a disorder also fall into this type of validity.

Predictive validity is concerned with the future and with the stability of the problem over time. Will it be persistent? If it is short lived, how long will an episode last? Will the disorder have a predictable outcome? Do people with this problem typically improve if they are given a specific type of medication or a particular form of psychotherapy? The overall validity of a diagnostic category depends on the body of evidence that accumulates as scientists seek answers to these questions.

What is the difference between reliability and validity?

RESEARCH METHODS

RELIABILITY: AGREEMENT REGARDING DIAGNOSTIC DECISIONS

Several formal procedures have been developed to evaluate diagnostic reliability. Most studies of psychiatric diagnosis in the past 40 years have employed a measure known as kappa. Instead of measuring the simple proportion of agreement between clinicians, kappa indicates the proportion of agreement that occurred above and beyond that which would have occurred by chance. Negative values of kappa indicate that the rate of agreement was less than that which would have been expected by chance in this particular sample of people. Thus, kappa of zero indicates chance agreement, and a kappa of 1.0 indicates perfect agreement between raters.

How should we interpret the kappa statistic? There is no easy answer to this question (Kaufman & Rosenthal, 2009). It would be unrealistic to expect perfect consistency, especially in view of the relatively modest reliability of some other types of diagnostic decisions that are made in medical practice (Garb, Klein, & Grove, 2002; Meyer et al., 2001). On the other hand, it isn't very encouraging simply to find that the level of agreement among clinicians is somewhat better than chance. We expect more than that from a diagnostic system, especially when it is used as a basis for treatment decisions. One convention suggests that kappa values of .70 or higher indicate relatively good agreement. Values of kappa below .40 are often interpreted as indicating poor agreement.

The reliability of many diagnostic categories is better than it was 30 years ago, in part, because clinicians use more detailed diagnostic criteria to define specific disorders. Still, most studies also indicate that there is considerable room for improvement. The reliability of some diagnostic categories remains well

below acceptable standards. Consider, for example, evidence from field trials that were conducted by the World Health Organization when ICD-10 was being prepared (Sartorius et al., 1993). Data were collected at more than 100 clinical centers in 39 countries around the world. Each person was interviewed separately by two clinicians who independently arrived at a diagnosis. Kappa values for several of the diagnostic categories are presented in Table 4.2.

The reliability data in Table 4.2 are organized according to major headings (such as anxiety disorders), which are then subdivided into more specific forms (such as obsessive-compulsive disorder). Note that kappa values for major headings are, in most cases, higher than

Are psychiatric diagnoses made consistently by different clinicians?

those for specific subtypes. This pattern indicates that clinicians are more likely to agree on the general category into which an individual's problems fall than they are on the specific nature of those problems. To understand this process, imagine that you and a friend try to identify types of automobiles as they pass on the street. You might find it relatively easy to agree that a particular vehicle is a minivan, but you might have more trouble deciding whether it is the specific type of minivan made by Chrysler, Ford, or Toyota.

On the standard of .70 or higher, good agreement was found for many specific categories, especially obsessive-compulsive disorder, bipolar mood disorder, and paranoid schizophrenia. For some other categories, such as phobic disorder and depressive episode, diagnostic reliability was acceptable, while clearly leaving room for improvement. Reliability for generalized anxiety disorder was only fair, and the reliability

TABLE 4.2 Reliability for Diagnoses of Several Types of Mental Disorder

Disorder	Kappa
Schizophrenic Disorders	.82
Paranoid schizophrenia	.73
Catatonic schizophrenia	.39
Hebephrenic schizophrenia	.43
Anxiety Disorders	.74
Phobic disorder	.63
Obsessive-compulsive disorder	.81
Generalized anxiety disorder	.48
Mood Disorders	.77
Manic episode	.69
Depressive episode	.66
Bipolar mood disorder	.81
Personality Disorders	.47
Schizotypal*	.37
Histrionic	.12
Dependent	.33
Substance Use Disorders	.80
Alcohol dependence	.70
Opioid dependence	.77

*In ICD-10, schizotypal disorder is grouped with Schizophrenic Disorders rather than with Personality Disorders. We list it here for consistency with DSM-IV.

Source: From "Progress Toward Achieving a Common Language in Psychiatry: Results From the Field Trial of the Clinical Guidelines Accompanying the WHO Classification of Mental and Behavioral Disorders in ICD-10," by N. Sartorius, MD, PhD, et al, in *Archives of General Psychiatry* 1993;50(2):115-124. © American Psychiatric Association. Reprinted by permission.

for diagnosing personality disorders was very low. This evidence suggests that we should not accept uncritically the assumption that the diagnostic categories in DSM-IV-TR and ICD-10 are always used reliably (Kirk & Kutchins, 1992).

The list of categories included in DSM-IV-TR is based on the results of research studies as well as clinical experience. Some disorders are based on a much more extensive foundation of evidence than others. Each time the manual is revised, new categories are added and old categories are

dropped, presumably because they are not sufficiently useful. Up to the present time, clinicians have been more willing to include new categories than to drop old ones. It is difficult to know when we would decide that a particular diagnostic category is not valid. At what point in the accumulation of

TABLE 4.3 Types of Studies Used to Validate Clinical Syndromes

Identification and description of the syndrome, either by clinical intuition or by statistical analyses.
Demonstration of boundaries or “points of rarity” between related syndromes.
Follow-up studies establishing a distinctive course or outcome.
Therapeutic trials establishing a distinctive treatment response.
Family studies establishing that the syndrome “breeds true.”
Demonstration of association with some more fundamental abnormality—psychological, biochemical, or molecular.

Source: Adapted from R. E. Kendell, “Clinical Validity,” *Psychological Medicine*, 19, 1, p. 47, © Cambridge Journals, reproduced with permission.

knowledge are clinical scientists willing to conclude that a category is of no use and to recommend that the search for more information should be abandoned? This is a difficult question that the authors of DSM-V will need to confront. The situation regarding validity and psychiatric diagnosis is an evolving process, with more evidence being added on a regular basis.

PROBLEMS AND LIMITATIONS OF THE DSM-IV-TR SYSTEM

Although DSM-IV-TR is a clear improvement over earlier versions of APA’s classification system, the manual has been criticized extensively, often with good reason. One fundamental question that applies to every disorder involves the boundary between normal and abnormal behavior. The definitions that are included in the present version of the manual are often vague with regard to this threshold (Widiger & Clark, 2000). DSM-IV-TR is based on a categorical approach to classification, but most of the symptoms that define the disorders are actually dimensional in nature. Depressed mood, for example, can vary continuously from the complete absence of depression to moderate levels of depression on up to severe levels of depression. The same thing can be said with regard to symptoms of anxiety disorders, eating disorders, and substance use disorders. These are all continuously distributed phenomena, and there is not a bright line that divides people with problems from those who do not have problems.

Current efforts within several of the DSM-V work groups focus on the development of dimensional assessments that can be used to describe the severity of symptoms among patients who are assigned a particular diagnosis. For example, in the case of schizotypal personality disorder, the disorder is currently defined in terms of a set of nine typical symptoms, such as “odd thinking and speech,” “suspiciousness or paranoid ideation,” and “excessive

social anxiety.” The present cutoff point holds that the person must exhibit five out of the nine features in order to pass the diagnostic threshold, which is basically arbitrary. The DSM-V work group for personality disorders has proposed an alternative approach. If this recommendation is adopted, clinicians would be asked to rate the extent to which the person matches a prototypical description of schizotypal personality disorder using a scale from 1 (description does not apply) to 5 (the prototype is a very good match with the person’s behavior). In other words, rather than deciding that a person does, or does not, meet criteria for this disorder, clinicians would be asked to indicate, using a dimensional scale, how much the person resembles a prototypical case.

The absence of a specific definition of social impairment is a practical issue that has plagued the current diagnostic manual. Most disorders in DSM-IV-TR include the requirement that a particular set of symptoms causes “clinically significant distress or impairment in social or occupational functioning.” No specific measurement procedures are provided to make this determination. Mental health professionals must rely on their own subjective judgment to decide how distressed or how impaired a person must be by his or her symptoms in order to qualify for a diagnosis. There is an important need for more specific definitions of these concepts, and better measurement tools are needed for their assessment.

Criticisms of the current classification system have also emphasized broad conceptual issues. Some clinicians and investigators have argued that the syndromes defined in DSM-IV-TR do not represent the most useful ways to think about psychological problems, either in terms of planning current treatments or in terms of designing programs of research. For example, it might be better to focus on more homogeneous dimensions of dysfunction, such as anxiety or angry hostility, rather than on syndromes (groups of symptoms) (Smith & Combs, 2010).

Critics pose questions such as: Should we design treatments for people who exhibit distorted, negative ways of thinking about themselves, regardless of whether their symptoms happen to



The frequently satirized U.S. Terror Threat Warning System is an example of a dimensional classification system. It was abandoned because it did not convey useful information to air passengers.

involve a mixture of depression, anxiety, or some other pattern of negative emotion or interpersonal conflict? The answer is: We don't know. It would certainly be premature to cut off consideration of these alternatives just because they address problems in a way that deviates from the official diagnostic manual. In our current state of uncertainty, diversity of opinion should be encouraged, particularly if it is grounded in cautious skepticism and supported by rigorous scientific inquiry.

From an empirical point of view, DSM-IV-TR is hampered by a number of problems that suggest that it does not classify clinical problems into syndromes in the simplest and most beneficial way (Helzer, Kraemer, & Krueger, 2006).

How could the DSM-IV-TR system be improved?

One of the thorniest issues involves **comorbidity**, which is defined as the simultaneous appearance of two or more disorders in the same person.

Comorbidity rates are very high for mental disorders as they are defined in the DSM system (Eaton, South, & Krueger, 2010). For example, in the National Comorbidity Survey, among those people who qualified for at least one diagnosis at some point during their lifetime, 56 percent met the criteria for two or more disorders. A small subgroup, 14 percent of the sample, actually met the diagnostic criteria for three or more lifetime disorders. That group of people accounted for almost 90 percent of the severe disorders in the study.

