

JAMES HANSELL

&

LISA DAMOUR

Abnormal Psychology

SECOND EDITION



Abnormal Psychology

Second Edition

James Hansell Lisa Damour



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Abnormal Psychology

Second Edition

James Hansell & Lisa Damour

University of Michigan

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Library of Congress Cataloging-in-Publication Data

Hansell, James.
 Abnormal psychology / James Hansell & Lisa Damour. – 2nd ed.
 p. cm.
 Includes bibliographical references and index.
 ISBN 978-0-470-07387-2 (cloth)
 1. Psychology, Pathological—Textbooks. I. Damour, Lisa, 1970- II. Title.
 RC454.H354 2008
 616.89--dc22
 2007039271

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

ABOUT THE AUTHORS



James Hansell received a B.A. in Philosophy from Amherst College in 1979 and a Ph.D. in Clinical Psychology from the University of Michigan in 1988. He also completed a post-Doctoral fellowship at the University of Michigan Psychological Clinic and psychoanalytic training at the Michigan Psychoanalytic Institute. Since 1989, Jim has been teaching at the University of Michigan and seeing clients in his private practice in Ann Arbor. He has won several awards for his teaching and writing. Jim's teaching, research, and writing have focused on abnormal psychology, psychotherapy process and outcome, the therapeutic alliance, gender and sexual identity, and psychoanalytic theory. Jim is also a licensed soccer coach (who still plays occasionally, joints permitting) and co-chair of the Committee on Psychoanalysis and Sport of the American Psychoanalytic Association. He enjoys rooting for his two teenagers' sports teams, traveling with his family, and playing guitar in The Shrunken Heads and The Spaceheaters, two rock bands composed of fellow psychologists.

Lisa Damour received her B.A. from Yale in 1992, and her Ph.D. in Clinical Psychology from the University of Michigan in 1997. She completed a post-Doctoral fellowship at the University of Michigan Psychological Clinic and now maintains a private psychotherapy practice working with adults, children, and families. Lisa taught at the University of Michigan for several years before moving to the Cleveland area where she now teaches in the Department of Psychology at John Carroll University and is a clinical instructor at Case Western Reserve University. She is the co-author (with Anne Curzan) of *First Day to Final Grade: A graduate student's guide to teaching*. Lisa and Anne have also developed a consulting practice in which they visit universities to train graduate teaching assistants. When not practicing, teaching, writing, or consulting, Lisa likes to cook, knit, play sports, and hang out with her husband and daughter.

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This book originally grew out of our enthusiasm for the fascinating subject of abnormal psychology, and our experiences of sharing this enthusiasm with our students at the University of Michigan and John Carroll University over the past 20 years. We are convinced that an abnormal psychology textbook can be informative and current yet remain as intriguing and lively as the field itself. With our first edition, we saw the need for a more contemporary approach and a greater emphasis on critical thinking in the teaching of abnormal psychology. Most textbooks, in an effort to remain consistent with psychiatry, use the DSM-IV-TR as the backbone of their content and organization. In our view, this focus misses what is most important and interesting about the field. We have found that our students learn the most when they focus on the core concepts and controversies in the field rather than on memorizing fine diagnostic distinctions and details. While our first edition thoroughly covered the DSM system and the current DSM-IV-TR categories, *core concepts in abnormal psychology* formed the backbone of the text. The response of faculty and students to this approach has been very gratifying. The first edition seemed to strike a chord and to fill a need, and we are very pleased to be able to continue, improve, and supplement this vision with the second edition of Abnormal Psychology.

A brief vignette about teaching may help communicate our vision for this book. At some point in every semester we are approached by students who have heard about someone (an acquaintance, a movie character, a figure in the news) struggling with emotional or behavioral symptoms and ask, “So, what’s his/her diagnosis?” We usually try to explain that a diagnostic label, while important, is not the most interesting, helpful, or complete way to think about this person. We pose some other questions and try to engage the student in broader and more critical thinking. How did the person come to have these symptoms, and how have biological and psychological factors interacted in their etiology? Are the symptoms severe enough that they should be considered pathological? What contextual factors, such as family and cultural background, can help us understand this person? What unresolved questions in the field of psychopathology emerge in thinking about this person’s emotional problems? These questions relate to our core concepts approach and help students to see the complex contextual issues that make the study of psychopathology interesting, humane, and relevant.

THE CORE CONCEPTS APPROACH

The field of abnormal psychology focuses on three related questions:

- How do we distinguish normal behavior from abnormal behavior? (*defining abnormality*)
- How are abnormal behaviors categorized and diagnosed? (*classifying abnormality*)
- How can abnormal behaviors be understood and changed? (*explaining and treating abnormality*)



The
importance
of context



Normal-
abnormal
continuum



Cultural
and historical
relativism



Advantages/
limitations
of diagnosis



Multiple
causality



Mind-body
connection

To address these questions, we have organized our book around six core concepts in abnormal psychology. These concepts are introduced in Chapter 1, and the core concepts are emphasized in every chapter. (They are highlighted visually with icons and boldface italic blue type.) The six core concepts are:

The Importance of Context in Defining and Understanding Abnormality

We can only identify a behavior as abnormal if we consider the situational context in which it occurs; behaviors that are normal in one context may be abnormal in another. Furthermore, abnormal behavior is usually most understandable when viewed in the context of life history and life events. Finally, demographic context variables such as age, gender, culture, and class influence the definition, classification, explanation, and treatment of abnormal behaviors.

The Continuum between Normal and Abnormal Behavior

Emotional and behavioral symptoms occur along a continuum that ranges from mild to severe, and many forms of abnormality are exaggerated versions of normal feelings and behaviors. The dividing line between normal and abnormal behavior is never entirely clear, but the field of abnormal psychology has developed criteria that help us make this distinction.

Cultural and Historical Relativism in Defining and Classifying Abnormality

Definitions and classifications of abnormal behavior vary considerably across different cultures and across different historical periods. As a result, we cannot make absolute, universal statements about what constitutes abnormal behavior, and we always need to be mindful of the cultural and historical lenses through which we view the concept of abnormality.

The Advantages and Limitations of Diagnosis

Like other scientific fields, abnormal psychology relies on a system of categories for classifying its subject matter. These diagnostic systems have the advantages of facilitating treatment, research, and teaching in abnormal psychology. But diagnostic systems in abnormal psychology also have important limitations; they can oversimplify complex problems, and a diagnosis of mental illness can be stigmatizing and demoralizing to the person being diagnosed.

The Principle of Multiple Causality

Mental disorders can result from a wide variety of causes; some predisposing, some precipitating; some psychological, some biological; some internal to the person in distress, and some external or environmental. Most disorders involve multiple, interacting causes. In addition, several different theoretical perspectives co-exist within the field of abnormal psychology. Each theoretical perspective has something important to contribute, and the field of abnormal psychology is increasingly moving towards explanations and treatments that combine components from various theories.

The Connection between Mind and Body

A thorough understanding of psychopathology requires an appreciation of the connection between mind and body. We know that brain abnormalities can cause emotional symptoms, and, conversely, that emotional distress can cause physical symptoms. As a result, it is important to attend to the interrelationships between a person's psychological and physical functioning in order to explain and treat abnormal behavior.

These six core concepts provide students with a sophisticated framework for learning about psychopathology. The concepts contextualize abnormal behavior in a way that helps students understand, remember, and integrate the material they cover in this course. Most importantly, these concepts promote students' critical thinking and class discussions of controversies in the field.

AN INTEGRATED APPROACH TO THE THEORETICAL PERSPECTIVES IN ABNORMAL PSYCHOLOGY

Most abnormal psychology texts still focus on the differences among the traditional theoretical perspectives, and teach them as distinct, competing approaches to explaining and treating psychopathology (e.g., behavioral versus psychodynamic explanations of phobias). In our view, this approach misleads students. In contemporary practice, the integration of multiple theoretical perspectives is increasingly commonplace. In this book, we describe the differences among theoretical perspectives, but we also focus on how they overlap and complement each other. Accordingly, we describe the various theoretical perspectives as *components* that can be combined to explain and treat psychopathology. We have seen undergraduates benefit from this approach even in introductory courses aimed at providing a clear, basic understanding of the field.

A CLINICAL CASE FOCUS

We include several case examples per chapter, and we make clinical material a central focus of the book. As practicing clinicians, we use the numerous case examples at our disposal to illustrate the core concepts and to make the text lively and compelling. We use case examples that illustrate the ways psychopathology usually presents in the real world: mixed symptom pictures which call for multi-modal treatment strategies, rather than contrived cases that conform precisely to DSM-IV-TR categories. Using multiple case examples also allows us to show students the subtypes of various disorders. Chapter openers that describe famous artists who suffered from psychological symptoms provide additional case material while demonstrating that psychopathology often exists alongside other normal, and sometimes exceptional, aspects of functioning. Often, students say that this case focus is their favorite part of our courses.

THE PEDAGOGICAL FRAMEWORK

Our book aims to be accessible to the student and easy to use for the instructor. This book contains a number of innovative features designed to enhance its pedagogy, accessibility, and appeal.

1. Streamlined Table of Contents

We have streamlined the traditional table of contents of abnormal psychology texts to a 14-chapter book by integrating certain topics throughout the book rather than placing them in separate chapters. For example, research methods are discussed throughout the text, social and legal issues are addressed in the chapters where they are most relevant, and treatment is covered in every chapter, not in a separate chapter on psychotherapy. We feel that a 14-chapter format is more appropriate than the traditional 16–20 chapter text given that the typical semester is 12–14 weeks long. With 14 chapters, students can read one chapter each week and feel that they have used most of the book that they have purchased.

2. Consistent Chapter Format

To help students master complex material, we use a consistent format in Chapters 4 through 14—those chapters which cover the various categories of disorders. The disorders presented in each chapter are addressed under the major headings *Defining*, *Classifying*, and *Explaining and Treating*. The core concepts are included under these major headings where they are naturally relevant. We have found that students quickly become familiar with this format, and then find it easier to assimilate new material. Instructors can also use this format as a template for their lectures and organization of the course. This is the typical outline for Chapters 4 through 14:

Case Vignettes:

Brief, compelling narratives to give a picture of the disorders in the chapter

Defining the category (e.g., Mood Disorders)

The importance of **context** in defining and understanding abnormality

The **continuum** between normal and abnormal behavior

Classifying the disorders in this category

Cultural and historical relativism in classifying the disorders

The DSM-IV-TR categories

Classification in demographic **context** (gender, age, class, and culture)

The **advantages and limitations** of diagnoses in this category

Explaining and Treating the disorders in this category

Relevant theoretical components (behavioral, cognitive, psychodynamic, biological, etc.)

The principle of **multiple causality**

The **connection between mind and body** in these disorders

Case Vignettes:

Treatment strategies for the opening cases

Chapter Summary

ADDITIONAL CHAPTER FEATURES

Each chapter has several “extra” features:

- Multiple boxes on issues relevant to the chapter topic (such as the recovered memory debate, prevention, confidentiality, managed care, mental health parity, duty to warn, competency to stand trial, and the terrorist attacks of September 11, 2001)
- Tables and figures illustrating chapter content
- A Visual Essay that details important biological features of the disorders featured in each chapter
- Discussion of well-known books and films related to the chapter topic
- Frequent interim summaries that enable students to spot-check their comprehension of the material
- Critical thinking questions throughout each chapter to stimulate students’ reflection, review, and test preparation

- Definitions of all key terms in the margin near their discussion in the text
- A Chapter Summary that focuses on the core concepts presented in the chapter

We feel that we have something innovative and timely to offer with our book, based on our experiences teaching abnormal psychology to thousands of students over the past 20 years. We hope that you and your students agree!

TEACHING AND LEARNING SUPPLEMENTS

Abnormal Psychology offers a full line of teaching and learning resources to enhance the instructor's use of the text and encourage students' active reading and learning.

1. Resources for the Instructor

Videos

We have created three distinct DVD and streaming video resources to support *Abnormal Psychology*. Each resource provides short lecture-launching video clips that can be used to introduce new topics, enhance your presentations, and stimulate classroom discussions. Our topical video clips are organized to support the textbook's table of contents. Our thematic video clips support the six core concepts that run throughout the text. Our third video resource presents topics from current news headlines that are relevant to the study of abnormal psychology. To help you integrate these video clips into your syllabus, we have developed a comprehensive library of teaching resources, study questions, and assignments.

PowerPoint Presentations

David Alfano of Community College of Rhode Island has revised and updated the PowerPoint Presentations originally created by the authors. These two sets of slides, one following the table of contents and the other following the core concepts, can be found at www.wiley.com/college/hansell.

Animation of the Core Concepts

The textbook authors have created an animated walkthrough of the text's core concepts, using a case example, for presentation on the first day of class; the animation is available at www.wiley.com/college/hansell.

Image Gallery

We provide online electronic files for the line illustrations in the text, which the instructor can customize for presenting in class (e.g., in handouts, overhead transparencies, or PowerPoints).

Wiley Faculty Resource Network

This is a peer-to-peer network of faculty ready to support your use of online course management tools and discipline-specific software/learning systems in the classroom. The Faculty Resource Network will help you apply innovative classroom techniques, implement software packages, tailor the technology experience to the needs of each individual class, and provide you with virtual training sessions led by faculty for faculty.

Instructor's Manual

Prepared by Jeanne Duax, includes chapter learning objectives, lecture outlines, lecture extensions, and classroom activities and discussion topics.

Test Bank

Written by Kristine Jacquin of Mississippi State University, contains over 750 questions, offering multiple choice, true/false, fill-in-the-blank, matching, and essay questions for each chapter. The Test Bank is available in printed form as well as online, where it can be downloaded into individual word processing programs.

Computerized Test Bank

For the instructor's convenience, the test bank questions are available on CD-ROM or online, with software from Brownstone Research Group that allows the instructor the flexibility to create and customize exams (e.g., by scrambling the order of questions, adding new questions, or editing existing ones). The test engine for PC computers is Diploma, and the test engine for Mac computers is Exam.

Assignment Questions

Over 200 multiple choice, true/false, and essay questions written by Jeanne Slattery of Clarion University, for use in content management systems, for online homework, or for use in classroom response systems.

2. Resources for the Student

Online Flash Cards

Offer the opportunity to drill and practice the glossary terms.

Online Self-Tests

For each chapter, written by Jeanne Slattery of Clarion University, offer students immediate feedback on their answers to multiple choice, matching, and fill-in questions.

Annotated Web Links

Direct students to articles related to specific disorders and explain how the web links relate to the chapter content. We also provide questions to frame the students' web exploration.

3. WileyPlus Helping Teachers Teach and Students Learn

(www.wiley.com/college/hansell)

Abnormal Psychology is available with WileyPlus, a powerful online tool that provides instructors and students with an integrated suite of teaching and learning resources in one easy-to-use website. WileyPlus is organized around the essential activities you and your students perform in class:

For Instructors

- *Prepare and Present:* Create class presentations using a wealth of Wiley-provided resources such as an online version of the textbook, PowerPoint slides, and interactive simulations, making your preparation time more efficient. You may easily adapt, customize, and add to this content to meet the needs of your course.
- *Create Assignments:* Automate the assigning and grading of homework or quizzes by using Wiley-provided question banks or by writing your own. Student results will be automatically graded and recorded in your gradebook. WileyPlus can link homework problems to the relevant section of the online text, providing students with context-sensitive help.
- *Track Student Progress:* Keeps track of your students' progress via an instructor's gradebook, which allows you to analyze individual and overall class results to determine their progress and level of understanding.
- *Administer Your Course:* WileyPlus can be integrated easily with another course management system, gradebook, or other resources you are using in your class, providing you with the flexibility to build your course, your way.

For Students

WileyPlus provides immediate feedback on student assignments and a wealth of support materials. This powerful study tool will help your students develop their conceptual understanding of the class material and increase their ability to solve problems.

- A “*Study and Practice*” area links directly to text content, allowing students to review the text while they study and complete homework assignments. Additional resources can include interactive simulations, study guides and solutions manual material, and other problem-solving resources.
- An “*Assignment*” area keeps all of the work that you want your students to complete in one location, making it easy for them to stay “on task.” Students will have access to a variety of interactive problem-solving tools, as well as other resources for building their confidence and understanding. In addition, many homework problems contain a link to the relevant section of the multimedia book, providing students with context-sensitive help that allows them to conquer problem-solving obstacles as they arise.
- A *Personal Gradebook* for each student will allow students to view their results from past assignments at any time.

Please view our online demo at www.wiley.com/college/Wileyplus. Here you will find additional information about the features and benefits of WileyPlus, how to request a “test drive” of WileyPlus for *Abnormal Psychology*, and how to adopt it for class use.

ACKNOWLEDGMENTS

We would like to thank all of the reviewers who helped us to shape and refine this book. We have received and carefully considered well over 100 reviews of different parts of the book over the eight years of its development and use. These thoughtful and insightful comments from our knowledgeable colleagues have been invaluable in taking our vision for this book and making it a reality. We would like to extend our warm thanks to: David Alfano, *Community College of Rhode Island*; John Allen, *University of Arizona*; Jay Alperson, *Palomar College*; Diana Anson, *Community College of Southern Nevada*; Carol Austad, *Central Connecticut State University*; Amy Badura, *Creighton University*; Keith Beard, *Marshall University*; Jeff Bedwell, *University of Central Florida*; Michael Becker, *York College*; Sarah Bing, *University of Maryland, Eastern Shore*; Kathryn Bottonari, *State University of New York, Buffalo*; Jason Bowman, *University of Florida*; Ann Brandt-Williams, *Glendale Community College*; Joanne Brewster, *James Madison University*; Jeannie Buchanan, *Palomar College*; James Calhoun, *University of Georgia*; Glenn Callaghan, *San Jose State University*; Peggy Cantrell, *East Tennessee State University*; Etzel Cardena, *University of Texas, Pan American*; Richard Cluff, *Missouri Western State College*; Mary Cochran, *Drexel University*; Lee Cohen, *Texas Tech University*; Patti Connor-Greene, *Clemson University*; Jennifer Connor-Smith, *Oregon State University*; Dean Cruess, *University of Connecticut*; Judith Crothers-Flammig, *Georgia Institute of Technology*; Eric Dahlen, *University of Southern Mississippi*; Timothy Daugherty, *Winthrop University*; James O. Davis, *Southwestern Missouri State University*; Joseph A. Davis, *San Diego State University*; *University of California, San Diego*; Lenore Defonso, *Indiana-Purdue University, Fort Wayne*; Joan Doolittle, *Anne Arundel Community College*; Susann Doyle, *Gainesville College*; Michael Ellison, *Texas Wesleyan University*; Carrie Elrod, *Georgia State University*; Michael J. Eltz, *Pennsylvania State University*; William Flack, *Bucknell University*; Natalie C. Frank, *George Washington University*; William Fremouw, *West Virginia University*; Kim Fromme, *University of Texas Austin*; Steven Funk, *Northern Arizona University*; Robert Gallen, *Indiana University of Pennsylvania*; Brian Garavaglia, *Macomb Community College*; Cathy Hall, *East Carolina University*; Marjorie Hanft-Martone, *Eastern Illinois University*; Ben Hankin, *University of Illinois at Chicago*; David Hargrove, *University of Mississippi*; Morton Harmatz, *University of Massachusetts*; Charlyn Harper Browne, *Clark Atlanta University*; Richard Heath, *St. Thomas Aquinas College*; JWP Heuchert, *Allegheny College*; Joyce Hopkins, *Illinois Institute of Technology*; Joseph Hovey, *University of Toledo*; Robert Intrieri, *Western Illinois University*; Kristine Jacquin, *Mississippi State University*; Gregory Jarvie, *Georgia College & State University*; Cynthia Jenkins, *Creighton University*; Richard Kandus, *Mt. San Jacinto College*; Paul Kaplan, *State University of New York, Suffolk*; Sandra Kerr, *West Chester University*; Suzanne Kieffe, *University of Houston*; Bonnie Kin, *Georgia State University*; Serena King, *Hamline University*; Elise Labbe, *University of South Alabama*; Travis Langley, *Henderson State University*; Karl Laves, *Western Kentucky University*; Thad Leffingwell, *Oklahoma State University*; Penny Leisring, *Quinnipiac University*; Erica Lilleleht, *Seattle University*; Laura Liljequist, *Murray State University*; Shannon M. Lynch, *Western Illinois University*; Michael MacLean, *Buffalo State College*; William McCown, *University of Louisiana at Monroe*; Howard Markowitz, *Hawaii Pacific University*; Brian Marx, *Temple University*; Kevin Masters, *Utah State University*; Lori Meier, *University of Idaho*; Steven Meier, *University of Idaho*; Dorothy Mercer, *Eastern Kentucky University*; Chelley Merrell, *Tidewater Community College*; Michelle Merwin, *University of Tennessee*; Bjorn Meyer, *University of Surrey, Roehampton*; Joni L. Mihura, *University of Toledo*; Pamela Miller, *University of Houston*; Christine Molnar, *Medical University of South Carolina*; Pamela Mulder, *Marshall University*; Alan Nagamoto, *University of*

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Several publishing houses were interested in this book, but we knew from our initial contacts with John Wiley & Sons that Wiley was the right place for us. Our editor for the second edition, Chris Johnson, has provided helpful, smart, and dedicated guidance throughout the revision project. Jay O'Callaghan, Vice-President and Publisher, and other members of the Wiley management team have been there when we needed them for support and advice.

Additional gratitude is extended to: Eileen McKeever, Editorial Assistant; Suzanne Ingrao/Ingrao Associates; Katie Melega, Senior Editorial Assistant; and Maureen Clendenny, Assistant Editor.

During the production process, we have worked with so many dedicated and talented professionals at Wiley: photo editor Hilary Newman; photo researcher Teri Stratford; production editor Janet Foxman; and illustration editor Sandra Rigby. Senior designer Kevin Murphy worked closely with us to make sure that the look of the book supported our goals and vision.

We would also like to thank the numerous colleagues, research assistants, and graduate student instructors who contributed to the book. Kirk Brower, Robert Cohen, and Roger Lauer went above and beyond the call of duty in reading sections of the manuscript and offering valuable suggestions. Graduate students Lauren Kachorek and Jen Kittler provided immense help with the writing and referencing of several chapters, and Chris Barton made sure that Chapter 10 was well written and fully referenced. We are also indebted to several excellent graduate and undergraduate research assistants: Tyler Grove, Elizabeth Spencer, Beth Kibort, Shannon Dudley, Nance Rominger, Lorraine Darrow, Jill Dixon, Jeanne Duax, Sarah Cain Spannagel, and Daniel Munoz.

The Psychology Departments at the University of Michigan and John Carroll University have been wonderful home bases. We have been privileged to serve under supportive chairs such as Al Cain, Pat Gurin, Rich Gonzalez, Chris Peterson, Sheryl Olson, Nick Santilli, Beth Martin, and Janet Larsen; all have provided welcome support for our teaching and writing. We also deeply appreciate the support of Kim Leary, Denia Barrett, and Deborah Paris in our other institutional “homes” over the past several years.

Finally, and most importantly, we would like to thank our students, our therapy clients, and our friends and families. Our students, with their curiosity, their questions, and their enthusiasm for learning, have inspired us to write this book, and we dedicate the new edition to them. Our clients have given us the privilege of learning from and with them about the human condition and the process of change, whether it fit our theories or not. Our friends and families have provided support, love, advice, and, when needed, relief from this project; without them there would be no book. Our deepest gratitude, therefore, is to Darren, Ellen, Andy, Julie, and Adam, who encouraged us even while tolerating our long hours of writing.

James Hansell
Lisa Damour

A GUIDE TO THE FEATURES

Core concepts in abnormal psychology provide an organizing framework to help students approach abnormal behavior in a way that helps them understand, remember, and integrate the material. The concepts are highlighted visually with an icon and boldface blue italic type.



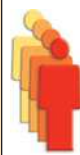
The importance of context

ence of a saber-toothed tiger either by freezing (and thereby hiding themselves) or making an adrenaline-boosted sprint probably don't have too many descendants walking around today! But if fear and anxiety are normal and evolutionarily adaptive, on what basis do we decide that someone suffers from an anxiety *disorder*? When it comes to defining anxiety disorders, two core concepts are critical: the *context* in which the anxiety occurs, and the severity of the anxiety along the *continuum* from mild to severe.

The Importance of Context in Defining Anxiety Disorders

People with anxiety disorders experience anxiety and fear in *contexts* that do not warrant such feelings. People with anxiety disorders feel anxious or even terrified in the face of a minor threat or when no threat is present at all. For example, a person with an

phenomenon known as a *flashback* is a common symptom in posttraumatic stress disorder (also discussed in detail later in the chapter). During a flashback, people with posttraumatic stress disorder recall a previous traumatic experience with such intensity that they feel as if they are reexperiencing the event. For example, when a rape survivor experiences a flashback, she may feel as if she is being attacked again and experiences all of the terror she felt during the original attack, even if she is actually alone and in a safe place.



Normal-abnormal continuum

The Continuum Between Normal and Abnormal Anxiety

In addition to matters of context, anxiety disorders are also defined by the intensity of the anxiety. In other words, the *continuum between normal and abnormal behavior* has to be considered in order to define pathological anxiety. Although everyone expe-

An integrated approach: The various theoretical perspectives in abnormal psychology are described as *components* that can be combined to explain and treat psychopathology.

EXPLAINING AND TREATING ANXIETY AND ANXIETY DISORDERS

All of the major theoretical perspectives in abnormal psychology offer a way to approach the explanation and treatment of anxiety disorders. First, we'll describe the biological, behavioral, cognitive, psychodynamic, humanistic, and existential perspectives of the etiology (causes) and treatment of anxiety disorders. Then, we'll tie these perspectives to the core concepts of *multiple causality* and the *connection between mind and body* to emphasize the ways in which theoretical components complement each other and overlap with each other.

Biological Components

The experience of anxiety involves important physiological processes. At the beginning of this chapter, the human body has a natural response to danger situations. It should come as no surprise that the biological perspective has much to contribute to the explanation and treatment of anxiety disorders.

Cognitive Components

People with anxiety disorders tend to misinterpret events in three important ways: they fixate on perceived dangers and threats, they overestimate the severity of the perceived danger or threat, and they drastically underestimate their ability to cope with the dangers and threats they perceive (Wells, 1997). People are especially likely to misinterpret events when maladaptive beliefs and assumptions influence their thinking (Brown & Beck, 2002). *Maladaptive beliefs are global negative thoughts about the self or the world.* For example, "I'm not good enough" or "I'm not smart enough" are maladaptive beliefs about the self. "The world is a dangerous place" is a maladaptive belief about the world. These beliefs can lead to anxiety disorders. For example, "I'm not good enough" can lead to social anxiety disorder, and "The world is a dangerous place" can lead to agoraphobia.

Behavioral Components

Behavioral approaches to anxiety disorders draw on the three forms of learning described in Chapter 2:

- **Classical conditioning:** learning based on automatic mental associations
- **Operant conditioning:** learning based on reinforcement
- **Modeling:** learning based on observation of others

We will focus on the behavioral explanation of phobias, since it best illustrates the use of behavioral concepts to explain an anxiety disorder. According to classical conditioning theory, an irrational fear (a phobia) can be created when a neutral stimulus that does not usually cause fear happens to be present during a strong fear response to a naturally frightening stimulus. As you recall from Chapter 2, this theory was tested in John Watson's famous "Little Albert" experiment in which an 11-month-old infant boy was taught to fear a white rat that he had initially liked (Watson & Raynor, 1920). To do this, Watson and his assistant presented the rat (a neutral stimulus) to Little Albert and waited until Albert expressed interest in playing with the animal. When Albert ea-

CASE ILLUSTRATION

Sharon had always considered herself to be a “worrier,” but when she took a position as a bank teller she felt for the first time that her anxiety was really interfering with her life. Sharon felt tense most of the time that she was at work because she worried that she’d be caught in a bank robbery. When she wasn’t at work, Sharon worried that she would be mugged or that someone would hack into the bank’s computers and drain her personal accounts. She also constantly worried that her aging mother would experience a stroke or a heart attack and be unable to get help. Sharon worried so much that even when she was very tired it took her too long to fall asleep because she would lie in bed ruminating about her financial situation, her mother’s health, or her own future. After beginning her job at the bank, Sharon began to experience painful tension headaches that made it difficult for her to concentrate and caused her to miss several days of work. Not surprisingly, Sharon also worried that she would be fired because of her absences. These concerns increased her general anxiety and contributed to more frequent headaches.

CASE ILLUSTRATION

While on an airplane flight for a business trip, Simon began to feel like he was having a heart attack even though he could not understand how this was possible, given that he was a healthy 25-year-old man. He felt an enormous sense of dread and doom, his heart began to pound, he broke out in a sweat, and his throat felt like it was closing. The other passengers did not seem to notice his intense distress, but Simon was sure that he was going to die if he did not receive immediate medical attention. Yet, 20 minutes later while still on the plane, Simon felt better and decided that he probably didn’t need to go to the emergency room. In the next few weeks, Simon had similar episodes of excruciating, short-lived anxiety while at work, in his car, and grocery shopping. Simon’s girlfriend finally insisted that he consult a doctor when he started making excuses not to go out of his apartment for fear that he would have another attack.

CASE VIGNETTES

Defining Anxiety and Anxiety Disorders

- The Importance of Context in Defining Anxiety Disorders
- The Continuum Between Normal and Abnormal Anxiety

Classifying Anxiety Disorders

- The DSM-IV-TR Categories
- The Advantages and Limitations of the DSM-IV-TR Anxiety Disorder Diagnoses
- Classification in Demographic Context
- Cultural and Historical Relativism in Defining and Classifying Anxiety Disorders

Explaining and Treating Anxiety and Anxiety Disorders

- Biological Components
- Behavioral Components
- Cognitive Components
- Psychodynamic Components
- Humanistic and Existential Components
- The Multiple Causality of Anxiety Disorders
- The Connection Between Mind and Body in Anxiety Disorders

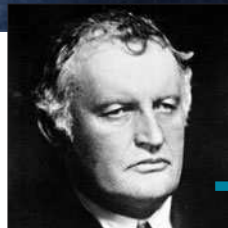
CASE VIGNETTES

Treatment

Consistent chapter format to help students master the material.



Edvard Munch, *The Dance of Life*, National Gallery, Oslo, Norway/SuperStock, Inc. © 2007 Estate of Edvard Munch/Artists Rights Society (ARS), New York



Roger Viollet/Getty Images News and Sport Services

Edvard Munch (1863-1944), a Norwegian artist most famous for his painting “The Scream” (1893), endured a lifetime of tragedy. Munch’s mother died when he was five, his sister, only a year his elder, died soon after his mother, and his father died while Munch was a young adult. Though Munch’s paintings tend to reflect themes of emotional pain and brooding introspection, he was not able to channel all of his distress into his artwork. In 1908, Munch was hospitalized for anxiety and treated with electroshock therapy. Despite his emotional troubles, Munch produced many significant paintings until the time of his death and played an instrumental role in the development of German Expressionism.

Chapter openers that feature famous artists: Each chapter opener describes an artist’s place in the art world and the artist’s personal struggles. These chapter openers demonstrate how psychological suffering or impairment can exist alongside enormous talent, creativity, and skill.

CHAPTER

4

Anxiety and the Anxiety Disorders

CASE Vignettes

Arthur, a 22-year-old community college student, visited his primary care physician complaining that he had been experiencing occasional “spells” over the past two months. During the episodes he felt anxious, dizzy, nauseous, had intense headaches, and sometimes had difficulty breathing. After having a “spell” Arthur worried about when the next one would occur. A thorough medical exam and a series of laboratory tests found that nothing was physically wrong with Arthur. The physician suspected that Arthur was suffering from panic attacks and asked if he had been experiencing increased stress in recent weeks. Arthur acknowledged that he was somewhat anxious about graduating from college in a month; however, he doubted that his “spells” could have an emotional basis since the symptoms were mostly physical. Arthur was the first person in his family ever to have to go to college, and he had done very well in school despite being in a difficult engineering program. He had already been hired by a bioengineering firm near his hometown and was nervous about beginning his professional life. Arthur explained that his parents were extremely proud of his success and that his entire extended family was planning to attend his graduation.

Greg, a 35-year-old paralegal, decided to seek psychological help when his wife and children could no longer stand his cleaning habits. Greg had always been compulsive about straightening up his own possessions, but in recent years he had become increasingly picky about maintaining order in the entire house. Greg became agitated if the glasses in the kitchen cabinet were arranged in uneven rows, or if the throw pillows on the couch were not perfectly aligned with the couch’s striped pattern. When stray hairs were left in the bathroom, he flew into a panic and insisted that the offender clean the area immediately. Greg also felt, superstitiously, that he had to repeatedly check, double-check, and triple-check that everything was clean. Greg acknowledged that these were “overreactions” but said that he could not control them and feared that something terrible would happen if he did not have everything in proper order. Greg’s 7-year-old son stopped inviting friends over to the house because he knew that their play would irritate Greg, and his 12-year-old daughter reached the point where she would not follow any of her father’s cleaning rules because she found them so ridiculous.