There are several ways to interpret comorbidity (Krueger, 2002). Some people may independently develop two separate conditions. In other cases, the presence of one disorder may lead to the onset of another. Unsuccessful attempts to struggle with prolonged alcohol dependence, for example, might lead a person to become depressed. Neither of these alternatives creates conceptual problems for DSM-IV-TR. Unfortunately, the very high rate of comorbidity suggests that these explanations account for a small proportion of overlap between categories.

The real problem associated with comorbidity arises when a person with a mixed pattern of symptoms, usually of a severe nature, simultaneously meets the criteria for more than one disorder. Consider, for example, a client who was treated by one of the authors of this text. This man experienced a large number of diffuse problems associated with anxiety, depression, and interpersonal difficulties. According to the DSM-IV-TR system, he would have met the criteria for major depressive disorder, generalized anxiety disorder, and obsessive-compulsive disorder, as well as three types of personality disorders listed on Axis II. It might be said, therefore, that he suffered from at least six types of mental disorders. But is that really helpful? Is it the best way to think about his problems? Would it be more accurate to say that he had a complicated set of interrelated problems that were associated with worrying, rumination, and the regulation of high levels of negative emotion and that these problems constituted one complex and severe type of disorder?

The comorbidity issue is related to another limitation of DSM-IV-TR: the failure to make better use of information regarding the course of mental disorders over time. More than 100 years ago, when schizophrenia and bipolar mood disorder were originally described, the distinction between them was based heavily on observations regarding their long-term course. Unfortunately, most disorders listed

in DSM-IV-TR are defined largely in terms of snapshots of symptoms at particular points in time. Diagnostic decisions are seldom based on a comprehensive analysis of the way that a person's problems evolve over time. If someone meets the criteria for more than one disorder, does it matter which one came first? Is there a predictable pattern in which certain disorders follow the onset of others? What is the nature of the connection between childhood disorders and adult problems? Our knowledge of mental disorders would be greatly enriched if greater emphasis were placed on questions regarding life-span development (Buka & Gilman, 2002; Oltmanns & Balsis, 2011).

These issues are being considered by the experts who are developing DSM-V. Of course, all of them will not be solved immediately. Attempts to provide solutions to these problems and limitations will ensure that the classification system will continue to be revised. As before, these changes will be driven by the interaction of clinical experience and empirical evidence. Students, clinicians, and research investigators should all remain skeptical when using this classification system and its successors.

Basic Issues in Assessment

Up to this point, we have discussed the development and use of classification systems. But we haven't talked about the way in which a psychologist might collect the information that is necessary to arrive at a diagnostic decision. Furthermore, we have looked at the problem only in relatively general terms. The diagnostic decision is one useful piece of information. It is not, however, a systematic picture of the specific person's situation. It is only a starting point. In the following section we extend our discussion to consider methods of collecting information. In so doing, we discuss a broad range of data that may be useful in understanding psychopathological behavior.

PURPOSES OF CLINICAL ASSESSMENT

To appreciate the importance and complexity of assessment procedures, let's go back to the example of Michael. When Michael and his parents initially approached the psychologist, they were clearly upset. But the nature of the problem, in terms of Michael's behavior and the family as a whole, was not clearly defined. Before he could attempt to help this family, the psychologist had to collect more information. He needed to know more about the range and frequency of Michael's obsessions and compulsions, including when they began, how often he experienced these problems, and the factors that made them better or worse. He also needed to know whether there were other problems, such as depression or delusional beliefs, that might either explain these responses or interfere with their treatment. In addition, he had to learn how Michael got along with classmates, how he was doing in school, and how his parents responded when he behaved strangely. Was his behavior, at least in part, a response to environmental circumstances? How would the family support (or interfere with) the therapist's attempts to help him change? The psychologist needed to address



Diagnostic interviews provide an opportunity to make detailed inquiries about a person's subjective experience while also observing his or her behavior.

Michael's current situation in terms of several different facets of his behavior.

Psychological assessment is the process of collecting and interpreting information that will be used to understand another person. Numerous data-gathering techniques can be used in this process. Several of these procedures are described in the following pages. We must remember, however, not to confuse the process of assessment with this list of techniques. Assessment procedures are tools that can be used in many ways. They cannot be used in an intellectual vacuum. The person who conducts the assessment must adopt a theoretical perspective regarding the nature of the disorders that are being considered and the causal processes that are involved in their origins (see Chapter 2). Interviews can be used to collect all sorts of information for all sorts of reasons. Psychological tests can be interpreted in many different ways. The value of assessment procedures can be determined only in the context of a specific purpose (McFall, 2005).

Assessment procedures can be used for several purposes. Perhaps most obvious is the need to describe the nature of the person's principal problem. This goal typically involves making a diagnosis. The clinician must collect information to support the diagnostic decision and to rule out alternative explanations for the symptoms. Assessment procedures are also used for making predictions, planning treatments, and evaluating treatments. The practical importance of predictions should be obvious: Many crucial decisions are based on psychologists' attempts to determine the probability of future events. Will a person engage in violent behavior? Can a person make rational decisions? Is a parent able to care for his or her children? Assessment is also commonly used to evaluate the likelihood that a particular form of treatment will be helpful for a specific

patient and to provide guideposts by which the effectiveness of treatment programs can be measured. Different assessment procedures are likely to be employed for different purposes. Those that are useful in one situation may not be helpful in another.

ASSUMPTIONS ABOUT CONSISTENCY OF BEHAVIOR

Assessment involves the collection of specific samples of a person's behavior. These samples may include things that the person says during an interview, responses that the person makes on a psychological test, or things that the person does while being observed. None of these would be important if we assumed that they were isolated events. They are useful to the extent that they represent examples of the ways in which the person will feel or behave in other situations. Psychologists, therefore, must be concerned about the consistency of behavior across time and situations. They want to know if they can *generalize*, or draw inferences about the person's behavior in the natural environment on the basis of the samples of behavior that are obtained in their assessment. If the client is depressed at this moment, how did she feel one week ago, and how will she feel tomorrow? In other words, is this a persistent phenomenon, or is it a temporary state? If a child is anxious and unable to pay attention in the psychologist's office, will he also exhibit these problems in his classroom? And how will he behave on the playground?

Psychologists typically seek out more than one source of information when conducting a formal assessment. Because we are trying to compose a broad, integrated picture of the person's adjustment, we must collect information from several sources and then attempt to integrate these data. Each piece of information may be considered to be one sample of the person's behavior. One way of evaluating the possible meaning or importance of this information is to consider the consistency across sources. Do the conclusions drawn on the basis of a diagnostic interview agree with those that are suggested by a psychological test? Do the psychologist's observations of the client's behavior and the client's self-report agree with observations that are reported by parents or teachers?

EVALUATING THE USEFULNESS OF ASSESSMENT PROCEDURES

The same criteria that are used to evaluate diagnostic categories are used to evaluate the usefulness of assessment procedures: reliability and validity. We have already discussed interrater reliability with regard to diagnostic decisions. In the case of assessment procedures, reliability can refer to various types of consistency. For example, the consistency of measurements over time is known as test-retest reliability. Will a person receive the same score if an assessment procedure is repeated at two different points in time? The internal consistency of items within a test is known as split-half reliability. If a test with many items measures a specific trait or ability, and if the items are divided in half, will the person's scores on the two halves agree with each other? Assessment procedures must be reliable if they are to be useful in either clinical practice or research.



Every assessment device has its own strengths and weaknesses. Each presents a somewhat different perspective on the person.

The validity of an assessment procedure refers to its meaning or importance (Meyer et al., 2001; Strauss & Smith, 2009). Is the person's score on this test or procedure actually a reflection of the trait or ability that the test was designed to measure? And does the score tell us anything useful about the person's behavior in other situations? Knowing that the person has achieved a particular score on this evaluation, can we make meaningful predictions about the person's responses to other tests, or about his or her behavior in future situations? These are all questions about the validity of an assessment procedure. In general, the more consistent the information provided by different assessment procedures, the more valid each procedure is considered to be (see Critical Thinking Matters).

Cultural differences present an important challenge to the validity of assessment procedures. It is often difficult to understand the thoughts and behaviors of people from a cultural background that is different from our own. Measurement procedures that were constructed for one group may be misleading when they are applied to people from another culture. Language, religion, gender roles, beliefs about health and illness, and attitudes toward the family can all have an important impact on the ways in which psychological

problems are experienced and expressed. These factors must be taken into consideration when psychologists collect information about the nature of a specific person's problems. Interviews, observational procedures, and personality tests must be carefully evaluated for cross-cultural validity (Padilla, 2001). Unfortunately, this issue has often been overlooked in treatment planning and in psychopathology research. We should not assume that a questionnaire developed in one culture will necessarily be useful in another. Investigators must demonstrate empirically that it measures the same thing in both groups.

Psychological Assessment Procedures

Our purpose in the rest of this chapter is to outline a range of assessment procedures. This is a selective sampling of measures rather than an exhaustive review. We begin our discussion with psychological assessment procedures, ranging from interviews

Critical Thinking Matters

THE BARNUM EFFECT AND ASSESSMENT FEEDBACK

Lots of people believe that psychologists can read minds. Unfortunately, assessment procedures used by psychologists do not provide a magic window into the psyche. Many procedures have been developed to collect information about human behavior and clinical problems. Each has its own strengths and weaknesses. None is infallible.

If psychologists do make errors, why do people often accept the results of their assessments uncritically? In a classic essay, Paul Meehl (1973) described a problem that he called the *Barnum Effect*, after P. T. Barnum, the brilliant and shameless promoter who founded the circus called “The Greatest Show on Earth.” The Barnum effect refers to the practice of saying things about a specific person that are true of virtually all people. For example, imagine that the psychologist working with Michael had conducted a formal psychological assessment and concluded that Michael had ambivalent feelings about his parents, that he was sometimes

lacking in self-confidence, or that his expectations were sometimes unrealistic. People often accept such vague or superficial statements as being meaningful comments about themselves, failing to understand that vague generalizations like these apply to almost everyone. Clearly, psychological assessment should be held to a higher standard.