CASE VIGNETTES

Defining Anxiety and Anxiety Disorders

- The Importance of Context in Defining Anxiety Disorders
- The Continuum Between Normal Anxiety and Anxiety Disorders

CASE Vignettes

Treatment

Arthur • Panic Disorder

Arthur, the 22-year-old student suffering from anxiety “spells,” followed up on his physician’s referral to a psychologist. In his first meeting with the psychologist, Arthur made it clear that he was doubtful that his physical symptoms had a psychological basis. The therapist noted Arthur’s skepticism and offered him some information about the kinds of physical symptoms that often accompany panic attacks. Arthur was surprised to hear the therapist describe many of the symptoms he had experienced, and relieved to learn that something could be done to reduce his distress. By the end of the first session, Arthur agreed to try a cognitive-behavioral program for his panic attacks.

Over the next several sessions, the psychologist taught Arthur relaxation techniques, and Arthur practiced the techniques at home several times a week. Before long, Arthur was able to get his body into a deep state of relaxation in only a few minutes. Two weeks after he had started therapy Arthur felt like he was going to have a panic attack while standing in line at the grocery store. He immediately started to concentrate on his breathing and to tense and relax his muscles. His anxiety passed without ever developing into a full-blown panic attack. Arthur and his psychologist created a hierarchy of anxiety-provoking situations (such as studying for a final exam, or being caught in a large crowd of people), and Arthur practiced controlling his

thoughts that he would die and challenged them with the facts that Arthur was healthy and had already survived numerous panic attacks.

Within a few months of starting therapy, Arthur’s panic attacks were well under control. Arthur’s psychologist took this opportunity to point out how much success Arthur had had in understanding how his mind worked and suggested that Arthur might now want to explore what caused the panic attacks to begin when they did. Arthur agreed that he was curious about what had brought on his troubles, and decided to continue therapy, but with a new focus on gaining insight into the roots of his anxiety.

Arthur began speaking to his psychologist about how much pressure he felt from his family to succeed academically. Even though he welcomed his family’s constant support, he hated feeling like it was his job to be the family “success story.” He talked about being jealous of his classmates who came from families where everyone had gone to college, and about how he worried that his family would make a scene at his graduation because it was such a big deal for them. Arthur also recognized that his continuing success would leave him feeling more and more distant from his family. He worried that his potential earning power would lead him to develop tastes that they didn’t approve of or understand. At the same time, he worried that it would be obvious to his employers and new colleagues that his background was very different from theirs. Arthur and his psychologist both noticed how much calmer he became as he allowed himself to explore these feelings. Arthur told the therapist that he had felt like a “bad person” for resenting his loving family, and that it was a relief to realize that he could continue to have an appreciation for his family even if he did feel angry and disappointed with them at times.

DEFINITION

All of us know that fear, are not, and that the association between

160 CHAPTER FOUR • Anxiety and the Anxiety Disorders

CASE DISCUSSION • Panic Disorder

Arthur’s symptoms closely correspond with the DSM-IV-TR definition of panic attacks, but he never developed the behavioral changes based on a fear of future attacks that can sometimes be part of the DSM-IV-TR criteria for panic disorder. Fortunately, he also never developed agoraphobia in reaction to his attacks. Arthur initially doubted that psychotherapy could be helpful to him. As a result, the psychologist began with *psychoeducation*—

meaning that he informed Arthur that his physical symptoms could result from an anxiety disorder. This helped Arthur to accept a psychological treatment, one that focused at first on controlling his panic attacks, not exploring their meaning. The therapy then proceeded to a psychodynamic exploration of how previously “unacceptable” thoughts had contributed to the onset of Arthur’s anxiety.

Greg • Obsessive-Compulsive Disorder (OCD)

Greg, the 35-year-old paralegal, and his wife happened to see a news program on OCD. Afterward, Greg’s wife suggested that he seek treatment, and he agreed with her suggestion. A social worker met with Greg and his wife, and heard from both of them about how Greg’s “habits” had been causing problems at home. The social worker concurred that Greg likely suffered from OCD and referred Greg to a psychiatrist who prescribed Prozac. Greg was initially reluctant to consider medication for his problem, but his wife insisted that he try it “for the family.” Greg was reassured by the social worker that it would probably help Greg to feel more in control of his worries about keeping the house clean.

Within a few weeks, Greg and his family noticed that he was much more “laid back” about keeping order around the house. Even though Greg still liked things to be neat, he did not become upset when his son left his coat on a chair or when dishes sat in the sink. Greg’s social worker recommended that Greg also consider beginning an *exposure and response prevention* therapy. She assisted Greg in gradually increasing his exposure to anxiety-producing situations, like dirt and messiness, without responding with cleaning and checking rituals. One year later, on a lower dose of Prozac and having occasional therapy sessions, Greg was described by his wife as “90% better.”

CASE DISCUSSION • Obsessive-Compulsive Disorder

Initially, Prozac, which increases the availability of serotonin in the nervous system, was used to help bring Greg’s obsessive-compulsive symptoms under control. Greg’s social worker also suggested some cognitive-behavioral techniques to help Greg make further progress. Through *exposure and response prevention*, Greg was helped to tolerate situations that had previously

made him extremely anxious and to resist his impulse to clean or to badger the offending family member. Over time, the cognitive-behavioral interventions helped Greg to adapt to normal levels of disarray, and he was able to reduce his dose of Prozac while maintaining his improvement.

Multiple boxes on issues relevant to the chapter content.

BOX 4.2 Excessive Fears

SOME COMMON AND NOT SO COMMON PHOBIAS

People can develop phobias to a wide variety of objects or situations. Some phobias, like claustrophobia (the fear of confined spaces), are relatively common, while other phobias are highly idiosyncratic and occur very rarely. Consider the following lists of common and unusual phobias:

Common Phobias

- Acrophobia—Fear of heights
- Arachnophobia—Fear of spiders
- Claustrophobia—Fear of confined spaces
- Cynophobia—Fear of dogs



© Pierre Perrin/Corbis Sygma

- Hemophobia—Fear of blood
- Hydrophobia—Fear of water
- Myctophobia—Fear of darkness
- Pteromerhanophobia—Fear of flying
- Thanatophobia—Fear of death or dying

Unusual Phobias

- Ablutophobia—Fear of washing or bathing
- Botanophobia—Fear of plants
- Chaetophobia—Fear of hair
- Dromophobia—Fear of crossing streets
- Ereuthophobia—Fear of blushing
- Francophobia—Fear of France, French culture
- Genophobia—Fear of knees
- Linonophobia—Fear of string
- Melanophobia—Fear of the color black
- Ornithophobia—Fear of birds
- Peladophobia—Fear of bald people
- Scoptophobia—Fear of being seen or stared at
- Vestiphobia—Fear of clothing

(From www.phobialist.com)

Visual Essays to help students understand the biological processes associated with psychopathology.

CHAPTER

4

VISUAL ESSAY

The Sympathetic and Parasympathetic Systems in Action

Step One

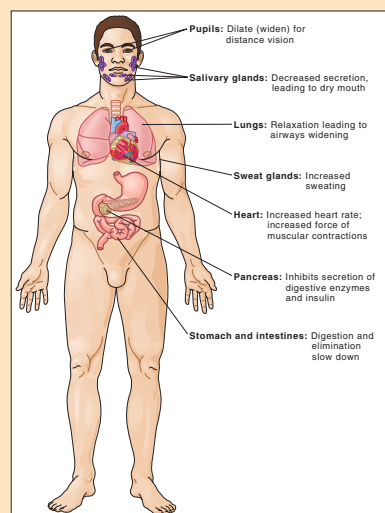
Exposure to an anxiety-producing threat



Cobra about to attack.
©John Terence Turner/Alamy

Step Two

Mobilization of the sympathetic nervous system to prepare body for fight-or-flight



The experience of fear and anxiety, whether pathological or normal, is almost always accompanied by the mobilization of the *autonomic nervous system* (which regulates involuntary bodily systems) and its two divisions: the *sympathetic* and *parasympathetic* systems. The sympathetic division activates survival responses to perceived threats.

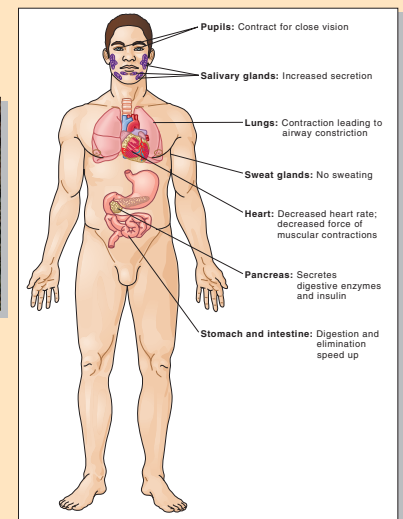
Under the direction of the sympathetic nervous system, the adrenal glands secrete stress hormones (adrenaline/epinephrine and noreadrenaline/norepinephrine) and the heart beats faster and harder while pupils dilate to improve distance vision. The mouth dries up, and digestion slows while blood is directed away from the stomach toward the muscles in case they need oxygen for fast action. Sweating increases and breathing speeds

up and deepens as the lung airways widen. The physiological processes activated by the sympathetic nervous system prepare animals to flee or attack when faced with danger, a phenomenon known as the *fight-or-flight response*. The existence of the fight-or-flight response in humans reminds us that anxiety reactions are primitive and evolutionarily based.

When the danger has passed, the parasympathetic system reverses the work of the sympathetic nervous system and returns the body to its resting, pre-anxiety state sometimes known as the *rest-and-digest response*. The parasympathetic nervous system is responsible for maintaining the body's energy stores, and does so by regulating blood sugar levels and heart rate, stimulating the secretion of saliva, and eliminating bodily wastes.

Step Four

Mobilization of the parasympathetic nervous system to return body to its relaxed rest-and-digest state



Step Three

Anxiety-producing threat abates



Cobra relaxes, slithers away.
Tierbird Okapia/Photo Researchers, Inc.

Frequent interim summaries enable students to spot-check their comprehension of the material.

Critical thinking questions throughout each chapter stimulate students' reflection, review, and test preparation.

Critical Thinking Question

We have suggested that abnormal anxiety can be defined as anxiety that is relatively intense or inappropriate to its context. With this definition in mind, which of Greg's reactions (described at the beginning of the chapter) seem to be unusually intense? Does any of his anxiety seem to be appropriate to its context?

BRIEF SUMMARY

- The DSM-IV-TR recognizes six anxiety disorders: generalized anxiety disorder, panic disorder, phobias (specific phobia, social phobia, and agoraphobia), obsessive-compulsive disorder, posttraumatic stress disorder, and acute stress disorder.
- Generalized anxiety disorder (GAD) involves chronic and pervasive nervousness.
- Panic disorder (PD) involves episodes of acute terror, known as panic attacks, which lead to worry about experiencing future panic attacks.
- Phobias are persistent and unreasonable fears of particular objects or situations.
- Obsessive-compulsive disorder (OCD) involves anxiety-producing, unwanted thoughts or impulses (obsessions), and/or uncontrollable rituals meant to decrease anxiety (compulsions).
- Posttraumatic stress disorder and acute stress disorder involve a variety of anxiety symptoms that occur in the wake of a traumatic experience.

Definitions of all key terms in the margin near their discussion in the text.

do not have universally agreed upon features; different cultures experience, define, and classify anxiety problems differently (Lopez & Guarnaccia, 2000). For example, Latino populations in Latin America and in the United States frequently use the term **nervios** (NER-vee-ose) to describe a range of symptoms of nervous distress similar to those listed in the DSM-IV-TR diagnosis of GAD (APA, 2000). Nervios may be characterized by headaches, irritability, stomachaches, and difficulty sleeping or concentrating. In some cases, it is accompanied by feelings of being nervous, but nervios may also involve subjective feelings of depression (Chapter 5) or dissociation (Chapter 7). The phrase **ataque de nervios** (ah-TAH-kay duh NER-vee-ose) is also used in some Latino cultures to describe an episode of intense anxiety similar to a panic attack (APA, 2000). Symptoms associated with an ataque de nervios include a feeling of being out of control, shaking, unrestrained shouting or crying, heat in the chest rising into the head, and aggressive verbal or physical behavior. Such ataques may also include feelings of faintness, dissociation, or suicidal thoughts and gestures. Unlike panic attacks which tend to occur "out of the blue," ataques de nervios are usually associated with an upsetting precipitating event (such as learning about the death of a loved one). Also, they do not typically involve the dread of experiencing another such attack, which is one of the diagnostic criteria for panic disorder.

The *Chinese Classification of Mental Disorders* recognizes a syndrome known as **shenjing shuairuo** (shen-jing shwai-row), which shares similarities with the DSM-IV-TR descriptions of both anxiety and mood disorders (APA, 2000). Symptoms of shenjing shuairuo include difficulty sleeping and concentrating, physical or mental exhaustion, physical pains, and neurological symptoms such as dizziness, headaches, and memory loss. The Japanese diagnostic system includes a disorder known as **taijin kyofusho** (TIE-jean kyo-foo-show), which is characterized by anxiety that one's body or aspects of one's body will be displeasing or offensive to others in terms of appearance, smell, or physical movement. This disorder has much in common with social phobia, although taijin kyofusho focuses specifically on concerns about bodily appearance or functioning.

Nervios A term used by Latino populations in Latin America and in the United States to describe a range of symptoms of nervous distress.

Ataque de nervios A term used in some Latino cultures to describe an episode of intense anxiety.

Shenjing shuairuo An anxiety syndrome recognized in China including symptoms of physical or mental exhaustion, difficulty sleeping and concentrating, physical pains, dizziness, headaches, and memory loss.

Taijin kyofusho An anxiety disorder recognized in Japan characterized by worry that one's body or aspects of one's body will be displeasing or offensive to others.

A Chapter Summary that focuses on the core concepts presented in the chapter.

Chapter Summary

- Pathological anxiety is defined as anxiety that occurs in an inappropriate **context** or is toward the extreme end of the **continuum between normal and abnormal** anxiety.
- The DSM-IV-TR identifies six different anxiety disorders: generalized anxiety disorder, panic disorder, phobias, obsessive-compulsive disorder, posttraumatic stress disorder, and acute stress disorder.
- The DSM-IV-TR anxiety disorder diagnoses have important **advantages and limitations**. While the reliability and validity of the DSM-IV-TR anxiety diagnoses are relatively high, the DSM-IV-TR anxiety disorders are also highly comorbid, meaning that clients often meet criteria for more than one diagnosis.
- Demographic factors, such as age, gender, and social class, affect the prevalence and manifestation of anxiety disorders.
- Various cultures and historical periods define and classify anxiety problems differently, highlighting the core concept of **cultural and historical relativism**.
- All of the major theoretical perspectives in abnormal psychology offer concepts relevant to the explanation and treatment of anxiety disorders. Furthermore, the different theoretical perspectives on anxiety often interact, overlap, or complement each other, highlighting the **principle of multiple causality**.
- Changes in brain structure and function resulting from traumatic emotional experiences and from psychotherapy are two illustrations of the **connection between mind and body** in anxiety disorders.

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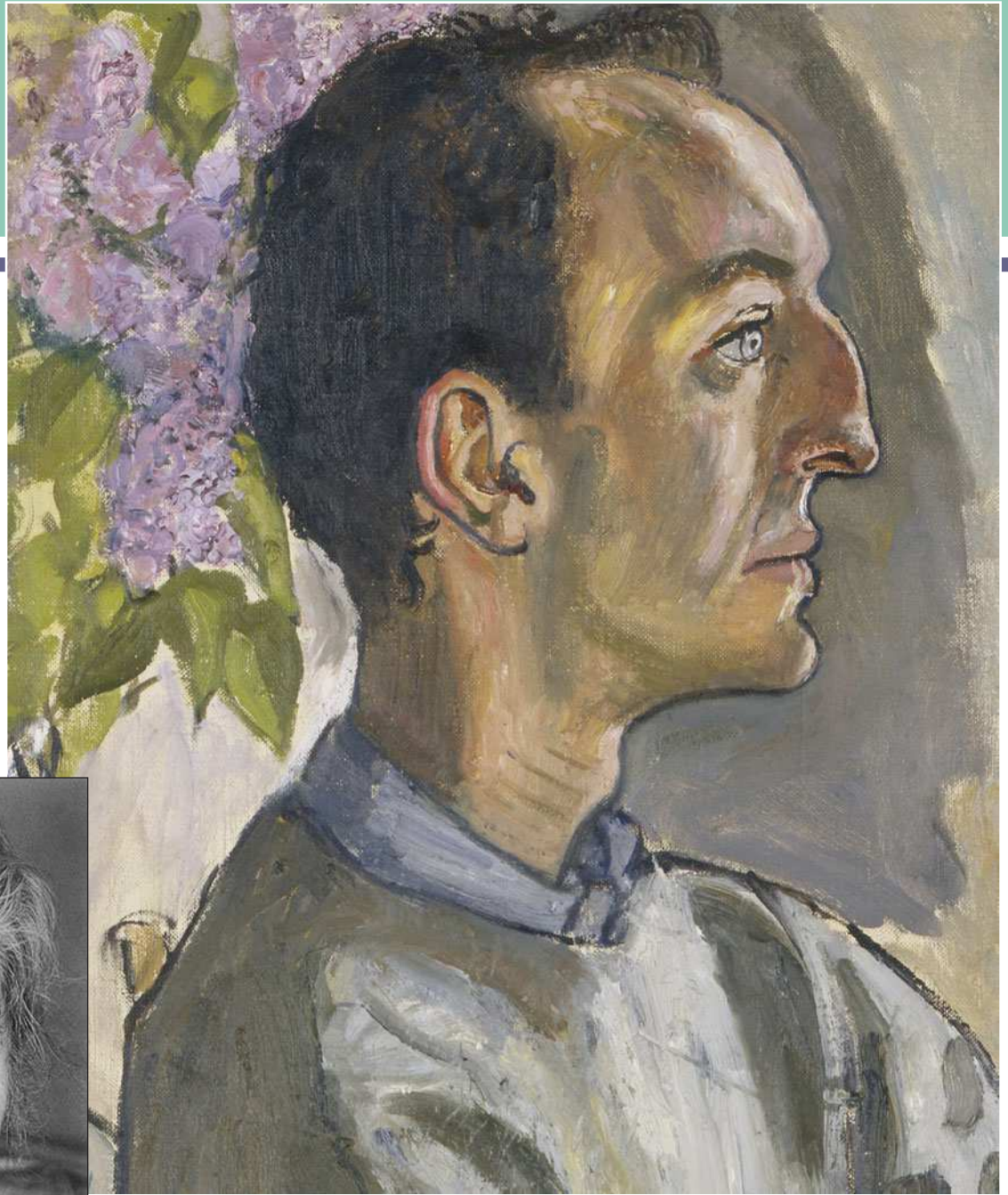
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Alice Neel, Frank O'Hara, 1960. Oil on canvas, 34 x 16 1/8".
National Portrait Gallery, Smithsonian Institution/Art
Art Resource, NY



Cynthia Macadams/Getty Images

Alice Neel (1900–1984), known for her unflinching portraits of the poor and homeless as well as the rich and famous, is considered one of the most significant American artists of the twentieth century. Though she achieved professional success during her lifetime, Neel's personal life was touched by great sadness when her first child died of diphtheria in 1926. Neel's depression in the wake of her child's death highlights some of the core concepts described in this chapter and addressed throughout the textbook. For example, we cannot understand Neel's depression, or any other complex human behavior, without taking into account the surrounding *context*, the *continuum between normal and abnormal* behavior, and a host of other considerations.

Defining Abnormality

WHAT IS PSYCHOPATHOLOGY?

CASE Vignette

Charlotte overcame an impoverished and emotionally deprived childhood and went on to become a successful writer. But when she was 25 years old, recently married, and had just given birth to a healthy daughter, she became, in her words, “a mental wreck.” Charlotte lost her energy and drive, and grew increasingly sad and lethargic. She described her suffering vividly: “A sort of gray fog drifted across my mind, a cloud that grew and darkened . . . there was a constant dragging weariness . . . absolute incapacity. Absolute misery.” Charlotte could not take care of herself or her baby. “I lay on that lounge and cried all day. The tears ran down into my ears on either side. I went to bed crying, woke in the night crying, sat on the edge of bed in the morning and cried—from sheer continuous pain. . . . The baby? . . . I would hold her close—that lovely child!—and instead of love and happiness, feel only pain. The tears ran down on my breast . . . Nothing was more utterly bitter than this, that even motherhood brought no joy.”

ABNORMAL PSYCHOLOGY: THE CORE CONCEPTS

Charlotte’s story, which we will return to shortly, is the kind most people associate with the topic of abnormal psychology. This is a textbook about abnormal psychology—about how abnormal behavior can be *defined*, *classified*, *explained*, and *treated*. These topics will be covered in detail in later chapters, but first, in order to introduce the subject of abnormal psychology, we would like to make a general point about this field and about this book.

The field of **abnormal psychology**, which is also called **psychopathology**, naturally interests most people. People often wonder: What is mental illness, and what causes it—bad life experiences? chemical imbalances in the brain? How many people suffer from mental disorders? Does psychopathology include common experiences like being shy or feeling “down” occasionally, or is it something altogether different? These and other interesting questions make courses in abnormal psychology popular at many colleges and universities. This book will focus on such questions.

In addition to being a fascinating area of study, abnormal psychology is also a controversial one. There are no simple answers to some of the basic questions in the field. This can make a course in abnormal psychology challenging, but we think it is also part of what makes the study of psychopathology so interesting and worthwhile.

Abnormal psychology has experienced tremendous change, progress, and controversy over the roughly 100 years that it has existed as a field of study. But throughout this time, several concepts have remained at the heart of the subject. We call these concepts the **core concepts** in abnormal psychology because they have always been central to

CASE VIGNETTE

Abnormal Psychology: The Core Concepts

- The Importance of Context in Defining and Understanding Abnormality
- The Continuum Between Normal and Abnormal Behavior
- Cultural and Historical Relativism in Defining and Classifying Abnormality
- The Advantages and Limitations of Diagnosis
- The Principle of Multiple Causality
- The Connection Between Mind and Body

The Core Concepts: A View from the Past

Defining Abnormality

CASE VIGNETTE

Commonly Used Criteria for Defining Abnormality

- Help Seeking
- Irrationality/Dangerousness
- Deviance
- Emotional Distress
- Significant Impairment

Core Concepts in Defining Abnormality

- Cultural and Historical Relativism
- The Continuum Between Normal and Abnormal Behavior

Defining Abnormality: Practical Solutions

- Working Definitions of Abnormality

Abnormal psychology/psychopathology

The subfield of psychology devoted to the study of mental disorders.



Theodore Kaczynski, the “Unabomber”: Kaczynski, a former mathematics professor at the University of California, has claimed that he is not mentally ill and was rationally motivated by his anti-technology political ideology. Kaczynski is shown at the University of California, Berkeley (top) and following his arrest (bottom). ©AP/Wide World Photos

the field even as our knowledge has grown and changed, and they are receiving renewed attention as the field now enters its second century. Accordingly, we have made these concepts central to the organization of this book. Consider the following brief examples of “abnormality.” Examples like these are familiar to everyone, and they provide a background for our introduction to the core concepts. As you read them, consider the following questions:

- Do you think this person’s behavior is abnormal?
- If so, what, specifically, seems abnormal about his or her behavior?
- How do you think the abnormality could be explained?
- How do you think it could be treated?

CASE ILLUSTRATION

Megan looks great, and she appears to be happy and successful in college. But she has become quite thin. At meals she barely eats, and like several of her friends, she occasionally makes herself vomit after drinking or eating a lot. When asked about having lost so much weight, Megan broke down crying and said that she still feels fat. She said that her life seems to be out of control and that she doesn’t know what to do about it.

CASE ILLUSTRATION

Seven-year-old Yosef, the eldest child of immigrant parents who do not speak English, is having trouble in school. He cannot seem to sit still or pay attention for more than a minute. Yosef is continually fidgeting and getting out of his chair. As a result of these behaviors, he is already significantly behind the other students in his class. Yosef’s home life seems stable, and his parents have not expressed concern, but his teacher is troubled by his behavior and lack of progress.

CASE ILLUSTRATION

Ted Kaczynski entered Harvard at age 16 as a mathematics prodigy. He later earned his Ph.D. in mathematics from the University of Michigan and became a professor at the University of California, Berkeley. Almost 30 years later, he was taken into custody by federal agents who raided the tiny cabin in the Montana wilderness where he had been living in isolation for years. They had concluded that Kaczynski was the notorious Unabomber, responsible for two decades of lethal bombings motivated by his extreme anti-technology ideology.

Each of these examples raises questions about how we decide who is abnormal, what kind of abnormality is involved, what causes it, and how it can be treated. Our six core concepts will assist us in exploring and answering these questions (see Box 1.1).

THE CORE CONCEPTS

The Importance of Context in Defining and Understanding Abnormality

The *context* in which abnormal behavior occurs requires consideration for three crucial reasons. First, understanding the circumstances surrounding any behavior is essential to *defining* whether or not the behavior is abnormal. For example, if Charlotte’s baby had just died, we would consider her symptoms (intense sadness, lethargy, inability to function) to be part of normal grief; it is only in the absence of any such



The importance of context

BOX 1.1 Six Core Concepts in Abnormal Psychology

- The importance of context in defining and understanding abnormality
- The continuum between normal and abnormal behavior
- Cultural and historical relativism in defining and classifying abnormality
- The advantages and limitations of diagnosis
- The principle of multiple causality
- The connection between mind and body

tragedy that her symptoms seem abnormal. Similarly, experiencing intense fear in a dangerous situation such as wartime combat is normal, but the same kind of fear in a benign context—say, while out shopping—is not.

Second, the context in which abnormality occurs can help us to understand and *explain* it. As we will see, the fact that Charlotte's trouble began after childbirth points to some of the psychological and biological causes of her symptoms.

Third, abnormal behavior is profoundly influenced by demographic context categories such as gender, age, class, and culture. For example, Yosef's problems (inattention and impulsivity) are far more common among boys than girls, whereas Megan's problem (excessive weight loss) occurs much more frequently in women than in men. In addition, attention to demographic contexts can help us to be aware of cultural, racial, and gender biases that influence the field of abnormal psychology just as they affect other fields. For instance, would Megan's behavior be viewed differently if she were male? In each chapter, we will address these *context* issues as they influence the definitions, classifications, explanations, and treatments of various disorders.

The Continuum Between Normal and Abnormal Behavior

Even when the context suggests that a certain behavior is abnormal, we cannot define the behavior as abnormal without considering the *continuum* between normality and abnormality. How much weight does Megan have to lose before she is considered to have an eating disorder—10 pounds, 20 pounds, or some undefined amount? Since most 7-year-old boys are active and distractable, how inattentive and impulsive must Yosef be for his behavior to be considered “abnormal?” Many forms of abnormality can be seen as exaggerations of normal feelings and behaviors: everyone has felt a little depressed or anxious at times. One implication of this is that we should be mindful that people suffering from mental disorders are people much like ourselves, not “freaks” who are fundamentally foreign. The idea that normality and abnormality are on a continuum may seem unsettling at first, but it actually makes abnormality more understandable since the potential for abnormal behavior is part of our common humanity. Accordingly, the continuum between normal and abnormal behavior also highlights the appropriateness of an attitude of empathy for people struggling with mental disorders and for concern about the unfairness of social stigmas against them. At the same time, the continuum does make it difficult for researchers and clinicians to pinpoint a dividing line between normal and abnormal behavior, creating challenges for scientific research on psychopathology and its treatment. We will discuss these challenges more fully, and the field's solutions to them, later in this chapter.





Cultural
and historical
relativism

Cultural and Historical Relativism in Defining and Classifying Abnormality

You will probably not be surprised to hear that definitions of abnormality have changed dramatically over time (Rosenberg, 2002). For instance, in the United States, homosexuality was classified as a mental illness until 1973, whereas today most experts consider homosexuality a normal variant of human sexual behavior. Similarly, definitions of abnormal behavior vary widely across different cultures. In some cultures talking to dead relatives is considered normal; in others it could be considered a sign of mental illness. Perhaps the reason that Yosef's parents are not concerned about his behavior is that his behavior is not unusual within their culture. And perhaps 30 years ago, before attention-deficit disorder and Ritalin were household terms, a boy like Yosef would be seen merely as an energetic or undisciplined boy, not as someone with a "disorder." Because of cultural and historical relativism, we cannot make absolute, universal statements about what constitutes abnormal behavior. Accordingly, as we cover different types of mental disorders in this book, we will frequently encounter important questions about their cultural and historical relativity.



Advantages/
limitations
of diagnosis

The Advantages and Limitations of Diagnosis

Like all scientific and professional fields, abnormal psychology relies on categories for classifying its subject matter. Clinicians and researchers need diagnostic categories to help them study and treat mental illness and to communicate with other professionals. But categorizing mental disorders is a tricky business; the field of abnormal psychology has struggled to develop categories that consistently and accurately classify mental disorders. For example, if Ted Kaczynski is diagnosed with schizophrenia (see Chapter 12) by one psychologist (as indeed he was), will a second psychologist agree? And even if they do concur, how can we be sure that the diagnosis is correct? These questions relate to the scientific issues of **reliability** (the consistency with which a diagnostic category is applied) and **validity** (the accuracy of a diagnostic category), which we discuss in Chapter 3. In order to be useful, classification systems must be reasonably reliable and valid. The complexity of abnormal behavior has made it especially challenging to develop reliable and valid diagnostic categories for mental disorders. In addition, too much emphasis on classifying disorders can oversimplify complex problems and keep us from fully understanding the people behind the diagnostic labels. Moreover, given the fears and prejudices about mental illness in our culture, diagnoses of mental disorders can be highly stigmatizing and demoralizing to the people diagnosed. For example, Yosef's parents might argue that giving him a psychological diagnosis would stigmatize him as "abnormal" and the diagnostic label could become a self-fulfilling prophecy that would exacerbate his problematic behavior. Thus, the scientific and clinical advantages of classifying different kinds of abnormal behavior always have to be weighed against the imperfections of any diagnostic system and its potentially negative effects.

Reliability The consistency of a test, measurement, or category system.

Validity The accuracy of a test, measurement, or category system.

Precipitating causes The immediate trigger or precipitant of an event.

Predisposing causes The underlying processes that create conditions making it possible for a precipitating cause to trigger an event.



Multiple
causality

The Principle of Multiple Causality

In Chapter 2, we focus on how to *explain* (that is, identify the causes of) abnormal behavior. Abnormal behavior is always complex, and it is important not to oversimplify its causes. For example, mental disorders usually involve both **precipitating** (triggering) and **predisposing** (underlying) **causes**. The precipitating cause of Charlotte's depression may be the birth of her daughter, but the predisposing causes, as we will see, probably lie in traumatic childhood experiences and biological vulnerabilities that made her prone to depression. In addition, many different theoretical perspectives—psychodynamic,

cognitive, behavioral, humanistic, biological, and more—coexist in the field of abnormal psychology, offering different explanations and treatments for mental disorders. Each theoretical perspective has something important to contribute, and the field of abnormal psychology is increasingly moving toward explanations and treatments that combine *components* from several theories. In the past, explanations and treatments of disorders often relied too heavily on just one theory or concept to explain disorders, a problem known as **reductionism**. Imagine, for instance, that Charlotte’s doctor *only* considered her family situation and neglected to consider the biological components of her depression. Such a narrow approach would compromise the understanding and treatment of her disorder. In Chapter 2, we will review all of the major theoretical perspectives in the field of abnormal psychology and discuss how modern clinicians are combining and integrating these perspectives to explain and treat mental disorders.

The Connection Between Mind and Body

Contrary to popular belief, psychological and biological perspectives on mental disorders are not necessarily distinct. We now know that the mind and the brain are fully interconnected and interdependent, not separate realms as the philosophical “dualists” once believed. Emotional experiences alter brain chemistry, and brain chemistry is, in turn, the basis of emotional experiences. For example, Charlotte’s depression may be linked to profound hormonal changes that take place during the postpartum period, but these changes themselves could be influenced by the personal meaning becoming a mother has for Charlotte. Megan’s distorted thoughts about her body could be partially due to cognitive impairment resulting from her state of physical starvation. Throughout the book, we examine how the connection between the mind and body must always be taken into account in our efforts to explain and treat abnormal behavior.

Critical Thinking Question

Of the three brief case examples (Megan, Yosef, and Ted Kaczynski), which is the hardest to define as normal or abnormal? Which do you think would be the hardest to classify, explain, and treat?

Reductionism Explaining a disorder or other complex phenomenon using only a single idea or perspective.



Mind-body connection

THE CORE CONCEPTS: A VIEW FROM THE PAST

The six core concepts remind us that while abnormal psychology involves the study of disorders and diagnoses, the field is ultimately about *people* and *ideas*. To illustrate, let’s return to the case of Charlotte.

Charlotte is actually Charlotte Perkins Gilman, an early feminist writer and lecturer, who was born in 1860. She is the author of *The Yellow Wallpaper*, an autobiographical novella about her “breakdown” at age 25. To help us illustrate just how enduring the core concepts have been, here is the rest of her story.

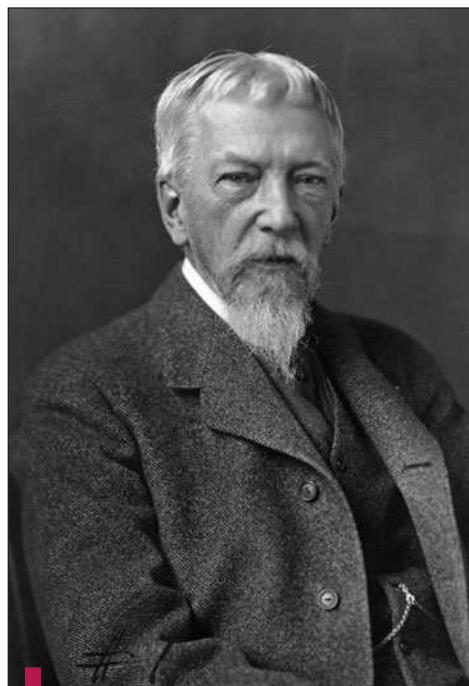
As mentioned previously, Charlotte had a difficult childhood. She was the middle of three children born in three years; the oldest died, and after the birth of the youngest, her father abandoned the family. The family suffered through poverty and instability, moving 19 times in 18 years. Most difficult of all for Charlotte was the absence of physical affection from her mother. Mrs. Perkins refused to touch her daughter because she believed that lack of physical contact would toughen Charlotte and prepare her (helpfully, in her mother’s view!) not to expect affection from others. Despite these obstacles, Charlotte managed to pursue higher education—no small feat for a woman in her day—and to become an art teacher, governess, and poet as a young adult.



Charlotte Perkins Gilman

Gilman’s fascinating life is recounted in her autobiography, *The Living of Charlotte Perkins Gilman*, and in several biographies.

©Corbis



S. Weir Mitchell Dr. Mitchell prescribed the “rest cure” for Charlotte Perkins Gilman and many other patients, but changed his mind about the rest cure after reading *The Yellow Wallpaper*.

©Corbis-Bettmann



Postpartum depression This woman, like Charlotte Perkins Gilman, may be suffering from a postpartum depression. Temporary postpartum “blues” are very common after childbirth; full-fledged postpartum depressions, fortunately, are much less common (see Chapter 5 for additional details).

Cameron/©Corbis

After her marriage, childbirth, and breakdown, Charlotte sought treatment from the leading “nerve specialist” of her day, Dr. S. Weir Mitchell of Philadelphia. (He had previously treated some of her relatives in the famous Beecher family; Harriet Beecher Stowe, the author of *Uncle Tom’s Cabin*, was Charlotte’s great-aunt.) Dr. Mitchell diagnosed Charlotte as having “hysterical nervous prostration” (also known then as “neurasthenia,” although neither term is used today), a condition believed to be caused in men by overwork and in women by exhaustion from too much social, family, or intellectual work. He prescribed his famous “rest cure,” which consisted of months of complete bed rest, seclusion, a diet of red meat and milk, massage, and electrical stimulation to prevent muscle atrophy (Bard, 1996; Golden, 1992). Charlotte reports in her autobiography that Dr. Mitchell gave her the following instructions: “Live as domestic a life as possible. Have your child with you at all times. . . . Have but two hours’ intellectual life a day. And never touch pen, brush, or pencil as long as you live” (Gilman, 1935).

Many patients apparently improved after the “rest cure,” but Charlotte did not. In fact, she became worse and felt she almost lost her mind completely—not surprising, considering how important her intellectual life was to her. Eventually, Charlotte decided to leave her husband and child, recovered from her breakdown, and went on to become a prominent feminist and intellectual. She wrote *The Yellow Wallpaper*—which describes how the “rest cure” drives a fictional character literally insane—in order to show Dr. Mitchell the dangers of his treatment. Charlotte later heard that he changed his ideas as a result of her book, and she happily wrote in response that “[*The Yellow Wallpaper*] was not intended to drive people crazy, but to save them from being driven crazy. And it worked” (Gilman, 1913).

Most of the core concepts we have described are evident in the case of Charlotte Perkins Gilman. For instance, we can see the **importance of context** in the origin of her symptoms (for example, their onset after childbirth); the issues of **cultural and historical relativism** in her nineteenth-century cultural setting that blamed depression in women on too much intellectual activity; and the questionable validity (accuracy) and other **limitations** of Dr. Mitchell’s diagnosis. In addition, the case illustrates the interplay of **multiple causes** (such as her traumatic early childhood combined with postpartum hormonal and psychological changes) and of the **connection between mind and body** in her depressive symptoms, which Dr. Mitchell did not sufficiently appreciate in light of the limited theories of his day.

Fortunately, we are vastly more knowledgeable about mental disorders today, and psychologists would classify, explain, and treat a contemporary Charlotte very differently. She would probably be diagnosed as suffering from a postpartum major depressive disorder (Chapter 5), which would be explained with modern psychological, sociocultural, and biological concepts, and she would probably be treated with a combination of psychotherapy and antidepressant medication. But we would still encounter all of the core concepts in trying to define, classify, explain, and treat a contemporary Charlotte’s problems. When someone with Charlotte’s symptoms consults a psychologist today, the clinician must consider the **continuum between normal and abnormal behavior** and the **importance of context** in defining her behavior as abnormal; **cultural and historical relativism** and the **advantages and limitations of diagnosis** in classifying her abnormal behavior; and the issues of **multiple causality** and the **connection between mind and body** in explaining and treating her problems. Because modern clinicians have a more sophisticated understanding of the core concepts than Dr. Mitchell did, a contemporary Charlotte can count on a better understanding of her problems and more effective care. Future Charlottes will benefit from even more sophisticated knowledge.

As you will see in the following chapters, the core concepts are always present in the study of abnormal psychology, and they are part of what makes the field so fascinating and challenging. We will highlight them, with text and icons, as continuous themes throughout the book. In the rest of this chapter, we focus on the core concepts that inform the question of how to *define* abnormal behavior.

Critical Thinking Question

Imagine that Charlotte Perkins Gilman is being treated today and is prescribed an antidepressant medication such as Prozac by her doctor. How might an abnormal psychology textbook in the year 2100 evaluate this treatment? Could it seem as odd to people in the future as Charlotte's treatment by Dr. Mitchell does today?

DEFINING ABNORMALITY

In this section, we address one of the most basic questions in this field: how do we *define* abnormal behavior? This seems like an obvious place to start. A definition of abnormality, after all, would seem to be a prerequisite for research, teaching, and treatment.

You may be surprised, then, to learn that there is no universally agreed upon or precise definition of *abnormal behavior*, *mental illness*, or *psychopathology* (these terms are roughly interchangeable). Yet, the field has come up with approximate, or *working*, definitions that serve reasonably well in most practical circumstances, so that research, teaching, and treatment can be usefully conducted.

In order to understand why there is no universally accepted definition of mental illness, we must take a look at the strengths and limitations of various approaches to defining abnormal behavior. Let's begin by considering an example: the case of a young man we'll call Dave. (All of the cases in this book are based on actual cases, but they have been modified and disguised to protect the privacy of the people involved.) As you read about Dave, ask yourself whether you think his behavior is abnormal. Be aware of what factors you consider: do you focus on whether he seems bizarre, or whether he is impaired by his problems? The factors you employ are technically known as *criteria* (singular: *criterion*). Following the case, we will review the commonly used criteria for defining psychopathology.

CASE Vignette

Is Dave Abnormal?

Dave is a 20-year-old sophomore at a large East Coast university. He considers himself a happy person, and he has mostly fond memories of growing up in a nearby small town. Dave looked forward to going to college and was pleased to be accepted by one of his top choices. During his first year, he found it exciting to be on campus and quickly made a number of friends. Dave found his course work difficult but manageable. All in all, he seemed to be making a good adjustment to college life despite some mild anxiety about whether he could be academically and socially successful.

During the fall of Dave's sophomore year, however, his anxiety intensified. He began to worry about what everybody thought of him

and became especially insecure about whether any woman could find him attractive. He felt self-conscious and shy, even around his good friends, and he always anticipated that he would be left out or rejected. As a result, Dave became more withdrawn and quiet. He began to avoid parties, the dining hall, and other large social settings in which he knew he would feel uncomfortable. Dave kept his concerns to himself and was able to hide his discomfort from his friends, making excuses when he wanted to be alone. He was able to keep up with his work, and his grades remained high. Dave told himself he was just having a "sophomore slump." He tried to maintain hope that things would return to normal next semester.

COMMONLY USED CRITERIA FOR DEFINING ABNORMALITY

Is Dave a "normal" person simply experiencing a stressful time, or is his situation "abnormal?" Could Dave's condition be diagnosed as a mental disorder? To answer these questions, let us consider five commonly used criteria for determining whether behavior is normal or abnormal (see Table 1.1). All of these criteria are widely used by both laypeople and mental health professionals. Nonetheless, they all have limitations. We begin with the least satisfactory criterion and proceed to those that are more helpful.

TABLE 1.1 Five Commonly Used Criteria for Defining Abnormality (Acronym: HIDES)

1. Help seeking
2. Irrationality/Dangerousness
3. Deviance
4. Emotional distress
5. Significant impairment

Help Seeking

The criterion of “help seeking” suggests that we can identify abnormality simply by seeing who seeks treatment for emotional problems. Using this criterion assumes that people who seek mental health treatment services probably have mental disorders, and that those who do not are probably “normal.” Though sometimes true, as a single criterion for defining psychopathology, “help seeking” is quite inaccurate. Actually, most people with significant emotional disorders do not seek treatment, at least in the short term (Wang et al., 2005). Moreover, many people seek psychotherapy for help with “normal” life stresses. Nevertheless, this criterion cannot be easily dismissed because it plays a large role in laypeople’s attitudes about mental illness, and even mental health professionals sometimes mistakenly use this criterion.

In one of the most famous research studies in the field of abnormal psychology, David Rosenhan, a Stanford University psychologist, and several of his colleagues and friends were mistakenly diagnosed as mentally ill by doctors at several hospitals (see Box 1.2). In Rosenhan’s (1973) study, each of the “pseudopatients” arrived at a hospital claiming, falsely, to have heard a hallucinated voice. In all other respects they acted normally. All eight of the pseudopatients were admitted to the psychiatric wards of the hospitals, and all but one were given the diagnosis of schizophrenia (the other was diagnosed with manic-depressive psychosis—Chapter 5). After being admitted, the pseudopatients acted normally and said they had stopped hearing the voices. Yet they were kept in the hospital (their stays ranged from 7 to 52 days) and not one was detected as “normal” by the staff. During their hospital stays, the researchers were appalled by what they considered to be the dehumanizing experience of being a psychiatric inpatient. They felt that patients were routinely ignored and treated dismissively by the hospital staff.

Rosenhan used this study primarily to emphasize the dangers of diagnostic labeling. But the study also highlights the misleading use, in this instance by trained professionals, of the “help seeking” criterion for defining abnormality. The fact that the pseudopatients arrived at psychiatric facilities seeking help apparently caused the evaluating doctors to *assume* that the experimenters were mentally ill and to find diagnoses for them. So, even though we can easily see the limitations of this criterion as an indicator of psychopathology, we should not underestimate its influence.

Irrationality/Dangerousness

People often associate mental illness with irrational, dangerous, or out-of-control behavior. (We group these somewhat different but overlapping categories of behavior together because they all seem to be parts of a common stereotype about mental illness.) For instance, we have all been exposed to stereotypes of psychiatric patients as deranged, homicidal maniacs. Every time a mentally ill individual commits a violent crime, this unfortunate prejudice is reinforced. In truth, although some people with mental disorders do behave in a highly irrational or dangerous manner, most do not (Monahan, 1993; Skeem et al., 2002). One recent study found that just 15% of a sample of psychiatric patients were responsible for 67% of the violent incidents caused by the entire sample

BOX 1.2 The Rosenhan Study and Controversy

David Rosenhan's (1973) bold attempt to demonstrate that "insanity" is a problematic concept was both highly influential and very controversial. His study was conducted as follows: Rosenhan and 7 confederates individually gained admission to the psychiatric units of a total of 12 hospitals over a period of time by claiming, falsely, that they had heard hallucinated voices. After being admitted, they always stated that their symptoms had ceased and they acted as normally as possible. Yet they were never detected as fakes by hospital staff, and they had trouble getting released as their hospitalizations lasted an average of 19 days.

Rosenhan hoped that his study would make two major points. The first and most widely noticed point was that the label "mental illness" is misleading because it cannot be accurately identified (a *validity* issue) even by professionals. Rosenhan is a social psychologist, a discipline that emphasizes social (or *situational*) rather than internal (or *dispositional*) causes of people's behavior. Accordingly, he argued that mentally ill behavior is largely caused by the expectations and influences of a person's social environment (such as a psychiatric hospital) rather than by some true internal condition of mental illness.

His second major point, related to the first, was that the social environment in mental hospitals seemed unwittingly to encourage the very behaviors they were trying to eliminate. For example, the "pseudopatients" felt that these hospitals were dehumanizing environments in which little attention was paid to patients, and that being labeled as "mentally ill" contributed to the patients' problems and to impersonal treatment by the staff.

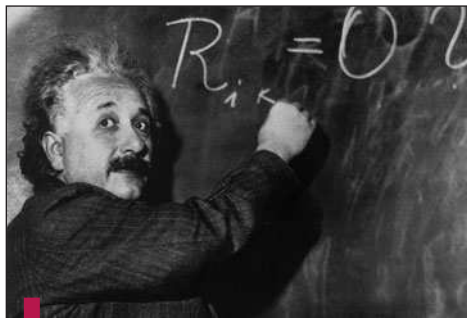
Rosenhan received much acclaim but also some harsh criticism for his conclusions. His most prominent critic was Robert Spitzer, a

leading research psychiatrist and one of the main authors of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM), the official diagnostic manual for classifying mental disorders. Spitzer (1975) viewed the Rosenhan study as seductive but logically faulty and misleading. In particular, Spitzer argued that Rosenhan's study did not actually prove what Rosenhan claimed, namely, that mental illness cannot be accurately identified. While Spitzer admitted that there were many problems with the state of psychiatric diagnosis, he argued that this was no different from other areas of medicine. Rosenhan's study, in Spitzer's view, only proved that these pseudopatients were not detected as faking mental illness, which is a far cry from proving Rosenhan's much more general claim that mental illness is only in the eye of the beholder. Here is Spitzer's (1975) conclusion to his rebuttal article, "On Pseudoscience, Logic in Remission, and Psychiatric Diagnosis: A Critique of Rosenhan's 'On Being Sane in Insane Places.'"

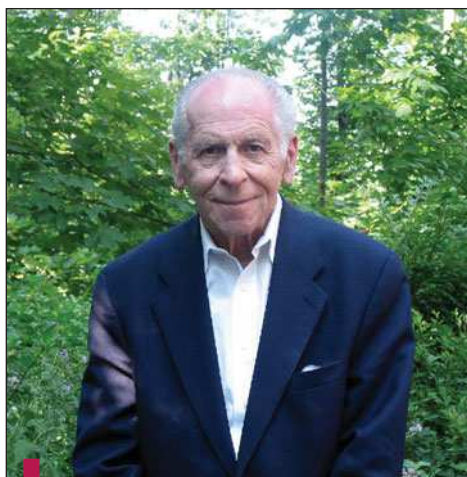
In conclusion, there are serious problems with psychiatric diagnosis, as there are with other medical diagnoses. Recent developments indicate that the reliability of psychiatric diagnoses can be considerably improved. However, even with the poor reliability of current psychiatric diagnoses, it is not so poor that it cannot aid in the treatment of the seriously disturbed psychiatric patient. Rosenhan's study, "On Being Sane in Insane Places," proves that pseudopatients are not detected as having simulated signs of mental illness. This rather unremarkable finding is not relevant to the real problems of the reliability and validity of psychiatric diagnoses and only serves to obscure them. . . . In the setting of a psychiatric hospital, psychiatrists are remarkably able to distinguish the "sane" from the "insane." (p. 451)

(Skeem et al., 2002). Similarly, self-destructive behaviors, such as suicidality or extreme recklessness, are typically associated with just a few mental disorders, not with the majority of them. The irrationality/dangerousness criterion has several other limitations. First, irrational and dangerous behavior can occur for many reasons that have nothing to do with mental illness. For example, in the proper *context*, such as on a battlefield or a football field, reckless, out-of-control aggression can be considered appropriate or even heroic, not abnormal! Second, to equate irrationality or lack of control with mental illness might imply that their opposites—extreme rationality and control—are the essence of mental health. The capacity for rational, controlled behavior is obviously important, but it can be taken to an extreme that is just as pathological as extreme irrationality. In fact, there is a mental disorder characterized by the traits of hyperrationality and a need for control taken to a pathological extreme. This disorder is called *obsessive-compulsive personality disorder*, and it will be discussed in Chapter 11.

Finally, equating rationality with sanity and irrationality with insanity is a *culturally relative* assumption that tends to be particularly characteristic of Anglo-American and Northern European cultures (Arrington, 1979; Fabrega, 1982/1984; Ngcobo & Edwards, 1998; Pichot, 1997). For example, Gabriel García Márquez, the Colombian Nobel Prize-winning author, has pointed out that in Latin cultures the experience of falling in love is often described as a state of irrationality, danger, and loss of control—yet falling "madly" in love is a peak human experience, not a sign of pathology. Even within Anglo-European culture, the assumption that rationality is healthier than irrationality



Deviants? Mahatma Gandhi and Albert Einstein were certainly “outliers” among the general population, yet they were models of greatness, not pathology.
©Bettmann/Corbis



Dr. Thomas Szasz Szasz has been one of the most influential critics of “deviance” as a criterion for abnormality.
Courtesy Dr. Thomas Szasz

frequently comes into question. For example, in Peter Shaffer’s fascinating play *Equus* (later made into a movie), a hyperrational psychiatrist treats a teenage boy who has committed the bizarre, irrational, and dangerous act of blinding several horses in a stable. By the end of the play, the rational but passionless psychiatrist (and the audience) has begun to believe that the boy is healthier than he is, because the boy at least has love and passion in his life. In summary, then, irrationality and dangerousness, like help seeking, can sometimes be *markers* of abnormality, but they are potentially misleading as criteria for defining it.

Deviance

Deviance refers to differentness—behavior or feelings that are extreme or statistically unusual. Deviance is often used as a criterion for defining abnormality in the sense that people who are considered “strange,” “weird,” or “bizarre” are often assumed to be mentally ill. It is true that some forms of mental illness do involve extreme or rare behaviors such as suicide attempts or hallucinations. But deviance has some important limitations as a criterion for psychopathology (Blackburn, 1995; Fields, 1996; Leifer, 1966; Szasz, 1973; Szasz, Reiman, & Chamblis, 1995).

First, not all mental illness involves extreme behaviors. People with mild anxiety disorders or mild depression may not seem noticeably “different,” yet these are diagnosable disorders that affect hundreds of millions of people worldwide. Even people with more unusual and severe disorders like schizophrenia may not behave in any obviously strange way much of the time. Second, deviance is not necessarily a sign of mental illness. Many people who are eccentric or who behave in extreme ways are emotionally healthy. For example, many respected leaders, artists, athletes, and entrepreneurs are deviant in the sense that their behavior is highly unusual, yet it is highly constructive and creative (think of Shakespeare, Gandhi, Einstein, Picasso, and Tiger Woods, all statistically “deviant” geniuses). Conversely, it would clearly be a mistake to equate mental health with conformity and conventionality; that would make for a dull society indeed! Consider the case of Oscar Schindler, the hero immortalized in Steven Spielberg’s movie about the Holocaust, *Schindler’s List*. Schindler, who saved hundreds of Jews from extermination by employing them in his factory, was certainly deviant in Nazi Germany. Yet, in his case, we would say that his deviance represented sanity and that the norms of Nazi society were pathological.

In any society, people who express unconventional views or act in unconventional ways are easily targeted. Thus, a serious potential danger of using deviance as a criterion for mental illness is that people who are socially, politically, or culturally different may be persecuted and stigmatized with the label “mentally ill” when in fact they may be simply expressing legitimate views that fall outside the mainstream. In the former Soviet Union, for instance, political enemies of the government were at times detained in mental institutions with the groundless accusation that they were mentally ill (Bonnie, 1990; Goldstein, 1975).

The psychiatrist Thomas Szasz is the best-known critic of the deviance criterion. In numerous articles and books, Szasz argues that the very concept of mental illness is a “myth” used by authorities to enforce compliance with social norms (Szasz, 1960; 1975; 1994). The movie *One Flew Over the Cuckoo’s Nest*, based on Ken Kesey’s novel, also powerfully expresses this view (see Box 1.3). Although most experts disagree with Szasz’s extreme (deviant?) perspective, Szasz’s general distrust of the use of deviance as a criterion has been very influential. A balanced appraisal would suggest that deviance, like help seeking and irrationality/dangerousness, can sometimes serve as a marker for abnormality but has serious limits as a defining criterion for it.

Emotional Distress

Emotional distress in some form—such as sadness or anxiety—is associated with most forms of psychopathology, making it a more useful criterion for defining and identifying mental illness than those we have considered so far. When we think of the most

common forms of mental illness—such as depression and anxiety disorders—emotional suffering is clearly a central feature of these conditions. It is hard to think of examples of psychopathology in which significant emotional distress is not present. Yet emotional distress has two important limitations as a defining criterion for mental illness.

First, in a few mental disorders emotional distress can be a relatively minor factor. For example, one interesting class of disorders, called the *personality disorders* (to be discussed in Chapter 11), involves personality traits so extreme and rigid that they are considered abnormal. Many individuals with personality disorders report little or no emotional distress. They may cause distress for the people around them because of their extreme and rigid personalities, but they often do not recognize their own problems, and typically they do not seek treatment. For example, people with *antisocial personality disorder* lack a normal conscience, violate social rules without remorse, and exploit others (APA, 2000; Hare, 1999; Richardson, 2000). They rarely report emotional distress, yet they clearly exhibit abnormal behavior.

An even bigger problem for the “emotional distress” criterion is that many forms of emotional distress are normal and not indicative of psychopathology. Consider the *grieving* process. It is entirely normal to feel intense emotional distress after a significant loss (Danforth, 2000; Liiceanu, 2000; Sacks, 1999). Indeed, it may be unhealthy and even pathological *not* to experience grief under these circumstances (Edelstein et al., 1999; Worden, 1991). Thus, in some situations, the presence of emotional distress is more normal than its absence.

However, situations like grieving are exceptions to the general rule that significant emotional distress is a relatively good marker of psychopathology. This general rule works most of the time, and clinicians consider the presence of emotional distress, in conjunction with other criteria, as one way to identify psychopathology. In sum, while emotional distress should be considered a partial rather than an absolute marker of psychopathology, it remains one of the most useful criteria.

Significant Impairment

Finally, let’s consider the criterion of impairment in the ability to function. Many experts in the field view significant impairment in functioning as the hallmark of psychopathology and the best defining criterion for it. After all, most forms of psychopathology involve some form of impairment, such as decreased energy (in depression), avoidance behaviors (in anxiety), and pervasive problems in daily living (in severe disorders like schizophrenia). But with this criterion, too, we find some limitations.

First, impairments in psychological functions (for example, memory or social skills) are sometimes caused by physical injuries or diseases, such as head injuries or strokes, not by psychopathology. Second, while it is difficult to think of emotional disorders that do not involve impairments of some kind, there are certain disorders—minor mood disorders, for example—in which functional impairments are relatively slight and certainly not the central features of the condition. A third limitation of this criterion is that “impairment in functioning” turns out to be almost as hard to define as “abnormality.” After all, determining what constitutes an impairment in functioning requires a definition of normal functioning, and distinguishing between normal and abnormal is, as we have seen, no simple matter. In this sense, “impaired” is more like a synonym of “abnormal” than a criterion of it, a problem logicians refer to as a “circular definition.” Nonetheless, impairment can be a generally useful criterion for identifying psychopathology.

After all, when we want to know whether someone’s emotional problems are “pathological,” we often begin by asking the question: “How much are these problems interfering with his or her life?” Thus, like emotional distress, significant impairment is one of the most useful, if imperfect, criteria for defining abnormality.



Emotional distress Emotional distress is one of the more useful criteria for abnormality, but in some circumstances emotional distress is entirely normal. This distressed woman, for example, is searching for her fiancé after the terrorist attacks of September 11, 2001.

©AP/Wide World Photos

BOX 1.3 | Abnormal Psychology and Film

ONE FLEW OVER THE CUCKOO'S NEST

This 1975 movie starring Jack Nicholson, based on the novel of the same name by Ken Kesey, is one of the most powerful critiques of the mental health establishment ever filmed. A brilliant dark comedy about a rebellious hooligan (Nicholson) who is locked up in a mental hospital, *Cuckoo's Nest* won five Academy Awards including Best Picture. The plot of the film focuses on Nicholson's character, Randle Patrick McMurphy, who has been sent to the hospital for a psychiatric evaluation because of his aggressive behavior while incarcerated for various crimes. McMurphy is appalled by the passivity and submissiveness of the other patients on his hospital ward, most of whom seem to live in fear of Nurse Ratched, who runs the unit with an iron grip. McMurphy tries to rouse the men into rebellion, insisting that they are no crazier than anybody else and are simply hiding from life. One character, the huge "Chief," a Native American who does not seem to speak or hear, watches the drama from afar. At one point, however, the Chief comes to McMurphy's

aid in a fight with the orderlies, and the two of them are punished with electroconvulsive therapy (ECT is discussed in Chapter 5).

McMurphy and the Chief later decide to escape from the hospital, but during a final illicit party on the ward their plans go awry. McMurphy has arranged for a shy, stuttering young patient named Billy to lose his virginity with a prostitute who has come to the party at McMurphy's invitation. Everyone passes out from drinking, and Nurse Ratched arrives the next morning to find the ward in a shambles. Billy is discovered with the prostitute, and when confronted about it by Nurse Ratched, he falls apart. McMurphy, enraged, attacks Nurse Ratched and nearly kills her. The story then moves to a dramatic climax, which we won't give away for those who haven't read the book or seen the movie!

The film, like Kesey's novel, tries to make the point that the label "mentally ill" is simply a convenient way for authorities to try to control people who are perceived as being too unconventional. "Treatment" is a euphemism for coercive efforts to make such people conform to social norms. In this sense, the film is a critique of the criterion of *deviance* for defining mental illness, and *Cuckoo's Nest* has a good deal in common with the work of Thomas Szasz in that respect. At the same time, the film obviously caricatures mental hospitals, patients, staff, and treatment rather than presenting an accurate view of them. While the film may be a valid critique of some of the excesses of the mental health establishment, it presents the extreme view that there is really no such thing as mental illness and that "treatment" is just a form of social control.



One Flew over the Cuckoo's Nest The film version of Ken Kesey's novel is widely considered a classic. In this scene, McMurphy (Nicholson) is trying to instigate fellow inmates to revolt against the tyranny of Nurse Ratched.

©Photofest

Let's consider the five criteria that we have just discussed by returning to the case of Dave. Do the criteria help us determine whether Dave's behavior is normal or abnormal? Dave does not seem to meet the first two criteria. He has not sought help, and he does not seem to be particularly irrational or dangerous, although his anxiety may be jeopardizing his overall health to some degree. Dave might meet the criterion of deviance since he is beginning to avoid people and activities in a somewhat unusual way, but his behavior is certainly not bizarre. However, he certainly meets the criteria of emotional distress and significant impairment in functioning. As we will see, the distress and impairment criteria form the basis of the current official definition of mental disorders. In fact, Dave's symptoms match a disorder that is formally recognized in current practice: *social phobia*, a significant fear and avoidance of social situations (a disorder that will be discussed in detail in Chapter 4). Thus, despite their limitations, these last two criteria, especially when used together, do seem to help us define abnormality.

BRIEF SUMMARY

- The case of Dave illustrates that it is difficult to define abnormality with any precision.
- People use various criteria to try to define and identify abnormality; many of these criteria are useful, but none works perfectly. Five widely used criteria are included in the acronym HIDES:
 - **H**elp seeking
 - **I**rrationality/dangerousness
 - **D**eviance
 - **E**mootional distress
 - **S**ignificant impairment
- The first three criteria are sometimes markers of psychopathology, but often they are not; as criteria for abnormality, they are frequently misleading.
- Emotional distress and significant impairment of functioning are more useful markers of psychopathology.

Critical Thinking Question

Can you think of an example of psychopathology that fits all five of the commonly used criteria for defining abnormality? Can you think of an example of psychopathology that involves only one of the criteria for defining abnormality?

CORE CONCEPTS IN DEFINING ABNORMALITY

We have determined that Dave's behavior fits the two most useful of the HIDES criteria—distress and impairment—well enough to be considered abnormal. But we are still faced with the broader question of how to define abnormality in general. Our review of the HIDES criteria demonstrates the complexity of defining psychopathology. This complexity stems from two core concepts in abnormal psychology: *cultural and historical relativism* and the *continuum between normal and abnormal behavior*.

Cultural and Historical Relativism

Relativism refers to the fact that what is considered normal and abnormal differs widely across cultures and over time (Fabrega, 1995; Leff, 1988; Lopez & Guarnaccia, 2000). Thus, there can be no *universal* definition of abnormality. Any definition will be *relative* to (that is, limited to) the cultural, social, and historical context in which it exists (Alarcon, Foulks, & Vakkur, 1998; Cohen, 1998; Comunian & Gielen, 2000; Kagitcibasi, 2000; Kim, 2000). In our society, for example, an individual who believes that he is possessed by a spirit that causes him to shout, laugh uncontrollably, and bang his head would certainly be considered abnormal. However, in certain North African and Middle Eastern cultures this experience has a name (*zar*; see Table 1.2 for other “culture-bound” syndromes) and is *not* considered pathological (Grisaru, Budowski, & Witztum, 1997; Mallery, 1999).

In contrast to *cultural relativism*, *historical relativism* refers to changes over time in a particular culture's views of abnormality. Perhaps one of the clearest examples concerns homosexuality. Until 1973, as noted earlier, homosexuality was included as a mental disorder in the official diagnostic manual of the American Psychiatric Association. Individuals “diagnosed” with homosexuality were prescribed “treatments” intended to change their sexual orientation, usually with unsuccessful and unhappy results (Bullough & Bullough, 1997; King & Bartlett, 1999; Rottnek, 1999). In 1973, the diagnosis of homosexuality was

TABLE 1.2 Culture-Bound Syndromes

This chart describes unusual behavioral syndromes found in specific parts of the world. Some are considered normal within their cultural context, although they would be considered abnormal elsewhere, highlighting the core concept of *cultural relativism*.

BEHAVIORAL SYNDROME	WHERE RECOGNIZED	DESCRIPTION
Amok	Malaysia; similar patterns elsewhere	Brooding followed by a violent outburst; often precipitated by a slight or insult; seems to be prevalent only among men.
Ataque de nervios ("attack of nerves")	Latin America and Mediterranean	An episode of uncontrollable shouting, crying, trembling, heat in chest rising to the head; verbal or physical aggression.
Bills, colera, or muina	Many Latin groups	Rage perceived as disturbing bodily balances, causing nervous tension, headache, trembling, screaming, etc.
Boufée delirante	East Africa and Haiti	Sudden outburst of agitated and aggressive behavior, confusion, and mental and physical excitement.
Brain fag	West Africa; similar symptoms elsewhere	"Brain tiredness," a mental and physical reaction to the challenges of schooling.
Dhat	India; also in Sri Lanka and China	Severe anxiety and hypochondria associated with discharge of semen and feelings of exhaustion.
Falling out or blacking out	Southern United States and Caribbean	Sudden collapse; eyes remain open but sightless; the victim hears but feels unable to move.
Ghost sickness	American Indian tribes	Preoccupation with death and the dead, with bad dreams, fainting, appetite loss, fear, hallucinations, etc.
Hwa-byung	Korea	Symptoms attributed to suppression of anger, including insomnia, fatigue, panic, fear of death, depression, and indigestion.
Koro	Malaysia; related conditions in East Asia	Sudden intense anxiety that sexual organs will recede into body and cause death; occasional epidemics.
Latah	Malaysia, Indonesia, Japan, Thailand	Hypersensitivity to sudden fright, often with nonsense mimicking of others, trancelike behavior.
Locura	United States and Latin America	Psychosis tied to inherited vulnerability and/or life difficulties; incoherence, agitation, hallucinations, and possibly violence.
Mal de ojo ("evil eye")	Mediterranean and elsewhere	Sufferers, mostly children, are believed to be under influence of "evil eye," causing fitful sleep, crying, sickness, fever.
Pibloktoq	Arctic and subarctic Eskimo communities	Extreme excitement, physical and verbal violence for up to 30 minutes, then convulsions and short coma.
Qi-gong, psychotic reaction	China	A short episode of mental symptoms after engaging in Chinese folk practice of qi-gong, or "exercise of vital energy."
Shen-k'uei or shenkui	Taiwan and China	Marked anxiety or panic symptoms with bodily complaints attributed to life-threatening loss of semen.
Sin-byung	Korea	Syndrome of anxiety and bodily complaints followed by dissociation and possession by ancestral spirits.
Spell	Southern United States	A trance in which individuals communicate with deceased relatives or spirits; not perceived as a medical event.
Susto ("fright" or "soul loss")	Latin groups in United States and Caribbean	Illness tied to a frightening event that makes the soul leave the body, causing unhappiness and sickness.
Taijin kyofusho	Japan	An intense fear that the body—its parts or functions—displease, embarrass, or are offensive to others.
Zar	North Africa and Middle East	Belief in possession by a spirit, causing shouting, laughing, head banging, etc.; not considered pathological.