Diagnostic decisions and clinical judgments should contain meaningful, specific information.

What can we do to improve the validity of psychological assessments? One important step is to recognize their fallibility. Like everyone else, clinical psychologists are prone to a variety of cognitive biases and errors in decision making (Garb, 2005). Under conditions of uncertainty, they use mental shortcuts to make clinical judgments. For example, they pay too much attention to information that confirms their initial impressions, and they tend to ignore information that is inconsistent with these impressions. They can be unduly influenced by

vivid, individual cases that come readily to mind and sometimes fail to consider more important evidence based on data from large samples. The impact of these cognitive biases might be minimized if clinicians would deliberately consider alternative hypotheses (such as a diagnosis other

Should we always trust clinical judgments?

than their first impression) and then consider evidence that would either support or disconfirm that possibility.

If you think about it for a moment, you probably will realize that these are common errors in human thinking, not just in assessments made by psychologists. As you study abnormal psychology, you probably pay more attention to information that is consistent with your own ideas and are overly influenced by dramatic case studies. Critical thinking—careful, objective reasoning and evaluation—is the best safeguard against these tendencies for you and for professional psychologists.

to various kinds of psychological tests. The last section of this chapter is concerned with biological assessment procedures that tap neurological and biochemical events that are associated with mental disorders.

“Person variables” are typically the first things that come to mind when we think about the assessment of psychopathology. What did the person do or say? How does the person feel about his or her current situation? What skills and abilities does the person possess, and are there any important cognitive or social deficits that should be taken into consideration? These questions about the individual person can be addressed through a number of procedures, including interviews, observations, and various types of self-report instruments and psychological tests.

INTERVIEWS

Often, the best way to find out about someone is to talk with that person directly. The clinical interview is the most commonly used procedure in psychological assessment. Most of the categories

that are defined in DSM-IV-TR are based on information that can be collected in an interview. These data are typically supplemented by information that is obtained from official records (previous hospital or clinic admissions, school reports, court files) and interviews with other informants (for example, family members), but the clients’ own direct descriptions of their problems are the primary basis for diagnostic decisions. Except for mental retardation, none of the diagnostic categories in DSM-IV-TR is defined in terms of psychological or biological tests.

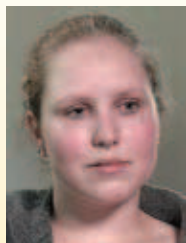
Interviews provide an opportunity to ask people for their own descriptions of their problems. Many of the symptoms of psychopathology are subjective, and an interview can provide a detailed analysis of these problems. Consider, for example, Michael’s problems with anxiety. The unrelenting fear and revulsion that he experienced at school were the central features of his problem. His obsessive thoughts of contamination were private events that could only be known to the psychologist on the basis of Michael’s self-report, which was quite compelling. His family could observe Michael’s peculiar habits with regard to arranging his schoolbooks, changing his clothes, and washing his hands, but the significance of these behaviors to

Michael was not immediately apparent without the knowledge that they were based on an attempt to control or neutralize his anxiety-provoking images of taunting classmates.

MyPsychLab VIDEO CASE

Depression/Deliberate Self-Harm

SARAH



"I would be asked later 'well how did these cuts get here' and I would know that I had done it, but I wouldn't remember how I had done it or with what."

Watch the video "Depression/Deliberate Self-Harm: Sarah" on MyPsychLab. Notice how the interviewer uses a flexible sequence of questions to elicit

a compelling description of the subjective experiences associated with Sarah's cutting behavior.

Interviews also allow clinicians to observe important features of a person's appearance and nonverbal behavior. In Michael's case, the psychologist noticed during the initial interview that the skin on Michael's hands and lower arms was red and chafed from excessive scrubbing. He was neatly dressed but seemed especially self-conscious about his hair and glasses, which he adjusted repeatedly. Michael was reluctant to make eye contact, and his speech was soft and hesitant. His obvious discomfort in this social situation was consistent with his own descriptions of the anxiety that he felt during interactions with peers. It was also interesting to note that Michael became visibly agitated when discussing particular subjects, such as the incident with his track team.

Why do clinical interviews sometimes provide limited or distorted results?

At these points in the interview, he would fidget restlessly in his seat and clasp his arms closely around his sides. His speech became more rapid, and he began to stutter a bit. On one occasion, he found it impossible to sit still, and he began to pace quickly back and forth across the psychologist's office. These nonverbal aspects of Michael's behavior provided useful information about the nature of his distress.

Structured Interviews Assessment interviews vary with regard to the amount of structure that is imposed by the clinician. Some are relatively open-ended, or nondirective. In this type of interview, the clinician follows the train of thought supplied by the client. One goal of nondirective interviews is to help people clarify their subjective feelings and to provide general empathic support for whatever they may decide to do about their problems. In contrast to this open-ended style, some interviews follow a more specific question-and-answer format. Structured interviews, in which the clinician must ask each patient a specific list of detailed questions, are frequently employed for collecting information that will be used to make diagnostic decisions and to rate the extent to which a person is impaired by psychopathology.

Several different structured interviews have been developed for the purpose of making psychiatric diagnoses in large-scale epidemiological and cross-national studies (Segal et al., 2010). Investigators reasoned that the reliability of their diagnostic decisions would improve if they could ensure that clinicians always made a consistent effort to ask the same questions when they interviewed patients. Other forms of structured diagnostic interviews have been designed for use in the diagnosis of specific types of problems, such as personality disorders, anxiety disorders, dissociative disorders, and the behavior problems of children.

Structured interviews list a series of specific questions that lead to a detailed description of the person's behavior and experiences. As an example, consider the Structured Interview for DSM-IV-TR Personality Disorders (SIDP-IV; Pfohl, Blum, & Zimmerman, 1995), which could have been used as part of the assessment process in Michael's situation. The SIDP is a widely adopted semi-structured interview that covers all of the DSM-IV-TR personality disorder categories. Selected questions from the SIDP-IV are presented in Table 4.4. We have included in this table some of the questions that are specifically relevant to a diagnosis of schizotypal personality disorder.

Structured interview schedules provide a systematic framework for the collection of important diagnostic information, but they don't eliminate the need for an experienced clinician. If the interviewer is not able to establish a comfortable rapport with the client, then the interview might not elicit useful information. Furthermore, it is difficult to specify in advance all the questions that should be asked in a diagnostic interview. The client's responses to questions may require clarification. The interviewer must determine when it is necessary to probe further and in what ways to probe. Having lists of specific questions and clear definitions of diagnostic criteria will make the clinician's job easier, but clinical judgment remains an important ingredient in the diagnostic interview.

Advantages The clinical interview is the primary tool employed by clinical psychologists in the assessment of psychopathology. Several features of interviews account for this popularity, including the following issues:

1. The interviewer can control the interaction and can probe further when necessary.
2. By observing the patient's nonverbal behavior, the interviewer can try to detect areas of resistance. In that sense, the validity of the information may be enhanced.
3. An interview can provide a lot of information in a short period of time. It can cover past events and many different settings.

Limitations Several limitations in the use of clinical interviews as part of the assessment process must be kept in mind. These include the following considerations:

1. Some patients may be unable or unwilling to provide a rational account of their problems. This may be particularly true of young children, who have not developed verbal skills, as well as some psychotic and demented patients who are unable to speak coherently.
2. People may be reluctant to admit experiences that are embarrassing or frightening. They may feel that they should report to the interviewer only those feelings and behaviors that are socially desirable. Negative stereotypes about

TABLE 4.4 Sample Interview Questions for the Assessment of Schizotypal Personality Disorder

Social Relationships

This set of questions concerns the way you think and act in situations that involve other people. Remember that I'm interested in the way you are when you are your usual self.

DSM Diagnostic Criterion: Excessive social anxiety that does not diminish with familiarity and tends to be associated with paranoid fears rather than negative judgments about self.

Question: "Do you generally feel nervous or anxious around people?"

(IF YES, ask follow-up questions): "How bad does it get?" "Do you get nervous around people because you worry about what they might be up to?" "Are you less nervous after you get to know people better?"

Perception of Others

The questions in this section ask about experiences you may have had with other people.

DSM Diagnostic Criterion: Suspects, without sufficient basis, that others are exploiting, harming, or deceiving him or her

Question: "Have you had experiences where people who pretended to be your friends took advantage of you?"

(IF YES, follow-up questions): "What happened?" "How often has this happened?"

Question: "Are you good at spotting someone who is trying to deceive or con you?"

(IF YES, follow-up questions): "Can you give me some examples?"

DSM Diagnostic Criterion: Ideas of reference (the belief that irrelevant or harmless events refer to the person directly or have special personal significance for him or her)

Question: "Have you ever found that people around you seem to be talking in general, but then you realize their comments are really meant for you?"

(IF YES, follow-up question): "How do you know they're talking about you?"

Question: "Have you felt like someone in charge changed the rules specifically because of you, but they wouldn't admit it?"

Question: "Do you sometimes feel like strangers on the street are looking at you and talking about you?"

(IF YES, follow-up question): "Why do you think they notice you in particular?"

Source: Reprinted with permission from the Structured Interview for DSM-IV Personality, SIDP-IV, (Copyright © 1997). American Psychiatric Association.

people with mental disorders interfere with an open and honest discussion of a person's problems.

3. Information provided by the client is necessarily filtered through the client's eyes. It is a subjective account and may be influenced or distorted by errors in memory and by selective perception.
4. Interviewers can influence their clients' accounts by the ways in which they phrase their questions and respond to the clients' responses.

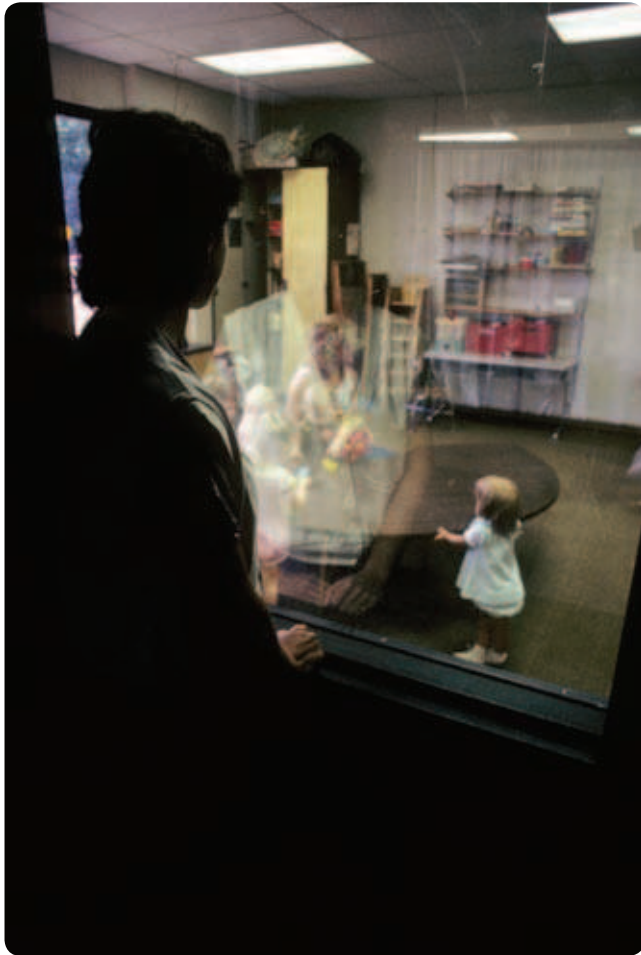
OBSERVATIONAL PROCEDURES

In addition to the information that we gain from what people are willing to tell us during interviews, we can also learn a lot by watching their behavior. Observational skills play an important part in most assessment procedures. Sometimes the things that we observe confirm the person's self-report, and at other times the person's overt behavior appears to be at odds with what he or she says. A juvenile delinquent might express in words his regret at having injured a classmate, but his smile and the twinkle in his eye may raise doubts about the sincerity of his statement. In situations such as this, we must reconcile information that is obtained from different sources. The picture that emerges of another person's adjustment is greatly enriched when data collected from interviews are supplemented by observations of the person's behavior.

Observational procedures may be either informal or formal. Informal observations are primarily qualitative. The

clinician observes the person's behavior and the environment in which it occurs without attempting to record the frequency or intensity of specific responses. Michael's case illustrates the value of informal observations in the natural environment. When the therapist visited Michael and his parents at their home, he learned that his ritualistic behaviors were more extreme than Michael had originally described. This was useful, but not particularly surprising, as patients with OCD are often reluctant to describe in an interview the full extent of their compulsive behavior. The therapist also learned that the parents themselves were quite concerned with rules and order. Everything in their home was highly polished and in its place. This observation helped the therapist understand the extent to which Michael's parents might contribute to, or reinforce, his rigid adherence to a strict set of rules.

Although observations are often conducted in the natural environment, there are times when it is useful to observe the person's behavior in a situation that the psychologist can arrange and control. Sometimes it isn't possible to observe the person's behavior in the natural environment because the behavior in question occurs infrequently or at times when an observer cannot be present; at other times the environment is inaccessible; and sometimes the behavior that is of interest is inherently a private act. In these cases, the psychologist may arrange to observe the person's behavior in a situation that in some ways approximates the real environment. These artificial situations may also allow for more careful measurements of the person's problem than could be accomplished in a more complex situation.



Direct observation can provide one of the most useful sources of information about a person's behavior. In this case, the children and their teacher are being observed from behind a one-way mirror in order to minimize reactivity, the effect that the observer's presence might have on their behavior.

In the case of obsessive-compulsive behavior, this approach might involve asking the person deliberately to touch an object that would ordinarily trigger ritualistic behaviors. The therapist might collect a set of objects that Michael would not want to touch, such as a schoolbook, a pair of old track shorts, and the knob of a door leading to the laundry room. It would be useful to know specifically which objects he would touch, the degree of discomfort that he experienced when touching them, and the length of time that he was able to wait before washing his hands after touching these objects. This information could also be used as an index of change as treatment progressed.

Rating Scales Various types of procedures can be used to provide quantitative assessments of a person's behavior that are based on observations. One alternative is to use a **rating scale** in which the observer is asked to make judgments that place the person somewhere along a dimension. For example, a clinician might observe a person's behavior for an extended period of

time and then complete a set of ratings that are concerned with dimensions such as the extent to which the person exhibits compulsive ritualistic behaviors.

Ratings can also be made on the basis of information collected during an interview. The Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989; Woody, Steketee, & Chambless, 1995) is an example of an interview-based rating scale that is used extensively in the evaluation of people with problems like Michael's. The interviewer asks the person a series of specific questions about the nature of his or her experience with obsessive thoughts and compulsive behaviors. For example, "How much of your time is occupied by obsessive thoughts?" Using a scale that ranges from 0 (none) to 4 (extreme), the interviewer then assigns a rating on several dimensions such as "time spent occupied by obsessive thoughts," "interference due to obsessive thoughts," "distress associated with obsessive thoughts," and "resistance against obsessions." The composite rating—the total across all the items in the scale—can be used as an index of the severity of the disorder.

Rating scales provide abstract descriptions of a person's behavior rather than a specific record of exactly what the person has done. They require social judgments on the part of the observer, who must compare this person's behavior with an ideal view of other people. How does this person compare to someone who has never experienced any difficulties in this particular area? How does the person compare to the most severely disturbed patients? The value of these judgments depends on the experience of the person who makes the ratings. They are useful to the extent that the observer is able to synthesize accurately the information that has been collected and then rate the frequency or severity of the problem relative to the behavior of other people.

Behavioral Coding Systems Another approach to quantifying observational data depends on recording the person's actual activities. Rather than making judgments about where the person falls on a particular dimension, behavioral coding systems focus on the frequency of specific behavioral events (Furr & Funder, 2007). This type of observation, therefore, requires fewer inferences on the part of the observer. Because they require extensive time and training, behavioral coding systems are used more frequently in research studies than in clinical settings. Coding systems can be used with observations that are made in the person's natural environment as well as with those that are performed in artificial, or contrived, situations that are specifically designed to elicit the problem behavior under circumstances in which it can be observed precisely. In some cases, the observations are made directly by a therapist, and at other times the information is provided by people who have a better opportunity to see the person's behavior in the natural environment, including teachers, parents, spouse, and peers.

Some approaches to systematic observation can be relatively simple. Consider, once again, the case of Michael. After the psychologist had conducted several interviews with Michael and his family, he asked Michael's mother to participate in the assessment process by making detailed observations of his hand washing over a period of several nights. The mother was given a set of forms—one for each day—that could be used to record each incident, the time at which it occurred, and the circumstances that preceded the washing. The day was divided into 30-minute intervals starting at 6:30 A.M., when Michael got out of bed, and ending at 10:30 P.M., when he usually went to sleep. On each line (one for each time interval), his mother

indicated whether he had washed his hands, what had been going on just prior to washing, and how anxious (on a scale from 1 to 100) Michael felt at the time that he washed.

Some adult clients are able to complete this kind of record by keeping track of their own behavior—a procedure known as *self-monitoring*. In this case, Michael's mother was asked to help because she was considered a more accurate observer than Michael and because Michael did not want to touch the form that would be used to record these observations. He believed that it was contaminated because it had touched his school clothes, which he wore to the therapy session.

Two weeks of observations were examined prior to the start of Michael's treatment. They indicated several things, including the times of the day when Michael was most active with his washing rituals (between 6 and 9 P.M.) and those specific objects and areas in the house that were most likely to trigger a washing incident. This information helped the therapist plan the treatment procedure, which would depend on approaching Michael's problem at the level that could most easily be handled and moving toward those situations that were the most difficult for him. The observations provided by Michael's mother were also used to mark his progress after treatment began.

Advantages Observational measures, including rating scales and behavioral coding systems, can provide a useful supplement to information that is typically collected in an interview format. Their advantage lies primarily in the fact that they can provide a more direct source of information than interviews can, because clinicians observe behavior directly rather than relying on patients' self-reports. Specific types of observational measures have distinct advantages:

1. Rating scales are primarily useful as an overall index of symptom severity or functional impairment.
2. Behavioral coding systems provide detailed information about the person's behavior in a particular situation.

Limitations Observations are sometimes considered to be similar to photographs: They provide a more direct or realistic view of behavior than do people's recollections of their actions and feelings. But just as the quality of a photograph is influenced by the quality of the camera, the film, and the process that is used to develop it, the value of observational data depends on the procedures that are used to collect them. Thus, observations have a number of limitations:

1. Observational procedures can be time-consuming and therefore expensive. Raters usually require extensive training before they can use a detailed behavioral coding system.
2. Observers can make errors. Their perception may be biased, just as the inferences of an interviewer may be biased. The reliability of ratings as well as behavioral coding must be monitored.
3. People may alter their behavior, either intentionally or unintentionally, when they know that they are being observed—a phenomenon known as **reactivity**. For example, a person who is asked to count the number of times that he washes his hands may wash less frequently than he does when he is not keeping track.
4. Observational measures tell us only about the particular situation that was selected to be observed. We don't know if the person will behave in a similar way elsewhere or at a different time, unless we extend the scope of our observations.

5. There are some aspects of psychopathology that cannot be observed by anyone other than the person who has the problem. This is especially true for subjective experiences, such as guilt or low self-esteem.

When would it be most important to collect behavioral observations rather than relying on self-report measures?