(Adapted from DSM-IV by The New York Times.)

removed from the diagnostic manual as a result of complex social, political, and scientific changes (the history of these changes is described in detail in Chapter 9). Most mental health professionals now consider homosexuality one variation of normal sexual behavior.

To summarize, ideas about what is normal and abnormal vary over time and across cultures so that we can never define psychopathology in a universal, timeless way. *Relativism* even affects our understanding of a person like Dave and makes it impossible to say in absolute terms whether he is normal or abnormal. Our evaluation of his behavior only applies to the social and historical context in which he lives. For example, on a contemporary American college campus, Dave's social isolation seems somewhat unusual and problematic. But in another time and place—a medieval monastery, for example—it might well have been considered typical and normal.

The Continuum Between Normal and Abnormal Behavior

The second general issue affecting definitions of abnormality is the fact that normal and abnormal behaviors are not completely distinct but lie on a *continuum*. Abnormal behaviors and feelings are very often exaggerations of normal states. In other words, normality gradually shades into abnormality. Therefore, we cannot say exactly where to locate the cutoff between normal and abnormal behavior. Any decision about where to draw that line must be somewhat arbitrary.

Consider the case of Dave again. If Dave were so anxious that he could not leave his room, and he avoided all of his classes and friends for months, it would be easy to classify his behavior as abnormal. But when behavior is closer to the middle of the continuum, as in Dave's case, even experts within the same cultural and historical context will sometimes disagree about whether the behavior is normal or abnormal.

The continuum between normal and abnormal behavior has an implication specifically relevant to students taking courses in abnormal psychology. The fact that normality and abnormality lie on a continuum means that every human being experiences feelings and behaviors, such as sadness or social anxiety, that are milder versions of the more extreme states found in mental disorders. For some, this realization can be disturbing. Students of abnormal psychology may experience a form of *medical student syndrome*, a phenomenon that takes its name from a condition known among medical interns, who sometimes become alarmed by every minor headache or rash they experience while learning about exotic diseases (Hardy & Calhoun, 1997; Klamen, Grossman, & Kopacz, 1999). We can reassure students of abnormal psychology that in most cases such experiences are no cause for alarm and simply reflect the continuum between normal and abnormal states that is part of being human. Actually, the continuum between normality and abnormality can be an advantage in the study of abnormal psychology because we all can have some intuitive understanding of mental disorders by imagining exaggerations of our own experiences. Of course, some people may also become legitimately concerned about their mental health as they learn about psychopathology, especially since there is some evidence that mental health problems on college campuses have been increasing in recent years (Benton et al., 2003; 2004). We encourage people to speak with their instructor or to seek out a mental health professional in the community or on campus (most colleges and universities offer some form of low or no cost mental health evaluation and treatment to enrolled students) if they do experience such concerns.

BRIEF SUMMARY

- The complexity of the HIDES criteria for defining abnormality relates to two core concepts in abnormal psychology: *cultural and historical relativism* and the *continuum between normal and abnormal behavior*.
- *Relativism* refers to the fact that all definitions of abnormality are limited to their specific cultural and historical context.

- The *continuum between normal and abnormal behavior* means that the distinction between normality and abnormality will always be somewhat arbitrary. This contributes to the difficulty of precisely defining abnormality, but it is helpful for understanding abnormal behavior.

**Critical
Thinking
Question**

Can you think of any examples of psychopathology that might be easy to define and identify as abnormal regardless of the issue of *relativism* and the *continuum between normal and abnormal behavior*?

DEFINING ABNORMALITY: PRACTICAL SOLUTIONS

From our discussion of the difficulty of precisely defining abnormality, a natural question arises: How much of a *practical* problem is this problem of definition? How can one study and treat something that is so hard to define? The challenges of defining abnormality do create some practical problems, such as the risk of labeling as “mentally ill,” and even persecuting, people who are simply *different*. Even when clinicians are well intentioned, their misdiagnoses can adversely affect people in profound ways. If we could be more precise in identifying abnormality, what happened to David Rosenhan and his colleagues might not have happened, and other people, with much more at stake than Rosenhan and his research team, might be spared similar dehumanizing and stigmatizing experiences. So we cannot escape the fact that the problems in defining abnormality are not just academic or theoretical. They have real, and often very negative, consequences for people who are incorrectly or unfairly diagnosed.

On the other side of the issue, there are several reasons to think that the practical problems of defining abnormality are not as serious as some critics contend. First the psychiatrist Robert Spitzer points out in his critique of Rosenhan’s study (see Box 1.2) that in the world of everyday decision making, clinicians are rarely in the position of having to answer the question, “Is this person sane or insane?” Rather, clinicians are usually concerned with questions such as: “This person is feeling distressed: how can I help him?” or “This person is clearly mentally ill; what kind of disorder is she suffering from?” (Blechner, 2001; Kahn, 2001; O’Brien & Houston, 2000; Spitzer, 1975). “Sanity” and “insanity” are, in fact, legal terms rather than psychiatric ones. Only certain unusual circumstances, such as a court proceeding to determine if a person is “not guilty by reason of insanity” of a crime, require a legal determination (and therefore definition) of insanity (see Box 12.5). It is true that clinicians often diagnose clients with specific mental disorders as part of standard treatment and research procedures, and in so doing they implicitly define their clients’ behaviors as “abnormal.” In making these diagnoses, clinicians generally rely on *working definitions* of abnormality which are embedded in official diagnostic manuals. What are these “working definitions,” and how well do they work? In order to answer this question, let’s briefly consider the concept of definition more generally.

Many scientific terms and categories suffer from the same definitional problems that we have discussed regarding the terms *abnormality*, *psychopathology*, and *mental illness*. For example, if you think about medical terms such as *disease* and *pain*, it becomes clear that they, too, are somewhat vague and difficult to define precisely. Cognitive psychologists have argued that the definitions of many common, everyday concepts lack precise boundaries or specifications, and hence they have coined the terms *fuzzy* or *natural categories* (Massaro, 1987; McCloskey & Glucksberg, 1978). They also argue that fuzzy categories usually work reasonably well in everyday use, despite lacking precision (Rosch & Mervis, 1975). To demonstrate, consider the following situation. Imagine that someone set up a series of metal coils in a row. At the far left end, the coils are freezing cold, but as they progress to the right, each coil is one degree hotter until at the far right end the coils are

Natural categories Categories that usually work reasonably well in everyday life despite their lack of precision.

burning hot. Now, imagine having to precisely define the (fuzzy) term *hot* and to identify precisely where the *hot* coils begin. With such a gradual *continuum* between the coils, this would be impossible; you could only make an arbitrary distinction about where to draw the imaginary line between “hot” and “warm.” But imagine that someone asked you simply to identify a hot coil—a more typical categorization task. This would be easy because you could point to the right end of the row.

Psychopathology, like the hot coils, is impossible to define *precisely*. But because psychopathology usually falls toward the extreme end of the continuum of behavior, it is still relatively easy to *identify* in most cases. The task of identifying abnormality becomes more challenging only in a case such as Dave’s when the behavior in question falls in the fuzzy area at the boundary between normality and abnormality. To summarize, there are two main reasons that the lack of a precise definition of psychopathology is not as problematic as it might seem. First, clinicians rarely need to precisely define abnormality in typical clinical situations. Second, fuzzy, rather than precise, definitions are common in everyday and scientific contexts, and work reasonably well most of the time.

Working Definitions of Psychopathology

So far, we have reviewed the HIDES criteria that help us define and identify abnormal behavior. We have also considered the challenges of precisely defining psychopathology and recognize that such a definition is rarely necessary. However, we must address one last question. When a definition of psychopathology *is* necessary, what definition, fuzzy though it may be, should be used? As we will see, there are a variety of possibilities, including an “official” definition, which, though controversial, is widely used in the field for identifying and diagnosing psychopathology. The following definitions can be thought of as working, or *operational*, definitions; they are designed to be useful in practical or research situations, even though they are subject to many of the limitations we have been discussing.

Some of the pioneers in the field of psychopathology were content with very simple working definitions. Sigmund Freud, for example, once defined normality as the capacity “to love and to work,” so his implicit definition of abnormality could be stated as “impairments in the capacity to love and work.” Freud’s definition has the advantages of simplicity and directness, but it has the disadvantages of being very general and vague. Over time, mental health professionals have sought more detailed working definitions of mental illness. The recent trend has been toward increased emphasis on precise definitions of mental illness and specific mental disorders, as we will discuss in Chapter 3.

This detailed approach has become the hallmark of the recent editions of the “official” psychiatric manual for diagnosing mental disorders, a book called the *Diagnostic and Statistical Manual of Mental Disorders* published by the American Psychiatric Association. This book, currently in its fourth revised edition (generally referred to by its abbreviated name, the DSM-IV-TR) (APA, 2000), lists several hundred different mental disorders and provides instructions on how to identify them. The DSM-IV-TR definition of psychopathology is the currently accepted standard for diagnostic practice in the United States and many other countries. (We will discuss the development of the DSM system, how it is used in clinical practice, and its advantages and limitations in Chapter 3.) The DSM-IV-TR includes an introductory chapter with a section entitled “Definition of Mental Disorder.” This section discusses some of the problems we have been describing concerning the difficulties in defining the term *mental disorder*. The authors state:

... although this manual provides a classification of mental disorders, it must be admitted that no definition adequately specifies precise boundaries for the concept of “mental disorder.” The concept of “mental disorder,” like many other concepts in medicine and science, lacks a consistent operational definition that covers all situations. (APA, 2000).

The authors of DSM-IV-TR then proceed to offer their working definition of the term *mental disorder*. As you will see, it is a long and complicated one, testifying to the definitional challenges we have been discussing:

In DSM-IV, each of the mental disorders is conceptualized as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original cause, it must currently be considered a manifestation of a behavioral, psychological, or biological dysfunction in the individual. Neither deviant behavior (e.g., political, religious, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of dysfunction in the individual, as described above. (APA, 2000, pp. xxxi)

We would like to emphasize four aspects of this definition. First, the DSM-IV-TR definition contains many qualifications and undefined phrases (for example, “clinically significant” and “behavioral, psychological, or biological dysfunction”) that highlight the fuzziness of the term *mental disorder*. Second, it focuses mostly on the criteria of distress and impairment, which, as we discussed earlier, are generally considered more useful than the criteria of seeking help, irrationality/dangerousness, and deviance. Third, this definition is close, though not identical, to a simpler definition of mental illness as a *harmful dysfunction* proposed by Wakefield (1999) and discussed in Box 1.4.

Finally, as defined in the DSM-IV-TR, *mental disorder* is a broad concept that applies to a great many people. According to a recent authoritative study of the prevalence of mental disorders in the United States based on the DSM definition and guidelines, over 46% of Americans experience at least one mental disorder during their lifetimes (Kessler, et al., 2005a; 2005b). (See Figure 1.1 for the lifetime prevalence of common mental disorders in the United States)

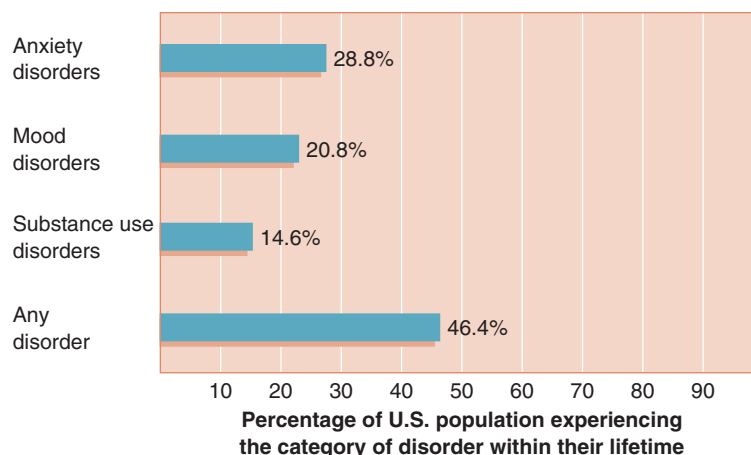


Figure 1.1 Lifetime prevalence of common mental disorders in the United States
Based on DSM-IV criteria, mental disorders are very common, as shown by these figures.
(Adapted from Kessler et al., 2005).

BOX 1.4 Defining Abnormality

THE “HARMFUL DYSFUNCTION” DEBATE

We have emphasized that no one has been able to come up with a fully acceptable definition of mental illness, but this hasn't kept people from trying. Notably, an entire issue of the *Journal of Abnormal Psychology* (APA, 1999) was devoted to just this effort. Jerome Wakefield, a clinical psychologist, had proposed in an earlier article that the term *mental disorder* should be defined as a “harmful dysfunction”—that is, any breakdown in an evolutionarily based human mental function that has harmful consequences. Here is an excerpt in which Wakefield (1999) outlines his position.

In a recent series of articles, I proposed that disorder means harmful dysfunction, where dysfunctions are failures of internal mechanisms to perform naturally selected [i.e., evolutionarily adaptive] functions. The harmful dysfunction (HD) analysis rejects both the view that disorder is just a value concept referring to undesirable or harmful conditions [e.g., the impairment criterion] and the view that disorder is purely a scientific concept. Rather, the HD analysis proposes that a disorder attribution [i.e., a decision that someone has a disorder] requires both a scientific judgment that there exists a failure of designed function and a value judgment that the design failure harms the individual. (p. 374)

Roughly half of the commentaries on Wakefield's article argued in favor of Wakefield's definition; the other half argued against it. Here is an excerpt from Robert Spitzer (1999), the same

psychiatrist who rebutted Rosenhan's study. In the summary of his article, he praises Wakefield's definition.

Physicians, including psychiatrists, give a lot of thought in their everyday work to answer the question of whether or not a particular patient has a disorder; they rarely give much thought to the broader issue of what constitutes a disorder. Remarkably, and consistent with the harmful dysfunction (HD) analysis, there is a broad consensus in both the general public and the medical and health professions as to what conditions are disorders—even though there is no consensus definition of disorder. The HD analysis is a substantial advance over previous attempts to define disorder. (p. 430)

In contrast, some critics argued that Wakefield's definition amounts to “biological reductionism,” which underestimates the complexity and “fuzziness” of the concept of a disorder. Here is an excerpt from one critical response (Kimayer & Young, 1999).

The evolutionary theory of the concept of mental disorder as harmful dysfunction that J.C. Wakefield proposed (a) does not correspond to how the term disorder is used in psychiatric nosology [diagnosis] or in clinicians' everyday practice; (b) does not cover the territory to which the term reasonably could be applied; and (c) is not especially useful for research, clinical, or social purposes. The broad concept of disorder is a polythetic [multiple], not a monothetic [single], concept. As such, there need be no essential characteristic, criterion, or single prototype of disorder. (p. 446)



Jerome Wakefield

Courtesy Jerome C. Wakefield

lence of common mental disorders in the United States.) Clearly, the debate over whether the term *disorder* can be precisely and usefully defined is unlikely to be resolved anytime soon.

BRIEF SUMMARY

- The difficulty of precisely defining abnormality creates certain practical problems. For example, the Rosenhan study demonstrates that people can be mistakenly labeled as mentally ill, leading to potentially serious consequences.
- On the other hand, clinicians rarely need to precisely define abnormality. In most circumstances, they can do their jobs without a precise definition.

- Abnormality is a “fuzzy” concept. Like other fuzzy concepts, it works reasonably well in clinical practice despite its lack of precision.
- Experts in the field have developed a working definition of psychopathology described in the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders*. It serves as the official definition of the concept “mental disorder,” although it is somewhat fuzzy and quite broad.

**Critical
Thinking
Question**

Does the lack of a precise definition of psychopathology seem to you to be a significant problem? Why or why not?

The issues surrounding the definition and identification of psychopathology are part of what make the field of abnormal psychology so interesting and controversial. We revisit these issues many times throughout the book, and introduce you to several others as well. In the next chapter we take up another challenging and enduring issue in the field: how to *explain* abnormal behavior.

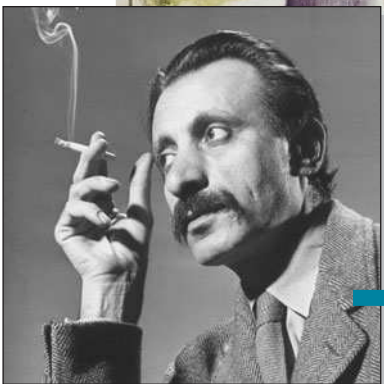
Chapter Summary

- The field of abnormal psychology addresses how abnormal behavior is defined, classified, explained, and treated.
- The field of abnormal psychology is about 100 years old. Throughout its history, decisions about how to define, classify, explain, and treat abnormal behavior have revolved around certain concepts. We discuss six core concepts that continue to shape the field of abnormal psychology:
 - The importance of *context* in defining and understanding abnormality
 - The *continuum between normal and abnormal behavior*
 - *Cultural and historical relativism* in defining and classifying abnormality
 - The *advantages and limitations of diagnosis*
 - The principle of *multiple causality*
 - The *connection between mind and body*
- Every case of abnormal behavior touches on these core concepts—whether it is a case of a contemporary college student suffering from an eating disorder or an historical figure such as Charlotte Perkins Gilman with severe depression. Although the field of psychopathology has made enormous advances, the core concepts remind us that there are still as many questions as answers in this field and that our understanding of abnormal behavior will continue to evolve.
- The case of Dave highlights many of the complex issues involved in defining the terms *abnormality*, *mental illness*, and *psychopathology*.

- It is never possible to universally and precisely define abnormality because of the core concepts of *cultural and historical relativism* and the *continuum between normal and abnormal behavior*.
- Although these core concepts can make it difficult to define abnormality and to decide whether an individual has a mental disorder, the degree of difficulty in doing so depends on certain circumstances. For example, the issue of *relativism* is lessened if we restrict our task to identifying abnormality within the limits of a given cultural and historical context, such as contemporary American society.
- In cases like Dave's, which are near the middle of the *continuum between normal and abnormal behavior*, it can still be difficult to identify abnormality because it is a fuzzy concept without clear-cut boundaries.
- Fortunately, the fuzziness of the category "abnormality" is not a significant problem in most everyday clinical decisions about identifying and treating psychopathology.
- Working definitions of psychopathology, like the one provided in the DSM-IV-TR, offer an official definition when one is needed.
- As defined and categorized in the DSM-IV-TR, mental disorders are very common, affecting an estimated 46% of Americans at some point in their lives.



Arshile Gorky,
Water of the Flowery Mill, 1944/
SuperStock, Inc. ©2007
Estate of Arshile Gorky/
Artists Rights Society (ARS), New York



Gjon Mili/Getty Images News and Sport
Services

Arshile Gorky (1904–1948) came to New York City in 1920 after escaping the massacre of Armenians and watching his mother die of starvation in his homeland of Turkey. He is credited with having developed a painting style that combined European Modernism with American Abstract Expressionism. While professionally successful, Gorky experienced a number of tragic personal events including a fire in his studio, a bout of cancer, and the failure of his marriage. At age 44, he took his own life. How do we explain Gorky's suicide? Was it due to events in his early life, his later life, to biological abnormalities in his mood regulation, or to a complex mix of these and other factors? In this chapter we consider the issue of explaining abnormal behavior.

Explaining Abnormality

WHAT CAUSES PSYCHOPATHOLOGY?

In Chapter 1, we focused on the challenges of identifying and *defining* psychopathology—on how one might tell whether or not a person’s behavior is “abnormal.” In this chapter we take up a second important issue in the study of abnormal psychology. Once a mental disorder has been identified, how can we understand and explain what causes it? Let’s think back for a moment to the case of Dave—the college sophomore suffering from anxiety in social situations—and approach it from the perspective of *explanation*. What are the causes of his social anxiety? At this point, we will add a bit more background information about Dave to help us think about the causes of his anxiety and his increasing social isolation.

CASE Vignette

Despite Dave’s hopes that he would feel less anxious during the second semester of his sophomore year, his troubles intensified to the point that he decided to seek help at the college clinic. During his first two sessions, Dave told his therapist about his problems and his life. Here is a summary of that information. Dave is the younger of two children in a middle-class family; his father is a physician’s assistant, and his mother is a teacher. Dave’s older brother, Thomas, has had a difficult life, suffering for many years from severe anxiety, which has made it hard for him to do well both academically and socially. As a result, Dave feels that the family pressure to succeed has fallen increasingly on him. Dave has handled this pressure well, as his general success thus far in life would indicate, but he does occasionally lapse into an apprehensive, pessimistic attitude when the pressure feels too great. Dave’s father is devoted to his family, but his job has always required him to work long hours, sometimes leading to marital tension. Dave’s mother is loving and sensitive most of the time, but when she feels stressed by her work, family, and marriage, she tends to become anxious and withdrawn.

Dave occasionally feels that he gets “taken for granted” when he is doing well, since both of his parents are so busy and caught up in the demands of their own lives. Also, Dave’s family seems to have a pattern of providing more attention and support to family members who are having trouble, like Dave’s brother. For the most part, however, the family enjoys being together and gets along well despite these patterns and tensions. Everyone is in good physical health, although Dave has been diagnosed with a mild heart condition that causes him to experience occasional palpitations and shortness of breath.

With this brief description in mind, let’s turn to the general issues of explaining abnormality. We will periodically return to the case of Dave to illustrate various points that come up along the way.

CASE VIGNETTE

Explaining Abnormality: The Core Concepts

- Cultural and Historical Relativism
- The Principle of Multiple Causality
- The Connection Between Mind and Body

The Theoretical Perspectives

- Biological Perspectives
- Psychodynamic Perspectives
- Humanistic and Existential Perspectives
- Behavioral Perspectives
- Cognitive Perspectives
- Sociocultural and Family Systems Perspectives
- Alternative Therapies and Mental Health Enhancement

CASE VIGNETTE

Explanation and Treatment

EXPLAINING ABNORMALITY: THE CORE CONCEPTS

You may already be familiar with some of the theories that are most often used to explain psychopathology. Currently, the most widely used theories in the field are *psychological* theories, such as *psychodynamic*, *behavioral*, and *cognitive* theories, which focus on an individual's mental processes, and *biological* theories, which focus on biochemical influences on behavior. Before we present these theories and others in detail, we need to consider three core concepts in abnormal psychology: the issue of **cultural and historical relativism** that we encountered in Chapter 1; the **principle of multiple causality**; and the **connection between mind and body**.



Cultural and Historical Relativism

Many forms of mental illness have been recorded throughout history. We can find stories in the Bible, for example, which describe people suffering from what today would be called depression and schizophrenia (Bark, 1988; Kahn, 1975). The history of humanity's ever-changing ways of identifying, classifying, and treating the mentally ill is a fascinating story in its own right (see Box 2.1). Every society develops ways of trying to understand and manage people who seem abnormal. Let's consider two distinct historical examples in order to illustrate the wide range of possible approaches to explaining abnormal behavior.

"Primitive" Explanations: Animism and Spiritual Theories

According to anthropological and archeological evidence, in so-called primitive or pre-modern societies, the typical approach to explaining abnormal behavior was a form of **animism** (Esper, 1964). Animism, in general, refers to the belief in the existence and power of a spirit world. According to an animistic worldview, a person afflicted with a mental disturbance has been possessed by a spirit, usually an evil or malevolent one.

Archeological evidence of a practice known as *trephination* provides one interesting indication of animistic beliefs. Trephination consisted of cutting an opening in the skull of a living person in the belief that this would allow the evil spirit causing abnormal behavior to escape. Apparently, techniques of trephination were refined enough that some "patients" survived; archeologists have found skulls with new bone growth around the holes! Although there is some debate among historians about whether trephination was a common practice, there is little doubt that such animistic theories were widespread in many early societies (Selling, 1940; Tylor, 1958). A second method of "treatment" related to the animistic views of abnormal behavior is a more familiar practice known as *exorcism*. Exorcism is a ritual, usually carried out by religious authorities, in which evil spirits thought to be causing pathological behavior are "cast out" of the suffering person.

Our point in describing these animistic belief systems is not only to illustrate the great variety of historical and cultural approaches to explaining mental disorders, but also to highlight the idea that animistic theories that sound strange and unscientific today had a coherence that made them seem plausible to the people who believed in them. If the world seems populated by spirits, it is only logical to assume that strange behavior might be caused by evil spiritual forces. And if evil spirits have possessed a person's mind, then it follows logically that "treatment" might involve finding ways to expel those spirits. These beliefs were part of a coherent worldview that seems odd to us mainly because it is a worldview we do not share.

The Ancient Greeks: Early Biological Theories

A very different way of explaining mental disorders arose among the physicians of ancient Greece and Rome as part of the development of a less animistic, more biological

Animism Belief in the existence and power of a spirit world.



Trephinated skull This trephinated skull was excavated from Jericho. The individual survived the procedure as indicated by the bone growth around the holes.
©Science Museum/Heritage/The Image Works

BOX 2.1 Cruelty and Compassion

A BRIEF HISTORY OF THE TREATMENT OF MENTAL ILLNESS

For centuries, the seriously mentally ill were sent to *asylums*, institutions where they were housed and treated. The history of such institutions and treatments is a varied and often horrifying one. The word “asylum” comes from the Greek word for “inviolable”; asylums are meant to be places of sanctuary and refuge that cannot be violated. Indeed, the ancient Greeks and Romans had relatively enlightened views of mental illness, and patients were often treated with baths, exercise, and emotional support. Following the Greek and Roman eras, however, mental institutions were generally not places of safety and inviolability for patients. The mentally ill were sometimes treated with compassion, but more often with cruel practices, such as beatings and bloodletting. Attitudes toward the mentally ill are more humane today than at most times in the past, but compassionate treatment of people exhibiting abnormal behaviors is still something of a historical novelty.

For many centuries, most asylums were run by religious institutions. Beginning in the Renaissance, the care of the mentally ill shifted increasingly to state and private institutions. For example, in 1547, King Henry VIII of England established an asylum called St. Mary of Bethlehem, from which came the word “bedlam,” the local pronunciation of Bethlehem. This asylum became infamous as a tourist attraction where patients were exhibited to the public like creatures in a human zoo. During the Middle Ages and the Renaissance

people could be locked up in asylums, without legal recourse, by family members or even by creditors. Conditions were usually more like those in unsanitary and abusive prisons than hospitals, and treatment was almost nonexistent.

In the eighteenth and nineteenth centuries, numerous reformers worked valiantly to improve conditions for the mentally ill. One of the most well known was the French reformer Philippe Pinel (1745–1826), a physician who was also known for his early work on psychiatric diagnosis and schizophrenia. (Pinel’s work is discussed further in Chapters 3 and 12.) Together with like-minded colleagues, Pinel pursued what came to be known as *moral treatment*, the philosophy that mental patients should be treated humanely as sick individuals rather than as freaks, criminals, or animals. He freed many of the patients in La Salpêtrière, a famous hospital in Paris, and provided moral treatment to those who remained, removing their chains and encouraging exposure to fresh air and exercise.

In the United States, reformers advocated for more enlightened treatment practices similar to those advanced by Pinel. Dorothea Dix (1802–1887), a schoolteacher, campaigned tirelessly for improved conditions in asylums. She was appalled by the common practice of beating patients, tying them with ropes, and shackling them with balls and chains. Dix raised millions of dollars to establish state mental hospitals offering humane care.

(continues)



An artistic depiction of an “insane asylum.” Note the detailed portrayal of the patients’ emotional expressions.

©Corbis

But conditions deteriorated again in the first half of the twentieth century, when increases in the number of hospitalized patients made it difficult to implement the principles of moral treatment. Many mental hospitals offered custodial care at best and abusive maltreatment at worst.

The most recent chapter in this story is known as the **deinstitutionalization** movement (see Chapter 12). Beginning in the 1960s, the number of patients in psychiatric hospitals in the United States radically decreased—from over 500,000 in 1960 to approximately 150,000 in 1980 (Willerman & Cohen, 1990)—and conditions for those who continued to be hospitalized improved dramatically. In part, deinstitutionalization and improvements in hospital care were brought about by the development of new psy-

chiatric medications during the 1950s, which helped most hospitalized patients and allowed many to function outside of a hospital setting. Deinstitutionalization was also driven by economic forces as the cost of hospitalization increased. Overall, deinstitutionalization has had mixed results. It has allowed more patients to live freer lives, but it has also been blamed for contributing to the homeless population because, too often, people released from hospitals are not provided with adequate community support and treatment.

Deinstitutionalization The social policy, beginning in the 1960s, of discharging large numbers hospitalized psychiatric patients into the community.

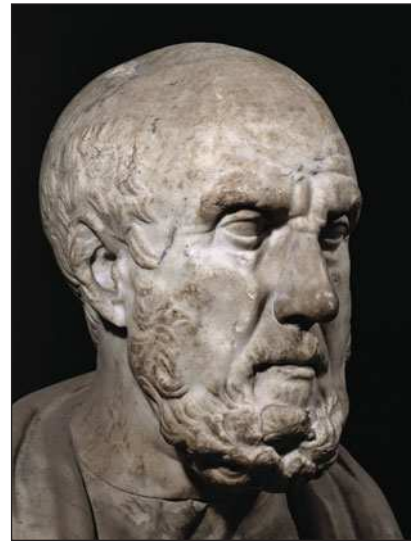


From cruelty to compassion Not long ago, people with mental disorders were treated like criminals or animals, as seen in this drawing (at left) of an 18th century mental asylum. While there are still many problems with our treatment of the mentally ill, conditions have become much more humane in psychiatric hospitals, as indicated by this photograph of an art therapy class.

(Left) © Science Photo Library/Photo Researchers, Inc. (Right) David Hoffman/Alamy Images

Humours Four bodily fluids believed, by Hippocrates and Greek doctors, to control health and disease.

and scientific, worldview in these cultures. Two examples of these early biological theories of mental illness may help to illustrate this mode of explanation. First is the well-known theory of Hippocrates (460–377 B.C.E.), the great Greek philosopher and physician. Hippocrates believed that all diseases, including mental disorders, were caused by an imbalance among the four fluids, or **humours**, that were thought to circulate in the body. Among the four humours, too much *blood* was thought to cause moodiness; too much *phlegm* to cause lethargy; too much *black bile* to cause melancholia (depression), and too much *yellow bile* to cause aggressiveness and anxiety. In accordance with this theory of the causes of mental disorders, Hippocrates advocated



Hippocrates Hippocrates lived from about 470–377 B.C.E. in Greece. These four medieval illustrations portray the temperaments associated with the four humours described by Hippocrates. For example, the upper left picture depicts an aggressive temperament thought to be caused by excessive yellow bile; the lower left illustration shows a melancholic temperament due to black bile.

(Left) Bettmann/Corbis (Right) Erich Lessing/Art Resource

treatments based on reestablishing proper balance among the four humours through dietary and behavioral changes. We can see how different this explanatory and treatment approach—with its emphasis on *biological* forces—is from an animistic one that emphasizes *spiritual* forces. We should also note how closely Hippocrates' theory resembles aspects of current biological explanations of mental illness with their emphasis on chemical imbalances in the brain.

A second example of an early biological theory developed by the ancient Greeks relates to a fascinating disorder known as **hysteria**. Hysteria has a special place in the history of the field of abnormal psychology. As we will explain later on in this chapter, it played a central role in the development of psychoanalysis many centuries after the Greek physicians theorized about it (see Box 2.2). Hysteria involves the development of various symptoms that are usually caused by neurological (brain) damage or disease—symptoms such as paralysis, loss of sensation, confusion, and various physical pains and ailments—when these symptoms occur *without* any neurological basis. This syndrome was common in ancient Greece, and Greek physicians developed a theory of its cause based on their medical observations. First, they noted that hysteria was found almost exclusively in women. Second, they observed that the symptoms of hysteria tended to be temporary and to move around to different parts of the body. Thus, a typical case of hysteria might consist of a paralysis of the arm lasting two days, followed by loss of sensation in the legs for a week, followed by pains in the feet. The Greek doctors put these observations together with their view of female anatomy, which included the belief that the uterus was not stationary in the abdomen, but actually traveled through the body in search of pleasant aromas. (In fact, the term *hysteria* is derived from the Greek word “hystera,” which means uterus.) Not surprisingly, they developed

Hysteria A term used for centuries to describe a syndrome of symptoms that appear neurological, but do not have a neurological cause; now classified as **conversion disorder**.

BOX 2.2 Modern Hysteria

NEW FORMS FOR AN OLD DISORDER?

It is often claimed that hysteria—the strange disorder that launched Freud’s psychoanalytic theory—has all but disappeared in modern times. The DSM-IV-TR does not include hysteria by that name, although it does include a similar collection of symptoms under the name *conversion disorder*. Conversion disorder is defined much as Freud and his colleagues defined hysteria: symptoms affecting voluntary motor or sensory function that suggest a neurological or medical condition but have a psychological, not a medical, cause. The DSM-IV-TR states that the prevalence rate of conversion disorder is less than 0.3% of the general population (APA, 2000).

Some theorists, however, have argued that hysteria is actually much more common today than the DSM-IV-TR would suggest. Their view is that hysteria appears in different forms in different cultural and historical settings, depending on which kinds of physical symptoms are considered “legitimate.” Thus the essence of hysteria—psychologically based physical symptoms—remains the same across time and place. But the nature and focus of the physical symptoms of hysteria change across time and place because patients need to believe that their symptoms are “real,” and to do so they unconsciously mimic common syndromes in their culture.