PERSONALITY TESTS AND SELF-REPORT INVENTORIES

Personality tests are another important source of information about an individual's adjustment. Tests provide an opportunity to collect samples of a person's behavior in a standardized situation. The person who is being tested is presented with some kind of standard stimuli. The stimuli may be specific questions that can be answered true or false. They might be problems that require solutions, or they can be completely ambiguous ink-blots. Exactly the same stimuli are used every time that the test is given. In that way, the clinician can be sure that differences in performance can be interpreted as differences in abilities or traits rather than differences in the testing situation.

Personality inventories consist of a series of straightforward statements; the person being tested is typically required to indicate whether each statement is true or false in relation to himself or herself. Several types of personality inventories are widely used. Some are designed to identify personality traits in a normal population, and others focus more specifically on psychological problems. We have chosen to focus on the most extensively used personality inventory—the *Minnesota Multiphasic Personality Inventory* (MMPI)—to illustrate the characteristics of these tests as assessment devices.

The original version of the MMPI was developed in the 1940s at the University of Minnesota. For the past 50 years, it has been the most widely used psychological test. Thousands of research articles have been published on the MMPI. The inventory was revised several years ago, and it is currently known as the MMPI-2 (Butcher, 2006).

The MMPI-2 is based on a series of more than 500 statements that cover topics ranging from physical complaints and psychological states to occupational preferences and social attitudes. Examples are statements such as, "I sometimes keep on at a thing until others lose their patience with me"; "My feelings are easily hurt"; and "There are persons who are trying to steal my thoughts and ideas." After reading each statement, the person is instructed to indicate whether it is true or false. Scoring of the MMPI-2 is objective. After the responses to all questions are totaled, the person receives a numerical score on each of 10 clinical scales as well as four validity scales.

Before considering the possible clinical significance of a person's MMPI-2 profile, the psychologist will examine a number of validity scales, which reflect the patient's attitude toward the test and the openness and consistency with which the questions were answered. The L (Lie) Scale is sensitive to unsophisticated attempts to avoid answering in a frank and honest manner. For example, one statement on this scale says, "At times I feel like swearing." Although this is perhaps not an admirable trait, virtually all normal subjects indicate that

Why is the MMPI-2 sometimes called an objective personality test?

the item is true. Subjects who indicate that the item is false (does not apply to them) receive 1 point on the L scale. Several responses of this sort would result in an elevated score on the scale and would indicate that the person’s overall test results should not be interpreted as a true reflection of his or her feelings. Other validity scales reflect tendencies to exaggerate problems, carelessness in completing the questions, and unusual defensiveness.

If the profile is considered valid, the process of interpretation will be directed toward the 10 clinical scales, which are described in Table 4.5. Some of these scales carry rather obvious meaning, whereas others are associated with a more general or mixed pattern of symptoms. For example, Scale 2 (Depression) is a relatively straightforward index of degree of depression. Scale 7 (Psychasthenia), in contrast, is more complex and is based on items that measure anxiety, insecurity, and excessive doubt. There are many different ways to obtain an elevated score on any of the clinical scales, because each scale is composed of many items. Even the more obvious scales can indicate several different types of problems. Therefore, the pattern of scale scores is more important than the elevation of any particular scale.

Rather than depending only on their own experience and clinical judgment, which may be subject to various sorts of bias and inconsistency, many clinicians analyze the results of a specific test on the basis of an explicit set of rules that are derived from empirical research (Greene, 2006). This is known as an **actuarial interpretation**. We can illustrate this process using Michael’s profile. The profile is first described in terms of the pattern of scale scores, beginning with the highest and proceeding to the lowest. Those that are elevated above a scale score of 70 are most important, and interpretations are sometimes based on the “high-point pair.” Following this procedure, Michael’s profile could be coded as a 2–0; that

is, his highest scores were on Scales 2 and 0. The clinician then looks up this specific configuration of scores in a kind of MMPI-2 “cookbook” to see what sort of descriptive characteristics apply. One cookbook offers the following statement about adolescents (mostly 14 and 15 years old) who fit the 2–0/0–2 code type:

Eighty-seven percent of the 2–0/0–2s express feelings of inferiority to their therapists. They say that they are not good-looking, that they are afraid to speak up in class, and that they feel awkward when they meet people or try to make a date (91 percent of high 2–0/0–2s). Their therapists see the 2–0/0–2s as anxious, fearful, timid, withdrawn, and inhibited. They are depressed, and very vulnerable to threat. The 2–0/0–2 adolescents are over-controlled; they cannot let go, even when it would be appropriate for them to do so. They are afraid of emotional involvement with others and, in fact, seem to have little need for such affiliation. These adolescents are viewed by their psychotherapists as schizoid; they think and associate in unusual ways and spend a good deal of time in personal fantasy and daydreaming. They are serious young people who tend to anticipate problems and difficulties. Indeed, they are prone toward obsessional thinking and are compulsively meticulous.

(Marks, Seeman, & Haller, 1974, p. 201)

Several comments must be made about this statement. First, nothing is certain. Actuarial descriptions are probability statements. They indicate that a certain proportion of the people who produce this pattern of scores will be associated with a certain characteristic or behavior. If 87 percent of the adolescents who produce this code type express feelings of inferiority, 13 percent do not. Many aspects of this description apply to Michael’s current adjustment, but they don’t all fit. The MMPI

TABLE 4.5 Clinical Scales for the MMPI

Scale Number	Scale Name	Interpretation of High Scores
1	Hypochondriasis	Excessive bodily concern; somatic symptoms
2	Depression	Depressed; pessimistic; irritable; demanding
3	Hysteria	Physical symptoms that cannot be traced to a medical illness; self-centered; demands attention
4	Psychopathic Deviate	Asocial or antisocial; rebellious; impulsive, poor judgment
5	Masculinity-Femininity	For men: aesthetic interests For women: assertive; competitive; self-confident
6	Paranoia	Suspicious, sensitive; resentful; rigid; may be frankly psychotic
7	Psychasthenia	Anxious; worried; obsessive; lacks self-confidence; problems in decision making
8	Schizophrenia	May have thinking disturbance, withdrawn; feels alienated and unaccepted
9	Hypomania	Excessive activity; lacks direction; low frustration tolerance; friendly
0	Social-Introversion	Socially introverted; shy; sensitive; overcontrolled; conforming



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www.cartoonbank.com

must be used in conjunction with other assessment procedures. The accuracy of actuarial statements can be verified through interviews with the person or through direct observations of his or her behavior.

Advantages The MMPI-2 has several advantages in comparison to interviews and observational procedures. In clinical practice, it is seldom used by itself, but, for the following reasons, it can serve as a useful supplement to other methods of collecting information.

1. The MMPI-2 provides information about the person's test-taking attitude, which alerts the clinician to the possibility that clients are careless, defensive, or exaggerating their problems.
2. The MMPI-2 covers a wide range of problems in a direct and efficient manner. It would take a clinician several hours to go over all these topics using an interview format.
3. Because the MMPI-2 is scored objectively, the test's description of the person's adjustment is not influenced by the clinician's subjective impression of the client.
4. The MMPI-2 can be interpreted in an actuarial fashion, using extensive banks of information regarding people who respond to items in a particular way.

Limitations The MMPI-2 also has some limitations. Some of its limitations derive from the fact that it has been used for many years, and the ways in which different forms of psychopathology are viewed have changed over time.

1. The utility of the traditional clinical scales (see Table 4.5) has been questioned, especially with regard to their ability to discriminate between different types of mental disorders. Restructured clinical scales have been developed in order to address these problems, but the new scales remain controversial (Nichols, 2006).

2. The test depends on the person's ability to read and respond to written statements. Some people cannot complete the rather extensive list of questions. These include many people who are acutely psychotic, intellectually impaired, or poorly educated.
3. Specific data are not always available for a particular profile. Many patients' test results do not meet criteria for a particular code type with which extensive data are associated. Therefore, actuarial interpretation is not really possible for these profiles.
4. Some studies have found that profile types are not stable over time. It is not clear whether this instability should be interpreted as lack of reliability or as sensitivity to change in the person's level of adjustment.

PROJECTIVE PERSONALITY TESTS

In **projective tests**, the person is presented with a series of ambiguous stimuli. The best known projective test, introduced in 1921 by Hermann Rorschach (1884–1922), a Swiss psychiatrist, is based on the use of inkblots. The Rorschach test consists of a series of 10 inkblots. Five contain various shades of gray on a white background, and five contain elements of color. The person is asked to look at each card and indicate what it looks like or what it appears to be. There are, of course, no correct answers. The instructions are intentionally vague in order to avoid influencing the person's responses through subtle suggestions.

Projective techniques such as the Rorschach test were originally based on psychodynamic assumptions about the nature of personality and psychopathology. Considerable emphasis was placed on the importance of unconscious motivations—conflicts and impulses of which the person is largely unaware. In other words, people being tested presumably project hidden desires and conflicts when they try to describe or explain the cards. In so doing, they may reveal things about themselves of which they are not consciously aware or that



Projective tests require a person to respond to ambiguous stimuli. Here, a woman is taking the Thematic Apperception Test (TAT), in which she will be asked to make up a story about a series of drawings of people.

they might not be willing to admit if they were asked directly. The cards are not designed or chosen to be realistic or representational; they presumably look like whatever the person wants them to look like.

Michael did not actually complete any projective personality tests. We can illustrate the way in which these tests might have been used in his case, however, by considering a man who had been given a diagnosis of obsessive-compulsive disorder on Axis I, as well as showing evidence of two types of personality disorders, dependent and schizotypal features. This patient was 22 years old, unemployed, and living with his mother. His father had died in an accident four years earlier. Like Michael, this man was bothered by intrusive thoughts of contamination, and he frequently engaged in compulsive washing (Hurt, Reznikoff, & Clarkin, 1991). His responses to the cards on the Rorschach frequently mentioned emotional distress (“a man screaming”), interpersonal conflict (“two women fighting over something”), and war (“two mushrooms of a nuclear bomb cloud”). He did not incorporate color into any of his responses to the cards.