One such theorist, Elaine Showalter, a professor of humanities and English at Princeton University, goes so far as to argue that many recent media-hyped disease “fads” are essentially modern epidemics of hysteria. She includes chronic fatigue syndrome, Gulf War syndrome, alien abduction, satanic ritual abuse, and multiple personality disorder (Chapter 7) as examples of such hysterical epidemics. Here is an excerpt from her 1997 book, *Hystories*.

Just as scientists prematurely proclaimed infectious diseases to be dead, so too psychiatrists prematurely announced the death of hysteria. In her 1965 study, Ilza Veith marveled at the “nearly total disappearance” of the disorder. “Where has all the hysteria gone?” psychologist Roberta Satow asked a decade later. Some doctors explained that the diagnostic tools of modern medicine had

conquered hysteria by identifying it as unrecognized organic illness. A number of historians and sociologists argued that hysteria was really a Victorian disorder, a female reaction to sexual repression and limited opportunities,

*which diminished with the advent of modern feminism. Many psychiatrists believed that widespread awareness of Freudian psychoanalysis had made somatic conversion hysterics like limps and paralysis unfeasible as expressions of anxiety. According to the British analyst Harold Mersky in *The Analysis of Hysteria* (1978), conversion hysterics occur only in psychoanalytically unsophisticated areas such as East Africa, South Korea, Sri Lanka, or Nigeria. Whatever the cause, “hysteria is dead, that is certain,” wrote the French medical historian Etienne Trillat, “and it has taken its secrets with it to the grave.”*

But hysteria has not died. It has simply been relabeled for a new era. While Ebola virus and Lassa fever remain potential, psychological plagues at the end of the twentieth century are all too real. In the

1990s, the United States has become the hot zone of psychogenic diseases, new and mutating forms of hysteria amplified by modern communications and fin de siècle anxiety. Contemporary hysterical patients blame external sources—a virus, sexual molestation, chemical warfare, satanic conspiracy, alien infiltration—for psychic problems. A century after Freud, many people still reject psychological explanations for symptoms; they believe psychosomatic disorders are illegitimate and search for physical evidence that firmly places cause and cure outside the self. (p. 4)

Showalter’s view is controversial, but it provides an interesting historical perspective on a number of contemporary medical and psychological syndromes.



Elaine Showalter

Courtesy of Elaine Showalter, Ph.D

the theory that hysteria resulted from the uterus getting stuck in various parts of the body, causing a temporary symptom wherever the blockage occurred (Willerman & Cohen, 1990). Based on this reasoning, the Greek physicians developed an ingenious treatment for hysteria: they tried to lure the uterus back to its home base in the abdomen by placing a bouquet of sweet smelling flowers there!

What is most interesting about this “treatment” is how often it apparently worked. Its success was undoubtedly due to the power of **suggestion**—that is, the profound

Suggestion The physical and psychological effects of mental states such as belief, confidence, submission to authority, and hope.



Woman with hysteria This famous painting depicts a demonstration of the use of hypnosis to treat a woman suffering from hysteria. The lecturer is the great nineteenth century neurologist Jean Charcot who is teaching medical colleagues in Paris. Charcot's writings and demonstrations greatly influenced Sigmund Freud.

Erich Lessing/Art Resource

physical and psychological effects of mental states such as belief, confidence, submission to authority, and hope. But our main point in using the example of hysteria is to highlight again the diversity of historical approaches to explaining mental disorders. For the Greek physicians, a biological way of thinking—though flawed in terms of current knowledge—logically tied together their beliefs and observations.

Obviously, approaches to explaining psychopathology have changed dramatically over time and across cultures. These changes are not limited to modifications of particular theories, but involve shifts in overall worldviews or **paradigms**. Explanatory paradigms for mental illness have shifted back and forth over many centuries among the spiritual, biological, and the psychological realms. These profound changes in explanatory approach provide a caution against assuming that any particular explanations are “right” in some ultimate sense. How we explain psychopathology is always dependent on, or *relative* to, our cultural and historical context. These shifts may also tell us something surprising about the nature of scientific progress. Some philosophers of science describe scientific progress as a series of radical *paradigm shifts* (Kuhn, 1962) rather than as the gradual accumulation of knowledge that is generally assumed to characterize scientific advances (see Box 2.3). If this is so, we must be prepared to see dramatic changes in our own current paradigms for explaining abnormal behavior.

We hope that this historical tour has served as a reminder of the issues of *cultural and historical relativism*. Having visited these historical examples, we now turn to another core concept relevant to explaining mental illness, the principle of *multiple causality*.

The Principle of Multiple Causality

Explaining psychopathology is complicated by the variety of different theoretical perspectives in abnormal psychology; students often wonder how to choose among or reconcile them. This theoretical pluralism can lead to a temptation to use one favorite theory to explain all aspects of psychopathology, a problem known as **reductionism**. The old saying that “If the only tool you have is a hammer, everything starts to look like a nail” describes reductionism well. The problem with reductionism is that most mental disorders do not have a single, simple explanation. Rather, they have multiple causes and are often best explained by a combination of theoretical perspectives.

Paradigms Overall scientific worldviews, which, according to philosopher of science Thomas Kuhn, radically shift at various points in history.

Reductionism Explaining a disorder or other complex phenomenon using only a single idea or perspective.

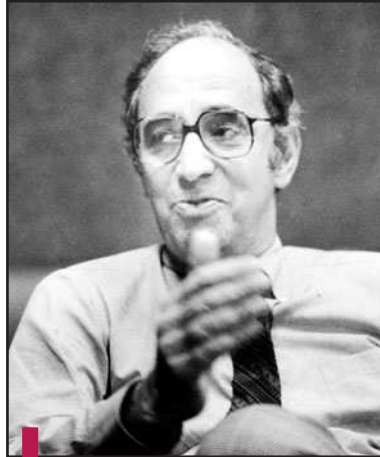


Multiple
causality

BOX 2.3 Paradigm Shifts

THOMAS KUHN'S *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS*

The historian and philosopher of science Thomas Kuhn (1922–1996) is best known for his influential 1962 book, *The Structure of Scientific Revolutions*. In this book, Kuhn developed the argument that science does not proceed, as was commonly thought, by the steady accumulation of new observations and facts. Rather, scientists work within a framework of accepted assumptions, a *paradigm*, which is periodically revised and replaced by a new paradigm. Thus science progresses by “revolution” as opposed to orderly evolution, and the boundary between scientific “fact” and unscientific “superstitions” is blurrier than we often like to think. Here is an excerpt from Kuhn’s introductory chapter in which he begins to question traditional views of science and how it progresses. Note the similarity of his argument to our discussion of the core concept of *historical relativism* and his implication that current “facts” in science (including abnormal psychology) will one day be regarded as superstitious “myths.”



Thomas Kuhn

Jim Willson/New York Times Pictures

If science is the constellation of facts, theories, and methods collected in current texts, then scientists are the men [sic] who successfully or not, have striven to contribute one or another element to that particular constellation. Scientific development becomes the piecemeal process by which these items have been added, singly and in combination, to the ever growing stockpile that constitutes scientific technique and knowledge. And history of science becomes the discipline that chronicles both these successive increments and the obstacles that have inhibited their accumulation. . . .

In recent years, however, a few historians of science have been finding it more and more difficult to fulfill the functions that the concept of development-by-accumulation assigns to them.

As chroniclers of an incremental process, they discover that additional research makes it harder, not easier, to answer questions like: When was oxygen discovered? Who first conceived of energy conservation? Increasingly, a few of them suspect that these are simply the wrong sorts of questions to ask. Perhaps science does not develop by the accumulation of individual discoveries and inventions. Simultaneously, these same historians confront growing difficulties in distinguishing the “scientific” component of past observation and belief from what their predecessors had readily labeled “error” and “superstition.” The more carefully they study, say, Aristotelian dynamics, philogistic chemistry, or caloric thermodynamics, the more certain they feel that those once current views of nature were, as a whole, neither less scientific, nor more the product of human idiosyncrasy than those current today. If these out-of-date beliefs are to be called myths, then myths can be produced by the same sorts of methods and held for the same sorts of reasons that now lead to scientific knowledge. If, on the other hand, they are to be called science, then science has included bodies of belief quite incompatible with the ones we hold today. (pp. 1–2)

To illustrate Kuhn’s point in regard to abnormal psychology, recall the animistic theories and Greek medical beliefs reviewed earlier. Kuhn would regard the change from animistic to medical explanations as a major paradigm shift.

Precipitating cause The immediate trigger or precipitant of an event.

Predisposing cause The underlying processes that create the conditions making it possible for a precipitating cause to trigger an event.

Diathesis-stress model The view that the development of a disorder requires the interaction of a diathesis (predisposing cause) and a stress (precipitating cause).

One particularly important example of the principle of multiple causality is the interaction of **precipitating causes** and **predisposing causes**. A precipitating cause is the immediate trigger or precipitant of an event, such as a sudden shift in the Earth’s tectonic plates triggering an earthquake. A predisposing cause is the underlying process that sets the stage for the event, such as the slow movement of the tectonic plates for years preceding the earthquake. This distinction is especially important in explaining psychopathology because mental disorders like schizophrenia or alcoholism or Dave’s social anxiety usually have both precipitating (immediate) and predisposing (underlying) causes. This point of view is also sometimes referred to as the **diathesis-stress** model of psychopathology (Lewinsohn, Joiner, & Rohde, 2001; Meehl, 1962). The diathesis-stress model posits that the development of a disorder requires the interaction of a diathesis (predisposition) and a stressor (precipitant) (see Figure 2.1).

A rather gruesome example of the importance of the distinction between diathesis/predisposing causes and stress/precipitating causes occurred in a notorious legal case

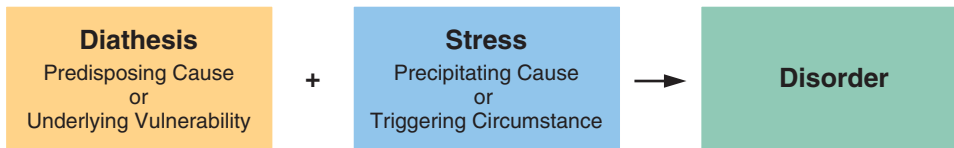


Figure 2.1 The diathesis-stress model: Predisposing and precipitating causes

in the 1980s. On December 23, 1985, Raymond Belknap, 18, and James Vance, 20, were listening to the music of their favorite band, Judas Priest. While doing so, they made a suicide pact and took a shotgun to a nearby playground to carry out their plan. Belknap died immediately and Vance was horribly disfigured but survived for several years. Later, the boys' families sued Judas Priest and their record company, claiming that suicidal hints in the lyrics of the songs (which the families claimed were *subliminal*, meaning below the threshold for conscious perception yet unconsciously perceived) had driven the boys to their fateful pact. Ultimately, the band and the record company were not held responsible on the grounds that even if the lyrics might have been a precipitating cause of the suicide pact, the predisposing cause lay in the serious emotional problems each young man had exhibited for years (Litman & Farberow, 1994). It is generally true that precipitating causes by themselves are not enough to cause a disorder, even though they are often more obvious and therefore easy to seize upon as an explanation, as the families in the Vance case tried to do.

The Connection Between Mind and Body

It is often stated that there are currently two major paradigms for explaining mental disorders, the *psychological* paradigm and the *biological* paradigm. Remember that a paradigm is broader than a theory—it is a general way of thinking about the world that contains many specific and different theories within it. For example, included within the psychological paradigm are many distinct theoretical perspectives such as the psychodynamic, humanistic, cognitive, and behavioral perspectives. Similarly, the biological paradigm includes all theories that focus on physical causes of mental disorders, and involves a wide range of factors such as genetics, neurochemistry, and neuroanatomy.

A major problem in the field of abnormal psychology is the pervasive view that the psychological and biological paradigms are mutually exclusive. For example, one often hears that some mental disorders, such as depression, are “brain diseases,” implying the absence of psychological causes. Such an approach can be misleading for two important reasons. First, although it is true that some disorders have either a primary psychological or a primary biological origin, most disorders involve both psychological and biological causes (Engel, 1977; PDM Task Force, 2006). Second, and more fundamentally, separating the psychological and biological realms is misleading because the *mind and body* are complexly interconnected.

Nearly everyone now believes in the close interdependence of mind and body, a view known as *monism* in contrast to the *dualism* (mind and body as distinct realms) associated with the philosopher René Descartes (1596–1650). However, understanding the complex relationship between mind and body continues to be a challenge, especially in abnormal psychology, where mental disorders can result from such a wide variety of causes. As noted, some mental disorders have a clear biological cause, which can lead people to assume that the same might be true for *all* mental disorders. However, other mental disorders involve symptoms with clear psychological causes. In some cases, dramatic *physical* symptoms can result from psychological causes. Let's look at some examples.



Judas Priest and James Vance

Vance claimed that subliminal messages in the music of Judas Priest caused him to make a suicide pact with his friend, but the court found that the causes were more complex.

Steve Jennings/Corbis



**Mind-body
connection**

General paresis A disease, due to a syphilis infection, that can cause psychosis, paralysis, and death.

Psychosocial dwarfism A rare disorder in which the physical growth of children deprived of emotional care is stunted.

Biopsychosocial model A perspective in abnormal psychology that integrates biological, psychological, and social components.

Correlation A statistical term for a systematic association between variables.

General paresis, a disease that was common among men in the nineteenth century, consists of severe mental and physical symptoms, including psychosis and paralysis, leading eventually to death (the Chicago gangster Al Capone died of the disease in 1947). For many years the cause of paresis was unknown, until the German neurologist Richard von Kraft-Ebing (1840–1902) proved in 1897 that paresis resulted from a prior syphilis infection, which, untreated, later attacks the brain. His discovery had a profound effect on people interested in the causes of mental disorders. They reasoned that if a disorder with severe mental symptoms could be caused by a clear biological process (and cured by treating the infection), then perhaps all mental disorders had not-yet-discovered physical causes. Indeed, this perspective underlies a good deal of modern research on mental illness.

Other disorders, however, seem to suggest just the opposite conclusion about the relationship between mind and body—that mental processes can cause profound physical symptoms. For example, **psychosocial dwarfism** is a rare but dramatic disorder in which children who are severely emotionally deprived literally stop growing despite receiving adequate physical and nutritional care (Ackerman et al., 1999; Mayes, 1992). Severe emotional deprivation, such as might occur in an abusive home or a substandard orphanage, can cause massive changes in the child’s hormonal functioning and result in the cessation of normal physical growth. When children with psychosocial dwarfism are removed from emotionally depriving environments and given adequate emotional care, they typically recover, with hormonal functioning, physical growth, and mental age returning to normal (Gardner et al., 1999; Money, 1992; Nieves-Rivera, Gonzalez de Pijem, & Mirabal, 1998). Here we see an example of *psychological* forces causing profound *physical* changes. Yet, here, too, we must remain wary of reductionistic generalizations such as the assumption that many other physical disorders might also have purely psychological causes.

We must also be careful not to confound (mix up) questions about what *causes* psychopathology with questions about what can *treat* it. These are separate issues. Some disorders may have a primary psychological cause and yet they may be effectively treated with medication. Other disorders may have a primary biological cause and yet be treatable with psychotherapy. We have to make sure that when we think about the *causes* of disorders we do not make unwarranted assumptions about the *treatments* for these disorders, and vice versa (Huysse et al., 2001; Levy, 2000; Valenstein, 1980). Integrating the psychological and biological paradigms presents real challenges. The current state of the art for thinking about the *connection between mind and body* in abnormal psychology involves three principles.

1. The causes of mental disorders are not all the same: some disorders have a primary psychological cause, some a primary biological cause, and some a mix of the two.
2. Even in those disorders with a primary biological or psychological cause, both biology and psychology (as well as cultural and social factors) are always involved in the manifestation and form of the disorder. This principle of *multiple causality*—sometimes referred to as the **biopsychosocial model** of psychopathology to emphasize the integration of different perspectives—will be illustrated in the case example at the end of this chapter (Dilts, 2001; Engel, 1977; Sperry, 2001).
3. Every emotion and behavior has both a psychological and a biological aspect (Hansell, 2002). As a result, every mental disorder has both psychological and biological **correlates**, or associated processes. The research principle that “correlation does not imply causation” is especially relevant here; we must keep in mind that what *accompanies* a disorder does not necessarily *cause* the disorder (Levy, 2000). For instance, pessimistic thinking correlates with depression and is often described as a *cause* of depression, but pessimism can also be a manifestation or *result* of depression. Only noncorrelational research designs can establish and test causal relationships. We will delve further into these important scientific principles in the section on Research Methods in Chapter 3.

We will now turn to the different theoretical perspectives that are most often used to explain and treat mental disorders. As we review these perspectives, keep in mind that they are most helpful in explaining and treating abnormal behavior when used in combination, or complementarily, rather than singly and reductionistically.

BRIEF SUMMARY

- Explanations of abnormal behavior are influenced by several core concepts. First, paradigms for explaining abnormal behavior have changed profoundly over the course of history (*historical relativism*) and undoubtedly will continue to do so. Second, we must take into account the principle of *multiple causality* and the problem of reducing causal explanations to a single theory or idea (reductionism). For example, it is important to distinguish between predisposing (underlying) and precipitating (immediate) causes of abnormal behavior, a principle sometimes referred to as the diathesis-stress model.
- Currently, there are two major paradigms for explaining abnormality: the psychological paradigm and the biological paradigm. Contrary to the common assumption that these are competing or contradictory paradigms, the mind (psychology) and body (biology) are closely interrelated. The *connection between mind and body* must be taken into account in explaining any abnormal behavior.

Critical Thinking Question

Charlotte Perkins Gilman's doctor, Weir Mitchell, believed that Charlotte's depression was caused by her insistence on writing rather than devoting herself to motherhood (Chapter 1). How would you critique this explanation on the basis of the core concepts described in this chapter?

THE THEORETICAL PERSPECTIVES

Scientific research in any field consists of the process of comparing ideas, and predictions generated by these ideas, with observations. Ideas are organized into *theories*, which are useful tools for generating predictions and creating conceptual “maps” of a phenomenon that can then be compared with observations and revised as necessary to improve the theory (Stiles, 2003). In abnormal psychology, unlike some other scientific fields, several different theoretical perspectives have been developed and continue to exist side by side.

In some respects, the specific theoretical perspectives (for example, cognitive, biological, psychodynamic, and sociocultural) that we will describe diverge in their assumptions so much that they may seem incompatible with one another. But in most ways they supplement each other, as each perspective focuses on an important *component* of the complex phenomena of psychopathology. In this respect, the different perspectives are akin to the proverbial blind men describing the elephant, each one claiming to know what an elephant is while, in fact, each one is simply describing the part of the elephant he is touching. In our view, the different theoretical perspectives are too often presented as if they are competing and contradictory when, in fact, they typically complement each other. In addition, the different perspectives often overlap, as we have already discussed in looking at the mind-body issue. Indeed, the field of abnormal psychology is increasingly moving toward an integration of theoretical perspectives that emphasizes the common features of the behavioral, cognitive, psychodynamic, sociocultural, and biological perspectives on emotional problems such as Dave's anxiety.

After describing each theoretical perspective, we will return to the case of Dave in order to see how that perspective would address the cause (or *etiology*) of his problems. Along the way, we will point out how the perspectives overlap or complement each other in explaining Dave's symptoms. In later chapters, we will describe these perspectives as different *components* that can be combined to explain and treat disorders in accord with the core concept of *multiple causality*.

Biological Perspectives

Biological explanations of mental disorders have a long history, as we have already seen. Even before the causes of diseases like *general paresis* were discovered, it was known that many physical illnesses, defects, or injuries could produce emotional symptoms. Accordingly, the biological perspective focuses on physical structures and biochemical functions in the body that contribute to abnormal behavior. In particular, contemporary biological researchers in abnormal psychology study the structure and function of the brain. In this section we will look at the major physical structures and biochemical functions of the brain that have been implicated in mental disorders.

As our understanding of the brain has grown dramatically in recent years, the biological perspective has become increasingly influential within the field of abnormal psychology. Indeed, the 1990s were often described in psychology as the “decade of the brain,” and it has become commonplace to hear of new discoveries relating mental illnesses to abnormal brain chemistry, abnormal brain structure, or brain disease and injury. In addition, there have recently been exciting discoveries regarding the role of *genetics* in mental disorders.

The Central Nervous System

The nervous system is a vast electrochemical network that transmits information and impulses throughout the body. The **central nervous system**, consisting of the *brain* and the *spinal cord*, forms the hub of this network—its headquarters, so to speak (see Figure 2.3). In considering the biological bases of abnormal behavior, we will address both the *structure* of the brain, and the biochemical activities, or *functions*, that take place there. The brain is made up of approximately 100 billion nerve cells, or **neurons**, as well as more than 10 times as many *glial cells*—support cells that hold the neurons together. The neurons and glial cells are organized into two general regions within the brain, the *hindbrain* and the *forebrain*, each of which is further divided into additional regions and structures (see Figure 2.2). The hindbrain is the most *caudal* part of our brains, that is, the portion closest to our spinal cord. It is relatively small in humans and is comprised of structures, such as the *pons*, the *cerebellum*, and the *medulla*, which we share with other vertebrates. These portions of the brain are thought of as being more “primitive,” in that they control functions that are not under conscious control, such as motor reflexes and the maintenance of balance (Nakamagoe, Iwamoto, & Yoshida, 2000).

In contrast to the hindbrain, the human forebrain is quite large, making up most of our brain mass. It includes the two *cerebral hemispheres* and is divided into the **cortex** (the folded matter on the outside of the brain that we generally associate with the brain's appearance) and the subcortical structures that are buried within the cortex. The cortex can be further divided into four *lobes*, or regions: the *frontal*, *occipital*, *parietal*, and *temporal lobes*. Humans' advanced cognitive operations, including reading, speaking, and reasoning, are controlled by different regions of the cortex. The *subcortical structures* include the **thalamus** (a relay station for routing and filtering sensory input), the **hypothalamus** (the center of the endocrine, or hormonal, system), and **basal ganglia** (an area especially involved in the regulation of movement). These structures also appear to be important in regulating emotional processes, such as reactions to stress (Smock, 1999).

Central nervous system (CNS) The control center for transmitting information and impulses throughout the body, consisting of the brain and the spinal cord.

Neuron An individual nerve cell.

Cortex The folded matter on the outside of the brain that controls humans' advanced cognitive functions.

Thalamus A subcortical brain structure involved in routing and filtering sensory input.

Hypothalamus A subcortical brain structure that controls the endocrine, or hormonal, system.

Basal ganglia A subcortical brain structure involved in the regulation of movement.

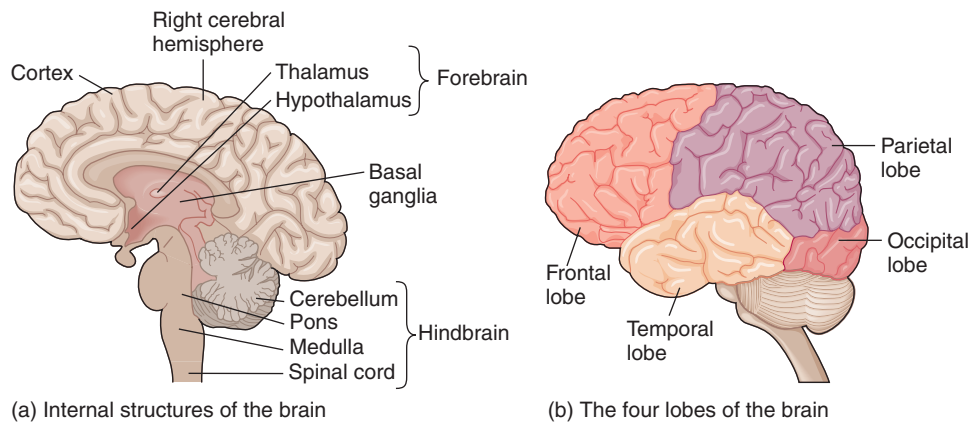


Figure 2.2 The human brain

Abnormalities in brain structure, which may either be inherited genetically or result from injury or illness, can play a role in some types of abnormal behavior. Head injuries, for example, can cause brain damage, which may cause behavioral changes. An example of an illness-related change in brain structure is *Huntington's disease* (Chapter 14). This degenerative disorder, in which individuals suffer from odd and involuntary body movements, angry outbursts, loss of memory, and other cognitive disturbances, has been associated with a loss of nerve cells in the basal ganglia. Another well-known illness that causes brain changes is *Alzheimer's disease* (Chapter 14), in which neural damage leads to dramatic cognitive and behavioral changes. Some brain-altering diseases can be prevented, such as *Korsakoff's syndrome*, which is caused by chronic alcohol consumption (Chapter 9).

Another example of the link between abnormal brain structure and mental disorders is found in schizophrenia (Chapter 12). Some of the symptoms of schizophrenia may be associated with the presence of enlarged *ventricles*, the fluid-filled cavities in the brain (Allen et al., 2000). Modern imaging techniques such as *computerized axial tomography* (CAT scans), *positron emission tomography* (PET scans), and *magnetic resonance imaging* (MRI) can produce photographs of the living brain that document these structural changes.

Some mental disorders have been linked to disturbances in neurochemical functioning rather than to structural abnormalities in the brain. Research in this area focuses on the role of **neurotransmitters**, chemicals that allow neurons in the brain to communicate with one another. As noted, the brain is comprised of an enormous number of neurons, or nerve cells, which connect with each other at **synapses** (see Chapter 2 Visual Essay). Each neuron is composed of a *cell body* (the main part of the nerve cell), an *axon* (a long extension from the cell body ending in *terminal buttons*), and many *dendrites* (branchlike receptors extending from the cell body). Information passes from one neuron to the next through electrical impulses. When an electrical impulse reaches the end of the axon, it triggers the neuron to release a neurotransmitter into the **synaptic cleft**, a tiny gap between one neuron and the next. The neurotransmitter then crosses the synaptic cleft and is picked up by **receptors** (composed of proteins) on the dendrites of the next neuron, where it converts into an electrical impulse, thus continuing the process. However, not all of the neurotransmitters that are released get taken into the adjacent neuron. Leftover neurotransmitters linger in the synaptic cleft, until they are either broken down by special enzymes in a process called *degradation* or reabsorbed by the presynaptic neuron in a process called *reuptake*. (Sometimes leftover neurotransmitters become less concentrated through *diffusion* as the neurotransmitters mix in with other neighboring substances.) These processes have a direct connection to the symptoms and treatment of many mental disorders. For example, **selective serotonin reuptake inhibitors** (SSRIs), medications widely used in the treatment of depression and other conditions, block the reuptake of the neurotransmitter serotonin, allowing more serotonin to move across the synapse.

There are well over one hundred known neurotransmitters (although the functions of many of them remain unclear), with more being discovered all the time. Some of the key

Neurotransmitters Chemicals that allow neurons in the brain to communicate by traveling between them.

Synapse Point of connection between neurons.

Synaptic cleft The tiny gap between one neuron and the next at a synapse.

Receptors The areas of a neuron that receive neurotransmitters from adjacent neurons.

Selective serotonin reuptake inhibitors (SSRIs) A "second generation" class of antidepressant medications that block the reuptake of serotonin from the synapse; used in the treatment of depression and other disorders.

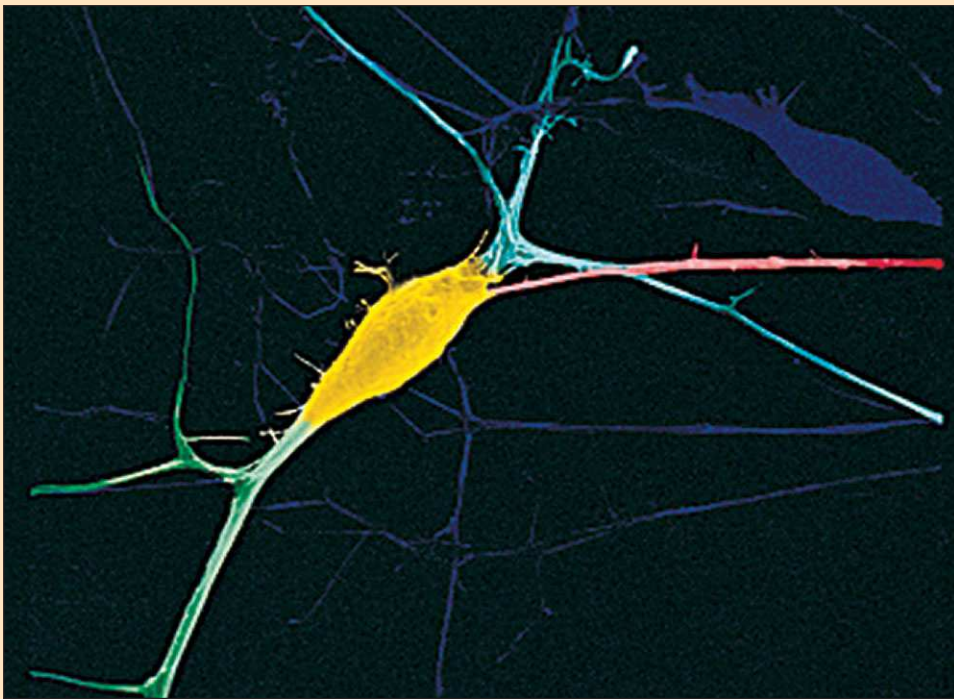
Anatomy of a Neuron

This visual essay shows a schematic model of the structure of a nerve cell and the path of a nerve impulse from one neuron to the next. We also show microscopic photographs of parts of actual nerve cells.

The neurons, or nerve cells, in the brain connect with each other at *synapses*. Each neuron consists of a *cell body*, an *axon* (ending in *terminal buttons*), and *dendrites*. Communication from one neuron to the next occurs via electrical impulses and chemical messengers. When an electrical impulse reaches the end of the axon of one neuron, it triggers the neuron to release a chemical neurotransmitter into the *synaptic cleft*. The neurotransmitter then crosses the synaptic cleft and is picked up by *receptors* on the dendrites of the next neuron, where it converts into an electrical impulse, thus continuing the process. Not all of the neurotransmitters that are released by the transmitting neuron are received by the adjacent neu-

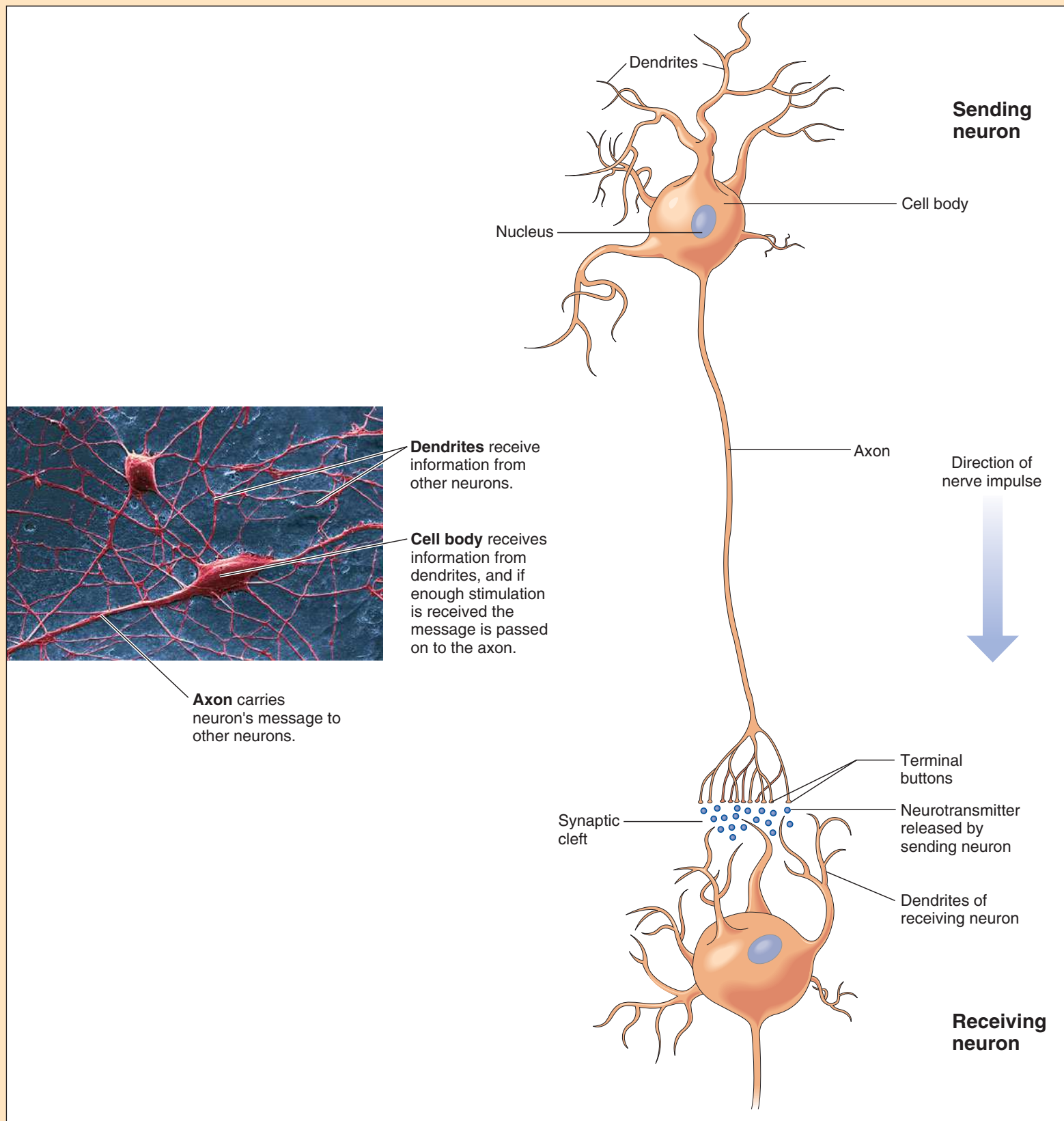
rons. Leftover neurotransmitters linger in the synaptic cleft, until they are either broken down by special enzymes in a process called *degradation* or reabsorbed by the transmitting neuron in a process called *reuptake*.