The original procedures for scoring the Rorschach were largely impressionistic and placed considerable emphasis on the content of the person’s response. Responses given in the example above might be taken to suggest a number of important themes. Aggression and violence are obvious possibilities. Perhaps the man was repressing feelings of hostility, as indicated by his frequent references to war and conflict. These themes were coupled with a guarded approach to emotional reactions, which is presumably reflected by his avoidance of color. The psychologist might have wondered whether the man felt guilty about something, such as his father’s death. This kind of interpretation, which depends heavily on symbolism and clinical inference, provides intriguing material for the clinician to puzzle over. Unfortunately, the reliability and validity of this intuitive type of scoring procedure are very low (Garb et al., 2005).

When we ponder the utility of these interpretations, we should also keep in mind the relative efficiency of projective testing procedures. Did the test tell us anything that we didn’t already know or that we couldn’t have learned in a more straightforward manner? The clinician might learn about a client’s feelings of anger or guilt by using a clinical interview, which is often a more direct and efficient way of collecting information.

More recent approaches to the use of projective tests view the person’s descriptions of the cards as a sample of his or her perceptual and cognitive styles (Meyer & Viglione, 2008). The Comprehensive System, an objective scoring procedure for the Rorschach, is based primarily on the form rather than the content of the subject’s responses. According to this system, interpretation of the test depends on the way in which the descriptions take into account the shapes and colors on the cards. Does the person see movement in the card? Does she focus on tiny details, or does she base her descriptions on global impressions of the entire form of the inkblot? These and many other considerations contribute to the overall interpretation of the Rorschach test. The reliability of this scoring system is much better than would be achieved by informal, impressionistic procedures. The validity of the scores, however, remains open to question (Wood et al., 2003).

There are many different types of projective tests. Some employ stimuli that are somewhat less ambiguous than the inkblots in the Rorschach. The Thematic Apperception Test (TAT), for example, consists of a series of drawings that

depict human figures in various ambiguous situations. Most of the cards portray more than one person. The figures and their poses tend to elicit stories with themes of sadness and violence. The person is asked to describe the identities of the people in the cards and to make up a story about what is happening. These stories presumably reflect the person’s own ways of perceiving reality.

Advantages The advantages of projective tests center on the fact that the tests are interesting to give and interpret, and they sometimes provide a way to talk to people who are otherwise reluctant or unable to discuss their problems. Projective tests are more appealing to psychologists who adopt a psychodynamic view of personality and psychopathology because such tests are believed to reflect unconscious conflicts and motivations. Some specific advantages are listed below.

1. Some people may feel more comfortable talking in an unstructured situation than they would if they were required to participate in a structured interview or to complete the lengthy MMPI.
2. Projective tests can provide an interesting source of information regarding the person’s unique view of the world, and they can be a useful supplement to information obtained with other assessment tools (Weiner & Meyer, 2009).
3. To whatever extent a person’s relationships with other people are governed by unconscious cognitive and emotional events, projective tests may provide information that cannot be obtained through direct interviewing methods or observational procedures (Meyer & Archer, 2001; Stricker & Gold, 1999).

Limitations There are many serious problems with the use of projective tests. The popularity of projective tests has declined considerably since the 1970s, even in clinical settings, primarily because research studies have found little evidence to support their reliability and validity (Garb et al., 2005).

1. Lack of standardization in administration and scoring is a serious problem, even though Exner’s system for the Rorschach has made some improvements in that regard.
2. Little information is available on which to base comparisons to normal adults or children.
3. Some projective procedures, such as the Rorschach, can be very time consuming, particularly if the person’s responses are scored with a standardized procedure such as Exner’s system.
4. The reliability of scoring and interpretation tends to be low.
5. Information regarding the validity of projective tests is primarily negative.

Biological Assessment Procedures

Clinicians have developed a number of techniques for measuring the association between biological systems and abnormal behavior. These techniques are seldom used in clinical practice

(at least for the diagnosis of psychopathology), but they have been employed extensively in research settings, and it seems possible that they will one day become an important source of information on individual patients.

BRAIN IMAGING TECHNIQUES

The past three decades have seen a tremendous explosion of information and technology in the neurosciences. We now understand in considerable detail how neurons in the central nervous system communicate with one another, and scientists have invented sophisticated methods to create images of the living human brain (Bremner, 2005; Lagopoulos, 2010). Some of these procedures provide static pictures of various brain structures at rest, just as an x-ray provides a photographic image of a bone or some other organ of the body. Studies of this type are typically concerned with the size of various parts of the brain. For example, many studies have compared the average size of the lateral ventricles—large chambers filled with cerebrospinal fluid—in groups of patients with schizophrenia and normal comparison groups. Other methods can be used to create dynamic images of brain functions—reflecting the rate of activity in various parts of the brain—while a person is performing different tasks. These functional images allow scientists to examine which parts of the brain are involved in various kinds of events, such as perception, memory, language, and emotional experience. They may also allow us to learn whether specific areas or pathways in the brain are uniquely associated with specific types of mental disorders.

Precise measures of brain structure can be obtained with *magnetic resonance imaging* (MRI). In MRI, images are generated using a strong magnetic field rather than x-rays (Posner & DiGirolamo, 2000). A large magnet in the scanner causes chemical elements in specific brain regions to emit distinctive radio signals. Both computed tomography (CT) scanning and MRI can provide a static image of specific brain structures. MRI provides more detailed images than CT scans and is able to identify smaller parts of the brain. For this reason, and because it lends itself more easily to the creation of three-dimensional pictures of the brain, MRI has replaced CT scanning in most research facilities.

In addition to structural MRI, which provides a static view of brain structures, advances in the neurosciences have also produced techniques that create images of brain functions (Brown & Thompson, 2010; Raichle, 2005). *Positron emission tomography* (PET) is one scanning technique that can be used to create functional brain images (Wahl, 2002). This procedure is much more expensive than the other imaging techniques because it requires a nuclear cyclotron to produce special radioactive elements. PET scans are capable of providing relatively detailed images of the brain. In addition, they can reflect changes in brain activity as the person responds to the demands of various tasks.

The newest and most exciting method of imaging brain functions involves *functional MRI* (fMRI). When neurons are activated, their metabolism increases and they require increased blood flow to supply them with oxygen. The magnetic properties of blood change as a function of the level of oxygen that it is carrying. In fMRI, a series of images is acquired in rapid succession. Small differences in signal intensity from one image to the next provide a measure of moment-to-moment changes in the amount of oxygen in blood flowing to specific



Positron emission tomography (PET scan) can provide useful images of dynamic brain functions. Areas that appear red or yellow indicate areas of the brain that are active (consuming the labeled glucose molecules), whereas those that are blue or green are relatively inactive. Different areas of the brain become active depending on whether the person is at rest or engaged in particular activities when the image is created.

areas of the brain. While other functional imaging procedures such as PET are only able to measure activities that are sustained over a period of several minutes, fMRI is able to identify changes in brain activity that lasts less than a second (Huettel, Song, & McCarthy, 2004).

Functional brain imaging procedures have been used extensively to study possible neurological underpinnings of various types of mental disorders. For example, in the case of obsessive-compulsive disorder (OCD), studies using PET and fMRI have suggested that symptoms of OCD are associated with multiple brain regions, including the caudate nucleus, the orbital prefrontal cortex, and the anterior cingulate cortex (located on the medial surface of the frontal lobe). These pathways are illustrated in Figure 4.1. They seem to be overly active in people with OCD, especially when the person is confronted with stimuli that provoke his or

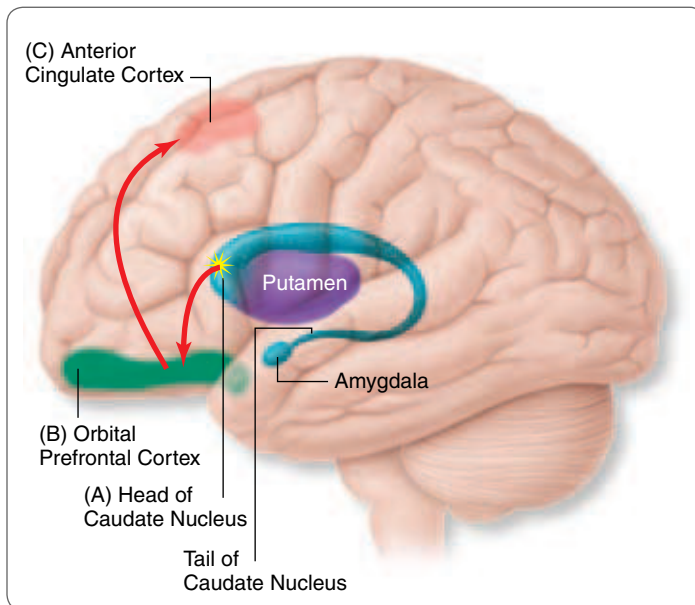


FIGURE 4.1 Brain Regions Associated with OCD

When a person with OCD experiences symptoms, an increase in neural activity is seen in the caudate (A), which triggers the urge to “do something,” through the orbital prefrontal cortex (B), which gives the feeling that “something is wrong,” and back through the anterior cingulate cortex (C), which keeps attention fixed on the feeling of unease.

Source: R. Carter, 1998, *Mapping the Mind*, Berkeley: University of California Press, illustrations by Malcolm Godwin. Copyright © 1998 by Moonrunner Design Ltd. Reprinted by permission of Malcolm Godwin, Moonrunner Design, Ltd.

her obsessions (Husted, Shapira, & Goodman, 2006; Menzies et al., 2008).

These results are intriguing because they suggest that certain regions and circuits in the brain may somehow be associated with the presence of obsessive-compulsive symptoms.

Why are brain imaging procedures not used for the diagnosis of mental disorders?

We must emphasize, however, that the results of such imaging procedures are not useful diagnostically with regard to an individual person. In other words, some people with OCD do not exhibit increased me-

tabolism rates in the caudate or the anterior cingulate cortex, and some people who do not have OCD do show increased levels of activity in these brain regions.