Researchers have discovered that hundreds of different chemical substances serve as neurotransmitters (although the functions of many of them remain unclear). Some of the key neurotransmitters are the *catecholamines* (dopamine, epinephrine, and norepinephrine), *serotonin*, the *amino acids* (glutamate, gamma-aminobutyric acid [GABA]), and *acetylcholine*. These chemicals play important roles in the normal regulation of mood, arousal, motivation, attention, and other functions. Abnormalities in transmission of some of these chemicals have been linked with specific mental disorders, such as serotonin and norepinephrine with depression, norepinephrine and GABA with anxiety, and dopamine with schizophrenia and drug dependence.



The anatomy of a neuron Neurons differ in their shape throughout the nervous system. This photo shows an actual neuron from the most recent part of the brain, the cerebral cortex, which is involved in the most complex psychological processes.

©Dennis Kunkel/Phototake



neurotransmitters are the *catecholamines* (dopamine, epinephrine, and norepinephrine), *serotonin*, the *amino acids* (glutamate, gamma-aminobutyric acid [GABA]), and *acetylcholine*. These chemicals play important roles in the normal regulation of mood, arousal, motivation, attention, and other adaptive functions. Correspondingly, abnormalities in some of these chemicals have been linked with specific mental disorders, such as serotonin and norepinephrine with depression (Delgado & Moreno, 2000; see Chapter 5), norepinephrine and GABA with anxiety (Chapter 4; Antoni et al., 2000), and dopamine with schizophrenia (Chapter 12; Taber, Lewis, & Hurley, 2001), as well as opiate and alcohol dependence (Chapter 9; Schmidt et al., 2001).

In talking about the role of neurotransmission in mental disorders, we must be mindful of the **connection between mind and body**. Strictly speaking, we can only say that abnormal neurotransmission *correlates* with certain mental disorders. As with all correlations, it is often difficult to tell whether these chemical factors are the *cause* or the *result* of the disorders. Regardless, no explanation of a mental disorder can be complete today without considering the role of neurotransmitters, and we will have much more to say about them in the chapters on specific disorders.

The Peripheral Nervous System

The **peripheral nervous system (PNS)** is a network of nerves throughout the body that carry information to and from the central nervous system (see Figure 2.3). The PNS has two parts—the **somatic nervous system** and the **autonomic nervous system**. The somatic system connects the central nervous system (CNS) with the sensory organs and skeletal muscles, carrying information and commands back and forth. Thus, the somatic system controls most voluntary actions, such as bringing visual information to the brain that one is about to walk into chair, and sending the command back to the muscles to stop walking and sit down.

The **autonomic nervous system (ANS)**, by contrast, is a network of nerves controlling the body's internal organs, which are generally not under voluntary control. The functioning of the heart, lungs, glands, and smooth muscles are all regulated by autonomic nerves. The ANS is in turn divided into two parts, the **sympathetic division** and

Peripheral nervous system (PNS) The network of nerves throughout the body that carries information and impulses to and from the CNS.

Somatic nervous system Connects the central nervous system with the sensory organs and skeletal muscles.

Autonomic nervous system (ANS) The part of the peripheral nervous system that regulates involuntary bodily systems, such as breathing and heart rate; it is made up of the sympathetic and parasympathetic nervous system.

Sympathetic nervous system The part of the autonomic nervous system that activates the body's response to emergency and arousal situations.

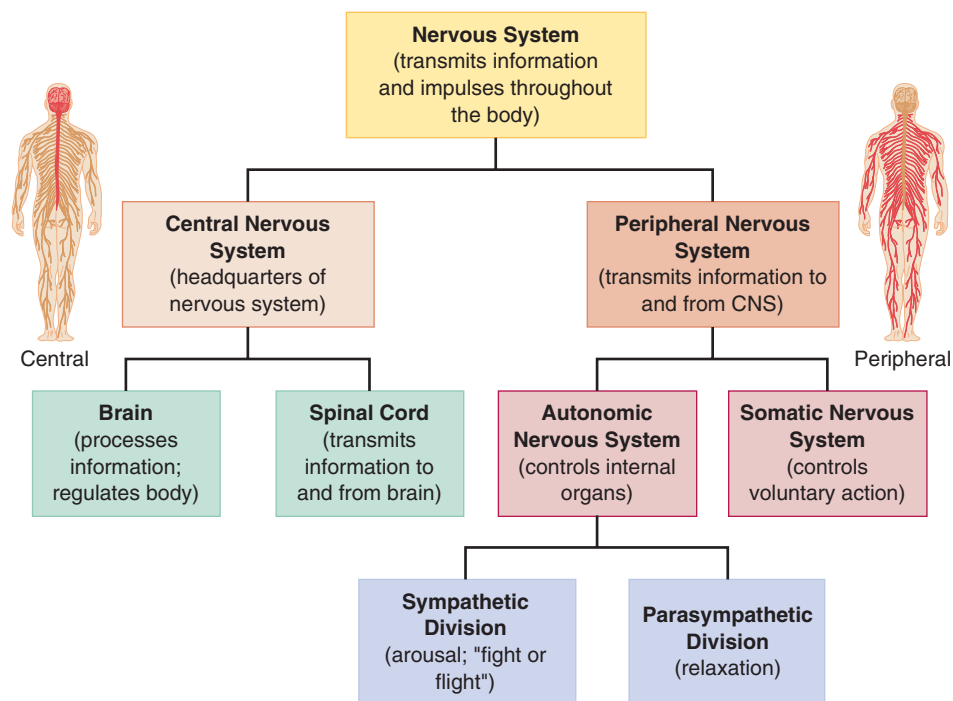


Figure 2.3 The nervous system This chart and the accompanying diagrams show the divisions of the human nervous system.

the **parasympathetic division**. The sympathetic branch of the ANS consists of nerves that help the body respond to emergencies by increasing energy, arousal, and activity. When the sympathetic nerves are activated, adrenaline is released into the bloodstream, heart rate and respiration increase, and a person experiences the subjective signs of anxiety and arousal—the “fight-or-flight” response. Accordingly, the sympathetic nervous system is especially relevant to the understanding of anxiety and stress-related disorders (Chapter 4). The parasympathetic division of the ANS has the opposite function—that of calming and relaxing the body and conserving energy. Parasympathetic nerves slow down respiration, heart rate, and other autonomic functions.

The Endocrine System

In addition to the nervous system, biological researchers have examined the role of the **endocrine system** in abnormal behavior. Endocrine glands release **hormones**—chemicals that play an important role in the regulation of sexual behavior, metabolism, emotion, physical maturation, and growth. Hormonal deficiencies or imbalances can cause a variety of symptoms similar to those seen in mood, anxiety, eating, and some personality disorders. For example, some hormones, such as *adrenaline* and *cortisol*, stimulate greater energy and activity, helping people to deal with situations of psychological and physical stress and danger. However, an excess of these hormones can result in aggressive behavior, like that of a person misusing anabolic steroids (Chapter 9). Abnormal levels of cortisol have also been associated with certain mood and anxiety disorders.

Genetics

The other major focus of biological explanations of mental disorders involves genetics and evolution. Just as many physical diseases are either partially or completely genetic in origin, biological researchers are learning that many mental disorders have a genetic component. It has been established that some mental disorders (including bipolar disorder, mental retardation, and schizophrenia) have a partially genetic basis (Andreason, 2004), although efforts to isolate the location of the particular genetic flaws (on one of the 23 pairs of chromosomes) or to specify precisely how they might contribute to the development of the disorder (for example, by impairing neurotransmission) are still in their elementary stages. One complication is that genetically influenced mental disorders appear to be polygenic (involving multiple genes) rather than related to a single gene. The *Human Genome Project*, which began in the 1980s and completed the initial sequencing of the human genome in 2001, will undoubtedly further our understanding of the genetic contribution to mental disorders (Marteau & Lerman, 2001; Moran, 2005; Morrow & Smoller, 2006).

Biological researchers use several strategies to determine whether genes contribute to mental disorders—the same strategies that are used to examine the genetic basis of any trait or disease. They begin with **family pedigree studies** to see whether the disorder runs in families, as genetic diseases and traits obviously do. However, even if a disorder is found to run in families, this by itself does not indicate that it has a genetic basis, because genetic similarity is confounded (mixed together) with *environmental* similarity (living in the same psychological, social, and biological environment) in families. As a result, researchers turn to two other strategies to separate genetic from environmental influences.

The next strategy is **twin studies**. In twin studies, the **concordance rates** (both twins having the same disorder or trait) of *monozygotic* (MZ), or identical, twins are compared to the concordance rates for *dizygotic* (DZ), or fraternal twins. Since MZ twins are genetic carbon copies, having 100% of their genes in common, compared to DZ twins, who have on average 50% of their genes in common (like ordinary siblings),

Parasympathetic nervous system The part of the autonomic nervous system that regulates the body’s calming and energy-conserving functions.

Endocrine system The system of glands that controls the production and release of hormones.

Hormones Chemicals released by the endocrine system that regulate sexual behavior, metabolism, and physical growth.

Family pedigree studies Studies designed to investigate whether a disorder runs in families.

Twin studies Studies which compare concordance rates for identical and nonidentical twins for a given disorder.

Concordance rate In a group of twins, the percentage that both have the same disorder.



Identical twins Twin studies are one of the most important strategies for determining the role of genetics in the development of mental disorders.

Spencer Grant/PhotoEdit

Adoption studies Studies designed to compare the concordance rates for a given disorder of biological versus nonbiological parent-child pairs.

Genetic linkage Studies looking for the specific genetic material that may be responsible for the genetic influence on particular disorders.

Natural selection The evolutionary theory and process by which organisms, over generations, tend to change and develop traits and behaviors that enhance survival and reproduction.

Prefrontal lobotomy The surgical destruction of brain tissue connecting the prefrontal lobes with other areas of the brain.

Insulin coma The deliberate induction of a seizure and coma using insulin; formerly used to treat certain mental disorders.

Electroconvulsive therapy (ECT) A treatment for severe depression that involves passing electric current through the brain to induce seizures.

MZ twins should show significantly higher concordance rates for genetically influenced disorders. For example, in looking at approximately 200 pairs of twins, McGuffin and colleagues found a concordance rate for depression of 46% for monozygotic (MZ) twins compared to a concordance rate of 20% for dizygotic (DZ) twins (Hyman & Moldin, 2001). Even though environmental confounds (for example, identical [MZ] twins are treated more similarly than nonidentical [DZ] twins) could account for some of this difference, these data do suggest a genetic role in depression. However, it is clearly a partial role, since if depression were entirely genetic in origin the MZ concordance rate would be 100%.

The third strategy for looking at genetic etiology involves **adoption studies**. In adoption studies, researchers try to separate genetic from environmental causes by studying the biological families of adopted children with mental illness or by studying the adopted-out children of parents with mental illnesses. Here, too, environmental confounds can creep in because the *prenatal* environment, and the family environment up until the adoption, are still shared between the child and the biological parent. Nonetheless, significantly elevated concordance rates of a mental disorder between adoptees and their biological families provide evidence of a genetic contribution to the disorder. Once it has been established that a disorder is genetically influenced, researchers begin to hunt for the specific genes involved. **Genetic linkage** studies analyze genetic material from families with high rates of a disorder to identify genetic discrepancies between family members with and without the disorder.

A second interesting area of research on the relationship between heredity and psychopathology involves the relatively new field of *evolutionary psychology*. Evolutionary psychologists examine human behavior, including abnormal behavior, through the lens of **natural selection**—the process by which organisms, over countless generations, tend to develop behaviors that enhance their ability to survive and reproduce. When looked at this way, many behaviors that might at first seem maladaptive or abnormal can be seen as having evolved for a useful purpose. In physical illnesses, for example, fever is usually regarded as an annoying symptom that should be reduced with medicine. But some evidence suggests that fever is an evolved mechanism for killing off pathogens by heating the blood; thus, the fever is not a part of the disorder but a part of a self-healing process (Hart, 1988). Similarly, some theorists (for example, Nesse, 1998) argue that mental disorders, like depression, may have evolved because they actually serve a useful purpose—depression, for instance, may be useful for causing one to stop and rethink an unproductive life strategy. If this is so, then rushing to alleviate the symptoms could be counterproductive. In this sense, the evolutionary perspective can have the radical implication that what we think of as disorders may actually be useful behaviors, which should be left alone rather than treated. Partly because of these radical implications, evolutionary approaches to explaining psychopathology are controversial, but they certainly have a place in explaining some disorders (for example, see Chapter 4 on the “prepared” conditioning theory, which argues that naturally evolved fears of archaic dangers such as darkness and open spaces can play a role in the development of phobias).

Biological Treatment Interventions

Biological treatments for mental illness have a long and varied history, as we have already seen (Chapter 1). Some biological treatments thought at one time to be helpful (for example, **prefrontal lobotomy**, the surgical destruction of brain tissue connecting the prefrontal lobes with other areas of the brain, and **insulin coma** therapy, the practice of inducing seizures and coma by reducing patients’ blood sugar with insulin) have now been discredited as harmful and even barbaric (Valenstein, 1986). Psychosurgery of any type is now rare and considered experimental, but induced seizures still have a role in the treatment of severe depression through **electroconvulsive therapy (ECT)**;

Chapter 5). ECT involves briefly passing an electric current through the brain, usually in a series of treatments over a period of weeks. Despite evidence of its high rate of effectiveness in treating severe depression, ECT is controversial because of concerns about its effects on memory and the fact that the mechanism by which it works remains unclear (Fink, 2005).

Some promising and potentially less intrusive electromagnetic treatments for mental disorders have been developed in recent years and are currently the focus of considerable research. *Transcranial magnetic stimulation*, *magnetic seizure therapy*, and *magnetic resonance spectroscopy* each involve the stimulation of specific brain regions by magnetic fields generated by an electrical apparatus held near a patient's forehead or scalp. These treatments have shown promise in experimental studies on the treatment of severe depression, schizophrenia, and some anxiety disorders, and will be discussed further in later chapters (Cohen et al., 2004; Haraldsson et al., 2004; Schluzer-Rauschenbach et al., 2005). *Deep brain stimulation*, another experimental technique, involves implanted electrodes in key brain locations and may have promise as a treatment for severe depression (Aouizerate et al., 2005; Mayberg et al., 2005).

Most biological treatments for mental disorders today, however, do not involve electrical or magnetic interventions, but rather the use of **psychotropic** (mind-affecting) medications. Dozens of medications currently available target specific mental disorders such as depression, anxiety, and schizophrenia. The four major classes of psychotropic medications are *antianxiety* (or anxiolytic), *antidepressant*, *antipsychotic*, and *mood-stabilizing* drugs. These medications generally treat disorders by targeting their associated neurotransmitter systems, either increasing or decreasing the amount of neurotransmission. Drugs that increase neurotransmission are called drug **agonists**. Drug **antagonists** reduce neurotransmission by impeding synthesis of neurotransmitters or by blocking postsynaptic receptors. Research studies have shown that psychotropic medications can be modestly to highly effective in treating the symptoms of many mental disorders, although the effectiveness varies across types of disorders and specific medications. We will discuss biological treatments, including their effectiveness, in detail in subsequent chapters on specific disorders for which biological treatments are available.

Now let's consider the biological components of Dave's problems.

CASE ILLUSTRATION

From a biological perspective, we are interested in Dave's genetic, physical, and biochemical makeup. Biological theorists, for example, would be particularly interested in the medical and psychiatric history of Dave's family. Since Dave's brother and mother also have a history of anxiety problems, they would suspect that Dave's anxiety might have a genetic basis. (Of course, a family history of anxiety would not prove that it has a genetic cause, since it could also be caused by environmental factors.) Biological theorists would certainly be interested in Dave's neurochemical and hormonal functioning—in particular whether the neurotransmitters known to be associated with anxiety disorders, such as GABA and norepinephrine, are functioning normally. Finally, they would be very interested in Dave's minor heart condition. Heart palpitations and shortness of breath from this condition could be contributing to Dave's anxiety, particularly if he is cognitively misinterpreting them as signs of a more serious disorder. In summary, any or all of these biological factors could be contributing causes of Dave's anxiety.

Psychotropic Medications designed to affect mental functioning.

Agonists Drugs that increase neurotransmission.

Antagonists Drugs that reduce or block neurotransmission.

Psychodynamic Perspectives

Psychodynamic theory is a large and still evolving school of thought. Although it is most closely associated with Sigmund Freud (1856–1939), the founder of psychoanalysis, much

Psychodynamic The theoretical perspective that began with Freud's work and is associated with emphasis on unconscious mental processes, emotional conflict, and the influence of childhood on adult life.

Unconscious Descriptively, mental contents that are outside of awareness; also, the irrational, instinctual part of the mind in Freud's topographic theory.

of today's psychodynamic theory differs vastly from Freud's original ideas. (The terms *psychodynamic* and *psychoanalytic* are sometimes used interchangeably, but we will abide by the usual distinction: *psychoanalytic* refers more narrowly to Freudian theory, while **psychodynamic** is the broader term encompassing all the theories derived from Freud's work.) Despite frequent criticism of psychodynamic theory as unempirical or unproven (Bauer, 2000; Grunebaum, 1996; Popper, 1959, 1986), recent research has supported many of the central tenets of psychodynamic explanations and treatments (Bradley & Westen, 2006; Gabbard, Gunderson & Fonagy, 2002; Shevrin, Ghannam & Libet, 2002; Westen, 1998). Psychodynamic theory continues to be a popular and influential approach to explanation and treatment, and it has a particular place of importance in the field of abnormal psychology as the first comprehensive theory of psychopathology.

Freud's Early Model

The best way to explain psychodynamic theory is to put ourselves in Freud's shoes as he was trying to help his patients with *hysteria* in 1880s Vienna. As you recall, hysteria consists of physical symptoms (such as paralyses, loss of sensation, tics, and physical pains) that would normally be associated with neurological (brain) disorders but occur in the absence of any neurological problem. Freud was impressed by the work of the French physicians Jean Charcot (1825–1893) and Pierre Janet (1859–1947), who were using hypnosis to treat hysteria. Many of their patients were cured simply by having the doctor use the power of suggestion to tell them, while they were hypnotized, that they would be fine when they awoke. This technique was known as *hypnotic suggestion*.

Freud was also influenced by a case described to him by his colleague Josef Breuer (1842–1925) (Freud, 1895). “Anna O.” (whose real name was Bertha Poppenheim) had a number of serious symptoms of hysteria, and the hypnotic suggestion method was not working to cure them. One day, Anna O. developed a new, dangerous symptom—a fear of water (*hydrophobia*) that prevented her from drinking. In desperation, Breuer tried something new. He hypnotized Anna as usual, but this time, instead of *telling her* she would be fine (the hypnotic suggestion method), he asked *her to tell him* as much as possible about the circumstances that had led up to her new symptom. To Breuer's amazement, Anna O., under hypnosis, was able to tell him something that clearly explained the symptom, but that she had previously been unable to remember. Just before the fear of drinking began, she had seen a dog drink out of a glass during a party. She had been disgusted but had squelched her feeling at the time because she was busy behaving properly at the party. Amazingly, immediately after telling Breuer this story under hypnosis she asked for water and guzzled it down—the symptom had disappeared!

From this example and similar experiences with his own patients, Freud came to the conclusion that there must be a division within the mind, since these patients were unaware of some of the memories, thoughts, and feelings that emerged under hypnosis. Furthermore, it seemed to Freud that the condition of being unaware of such memories (which were invariably unpleasant) was connected to having pathological symptoms, and that when these memories and feelings were verbally expressed and brought into conscious awareness, the symptoms disappeared. Freud's idea that the mind is divided into an “acceptable” (usually conscious) part and an “unacceptable” (usually nonconscious) part, and that certain tensions or conflicts between these two parts can cause mental symptoms, is the core of psychodynamic theory. This core theory has been revised and expanded in many ways, beginning with many revisions by Freud himself. We will track the progression from Freud's original theory to the contemporary psychodynamic perspective.

For most of his career, Freud focused his attention on understanding the contents of the **unconscious**—the part of the mind that seemed to be unacceptable to the conscious mind and was therefore pushed out of conscious awareness through a process

called **repression** (which means “motivated forgetting”). As he studied the unconscious, Freud expanded his view of it. At first, Freud thought that the unconscious just contained memories of recent unpleasant experiences like the one that Anna O. had repressed. Later, after listening to numerous female patients describe memories of sexual abuse in childhood, he briefly believed that it was mainly traumatic *childhood* sexual experiences, like sexual abuse, that were repressed. But as he worked with more patients and studied his own dreams, Freud began to believe that it was not just memories of painful actual events that were in the unconscious, but also a whole range of desires, feelings, and fantasies that the person considered unacceptable. For a long time, Freud believed that most of these unacceptable feelings were related to sexual desires (known as *libido* or *Eros*) originating in childhood, and he developed a model of *psychosexual development* according to which children went through a variety of normal stages in the development of their libido (see Table 2.1). Later in his career, Freud came to believe that there was a second general category of commonly repressed, unacceptable desires in the unconscious—aggressive and sadistic wishes that Freud later linked to his concept of *Thanatos*, a destructive instinct.

The other major development in the early part of Freud’s career was his discovery, made partly through studying dreams, jokes, art, and other phenomena, that the split in the mind between the unacceptable, unconscious part and the acceptable, conscious part existed in everyone, not just people with mental disorders. In this sense, Freud’s view is very much in keeping with the core concept of the *continuum between normality and abnormality*, which we discussed in Chapter 1. He thought that most mental disorders were exaggerations of mental conflicts that all people experience and that pathology results only when a person has not found a good solution to inevitable emotional conflicts.

Freud’s Later Model

Toward the end of his career, Freud made a major revision in his theory of the mind. He became dissatisfied, for a number of reasons, with his original model of the mind as divided between the unconscious, childish, irrational part full of repressed, unacceptable desires, and the **conscious**, adult, rational part. (This model was known as the **topographic theory**, and it also included the **preconscious**, which contains thoughts that are not the focus of conscious attention at any given moment but are not unacceptable and therefore not repressed.) Freud became increasingly dissatisfied with the topographic theory as he realized that the repressing forces in the mind were also unconscious (people usually are not aware that they are repressing something). In addition, he noticed that the repressing forces themselves were often irrational and contained harsh and distorted childish ideas about what was unacceptable and therefore required repression. For example, Anna O.’s horror at her feeling of disgust at the party (which necessitated the repression) may have been more irrational than the disgust itself. To account for these observations, Freud developed a new theory known as the **structural model** of the mind (Freud, 1923). In the structural model, the mind is divided into three parts: the **id** (consisting of childhood sexual and aggressive desires and general pleasure seeking, similar to the topographic unconscious), the **superego** (the realm of moral judgments, sometimes extreme and irrational, which determine what is acceptable and unacceptable), and the **ego** (the part of the mind that is oriented to reality and the external world and has to reconcile the demands of the id and superego while developing the skills and abilities necessary to function effectively in the world).

The structural model allowed Freud and his followers to develop a much more sophisticated understanding of how the mind could become divided in reaction to conflict over unacceptable or intolerable feelings. Freud’s daughter Anna (1895–1982), herself an eminent psychoanalyst, and other analysts, clarified that the mind uses many **defense mechanisms** (see Table 2.1), in addition to repression, to cope with unacceptable thoughts



Normal-abnormal continuum

Repression A defense mechanism consisting of the forgetting of painful or unacceptable mental content.

Conscious Descriptively, mental contents that are within awareness; also, the rational part of the mind in Freud’s topographic theory.

Topographic theory Freud’s first model of the mind, divided into the unconscious, conscious, and preconscious parts.

Preconscious In Freud’s topographic model, mental contents that are not the focus of conscious attention but are accessible because they are not repressed.

Structural model Freud’s final model of the mind, divided into the id, the ego, and the superego.

Id In Freud’s structural theory, the part of the mind containing instinctual urges.

Superego In Freud’s structural theory, the part of the mind that contains moral judgments and evaluates the self.

Ego In Freud’s structural theory, the part of the mind that is oriented to the external world and mediates the demands of the id and superego.

Defense mechanisms Unconscious, automatic mental processes that reduce anxiety by warding off unacceptable thoughts and feelings.

TABLE 2.1 Psychodynamic Terms and Concepts

MODELS OF THE MIND
Topographic Unconscious, preconscious, conscious Structural Id, ego, superego
MOTIVATIONAL DRIVES
Libido or Eros Sexual drive Thanatos Aggressive or destructive drive Attachment Affectionate ties with others
PSYCHOSEXUAL DEVELOPMENTAL PHASES
Oral phase 0–18 months; issues of feeding and security Anal phase 18–36 months; issues of control and autonomy Phallic-Oedipal phase 3–6 years; issues of competence, competition, and gender identity Latency phase 7–11 years; increasing influence of ego and superego Adolescence 12–18 years; reworking of conflicts and consolidation of identity
COMMON DEFENSE MECHANISMS (SELF-PROTECTIVE, AUTOMATIC, UNCONSCIOUS MENTAL ACTS)
Repression Motivated forgetting Denial/minimization Ignoring or minimizing particular facts Projection Attributing one's own feelings to someone else Rationalization A false but personally acceptable explanation for one's behavior Displacement Transferring a feeling about one situation onto another situation Reaction-formation Turning an unacceptable feeling into its opposite Isolation of affect/Intellectualization Avoiding painful feelings by focusing only on ideas Compartmentalization Keeping different parts of one's emotional life separate Undoing Using ritualized behavior to create an illusion of control Dissociation Trancelike detachment Splitting Viewing self or others as all-good or all-bad to ward off conflicted or ambivalent feelings Withdrawal/avoidance Emotional or behavioral flight from painful situations Fixation Clinging to a particular developmental phase Regression Returning to an earlier developmental phase Turning against the self Redirecting an unacceptable hostile impulse toward oneself Sublimation Finding a constructive outlet for an unacceptable wish
PSYCHODYNAMIC TREATMENT
Free association Talking as freely and openly as possible to the therapist or analyst Resistance The use of defense mechanisms in relation to therapy Transference The client's feelings about the therapist, especially those displaced from earlier relationships Countertransference The therapist's feelings about the client Interpretation Comments by the therapist about his or her client's emotional conflicts Working through The client's gradual mastery over emotional conflicts resulting from discussion in therapy of these conflicts

and feelings (Freud, 1937). For example, sometimes people will be intellectually aware of an unacceptable wish or idea, but they will detach themselves from experiencing any feelings about it, a defense mechanism known as *isolation of affect* (“affect” is a synonym for emotion) or *intellectualization*. For instance, a 25-year-old man who was unable to tolerate feelings of grief after his father suddenly died talked to his friends for weeks, in an emotionless tone, about the history of burial traditions. In *projection*, another defense mechanism, an intolerably painful feeling is unconsciously externalized and attributed to someone else, such as when a child struggling with learning problems and feelings of inadequacy calls his classmates “stupid.” This example also illustrates that defense mechanisms are a part of everyone’s mental functioning; they are not just found in mental disorders (Cramer, 2006). Many experts believe that the defense mechanism of projection plays a central role in the development of prejudices, such as racism, anti-Semitism, sexism, and homophobia. For example, people who are especially uncomfortable with their own affectionate feelings toward members of the same sex may be inclined to accuse others of homosexuality and even to persecute them. Similarly, many scholars have noted that racism involves a majority group’s projection of unacceptable traits (for instance laziness, greediness, or hypersexuality) onto minority groups (Leary, 2000; Young-Bruehl, 1996).

All of the defense mechanisms are automatic mental processes, executed by the unconscious part of the ego, in an effort to reduce anxiety caused by emotional conflict. Defense mechanisms are not necessarily pathological; they are just one of the ego’s strategies for managing tensions among the id, the ego, the superego, and reality. For example, in the defense mechanism called *sublimation*, the ego finds a socially and personally acceptable outlet for otherwise unacceptable feelings. Becoming a police officer, for instance, might reflect someone’s sublimation of aggressive impulses in a way that satisfies the id, the superego, and the ego’s need to adapt to reality. (In fact, this is one of the reasons that so many children fantasize about becoming police officers!) Or, to use another example of the “healthy” use of a defense mechanism, *denial* (fooling oneself by ignoring upsetting feelings) might be temporarily adaptive in an emergency situation, such as fighting a fire, in which acknowledging fear might be more dangerous than denying it.

In summary, according to the structural theory, psychopathology results when conflicts involving the id, the ego, the superego, and reality are not successfully negotiated by adaptive defense mechanisms and coping strategies. For example, a child’s hostile feelings toward a younger sibling might conflict with his or her strict superego idea that aggressive wishes are bad and dangerous. If the ego were unable to find an adaptive solution to this conflict, the child might experience psychological symptoms, either during childhood when the conflict first arose or later in adulthood when an event (for example, the hiring of a new, younger coworker) revived this childhood conflict.

Contemporary Psychodynamic Perspectives

In contemporary psychoanalysis, several distinct schools of thought coexist with Freud’s theories, though most retain an emphasis on emotional conflict, unconscious processes, and the continuing, repetitive influence of experiences from childhood and adolescence on adult life (Mitchell, 2000; Pine, 1990; Weiss, 2001; Young, 2001). These other schools can, for the most part, be viewed as either having revised some of Freud’s ideas or having focused on a particular part of Freud’s theory.

The *Kleinian* school of psychoanalysis, named after Melanie Klein (1882–1960), a contemporary of Anna Freud, focuses on the sexual and aggressive wishes and conflicts of early childhood, with less emphasis on the ego and Freud’s structural model of the mind (Aguayo, 2000; Klein & Riviere, 1937/1967; Likierman, 2001; Schafer, 1997). Another school of psychodynamic thought, the *object-relational* perspective, emphasizes problems in the child’s primary relationship *attachments* to his or her early



Psychoanalysis In psychoanalysis, the client and analyst meet frequently and the client may lie on a couch rather than sit face to face. The aim of these arrangements is a deep, thorough exploration and resolution of the client's emotional conflicts.

Bill Aron/PhotoEdit

caregivers as the source of later pathology (Aron, 1996; Brink, 2000; Bowlby, 1982; Greenberg & Mitchell, 1983; Kernberg, 2001). The object-relational school picks up on two elements of Freud's theory that he never fully developed. One is the idea that the superego and the ego are largely formed as a result of *identifications* with early caregivers (the "objects" in the child's environment). In other words, parents and other loved figures are crucial role models for the moral ideals of the child's developing superego and for the coping and defensive style of the ego. The second idea is that children develop mental models of how relationships work based on their experiences with their family members. For example, a child raised in a relaxed and happy atmosphere learns to feel relaxed and happy in relationships and seeks out such relationships later in life. In contrast, a child raised by anxious or depressed parents might be prone to internalize an anxious or depressive view of relationships that may contribute to relationship problems in later life. (Later we will see how this view overlaps considerably with certain behavioral and family systems explanations of psychopathology.)

Self-psychology, another contemporary school of psychoanalysis that rests on similar assumptions about early relational attachments, is based on the work of Heinz Kohut (1913–1981). Kohut began his psychoanalytic career as a close follower of Sigmund Freud and Anna Freud, but he gradually came to believe that the most important cause of psychopathology was not emotional conflict but unempathic (that is, cold, harsh, or emotionally misattuned) parenting, which interfered with the development of healthy self-esteem. (We will see a similar view in the humanistic theory of Carl Rogers.) Kohut felt that the kinds of mental conflict Freud described could all be traced to empathic failures in the parent-child relationship (Kohut, 1977; Maxwell, 2000).

Psychodynamic Treatment Interventions

What follows is an overview of some of the basic concepts of psychodynamic therapy; psychodynamic interventions for particular disorders will be discussed in later chapters. Although the techniques of psychodynamic therapy have changed significantly as psychodynamic theory has developed and diversified (Busch, 1999; Gurman & Messer, 1995), some central principles have remained constant. First, the goal of psychodynamic interventions is to help the client achieve a better mastery of his or her emotional conflicts, so that maladaptive defense mechanisms can be replaced by healthier ones and self-defeating patterns can be shifted in a more constructive direction. Most psychodynamic theorists believe that therapeutic change is achieved through *insight*, in which the client learns to understand more about themselves and their unconscious emotional conflicts, and the *therapeutic relationship*, which is intended to feel safe, supportive, and conducive to the development of insight and new, healthier ways of relating to others.

In order to facilitate self-exploration and insight, the client is encouraged to *free associate*, or talk as freely and openly as possible about his or her emotional life. Naturally, when clients do so, they eventually come to uncomfortable topics, and defense mechanisms, such as repression or intellectualization, inevitably begin to interfere with their openness. This is sometimes referred to as *resistance*, an important part of the therapy process in which clients use defense mechanisms during sessions as they approach disturbing emotional conflicts—the same emotional conflicts that have contributed to their symptoms. For example, a client might be thinking about a painful experience and then suddenly find himself switching topics or "drawing a blank." Resistance can also appear in the form of *transference*, in which the client unconsciously transfers experiences from earlier relationships onto the relationship with the therapist (for example, experiencing the therapist as a critical mother or a bossy older brother). Transference thus becomes one of the most important and helpful sources of information about the client's childhood and unconscious conflicts. The therapist's feelings about the client

are referred to as *countertransference*, which the therapist must carefully monitor both for information about the client and for assurance that the therapist's own emotional conflicts do not interfere with the therapy.

As an example of resistance and transference, a 25-year-old depressed woman felt that she could not talk to her male therapist about her anger toward a coworker because she feared that the therapist would disapprove of and reject her. In this case, the transference was the client's experience of the therapist as a feared, rejecting figure. Usually, transference feelings can be traced to difficult childhood experiences (especially those involving psychodynamically important issues such as attachment, sexuality, and aggression), such as this client's childhood fear of her disapproving father whose rejections contributed to her depression. The therapist may make an *interpretation* about connections of this sort, or clients may be able to make such connections on their own with the help of the therapist's input. In this way, talking about resistances and transferences becomes an important part of the therapy process and facilitates the client's expanding self-awareness and self-acceptance, a process known as *working through*.

Although empirical research findings concerning psychodynamic interventions and treatments are less widely known than findings on other treatment approaches, psychodynamic interventions have been shown to be effective for a wide range of disorders (Jones & Pulos, 1993; PDM Task Force, 2006). A recent **meta-analysis** (re-analysis of the combined results of many previous studies) of 17 psychotherapy studies showed that short-term psychodynamic therapy was effective (generally equal to other proven therapies) in the treatment of depression, anxiety disorders, eating disorders, cocaine addiction, and personality disorders (Lehchsenring et al., 2004). Interestingly, and in keeping with the core concept of the *connection between mind and body*, one recent study demonstrated normalization in the functioning of the key neurotransmitter serotonin in a depressed client receiving psychodynamic psychotherapy (Saarinen et al., 2005). We will see similar intriguing findings regarding the beneficial neurochemical effects of psychotherapy in later sections on other therapeutic techniques.

Let's return now to the case of Dave, and apply psychodynamic explanatory concepts to his symptoms of social anxiety, loss of confidence, and social withdrawal.

CASE ILLUSTRATION

Many psychodynamic hypotheses could be developed about the source of Dave's symptoms. From a psychodynamic conflict perspective, Dave's problems might result from emotional conflicts about success and failure. On one hand, Dave may fear that he can never live up to his father's successes or his parents' expectations. At the same time, Dave may also unconsciously worry that through his achievements he is competing with his father and his brother, which would make him feel guilty. Thus, a conflict exists between the id and the superego that the ego is unable to master, leading to symptoms of anxiety. From an object-relational standpoint, Dave's anxiety may involve an identification with his mother, who becomes anxious and withdrawn when she feels stressed. Dave's symptoms, which he knows upset his parents, might also represent an unconscious expression of anger at them due to his feeling that they have sometimes been unempathic. In this scenario, Dave's anger would be unconscious, and indirectly expressed, because it feels unacceptable to Dave and thereby causes emotional conflict.

Meta-analysis A re-analysis of the combined results of many previous research studies.

Humanistic and Existential Perspectives

Humanistic and **existential** theories in psychology, which became especially popular during the 1950s and 1960s, emphasize the importance of interpersonal connection, human freedom, and personal choice for emotional well-being. Generally speaking, humanistic and existential theories offer more specific ideas about the *treatment* of mental

disorders than they do about the *causes* of them. Yet, the humanistic and existential traditions do offer some important views on the causes of emotional problems, and we will review those here.

The humanistic and existential traditions are in many ways related to the psychodynamic tradition, although they developed, in part, in reaction to the reductionistic aspects of early psychodynamic theory, which viewed all psychological symptoms as derived from sexual conflicts. Like psychodynamic theories, humanistic and existential approaches look at psychopathology as something that is rooted in an individual's overall personality and approach to living. In this sense, humanistic and existential theories view psychological symptoms as just that—symptoms of an underlying problem. The humanistic and existential schools each focus on a particular kind of underlying problem that they see as being at the root of many psychological symptoms.

Humanistic Explanations and Treatment Interventions

From the humanistic perspective, emotional health depends on the pursuit of **self-actualization**, a natural tendency toward growth and the wish to freely pursue one's needs and aspirations. However, self-actualization depends on receiving **unconditional positive regard** (nonpossessive love, empathy, and acceptance) from others (Raskin & Rogers, 2000). Correspondingly, psychopathology is thought to result from a lack of self-esteem and self-regard stemming from the failure of parents and others to provide warm, consistent support and validation. (You may have noted the substantial overlap here with Kohut's psychodynamic self-psychology.) Carl Rogers (1902–1986), Abraham Maslow (1908–1970), and other humanistic theorists emphasize that without unconditional positive regard in childhood, people may develop a distorted and false self in an effort to be valued or appreciated by their loved ones. Unspoken but powerful *conditions of worth* (that is, parental standards that must be met in order to be loved or valued) are believed to cause feelings of inadequacy and to lead to various kinds of emotional problems (Maslow & Mittelman, 1951; Rogers, 1961).

Based on the preceding principles, humanistic therapists have developed a number of therapeutic techniques: *active listening*, *empathy*, and *unconditional positive regard* (see Table 2.2 for a list of humanistic terms and techniques) (Kuhn, 2001; Plante, 1999). These techniques are used in an effort to build clients' self-esteem and encourage self-actualization, a process Rogers called **client-centered** (today referred to more often as **person-centered**) therapy (Rogers, 1987; see Box 2.4 for a transcript of Carl Rogers' therapy technique). Although humanistic approaches have not been studied as rigorously as other therapeutic methods, humanistic techniques are central components of many forms of therapy and have been incorporated into many other theoretical

Self-actualization In humanistic theory, the pursuit of one's true self and needs.

Unconditional positive regard In humanistic theory, the provision of unconditional love, empathy, and acceptance in relationships.

Client-centered therapy A humanistic treatment approach developed by Carl Rogers.



Unconditional positive regard

Humanistic theorists emphasize the importance of unconditional acceptance for healthy childhood development and in psychotherapy.

Myrleen Ferguson Cate/PhotoEdit

TABLE 2.2 Humanistic Terms and Techniques

Self-actualization	Movement toward growth and fulfillment of one's potential.
Unconditional positive regard	Fully accepting people as they are.
Conditions of worth	Parental standards that must be met in order to feel valued and loved.
Active listening	Intense listening to the client, expressed in paraphrasing, reflecting back, and summarizing the client's comments.
Empathy	Emotional understanding of and sympathetic attitude toward others' feelings.

BOX 2.4 Client-Centered Therapy

TRANSCRIPT OF CARL ROGERS' TECHNIQUE

Note the use of humanistic techniques (Table 2.2) by Dr. Rogers in this session. Asterisks indicate words that could not be made out in the transcription (T = Therapist; C = Client).

- T-1: OK, I think I'm ready. And you . . . ready?
 C-1: Yes.
 T-2: I don't know what you might want to talk about, but I'm very ready to hear. We have half an hour, and I hope that in that half an hour we can get to know each other as deeply as possible, but we don't need to strive for anything. I guess that's my feeling. Do you want to tell me whatever is on your mind?
 C-2: I'm having a lot of problems dealing with my daughter. She's 20 years old; she's in college; I'm having a lot of trouble letting her go. . . . And I have a lot of guilt feeling about her; I have a real need to hang on to her.
 T-3: A need to hang on so you can kind of make up for the things you feel guilty about—is that part of it?
 C-3: There's a lot of that. . . . Also, she's been a real friend to me, and filled my life. . . . And it's very hard*** a lot of empty places now that she's not with me.
 T-4: The old vacuum, sort of, when she's not there.
 C-4: Yes. Yes. I also would like to be the kind of mother that could be strong and say, you know, "Go and have a good life," and this is really hard for me to do that.
 T-5: It's very hard to give up something that's been so precious in your life, but also something that I guess has caused you pain when you mentioned guilt.
 C-5: Yeah, and I'm aware that I have some anger toward her that I don't always get what I want. I have needs that are not met. And, uh, I don't feel I have a right to those needs. You know. . . . She's a daughter; she's not my mother—though sometimes I feel as if I'd like her to mother me. . . . It's very difficult for me to ask for that and have a right to it.
 T-6: So it may be unreasonable, but still, when she doesn't meet your needs, it makes you mad.
 C-6: Yeah, I get very angry, very angry with her.
 [PAUSE]
 T-7: You're also feeling a little tension at this point, I guess.
 C-7: Yeah. Yeah. A lot of conflict. . .
 T-8: Umm-hmm. . .
 C-8: A lot of pain.
 T-9: A lot of pain. Can you say anything more what that's about?
 C-9: [Sigh.] I reach out for her, and she moves away from me. And she steps back and pulls back. . . . And then I feel like a really bad person. Like some kind of monster, that she doesn't want me to touch her and hold her like I did when she was a little girl. . .
 T-10: It sounds like a very double feeling there. Part of it is, "Damn it, I want you close." The other part of it is, "Oh my God, what a monster I am to not let you go."
 C-10: Umm-hmm. Yeah. I should be stronger. I should be a grown woman and allow this to happen.
 T-11: But instead, sometimes you feel like her daughter.
 C-11: Umm-hmm. Yeah. Sometimes when I cuddle her, I feel I'm being cuddled.
 T-12: Umm-hmm.
 [PAUSE]
 But you place a lot of expectations on yourself: "I should be different."
 C-12: Yeah. I should be more mature. I should have my needs met so that I don't have to get anything from her.
 T-13: You should find other ways and other sources to meet your needs, but somehow that doesn't seem to be happening?
 C-13: Well, I feel I get a lot of my needs met, but the need from her is very strong—it's the need from a woman really, I think. . . . It doesn't quite make up the needs I get from men***** . . .
 T-14: There are some things that you just want from her.
 C-14: Umm-hmm. Yeah. Just from her. [Sigh.]
 T-15: When she pulls back, that's a very painful experience.
 C-15: Yeah, that really hurts. That really hurts. [Big sigh.]
 [PAUSE]
 T-16: It looks like you're feeling some of that hurt right now.
 C-16: Yeah, I can really feel her stepping back.

(From Raskin & Rogers in Corsini & Wedding, 2000, pp. 149–150)

approaches with proven effectiveness (Kirschenbaum & Jourdan, 2005). For example, Keijsers, Schapp, and Hoogduin (2000) found that cognitive-behavioral therapists who showed warmth, positive regard, and genuineness achieved improved results, and humanistic techniques form an important part of a therapy called *motivational interviewing* that is effective in treating substance-use disorders (see Chapter 9).

Existential Explanations and Treatment Interventions

Existential theorists, borrowing from the existential tradition in philosophy (Sartre, 1953, 1956), emphasize a somewhat different source of psychopathology. From an existential perspective, everyone is faced with the stressful fact that life has no inherent meaning and that death is inescapable. As a result, each of us must confront the frightening reality that we are solely responsible for our lives. Existentialists view emotional health as the ability to face these facts and to create a meaningful life by accepting this responsibility. Conversely, emotional disorders are seen as rooted in people's failure to accept these facts, leading them to be anxious, *inauthentic* (not true to themselves), and depressed (May, 1967). Existential therapists such as Frankl (1980), Yalom (1967), and Verhofstadt-Deneve (2000) have developed techniques to help clients improve their lives by confronting, rather than avoiding, existential dilemmas. Common principles in existential therapy techniques include encouraging clients to face painful truths and to develop courage in the face of life's inevitable difficulties. As with humanistic therapies, existential principles are often incorporated into other modes of therapy (Protter, 2001).

Let's return to Dave and apply humanistic and existential principles to his case.

CASE ILLUSTRATION

Humanistic theorists would assume that Dave's problems are rooted in his relationship with his parents. They would hypothesize that he did not receive the unconditional positive regard from them necessary to develop strong self-regard and self-confidence, and they would probably consider Dave's father's absences and his mother's occasional withdrawal in this light. Existential theorists would be more likely to emphasize Dave's struggle in handling the increased freedom and independence associated with going to college. They would point to Dave's anxiety and withdrawal as indications that he has not successfully confronted the daunting reality of his increased independence.

Behaviorism The theoretical perspective that emphasizes the influence of learning, via classical conditioning, operant conditioning, and modeling, on behavior.

Classical conditioning Learning that takes place via automatic associations between neutral stimuli and unconditioned stimuli.

Behavioral Perspectives

Like the psychodynamic tradition, the behavioral perspective has a long and complex history covering much of the twentieth century. In many respects, **behaviorism** developed as an alternative to the psychodynamic model because behaviorism emphasizes overt, rather than hidden, causes of behavior; it rejects any explanatory concepts that cannot be directly observed and measured (Watson, 1914; Wolpe, 1990). In other respects, however, the two traditions overlap, since both emphasize that behavior, including abnormal behavior, is highly determined by prior life experiences (Hayes, Follette & Linehan, 2004; Kohlenberg & Tsai, 1992).

The behavioral perspective can be summarized by an overarching principle: most behavior is *learned*. When applied to the explanation of abnormal behavior the principle is the same: abnormal behavior is learned. Behaviorists have identified and studied three primary types of learning that affect behavior, and all three are relevant to explaining abnormal behavior. These three types are: *classical conditioning*, *operant conditioning*, and *modeling* or *social learning*.

Classical Conditioning

Classical (or *respondent*) **conditioning** refers to the process of learning through *automatic associations* that the mind establishes between events that happen together in time. In particular, the theory focuses on the connection that is formed when an automatic emotional or behavioral reaction to a stimulus (known as a *reflex*, such as the fear reflex to a sudden flash of lightning) becomes associated with a "*neutral*" *stimulus* (any perceived object, such as a window) that happens to be

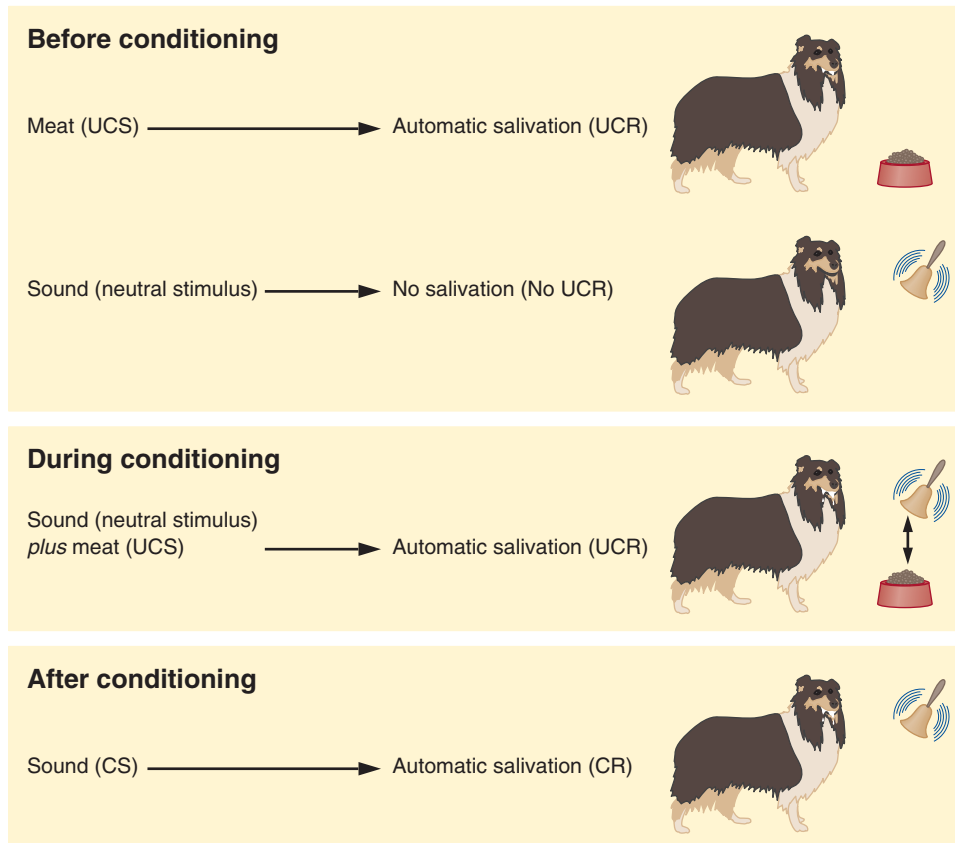


Figure 2.4 Classical or Pavlovian conditioning Schematic diagram of the acquisition of a conditioned response by a dog.

present simultaneously. Many animals (including humans) will subsequently associate the automatic (fear) reaction that occurred with the neutral stimulus, and the next time a window is passed it may trigger fear all by itself.

This form of learning was accidentally discovered and then studied by Ivan Pavlov (1849–1936), a Russian scientist; as a result, classical conditioning is sometimes referred to as *Pavlovian conditioning*. Pavlov's experiments involved teaching hungry dogs to associate salivation to meat powder with a sound produced by Pavlov. After repeatedly exposing the dogs to the two events together, Pavlov found that the dogs would begin to salivate just by hearing the sound alone. They had learned a behavior—salivation in response to the cue of sound—based on the automatic association between two stimuli that had happened to occur together in time (sometimes referred to as **temporal contiguity**). (See Figure 2.4.)

Classical conditioning theory uses the following terms to describe this learning process. A stimulus (such as meat powder) that automatically elicits a response (such as salivation) is known as an **unconditioned stimulus (UCS)** because it causes the response by itself, without any conditioning. The automatic reflex response to the unconditioned stimulus (the salivation to the meat powder) is called the **unconditioned response (UCR)**, again because it happens naturally without any conditioning. A previously neutral stimulus (such as the sound) becomes known as a **conditioned stimulus (CS)** once it elicits a response (such as salivation) by itself due to pairings with the unconditioned stimulus (UCS). The response that a conditioned stimulus (CS) elicits is known as the **conditioned response (CR)**. Thus, when Pavlov's dogs salivated in response to the meat powder, it was an unconditioned response (UCR); when they salivated in response to the sound it was a conditioned response (CR).

Temporal contiguity Two events occurring closely together in time.

Unconditioned stimulus A stimulus that automatically elicits a response through a natural reflex.

Unconditioned response The natural reflex response elicited by an unconditioned stimulus.

Conditioned stimulus A previously neutral stimulus that acquires the ability to elicit a response through classical conditioning.

Conditioned response The response elicited by a conditioned stimulus.

Phobia An intense, persistent, and irrational fear of a specific object or situation.

Operant conditioning A form of learning in which behaviors are shaped through rewards and punishments.

Reinforcement In operant conditioning theory, any environmental response to a behavior that increases the probability that the behavior will be repeated.

Punishment In operant conditioning theory, any environmental response to a behavior that decreases the probability that the behavior will be repeated.

Law of effect Thorndike's principle that behaviors followed by pleasurable consequences are likely to be repeated while behaviors followed by aversive consequences are not.

How is this relevant to explaining abnormal behavior? Recall the example given previously—feeling scared by a bright flash of lightning while standing next to a window. If classical conditioning occurred in this scenario, the unlucky person could develop a learned fear of windows—very much like the mental disorder known as a **phobia**, an irrational fear and avoidance of a nondangerous object or situation (Chapter 4). In fact, John B. Watson, in a famous experiment (Watson & Rayner, 1920), attempted to create a phobia of rats in a one-year-old boy (“Little Albert”) by pairing a rat with a frightening noise. While the experiment has received much scientific and ethical criticism (Harris, 1979), Watson viewed it as a demonstration of a classically conditioned phobia (Watson & Rayner, 1920). Behaviorists have applied the principles of classical conditioning to many other kinds of mental disorders, arguing that these disorders, too, can be classically conditioned (Wagner & Brandon, 2001; Wolpe, 1990; Wolpe & Reyna, 1976). Reactions like fear or sexual arousal can become attached to “inappropriate,” neutral stimuli through classical conditioning, creating problems ranging from other anxiety disorders (Chapter 4) to certain sexual disorders (Chapter 10).

Operant Conditioning

Operant conditioning is a theory most closely associated with B. F. Skinner (1904–1990). It addresses a different kind of learning—learning that occurs based on **reinforcers** and **punishments**. Reinforcers can be positive (pleasurable) or negative (the removal of something unpleasurable) and always *increase* the probability that a behavior will be repeated. Punishments, or aversive consequences, *decrease* the likelihood that behaviors will be repeated.

Edward Thorndike (1874–1949) is often cited as a pioneer in the study of operant conditioning. In his efforts to study animal intelligence, Thorndike built various puzzle boxes with levers, strings, and shelves for testing learning processes in cats. By observing hungry cats as they navigated their way around puzzle boxes to find food, Thorndike discovered that the cats gradually memorized the fastest routes to the food. Thorndike called this the **law of effect**: behaviors that are followed by pleasurable, or *rewarding*, consequences tend to be repeated, whereas behaviors that are followed by



Operant conditioning

Animal trainer Doug Seus uses operant conditioning principles to train Tank, a five-year-old grizzly bear, for a movie role.

©AP/Wide World Photos

unpleasant, or *aversive*, consequences, tend to decrease. Skinner later applied this principle to real-life settings and to other animals, examining the *environmental contingencies* (that is, the reinforcers and punishments) that influence, or even determine, behavior (Skinner, 1953). Animal trainers, for example, rely on operant conditioning principles of reinforcement to elicit, through a process referred to as *shaping*, complex behaviors such as those that amaze audiences at Sea World.

When applied to explanations of abnormal behavior, operant conditioning theory proposes that abnormal behaviors are acquired and repeated when they have been reinforced in some way. Consider, for example, a young child who receives attention from a normally inattentive father only when the child is sad. A behaviorist (as well as a psychodynamic clinician; this is an area in which the theories overlap) would see this as a breeding ground for depression, because the child has learned that sad behavior will be reinforced with attention. As you might guess, the treatment of abnormal behaviors using operant conditioning theory focuses on reducing reinforcers for abnormal or unhealthy behaviors, replacing such reinforcers with aversive consequences (punishments), establishing reinforcers for adaptive behavior, or some combination of the above.

Modeling/Social Learning

The third form of learning described by behaviorists is called **modeling** or **social/observational learning**. Modeling, also referred to as *vicarious conditioning*, describes learning that occurs by observing and imitating others' behavior. Any observer of children knows how common this phenomenon is, but people do not often think of it as a way to explain abnormal behavior. Behaviorists, however, cite experimental evidence that suggests that abnormal, as well as normal, behaviors can be learned through modeling. For example, in a famous study, Albert Bandura and his colleagues (Bandura, Ross, & Ross, 1963) demonstrated that children who watched an adult act aggressively toward a large doll (the famous "Bobo" doll) would later act aggressively toward the doll themselves, whereas other children who watched an adult play calmly with the same doll imitated the calm adult's behavior. Modeling can contribute to aggression, as well as to many other potentially problematic behaviors.

Behavioral Treatment Interventions

Just as learning is the common element in behavioral *explanations* of psychopathology, unlearning (technically called **extinction**) is the common element in behavioral *treatment* interventions. A wide variety of behavioral treatment strategies for extinguishing abnormal behaviors, sometimes referred to as *behavior therapies*, have been developed by behavioral researchers (O'Donohue, Fisher & Hayes, 2003; Wolpe, 1990). Classical (or Pavlovian) conditioning interventions focus on breaking pathological conditioned associations through the process of extinction, the opposite of the acquisition of conditioned responses. Extinction is accomplished by repeatedly presenting a conditioned stimulus to the client without presenting the unconditioned stimulus, thereby weakening the relationship between the two. Techniques such as **exposure** and **systematic desensitization** (gradual exposure plus relaxation exercises) can help phobic clients by slowly exposing them to stimuli to which they have developed a conditioned fear. Through such exposure, the client extinguishes the accidental connection between a conditioned stimulus and the unconditioned stimulus that caused the original fear (Nelissen, Muris, & Merckelbach, 1995; Wolpe, 1969). For example, if a child developed a fear of dogs barking (CS) after being bitten by a

Modeling Learning based on observing and imitating the behavior of others; see also: **social/observational learning**.

Extinction The weakening of a connection between a conditioned stimulus and a conditioned response.

Exposure Technique of deliberately confronting a conditioned stimulus (such as a feared object) in order to promote **extinction**.

Systematic desensitization Intervention involving gradually increased exposure to a conditioned stimulus (such as a feared object) while practicing relaxation techniques.

Aversion therapy Behavioral technique involving pairing an unwanted behavior with an aversive stimulus in order to classically condition a connection between them.

Contingency management The use of reinforcements and punishments to shape behavior in adaptive directions.

Token economies The systematic use of coinlike tokens as rewards in an operant-conditioning treatment program.

Social skills training The use of operant conditioning techniques and modeling in order to improve social skills.

dog (UCS), exposing the child to barking dogs that do not bite should reduce the child's fear. Exposure, as the key to extinction, is the central technique in most classical conditioning based behavioral treatments.

Classical conditioning principles have also been used in a controversial behavioral therapy known as **aversion therapy** (Hadley, 1985; Nakajima, 2005). In this technique, an unwanted behavior or impulse is paired with an aversive stimulus, such as a mild electric shock, in order to classically condition a connection between the two. Aversion therapies have been applied to behaviors such as problem drinking (Chapter 9) and deviant sexual arousal (Chapter 10), but ethical concerns have limited their use.

Operant, or instrumental, behavioral interventions use positive and negative reinforcers and punishments to reshape abnormal behaviors in more adaptive directions, a process known as **contingency management**. For instance, Linehan's (1993; Linehan et al., 2007) *dialectical behavior therapy* uses operant conditioning principles to address suicidal and other self-destructive behaviors in clients with borderline personality disorder (Chapter 11). Therapists using Linehan's approach (which also integrates cognitive and psychodynamic principles) are more supportive and reinforcing to their clients when they control self-destructive behavior and less supportive when they do not. Similarly, **token economies**, often used in inpatient or other institutional settings, use coinlike tokens as rewards for desired behaviors; the tokens can be exchanged for privileges such as day passes, TV use, or special foods. The reinforcing and punishing (if taken away in "fines" for undesirable behavior) power of tokens has been shown to be helpful in a variety of treatment settings (Field, 2004). (See Chapter 12 for examples of the use of token economies in the treatment of schizophrenia.) **Social skills training**, based on modeling and reinforcing of appropriate social behavior, is used to treat a variety of disorders in which social functioning is impaired. Social skills training may focus on general behavioral skills such as assertiveness, or address specific problem areas such as inappropriate sexual behavior in individuals with sexual disorders.

Many contemporary behavioral theorists emphasize the importance of understanding the client's unique psychological characteristics when using behavioral treatment techniques. For example, emotional and cognitive factors such as a particular client's attitudes and personality traits (sometimes referred to as "second-order" factors) must be taken into account in designing appropriate interventions for that client. In addition, techniques borrowed from Eastern religious traditions such as "mindfulness" meditative techniques—which can help clients detach from distressing thoughts or emotions—have been integrated with behavioral interventions (Hayes, Follette, & Linehan, 2004).

Some contemporary behavioral therapies also focus on empathically addressing abnormal behavior as it is exhibited during therapy sessions—a focus that overlaps with psychodynamic and humanistic principles. For example, *functional analytic psychotherapy* emphasizes applying behavioral techniques to problematic behaviors expressed within the therapy relationship (Callaghan et al., 2004). A client who has been expressing intense angry feelings about the therapist in inappropriate ways might be provided with empathy and praise as positive reinforcers when he finds a more appropriate manner of communicating his feelings.

Behavioral interventions have been shown to be effective in treating a wide variety of disorders, both alone and in combination with other types of interventions (O'Donohue, Fisher, & Hayes, 2003). We will discuss research evidence for the effectiveness of behavioral interventions in detail in the relevant chapters.

Let's now return to Dave and look at him through the lens of the behavioral perspective.

CASE ILLUSTRATION

Behavioral theorists would focus on the environmental contingencies in Dave's life, looking for examples of operant conditioning and social learning that might be responsible for some of his symptoms. For instance, being distressed and upset in Dave's family is rewarded with attention and sympathy, while doing well leads to "being taken for granted," an aversive outcome that discourages good functioning. In addition, Dave's mother has modeled becoming anxious and withdrawn when under stress. A behavioral clinician would also look for evidence that Dave's anxiety at college might be a classically conditioned response to particular stimuli at school that have become accidentally paired with Dave's fear reflex. For example, it may be that Dave's preexisting anxiety has become associated with certain students or campus buildings, so that simply being near them automatically elicits anxiety. Behavioral explanations of Dave's problems focus on Dave's symptoms as learned behaviors based on classical conditioning, operant conditioning, and modeling/social learning.

Cognitive Perspectives

The **cognitive** perspective on abnormal psychology developed during the "cognitive revolution," which swept through the field of psychology beginning in the 1950s. The cognitive perspective focuses on *thoughts* and *beliefs* that influence feelings and behaviors. Cognitive theorists emphasize that human beings fundamentally differ from other animals because we *interpret* the world rather than simply react to it. In this sense, cognitive theorists echo the philosophy of the Stoic philosopher Epictetus (50–138 C.E.), who said: "neither death, nor exile, nor pain, nor anything of this kind is the real cause of our doing or not doing any action, but our inward principles and opinions" (*Discourses*, Chapter XI). To a cognitive theorist, human behavior, including pathological behavior, is always rooted in the particular beliefs, assumptions, and **cognitive schemas** (mental models of the world) that color reality for a given individual (Beck, 1987; Datillio, 2005; Markus, 1977). Accordingly, we can understand why different people often react differentially to the same stimulus. For example, two students might receive the same low grade on an exam, but one becomes depressed while the other reacts with determination to improve.

The cognitive perspective's emphasis on the role of subjectivity and internal mental life may sound similar to the psychodynamic perspective, and in many respects the two perspectives do overlap, as theorists within both traditions have increasingly recognized (Erdelyi, 1985; Louw & Straker, 2002; Westen, 2006). However, the cognitive perspective actually developed largely as an alternative to, and a reaction against, both psychodynamic and behavioral perspectives. In fact, many of the founders of the cognitive approach were clinicians, such as Aaron Beck and Albert Ellis, who were originally trained in the psychodynamic tradition but came to believe that changing their clients' maladaptive schemas and beliefs, rather than exploring their unconscious mental processes, was sufficiently therapeutic. They rejected the psychodynamic assumption that therapeutic change required focusing on the deeper causes of emotional problems, such as childhood experiences. As a result, cognitive treatments focus on techniques for changing irrational and problematic beliefs and thoughts (such as extreme pessimism) into more rational attitudes. This therapeutic approach is often referred to as **cognitive restructuring**.

Cognitive schemas Mental models of the world that are used to organize information.

Cognitive restructuring Therapy techniques that focus on changing irrational and problematic thoughts.



Aaron Beck Dr. Beck has been one of the most important figures in the development of the cognitive perspective in abnormal psychology. He is pictured here working with a couple on the maladaptive cognitions that are interfering in their relationship.

Lief Skoogfors/Woodfin Camp & Associates

Attributions People's beliefs about the causes of events.

Explanatory style The patterned ways (such as pessimism) in which people perceive and explain the causes of life events.

Cognitive distortions Irrational beliefs and thinking processes.

Negative automatic thoughts Negative thoughts generated by negative cognitive schemas.

Cognitive triad In cognitive theory, the triad consisting of one's self, one's future, and one's world.

Cognitive theorists also reject behaviorists' primary focus on *external* influences (stimuli) on behavior, and they dispute the behaviorists' claim that *internal* processes (such as beliefs or motives) are irrelevant and unmeasurable. Historically, cognitive theory began as an exploration of the various mental factors, especially beliefs, that *mediate* (or influence) the relationship between stimuli and responses. For example, social psychologists discovered that **attributions**—people's beliefs about the causes of events—play a large role in determining their responses to social interactions (Fiske & Taylor, 1991; Heider, 1958). Most people, for instance, are more sympathetic to a criminal defendant if they *attribute* the criminal behavior to severe mental illness rather than to willful malevolence.

Recently, attribution theory has focused on the concept of **explanatory styles**—the patterned ways in which people perceive and explain the causes of life events. This approach has been used to understand how people react to stress, test failure, physical injury or disease, depression, learning challenges, difficult tasks that require persistence, and more (e.g., Chang, 2001; Peterson, Maier, & Seligman, 1993; Ritchie, 2000; Vermetten, Lodewijks, & Vermunt, 2001). For example, studies have shown that a *pessimistic* explanatory style regarding life events increases vulnerability to feelings of hopelessness and helplessness, which are key emotions in depression. A pessimistic style is defined as the tendency to explain negative events by assuming that they will generalize to other areas (*global* explanation), continue to happen (*stable* explanation), and are one's own fault (*internal* explanation).