Advantages Brain imaging techniques provide detailed information regarding the structure of brain areas and activity levels in the brain that are associated with the performance of particular tasks. They have important uses, primarily as research tools:

1. In clinical practice, imaging techniques can be used to rule out various neurological conditions that might explain behavioral or cognitive deficits. These include such conditions as brain tumors and vascular disease.
2. Procedures such as fMRI and PET can help research investigators explore the relation between brain functions and specific mental disorders. This type of information will be considered in several chapters later in this book.

Limitations Brain imaging procedures are used extensively in the study and assessment of neurological disorders. In the field of psychopathology, they are currently research tools and have little clinical importance outside the assessment and treatment

of disorders such as Alzheimer’s disease (see Chapter 14). Some of the major limitations are listed here.

1. Norms have not been established for any of these measures. It is not possible to use brain imaging procedures for diagnostic purposes.
2. These procedures are relatively expensive—especially PET scans and fMRI—and some procedures must be used cautiously because the patient may be exposed to radioactive substances.
3. We should not assume that all cognitive processes, emotional experiences, or mental disorders are necessarily linked to activity (or the absence of activity) in a specific area of the brain. Scientists are still debating the extent to which these experiences are localized within the brain (Uttal, 2001).

PSYCHOPHYSIOLOGICAL ASSESSMENT

Changes in physiological response systems, such as heart rate, respiration rate, and skin conductance, can provide useful information regarding a person’s psychological adjustment. The basic components of the human nervous system (reviewed in Chapter 2) include the central nervous system (CNS) and the peripheral nervous system (PNS). The PNS is divided into two parts: the somatic nervous system and the autonomic nervous system. The somatic nervous system is responsible for communication between the brain and external sense receptors, as well as regulation of voluntary muscle movements. The autonomic nervous system is responsible for body processes that occur without conscious awareness, such as heart rate. It maintains equilibrium in the internal environment.

The autonomic nervous system is highly reactive to environmental events and can provide useful information about



This view of Earth from space shows hot spots on the Earth's surface at night, an indication of areas of heavier population. Imaging techniques like fMRI offer views of the brain that are similarly fascinating—and similarly lacking in resolution, detail, and meaning.

a person's internal states, such as emotion (Keller, Hicks, & Miller, 2000). Recording procedures have been developed to measure variables such as respiration rate, heart rate, and skin conductance. As the person becomes aroused, activity levels change in these systems. Psychophysiological measures can, therefore, provide sensitive indices of the person's internal state.

It must be emphasized, however, that all these measures do not act together. The concept of general arousal was abandoned many years ago (for example, see Lacey, 1967). If several physiological responses are measured at the same time, they may not all demonstrate the same strength, or even direction, of response. Moreover, physiological measures frequently disagree with the person's own subjective report. Therefore, as with other assessment procedures, physiological recordings should be used in conjunction with other measures. They represent supplements to, rather than substitutes for, the other types of measures that we have already considered.

Psychophysiological measurements have been used extensively in the assessment of anxiety disorders. Consider Michael's case. He was afraid to touch contaminated objects in his house. If he had been forced to do so, it is likely that his heart rate would have increased dramatically (Yartz & Hawk, 2001). Psychophysiological events of this sort can be monitored precisely. To the extent that the clinician might be in need of information that would confirm data from other sources (observation, self-report) or that could be used to measure changes in the person's response to particular stimuli in the environment, physiological measurements may be very useful.

Advantages Physiological procedures are not used frequently in clinical settings, but they are used extensively in research on psychopathology. These tools have several advantages in

comparison to other assessment procedures (Drobes, Stritzke, & Coffey, 2000).

1. Psychophysiological recording procedures do not depend on self-report and, therefore, may be less subject to voluntary control. People may be less able to make the assessment show what they want it to show.
2. Some of these measures can be obtained while the subject is sleeping or while the subject is actively engaged in some other activity.

Limitations In addition to the fact that they require relatively sophisticated equipment and a technician who is trained in their use, physiological measures have a number of drawbacks.

1. The recording equipment and electrodes may be frightening or intimidating to some people. These emotional responses can skew results.
2. There are generally low correlations between different autonomic response systems. It is not wise to select arbitrarily one specific physiological measure, such as heart rate, and assume that it is a direct index of arousal.
3. Physiological reactivity and the stability of physiological response systems vary from person to person. The measures may be informative for some people but not for others.
4. Physiological responses can be influenced by many other factors. Some are person variables, such as age and medication, as well as psychological factors, such as being self-conscious or fearing loss of control. Other important considerations are situational variables, such as extraneous noise and electrical activity.

Getting Help

Only one in five people who needs treatment actually gets it. There are several reasons for this unfortunate state of events. One is lack of information. If you don't recognize the presence of a serious problem, you won't seek help. You will get care more promptly and make better treatment choices if you understand your problems. One consideration is the extent to which your experiences resemble the formal diagnostic terms used by mental health professionals. Allen Frances, chairperson of the DSM-IV-TR Taskforce, and Michael First have written a useful book called *Your Mental Health: A Layman's Guide to the Psychiatrist's Bible*. This primer for consumers of mental health services covers many types of adult and childhood disorders. Each chapter includes a concise, readable description of the typical symptoms and course of the disorder, followed by a discussion designed to help you

decide whether your problems warrant professional help ("Am I okay?"). Finally, the authors review treatment options and where to go for help for each of the problems.

Even after they recognize the presence of a serious problem, some people are reluctant to seek help; they fear there is a stigma attached to "mental problems" despite the fact that seeking therapy is now commonplace. Negative stereotypes regarding mental disorders persist. We hope that you will not allow these distorted views to delay or interfere with efforts to improve your life. If you have concerns about this issue, it may help to read about stigma and mental health, a problem that has been addressed by Rosalynn Carter, a leading advocate on behalf of people with mental disorders and wife of former president Jimmy Carter. Her book, *Helping Someone with Mental Illness*, contains an excellent discussion of these

issues. The Carter Center is actively involved in issues that affect public policies regarding mental disorders. The URL for its Web page is www.cartercenter.org. It also contains information relevant to the struggle to correct biased and inaccurate views of people with mental disorders.

We can all help eliminate discrimination against those who suffer from (or have recovered from) mental disorders. Advice for positive action is presented on several websites, including the National Mental Health Association's "Stigma Watch" homepage. This site includes, for example, a sample letter that can be mailed to legislators as well as instructions that encourage people to report media events that depict mental disorders in an unfair light. People will find it easier to seek help when they no longer need to worry about the potential effects of distorted, negative views of their problems.

SUMMARY

- Formal classification systems for mental disorders have been developed in order to facilitate communication, research, and treatment planning. Clinicians assign a diagnosis if the person's behavior meets the specific criteria for a particular type of disorder, such as schizophrenia or major depressive disorder.
- The current official system published by the American Psychiatric Association is the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, or DSM-IV-TR. It is based on a **categorical approach to classification** and typically employs specific inclusion and exclusion criteria to define each disorder. The categories that are defined in DSM-IV-TR are based primarily on descriptive principles rather than on theoretical knowledge regarding the etiology of the disorders.
- Scientists may also use a **dimensional approach to classification**—that is, one that describes the objects of classification in terms of continuous dimensions. In fact, most features of mental disorders, such as anxiety and depressed mood, are dimensional in nature. Experts working on the development of DSM-V plan to place greater emphasis on the use of dimensional assessments in defining and evaluating mental disorders.
- Cultural factors play an important role in both the expression and recognition of symptoms of mental disorders. The accuracy and utility of a clinical diagnosis depend on the clinician's ability to consider the cultural context in which the problem appeared. DSM-IV-TR includes a glossary of **culture-bound syndromes**, such as *ataques de nervios*.
- The usefulness of a classification system depends on several criteria, especially **reliability** and **validity**. The reliability of many categories in DSM is good, but other disorders are more problematic in this regard. The validity of most categories remains under active investigation.
- The general process of collecting and interpreting information is called **assessment**. Interviews, observations, and tests are among the most frequently used assessment procedures. It is never possible to learn everything about a particular person. Choices have to be made, and some information must be excluded from the analysis.

- Structured diagnostic interviews are used extensively in conjunction with the DSM-IV-TR classification system. The main advantage of interviews is their flexibility. Their primary limitation lies in the inability or unwillingness of some clients to provide a rational description of their own problems, as well as the subjective factors that influence the clinician's interpretation of data collected in an interview.
- **Personality inventories**, like the MMPI, offer several advantages as assessment devices. They can be scored objectively, they often contain validity scales that reflect the person's attitude and test-taking set, and they can be interpreted in reference to well-established standards for people with and without specific types of adjustment problems.
- Some psychologists use **projective personality tests**, like the Rorschach, to acquire information that might not be obtained from direct interviews or observations. Research studies have found relatively little evidence to support the validity of projective tests, and their continued use is controversial.
- Biological assessment procedures are used primarily in research studies. These include brain imaging techniques, such as fMRI and PET scans, as well as psychophysiological recording procedures. Biological assessment procedures do not yet have diagnostic value in clinical situations, except for the purpose of ruling out certain conditions, such as brain tumors and vascular disease.

The Big Picture

CRITICAL THINKING REVIEW

- **Why do we need a system to classify abnormal behavior?**

Classification systems provide a way for scientists and clinicians to organize information and communicate with each other and with patients regarding the nature of mental disorders . . . (see p. 80)

- **Should disorders that are unique to our own culture be considered culture-bound syndromes?**

In the same way that *ataques de nervios* is a behavioral phenomenon associated with the culture of Puerto Rico, bulimia seems to be uniquely associated with Western culture and is closely linked to its values regarding beauty . . . (see p. 82)

- **What is the difference between reliability and validity?**

The fact that two people agree on assigning a specific diagnosis does not necessarily imply that it is meaningful . . . (see pp. 83–84)

- **How could the DSM-IV-TR classification system be improved?**

Committees working on the next version of the diagnostic manual (DSM-V) will pay greater attention

to the dimensional nature of abnormal behaviors while attempting to clarify the boundaries between mental disorders and normal behavior . . . (see pp. 85–86)

- **Why do clinical interviews sometimes provide limited or distorted results?**

Some people are either unwilling or unable to provide an accurate account of their problems . . . (see p. 90)

- **Why is the MMPI-2 sometimes called an objective personality test?**

The person's responses to test items are scored according to an explicit set of rules that are based on empirical research and interpreted using actuarial predictions . . . (see pp. 93–94)

- **Why are brain imaging procedures not used for the diagnosis of mental disorders?**

They are currently best seen as research tools. No unique patterns of brain structure or function have been found that consistently and accurately identify people with specific mental disorders . . . (see p. 98)

KEY TERMS

actuarial interpretation
assessment
categorical approach
to classification

classification system
comorbidity
culture-bound
syndrome

diagnosis
dimensional approach to
classification
personality inventory

projective tests
rating scale
reactivity
reliability

stigma
validity

Mood Disorders and Suicide



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Treatment	124
Suicide	129

◀ *The Hours* describes the interwoven stories of three women, all of whom are battling depression: author Virginia Wolfe who is writing the novel *Mrs. Dalloway* in 1923, a pregnant housewife who is reading this same novel in 1951, and a publisher who, in 2011, seems to strangely be living the life of the main character in Wolfe's novel.

Sadness may be the price that we pay for attachments to other people. Losses are inevitable, and we all endure the pain that comes with them. Beyond relatively short-lived feelings of grief and sorrow, prolonged sadness can grow into something much more debilitating. Everyone's life contains the potential for despair. Some people are able to

work their way through it, but others become overwhelmed. When it reaches higher levels of intensity and begins to interfere with a person's ability to function and enjoy life, a low mood is known as clinical depression. In this chapter we will consider emotional disorders that involve prolonged periods of severe depression.

The Big Picture

- What impact does depression have on a person's ability to get through an average day?
- What is the difference between depression and bipolar disorder?
- Do depressed people in different countries experience the same symptoms?
- Do people usually recover quickly from depression?
- Why do some people become depressed after a major life event, while others do not?
- Is psychological treatment as effective as medication in treating depression?
- Are people who commit suicide always depressed?

OVERVIEW

If one measures disability in terms of years lived with severe impairments, major depression is the leading cause of disability worldwide (Moussavi et al., 2007). The magnitude of the problem is truly staggering. Depression accounts for almost 10 percent of all disability (see Table 5.1). Experts predict that it will become an even greater problem by the year 2020. Younger generations are experiencing higher rates of depression than their predecessors, and those who become depressed are doing so at an earlier age.

Psychopathologists use several terms to describe problems that are associated with emotional response systems. This language can become confusing because most of us already use these words in our everyday vocabulary. Thus, we must define

these terms as they are used in psychopathology so that our discussion will be clear. *Emotion* refers to a state of arousal that is defined by subjective states of feeling, such as sadness, anger, and disgust. Emotions are often accompanied by physiological changes, such as changes in heart rate and respiration rate. *Affect* refers to the pattern of observable behaviors, such as facial expression, that are associated with these subjective feelings. People also express affect through the pitch of their voices and with their hand and body movements. *Mood* refers to a pervasive and sustained emotional response that, in its extreme form, can color the person's perception of the world (APA, 2000). The disorders discussed in this chapter are primarily associated with two specific moods: depression and elation.

Depression can refer either to a mood or to a *clinical syndrome*, a combination of emotional, cognitive, and behavioral symptoms. The feelings associated with a **depressed mood** often include disappointment and despair. Although sadness is a universal experience, profound depression is not. No one has been able to identify the exact point at which "feeling down or blue" crosses a line and becomes depression. One experience shades gradually into the next. The transition has been described by Andrew Solomon (2001) in *The Noonday Demon*, an eloquent book in which he documents his own struggles with depression:

Depression starts out insipid, fogs the days into a dull color, weakens ordinary actions until their clear shapes are obscured by the effort they require, leaves you tired and bored and self-obsessed—but you get through all that. Not happily, perhaps, but you can get through. No one has ever been able to define the collapse point that marks major depression, but when you get there, there's not much mistaking it. (p. 17)

People who are in a severely depressed mood describe the feeling as overwhelming, suffocating, or numbing. In the syndrome of depression, which is also called **clinical depression**, a depressed mood is accompanied by several other symptoms, such as fatigue, loss of energy, difficulty in sleeping, and changes in appetite. Clinical depression also involves a variety of changes in thinking and overt behavior. The person may experience cognitive symptoms, such as extreme guilt, feelings of worthlessness, concentration problems, and thoughts of suicide. Behavioral symptoms may range from constant pacing

TABLE 5.1 Leading Causes of Disability Worldwide as Measured by Years of Life Lived with a Disability

	Proportion of Total Years Lived with Disability
All Causes	
1. Depression	9.4
2. Hearing loss	5.5
3. Cataracts	5.2
4. Osteoarthritis	3.2
5. Vision disorders	3.1
6. Cerebrovascular disease	2.7
7. Dementia	2.6
8. Perinatal conditions	2.5
9. Alcohol-use disorders	2.5
10. Chronic obstructive pulmonary disease	2.1

Source: Reprinted from *The Lancet*, Volume 370, Issue 9590, Gavin Andrews, Nickolai Titov, "Depression is very disabling," 8 September 2007–14 September 2007, Pages 808–809, Copyright © 2007, with permission from Elsevier.

and fidgeting to extreme inactivity. Throughout the rest of this chapter, we will use the term **depression** to refer to the clinical syndrome rather than the mood.

Mania, the flip side of depression, also involves a disturbance in mood that is accompanied by additional symptoms. **Euphoria**, or elated mood, is the opposite emotional state from a depressed mood. It is characterized by an exaggerated feeling of physical and emotional well-being (APA, 2000). Manic symptoms that frequently accompany an elated mood include inflated self-esteem, decreased need for sleep, distractibility, pressure to keep talking, and the subjective feeling of thoughts racing through the person's head faster than they can be spoken. Mania is, therefore, a syndrome in the same sense that clinical depression is a syndrome.

Mood disorders are defined in terms of *episodes*—discrete periods of time in which the person's behavior is dominated by either a depressed or manic mood. Unfortunately, most people

with a mood disorder experience more than one episode. The following case studies illustrate the way that numerous symptoms combine to form syndromes that are used to define mood disorders. They also provide examples of the two primary types of mood disorders: (1) those in which the person experiences only episodes of depression, known as **unipolar mood disorder**; and (2) those in which the person experiences episodes of mania as well as depression, known as **bipolar mood disorder**. Episodes of depression are defined by the same symptoms, regardless of whether the person's disorder is unipolar or bipolar in nature. A small number of patients have only manic episodes with no evidence of depression; they are included in the bipolar category. Years ago, bipolar mood disorder was known as *manic-depressive disorder*. Although this term has been replaced in the official diagnostic manual, some clinicians still prefer to use it because it offers a more direct description of the patient's experience.

CASE STUDY

An Attorney's Major Depressive Episode

Cathy was a 31-year-old attorney who had been promoted to the rank of partner the previous year and was considered one of the brightest, most promising young members of her firm. In spite of her apparent success, she was plagued by doubts about her own abilities and was convinced that she was unworthy of her promotion. Cathy decided to seek treatment because she was profoundly miserable. Beyond being depressed, she felt numb. She had been feeling unusually fatigued and irritable for several months, but her mood took a serious swing for the worse after one of the firm's clients, for whom Cathy was primarily responsible, decided to switch to another firm. Although the decision was clearly based on factors that were beyond her control, Cathy blamed herself. She interpreted this event as a reflection of her professional incompetence, in spite of the fact that virtually all of her other clients had praised her work and the senior partners in her firm had given her consistently positive reviews.

Cathy had always looked forward to going to the office, and she truly enjoyed her work. After she lost this client, however, going to work had seemed like an overwhelming burden. She found it impossible to concentrate and instead brooded about her own incompetence. Soon she started calling in sick. She began to spend her time sitting in bed staring at the television screen, without paying attention to any program, and she never left her apartment. She felt lethargic all the time, but she wasn't sleeping well. Her appetite disappeared. Her best friend tried repeatedly to get in touch with her, but Cathy wouldn't return her calls. She listened passively as her friend left messages on the answering machine. She just didn't feel like doing anything or talking to anyone. "Life has lost its interest and meaning. I've failed at my job and failed in my relationships. I deserve to be alone."

Cathy considered her social life to be a disaster, and it didn't seem to be getting

any better. She had been separated from her husband for five years, and her most recent boyfriend had started dating another woman. She had tried desperately for several weeks to force herself to be active, but eventually she stopped caring. The situation seemed completely hopeless. Although she had often gone to parties with other members of her law firm, she usually felt as though she didn't fit in. Everyone else seemed to be part of a couple,

"Life has lost its interest and meaning. I've failed at my job and failed in my relationships. I deserve to be alone."

and Cathy was usually on her own. Other people didn't appreciate the depth of her loneliness. Sometimes it seemed to Cathy that she would be better off dead. She spent a good deal of time brooding about suicide, but she feared that if she tried to harm herself she might make things worse than they already were.

Cathy's problems would be classified as a unipolar mood disorder because she had experienced at least one episode of major depression and she had never had a manic episode. Her experience provides a framework in which we can discuss the difference between normal sadness and clinical depression. Some important considerations regarding this

What is the difference between clinical depression and a low mood?

distinction are listed in Table 5.2 (on page 106). They include the extent to which the low mood remains consistent over an extended period of time as well as the inability to occasionally enjoy activities that would otherwise provide some relief from feeling down or blue. Distractions such as watching television or talking on the phone with a friend had lost their ability to make Cathy feel any better. Her mood had deteriorated shortly after one of her clients switched to another firm. The intensity of her depression was clearly way