A few cognitive theorists have been especially influential in developing cognitive explanations of psychopathology. For example, Albert Ellis focuses on the role of *irrational assumptions and beliefs* in causing emotional distress. In particular, he cites irrational assumptions, like the idea that one must be “perfect” in order to be happy, as a frequent cause of depression and general unhappiness (Ellis, 1962, 1996, 2003, Kendall et al., 1995). Aaron Beck (1999; Beck, Davis, & Freeman, 2004) focuses on the role of **cognitive distortions** in the origin and maintenance of various disorders. Common pathological cognitive distortions include *magnification* (making mountains out of molehills), *overgeneralization* (inferring a general pattern from a single negative event), and *selective abstraction* (focusing on the negative; seeing the hole instead of the doughnut). For example, a person who thinks he is a terrible, hopeless student after doing poorly on one quiz while doing well on major tests would be exhibiting all three of these distortions. These cognitive distortions produce **negative automatic thoughts** concerning one's self, one's future, and one's world—three areas referred to as the **cognitive triad**. Researchers have established that negative automatic thoughts are usually very specific ideas that, despite their distortions, seem highly reasonable to the person who is thinking them (Beck, Steer, & Epstein, 1992). Cognitive therapists challenge both the negative schemas that produce negative automatic thoughts and the automatic thoughts themselves.

Cognitive Treatment Interventions

Cognitive interventions are based on the premise that modifying negative cognitions can alter problematic emotions and behaviors, such as depression or anxiety (Beck, Davis, & Freeman, 2004; Ellis, 2001; Macleod & Cropley, 1995; see Box 2.5 for an example of cognitive restructuring in a therapy session).

For example, Beck's cognitive therapy approach encourages clients to evaluate and question their maladaptive assumptions, and Beck and his colleagues have developed cognitive therapies for substance-use disorders, personality disorders, and other conditions besides depression and anxiety (Beck & Freeman, 1990). Albert Ellis's (1996; 2001) *rational-emotive behavior therapy*, which disputes pathogenic irrational beliefs,

Box 2.5 | Changing Negative Thinking

COGNITIVE RESTRUCTURING IN A THERAPY SESSION

Note the therapist's techniques of using logical reasoning and rational explanations to counter the client's fear of fainting during a panic attack. P = Patient; T = Therapist.

- | | |
|---|---|
| <p>P: In the middle of a panic attack, I usually think I am going to faint or collapse . . .</p> <p>T: Have you ever fainted in an attack?</p> <p>P: No.</p> <p>T: What is it then that makes you think you might faint?</p> <p>P: I feel faint, and the feeling can be very strong.</p> <p>T: So, to summarize, your evidence that you are going to faint is the fact that you feel faint?</p> <p>P: Yes.</p> <p>T: How can you then account for the fact that you have felt faint many hundreds of times and have not yet fainted?</p> <p>P: So far, the attacks have always stopped just in time or I have managed to hold onto something to stop myself from collapsing.</p> <p>T: Right. So one explanation of the fact that you have frequently felt faint, had the thought that you would faint, but have not actually fainted, is that you have always done something to save yourself just in time. However, an alternative explanation is that the feeling of faintness that you get in a panic attack will never lead to you collapsing, even if you don't control it.</p> <p>P: Yes, I suppose.</p> <p>T: In order to decide which of these two possibilities is correct, we need to know what has to happen to your body for you to actually faint. Do you know?</p> <p>P: No.</p> | <p>T: Your blood pressure needs to drop. Do you know what happens to your blood pressure during a panic attack?</p> <p>P: Well, my pulse is racing. I guess my blood pressure must be up.</p> <p>T: That's right. In anxiety, heart rate and blood pressure tend to go together. So you are actually less likely to faint when you are anxious than when you are not.</p> <p>P: That's very interesting and helpful to know. However, if it's true, why do I feel so faint?</p> <p>T: Your feeling of faintness is a sign that your body is reacting in a normal way to the perception of danger. Most of the bodily reactions you are experiencing when anxious were probably designed to deal with the threats experienced by primitive people, such as being approached by a hungry tiger. What would be the best thing to do in that situation?</p> <p>P: Run away as fast as you can.</p> <p>T: That's right. And in order to help you run, you need the maximum amount of energy in your muscles. This is achieved by sending more of your blood to your muscles and relatively less to the brain. This means that there is a small drop in oxygen to the brain and that is why you feel faint. However, this feeling is misleading because your overall blood pressure is up, not down.</p> <p>P: That's very clear. So next time I feel faint, I can check out whether I am going to faint by taking my pulse. If it is normal, or quicker than normal, I know I won't faint.</p> |
|---|---|

(From Clark, 1989, pp. 76–77; in Wilson, 2000, p. 221)

has also been an influential cognitive approach (see Figure 2.5 for an example of a rational-emotive behavior therapy self-help form).

Albert Bandura, a well-known cognitive theorist, believes that cognitive interventions work by improving clients' *efficacy expectations*, or *self-efficacy* (Bandura, 1977; 1986; 1999). Self-efficacy refers to confidence that one can successfully achieve desired outcomes; researchers have shown that higher levels of self-efficacy reduce the amount of strain people experience in stressful situations (Jex et al., 2001).

After an early history of rivalry, the cognitive and behavioral perspectives on psychopathology and treatment have now become so well integrated that they are most often utilized in practice as a combined approach: the **cognitive-behavioral** approach. This approach combines an emphasis on behavioral learning (such as stimulus-response connections) with attention to an individual's cognitive processes (such as attributions). For example, in cognitive-behavioral therapy

Cognitive-behavioral Approaches that combine cognitive and behavioral principles.

Figure 2.6 Rational-emotive behavior therapy self-help form This self-help form is typically given to clients to fill out regarding disturbing events that occur in their daily lives between therapy sessions; it is then reviewed in the next therapy session. (From Ellis in Corsini & Wedding, 2000, p. 194)

A (ACTIVATING EVENTS OR ADVERSITIES)

- Briefly summarize the situation you are disturbed about (what would a camera see?)
- An A can be *internal* or *external*, *real* or *imagined*.
- An A can be an event in the *past*, *present*, or *future*.

IBs (IRRATIONAL BELIEFS)

To identify IBs, look for:

- Dogmatic Demands
(musts, absolutes, shoulds)
- Awfulizing
(It's awful, terrible, horrible)
- Low Frustration Tolerance
(I can't stand it)
- Self/Other Rating
(I'm/he/she is bad, worthless)

D (DISPUTING IBs)

To dispute ask yourself:

- Where is holding this belief getting me? Is it *helpful* or *self-defeating*?
- Where is the evidence to support the existence of my irrational belief? Is it *consistent with social reality*?
- Is my belief *logical*? Does it follow from my preferences?
- Is it really *awful* (as bad as it could be)?
- Can I really not *stand* it?

(CBT) for phobias (Chapter 4), therapists typically help clients to evaluate their irrational assumptions about the phobic stimulus (cognitive component) and to increase their exposure to the stimulus (behavioral component). Cognitive-behavioral interventions have been shown to be among the most effective treatments for mental disorders in controlled studies, as they are moderately to highly effective in treating a wide variety of disorders (Moses & Barlow, 2006). (Examples of effective cognitive-behavioral interventions are provided in the chapters on specific disorders.) The effectiveness of combining cognitive and behavioral techniques

illustrates our general emphasis on the complementarity of various perspectives in abnormal psychology and the core concept of *multiple causality* (see Box 2.6).

Let's now look at the cognitive components of Dave's problems.

CASE ILLUSTRATION

Looking at Dave's symptoms through the lens of the cognitive perspective, we would focus on Dave's assumptions, explanatory style, automatic thoughts, self-talk, and efficacy expectations. For example, Dave becomes apprehensive and pessimistic when stressed. He starts to falsely assume that people do not like him, and he has automatic self-critical thoughts; these cognitions lead to anxiety and withdrawal. Furthermore, Dave seems to believe that he must be perfectly successful in order to satisfy himself and his parents. He also assumes that if he is successful he will not receive as much attention as he does when struggling. This hypothesis overlaps with the behavioral focus on the reinforcement of sadness in his family, and with the psychodynamic hypothesis that Dave has ambivalent (or mixed) feelings about being successful. However, the unique focus of the cognitive approach is on the role of Dave's negative beliefs as the immediate, precipitating cause of his anxiety symptoms.

BRIEF SUMMARY

- Biological perspectives on psychopathology focus on abnormal physical structures or abnormal biochemical functioning, especially in the brain. The biological causes of these abnormalities include both genetic influences and environmental factors, such as diseases and injuries. Biological treatment approaches include any intervention of a physical nature, but usually involve medications that directly affect brain functions (especially neurotransmission).
- Psychodynamic explanations of psychopathology focus on motives, thoughts, and feelings that are outside awareness (unconscious), emotional conflicts, and the ongoing influence of childhood experiences. Psychodynamic interventions help clients gain insight and mastery over these conflicts and repetitive patterns.
- Humanistic explanations of psychopathology focus on the role of problems with self-regard that result from unempathic relationships. Humanistic interventions center on restoring positive self-regard through an empathic relationship with the therapist.
- Existential perspectives explain psychopathology as a form of inauthenticity based on the inability to accept responsibility for creating one's own meaning in life. In existential interventions, clients are encouraged to face this responsibility and to become more authentic and less avoidant.
- Behavioral perspectives are based on the principle that most behavior is learned. Behaviorists focus on three types of learning that can account for normal and abnormal behavior: classical conditioning (learning based on automatic mental associations), operant conditioning (learning based on reinforcement and punishment), and modeling/social learning (learning based on observation and imitation). Behavioral interventions involve extinguishing maladaptive, abnormal behaviors, and learning new and more adaptive behaviors through the use of conditioning and modeling techniques.
- Cognitive theorists focus on thoughts and beliefs as the key causes and components of many feelings and behaviors, including abnormal behaviors. Cognitive therapists emphasize changing maladaptive thoughts and beliefs into more realistic and constructive thinking.

Critical Thinking Question

Consider the psychodynamic, humanistic/existential, behavioral, and cognitive approaches to the case of Dave. In what ways do they seem to overlap? In what ways do they seem to diverge?



Multiple causality

BOX 2.6 Focus on Research

IS PSYCHOTHERAPY EFFECTIVE?

For several decades now, researchers have been studying the effectiveness of psychotherapy. This is no easy task, since more than a hundred varieties of psychotherapy exist. In addition, it is difficult to develop reliable and valid measures of the complex process of psychotherapy and its long-term results. As a result, the quality of psychotherapy studies is uneven. One landmark report summarized the results of 375 psychotherapy studies, finding that in 75% of cases therapy provided some benefit when compared to no treatment (Smith, Glass, & Miller, 1980). In addition, these researchers found that there were no significant differences in the effectiveness of various theoretical approaches. Subsequent studies tended to confirm that psychotherapy was usually helpful and that different treatment approaches produced similar results (for example, Lambert & Bergin, 1994; Lambert, Weber, & Sykes, 1993; Luborsky, Diguier, Luborsky, & Schmidt, 1999; Stiles, Shapiro, & Elliott, 1986).

In the early 1990s, *Consumer Reports* magazine used a controversial methodology to assess the effectiveness of psychotherapy, asking consumers about their experiences in psychotherapy rather than conducting a traditional controlled study. The results, based on thousands of responses, confirmed the findings that psychotherapy is generally effective and that different approaches seem to work equally well (*Consumer Reports*, 1995; Seligman, 1995). However, therapy with psychiatrists, psychologists, and social workers was rated as more effective than therapy with marriage counselors, who typically have less formal training. In addition, the study indicated that the longer a person stayed in therapy, the greater the benefit. This last finding was especially striking because it raised questions about the recent trend toward shorter therapies in response to pressures from insurance companies and employers to reduce costs.

Psychotherapy has also been compared with drug treatments for mental disorders. For example, a landmark study of treatments for depression conducted by the National Institute for Mental Health showed that cognitive-behavioral therapy, interpersonal therapy (a psychodynamic/cognitive-behavioral blend), and antidepressant medication were about equally effective over a 16-week period (Hollon, 1996). However, the psychotherapies had some advantages over medication in the long run as they seemed to prevent recurrences of depression.

Since so many studies have shown little difference in effectiveness among various therapies, many researchers have shifted their attention to finding the common variables that account for therapeutic improvement in all treatments. The variable that has emerged as the best predictor thus far of good therapy outcome is known as the **therapeutic alliance**, which refers to a positive, collaborative partnership between the client and therapist (Hatcher et al., 1995; Hogue et al., 2006; Klein et al., 2003; Lambert & Bergin, 1994). As a result, therapists across all of the theoretical models now emphasize the importance of establishing and maintaining a good working relationship with their clients.

Researchers have also been actively exploring which therapies work best for specific disorders. For example, a controversial current trend in the field advocates the recognition of **empirically supported treatments (ESTs)**—specific forms of therapy that have been proven to work for certain disorders (Chambless, 1996; Crits-Christoph, 1996; Gaston et al., 2006; Herbert & Guadiano, 2005). These treatments, such as the cognitive-behavioral and interpersonal therapies for depression, have been *standardized* using treatment manuals for therapists. Advocates of empirically supported treatments hope that such treatments could be officially approved by professional associations, government agencies, and insurance companies, leading to a higher quality of care. However, some researchers have raised a number of critical questions about ESTs (e.g., Sternberg, 2006; Trierweiler, 2006; Westen & Bradley, 2005).

First, some experts have questioned the claim that these therapies have greater, proven effectiveness. For example, Westen and Morrison (2001) summarized the results of 34 recent studies of manualized therapies and found that clients' initial improvements were often not maintained at follow-up, and that clients selected for and completing these studies may not be a representative sample of clients in the "real world" of typical clinical practice. Other researchers have argued that the standardization of these therapies in a therapy manual can interfere with a therapist's flexibility and responsiveness, which can be necessary to maintain a positive therapeutic alliance and to respond to the unique needs of each client (Garfield, 1996).

In addition, recent research has shown that the idea that manualized therapies can be usefully distinguished by "brand names" (for example, cognitive, behavioral, psychodynamic) may be misleading. In examining the detailed process of tape-recorded therapies described as either "cognitive-behavioral" or "psychodynamic," Jones and Pulos (1993) discovered that therapists in both groups actually used both cognitive-behavioral and psychodynamic strategies and interventions during sessions. In their study, for example, good outcomes were associated with the use of psychodynamic interventions by therapists in both the cognitive-behavioral and psychodynamic groups. This use of multiple, eclectic strategies even in "brand-name" therapies reflects the growing trend toward the *integration* of theoretical perspectives in psychotherapy—a trend consistent with the core concept of **multiple causality**. Integrated approaches and combined treatments (such as psychotherapy plus medication) are increasingly the norm (Bond & Perry, 2006; Hayes et al., 1994; Hollon et al., 2005; Luborsky et al., 1999).

Therapeutic alliance A positive, collaborative partnership between client and therapist.

Empirically supported treatments (ESTs) Specific forms of therapy that have been shown, by certain standards, to be helpful for specific disorders.

Sociocultural and Family Systems Perspectives

The **sociocultural** and **family systems** perspectives focus on how social, cultural, and familial environments contribute to mental disorders. As such, they overlap with other perspectives, especially the behavioral focus on environmental reinforcers and the psychodynamic focus on family influences. The sociocultural and family systems approaches are unique, however, in their primary emphasis on social forces that shape normal and abnormal behavior.

Sociocultural Perspectives

The sociocultural perspective draws on the intellectual traditions of sociology, the study of social organizations, and anthropology, the study of culture. We have already seen several examples of the relevance of the sociocultural perspective in abnormal psychology, especially in the core concept of **cultural and historical relativism**. For example, in Chapter 1 we focused on how it is virtually impossible to define “abnormality” without referring to a specific cultural and historical setting because every society has different ideas about what is normal and abnormal. Sometimes these ideas are so different from one another that they account for the “culture-bound syndromes” discussed in Chapter 1 (Table 1.1). On a related note, you may also recall from Chapter 1 that Thomas Szasz (1960) makes the extreme argument that the very idea of “mental disorders” is something invented by societies in order to control the behavior of their citizens (for a counterargument, see Zigmond, 1999, and Chapter 12, Box 12.1: The Politics of Psychosis: Mark Vonnegut and *The Eden Express*). Most sociocultural theorists do not go this far; rather, they see mental disorders as real, but influenced by social institutions, pressures, or stresses. For example, some sociocultural theorists have emphasized the role of unemployment, poverty, discrimination, and the prison system in causing and maintaining criminal behavior (for example, Kessler et al., 1994). Sociocultural theorists have also focused on socio-economic and political barriers to adequate mental health treatment (see Box 2.7)

For the most part, sociocultural theorists believe that social forces contribute to mental disorders through *learning* (this is obviously an area of overlap with behaviorism). Individuals learn to adopt behaviors—normal and abnormal—in response to the social and cultural role models, ideals, pressures, and stresses they encounter. These social and cultural roles and stresses vary a great deal by social class, culture, gender, and ethnicity. As a result, sociocultural theorists often focus on categories such as socioeconomic status (SES), gender, and ethnicity in their explanations of mental illness. As evidence for their point of view, sociocultural theorists point out that the prevalence of many mental disorders correlates with sociocultural variables. For example, depression is more common in women than in men; self-reported quality of life is lower for African Americans than for whites; and schizophrenia is significantly more common among the poor than the wealthy (Keith, Regier, & Rae, 1991; Nolen-Hoeksema, 1990). Although such correlations never prove causation, as we have discussed, they do point to the relevance of sociocultural factors in mental disorders.

An excellent example of this perspective is the sociocultural explanation of **anorexia nervosa** (Chapter 8), a view rooted in feminist theories about the disorder. Anorexia, a disorder involving self-starvation, is primarily found in contemporary, young, white, affluent women in Western, industrialized societies. Sociocultural theorists argue that the female beauty ideals, communicated through media images, along with complex sex-role stresses facing young women in this sociocultural group, are direct causes of anorexia (Thompson et al., 1999). As we will see in Chapter 8, this kind of sociocultural theory, like most theories, is more useful in combination with other explanatory models than by itself. For example, since most young, affluent, white women in contemporary Western cultures do *not* develop eating disorders, looking only at the sociocultural causes of these disorders would be reductionistic. At the same time, the complete explanation of any mental disorder should include an understanding of the influence of sociocultural forces.

Sociocultural The theoretical perspective that focuses on the influence of large social and cultural forces on individual functioning.

Family systems The theoretical perspective that focuses on the importance of family dynamics in understanding and treating mental disorders.

Anorexia nervosa A disorder involving extreme thinness, often achieved through self-starvation.



Sociocultural factors

The sociocultural perspective emphasizes the connections between sociocultural stressors and mental disorders. For example, rates of many mental disorders are higher among the urban poor, like these people waiting at a soup kitchen, than they are for other groups. Steve Rubin/The Image Works

BOX 2.7 Discrimination in Health Care

THE MENTAL HEALTH PARITY MOVEMENT

FOCUS ON PSYCHOLOGY IN SOCIETY

As the effectiveness of psychotherapy has been established by researchers, public health experts have emphasized the importance of making psychotherapy widely available and reducing the stigma of mental health treatment. Their efforts have been reinforced by research findings that psychotherapy is not only effective in treating mental disorders but can also be useful in addressing some medical problems. It is estimated that up to 70% of visits to primary care physicians are for complaints that are mainly due to psychological factors (VandenBos & DeLeon, 1988). In addition, over half of all deaths in the United States are due to behavioral lifestyle factors, such as poor eating habits, smoking, lack of exercise, and substance misuse, which can be addressed in psychotherapy (Taylor, 1995). As a result, some experts have argued that expenditures for mental health treatment actually *reduce* overall health-care expenses over the long run (Thompson et al., 1998).

Despite these findings, recent pressures from insurers, employers, and the government to cut escalating health-care costs have resulted in a general reduction in insurance coverage for psychotherapy over the past decade. *Fee-for-service* health-care plans that reimburse clients for medical expenses (including psychotherapy) have been disappearing, and they have been replaced by *managed care* plans that now cover a majority of Americans with health insurance. Most managed care plans tightly regulate the use of psychotherapy by subscribers. Typically, they offer a limit of 20 sessions or fewer per year, require clients to see therapists associated with the plan, and involve an authorization process to approve treatment. Problems with managed mental health care, such as denials of needed care and requests by insurers for information about the private content of therapies, have at times led to a backlash by clients

and therapists against the managed care approach (Phelps, Eisman, & Kohut, 1998). Many clients who can afford to do so simply choose to pay for psychotherapy “out of pocket,” preserving their privacy and freedom of choice and bypassing insurance involvement. But for the millions of Americans who do not have the resources to pay out of pocket, other solutions are needed. One such effort is the **mental health parity** movement. This movement argues that health insurers routinely discriminate against those needing mental health treatment by providing lower levels of coverage for mental disorders than for physical disorders. For example, there are usually limits on the number of visits allowed to see a therapist for depression, while there are no such limits on the number of visits to a doctor for medical diseases—even though depression is more treatable than many physical illnesses. Parity advocates have demonstrated that, contrary to insurers’ fears, expanded mental health coverage causes, at most, minimal increases in costs (Barry, Frank & McGuire, 2006); National Institute of Mental Health, 1998) while improving access to treatment (Harris, Carpenter & Bao, 2006).

The parity movement has had mixed legislative success. The federal government passed a weak parity law in 1996, but a more meaningful law was defeated in 2001 after heavy lobbying by the insurance industry. At the state level, 34 states currently have parity laws, which are generally stronger than the federal law. However, in states with strong parity laws, managed care has actually become *more* pervasive since strict control over whether to authorize treatment at all (parity laws generally do not address this issue) has become a way for insurers to control costs in a parity environment. As a result, some mental health advocates have argued that the parity movement may be backfiring and that it cannot succeed without addressing the issue of managed care (Hansell, 1997; Miller, 1997). They propose other solutions, such as encouraging insurers to generously subsidize *outpatient* psychotherapy, while focusing cost containment efforts on excessive *inpatient* treatment, which was the real source of runaway costs in the past. As noted above, generous benefits for outpatient psychotherapy may actually reduce overall health-care expenditures in the long run as a result of the overall benefits of healthier lifestyles.

Mental health parity A political movement advocating that mental disorders should be covered by health insurance on par with physical disorders.



Mental health parity Tipper Gore, shown here at the start of the 1999 White House Conference on Mental Health, has been a strong advocate of the mental health parity movement. Ms. Gore, the wife of former vice president Al Gore, has acknowledged her own struggle with depression.

©AP/Wide World Photos

Because sociocultural theorists focus on broader social forces, they often view individual treatment for mental disorders with some skepticism. They tend to believe that social change, such as reducing unemployment, poverty, and discrimination, is the key to improving psychological well-being for the greatest number of people. We will consider sociocultural interventions in more detail in chapters that address disorders strongly influenced by sociocultural factors (for example, Chapter 8 on eating disorders and Chapter 12 on schizophrenia).

Family Systems Perspectives

Family systems theorists focus specifically on *family dynamics* rather than the broader social environment to explain emotional disorders. They emphasize that families are complex *systems*, and they consider the family as a unit rather than individuals within the family. The family systems approach is based on concepts and principles that apply to other kinds of complex systems. For example, family systems tend to maintain a certain stability, or **homeostasis**. Thus, a change in any part of a family will tend to cause disruption throughout the family system and trigger a counterreaction to reestablish familiar patterns (Alexander & Waxman, 2000; Steinglass, 1987). Consider a family in which the parents anxiously focus on one of their children’s learning problems in order to avoid dealing with problems in their marriage. When the child starts to be successful at school, the parents may find themselves focusing on another child’s problems. These patterns can be described in terms of the interpersonal *boundaries* within a family (an **enmeshed** family has few boundaries between members and intrusive relationships, while a **disengaged** family has distant, detached relationships) and the *roles* within a family (for example, family power dynamics, responsibilities, alliances, and scapegoating of members) (Bermann, 1973; Minuchin, 1974; Steinglass, 1987). (See Table 2.3 for a list of family systems concepts and techniques.) Family therapists typically construct a **genogram** of families they work with—a complex diagram of the extended family system (see Figure 2.7). Genograms highlight the family systems principle that it is not individuals who have disorders, but families.

The family systems approach was pioneered in the 1950s by Gregory Bateson and Jay Haley, who conducted studies of family communication patterns. They focused on family communication problems such as *double-bind* communications, in

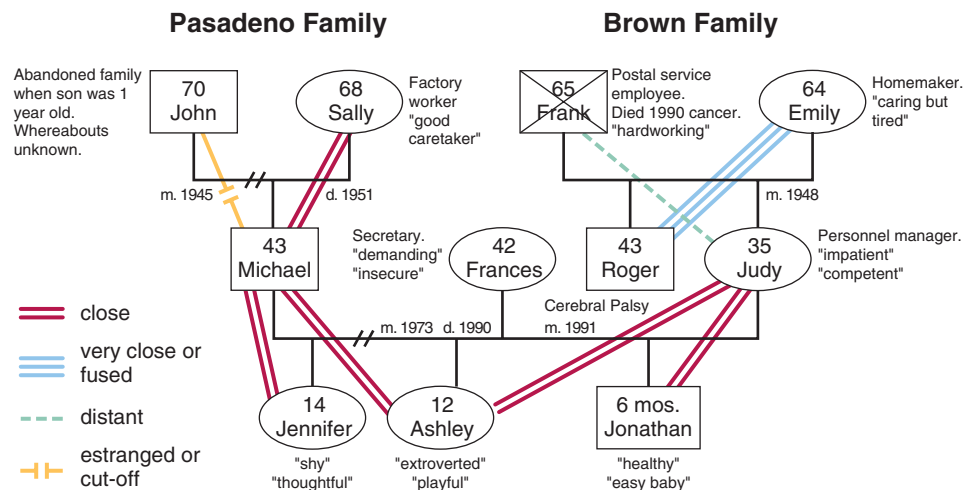
- Homeostasis** The tendency of systems, such as family systems, to maintain a stable pattern.
- Enmeshed families** Families in which boundaries between members are weak and relationships tend to be intrusive.
- Disengaged families** Families in which relationships tend to be distant and unemotional.
- Genogram** Diagram of the structure of a family.

TABLE 2.3 Some Family Systems Concepts and Techniques

Homeostasis	The tendency of a system to return to its usual equilibrium.
Enmeshment	Maladaptive overinvolvement among family members in the family system.
Disengagement	Maladaptive overdetachment among family members in the family system.
Double-bind communication	Confusing mixed messages that have a “damned if you do, damned if you don’t” quality.
Identified patient	The member of the family singled out by the family as “ill.”
Paradoxical intervention	A family therapy technique in which the therapist encourages the family to increase their maladaptive patterns, assuming that this will motivate the family to change.

Figure 2.7 A sample family genogram In this genogram, relationships between members of the Pasadena and Brown families, joined by the marriage of Michael and Judy, are diagrammed along with the dates of family transition events and notations on the individuals within the families.

(From Kaslow & Celano in Gurman & Messner, p. 369)



which a child is given contradictory messages by other family members. Early family systems theorists believed that double-bind communications from parents, such as "Be independent!" but "Never leave us!" could lead to severe disturbances, such as schizophrenia, in a targeted child, although this view is now seen as extreme and unsupported. Later, Haley joined with Salvador Minuchin to develop *structural family therapy*, which focuses on identifying and reshaping family roles and boundaries (Minuchin, 1974). Haley also developed *strategic family therapy*, a method for dealing with resistance in family therapy by using *paradoxical* techniques such as "prescribing the symptom"—a kind of "reverse psychology" in which the family is told to *increase* their problematic behavior, with the idea that this will mobilize the family to do just the opposite (Haley, 1987).

Identified patient The member of the family identified by the family as having problems; family systems theorists see this as a manifestation of a problem in the family system, not in an individual member.



Family therapy In family therapy, the entire family typically meets with a therapist so that the family's interpersonal dynamics can be addressed.

Michael Newman/PhotoEdit

Family Systems Treatment Interventions When an individual within a family develops emotional problems, family systems therapists understand this as an indication of difficulty within the broader family system. The person with the emotional problems is described by family systems theorists as the **identified patient**, in order to emphasize that the "real" patient is the entire family. For example, an 8-year-old girl began to have tantrums and refused to eat shortly after the birth of a baby brother with minor medical problems. In this case, family therapy focused on helping the parents to see that their excessive anxiety about the baby had disrupted the family system, leading to their daughter's attention-getting symptoms. This example highlights the overlap between family systems and psychodynamic explanations because they share an emphasis on the central role of family relationships in an individual's emotional life. What distinguishes the family systems approach is its concern with treating the family as a unit. To this end, family therapy usually involves meeting with the whole family. The therapist offers comments and suggestions, and assigns homework designed to help the family system react in more constructive ways to changes and conflicts, such as encouraging the parents in the family just described to reconsider their excessive worry about their son and focus more on their daughter's needs. When the family is functioning more constructively as a unit, the pathological pressures on the individual members are relieved.

Research on the effectiveness of family systems interventions is mixed, as you will see in detail in later chapters. Let's now return to Dave and view his situation from the sociocultural and family systems perspectives.

CASE ILLUSTRATION

Sociocultural theorists would focus on the social and cultural context of Dave's problems, such as the middle-class professional expectations and pressures that might be contributing to Dave's anxiety in college. In addition, they would highlight the stresses associated with Dave's attendance at a competitive university, and in particular the current historical context in which many college students feel increasing pressure to succeed in a global economy. Family systems theorists would focus more specifically on Dave's family dynamics. They might hypothesize that Dave's problems erupted recently as a result of growing tension between his parents over Dave's father's work hours—Dave's symptoms could be serving to distract the family from the marital problems. Alternatively, family theorists might assume that Dave's departure for college has destabilized the family homeostasis because Dave is no longer present to compensate for his brother's problems with his own successes. Dave's symptoms could be an attempt to return to a familiar homeostasis by keeping him more connected to his family even though he has left home. Finally, family theorists would probably agree with the psychodynamic and behavioral hypotheses that Dave's symptoms are partially caused by the fact that his family reinforces distress with concern and care taking, while independence and self-reliance tend to lead to "being taken for granted."

Alternative Therapies and Mental Health Enhancement

A contemporary review of treatment perspectives in abnormal psychology would not be complete without consideration of various alternative therapies and techniques for mental health enhancement that have gained popularity and research support in recent years. These include activities such as meditation, physical exercise, journal writing, and spiritual or religious practices. On their own, or in combination with more traditional treatment interventions, such activities have been found in numerous studies to be helpful in alleviating clinical conditions, including anxiety disorders, mood disorders, substance use disorders, and even some personality and psychotic disorders (e.g., Bach et al., 2002; Teasdale et al., 2000). Various forms of meditation, in particular, have now been rigorously studied in order to clarify their benefits and mechanisms of brain action. For example, mindfulness meditation, a practice that emphasizes relaxed self-awareness and self-acceptance with roots in Buddhism, has been found to enhance general feelings of well-being in addition to reducing anxiety and depression in clinical populations (Brown et al., 2003; Hayes, 2004; Kabat-Zinn, 2003; 2005). Researchers have begun to find significant changes in brain structure and function related to meditation that may account for these benefits (Cahn & Polich, 2006).

BRIEF SUMMARY

- Sociocultural perspectives focus on the role of social pressures (such as advertising), social stressors (such as poverty), and cultural institutions (such as the prison system) in causing abnormal behavior. As a result, sociocultural theorists emphasize social change as the most effective solution to many mental health problems.
- Family systems perspectives emphasize maladaptive family dynamics as a major cause of psychopathology. When an individual develops emotional problems, family theorists use systems theories to explain the individual's difficulties in terms of a problem within the overall family system. Family therapists typically meet with the entire family in an effort to readjust the family dynamics so as to relieve the pathological pressures on the symptomatic member of the family.
- Alternative treatment interventions, such as meditation, are increasingly incorporated into more traditional treatments and are gaining in popularity and research support.

**Critical
Thinking
Question**

Thinking about the case of Dave, can you develop an explanation of his anxiety symptoms that combines sociocultural and biological components?

In closing this chapter on explaining mental disorders, let's look at another clinical case example that can help us to review the central concepts.

CASE Vignette

Explanation and Treatment

Marcus, a 13-year-old seventh grader in Texas, was admitted to a hospital for tests after his pediatrician could not find an explanation for a puzzling collection of symptoms he had been experiencing for several weeks. Marcus had been frequently complaining of not feeling well physically. He was exhausted much of the time and occasionally appeared to be mentally foggy and confused. His parents noticed that he seemed very anxious. When these symptoms did not clear up over time, Marcus's pediatrician suggested a brief hospitalization for a full diagnostic workup.

While in the hospital, Marcus's behavior became increasingly strange. He was often found pacing nervously in his room, talking to himself. He kept telling the doctors that he was dying, but he could not explain his concerns coherently. As a result, his doctors called in the hospital's pediatric psychologist, Dr. Robinson, to consult on the case. After being briefed, she first arranged to meet with Marcus's parents to learn about his medical and psychosocial history. They told Dr. Robinson that Marcus had never had any significant medical problems as a child, but that he had suffered from some emotional difficulties. They described Marcus, the youngest of their five children, as having always been quite shy and fearful, which they had attributed to his insecurity over being very small for his age and surrounded by older siblings. They had never been concerned about his fearfulness until recently. But during the past year, as Marcus had started going through puberty, he had become even more anxious, needing constant reassurance from them that the changes in his body were normal. He worried, for example, that he was too small, that his voice was too high, and that he was developing too slowly. Marcus's parents also revealed that, to their surprise, he had even spoken to them about his worries about masturbation. They told Dr. Robinson that they were a devoutly religious family and Marcus had been taught that masturbation was a sin. He had come to them in tears, terrified that he would go to Hell since he had started masturbating. It was in the midst of all this that Marcus had started complaining about not feeling well, leading to his current medical situation.

Dr. Robinson then went to speak with Marcus. She found him pacing nervously in his room and very eager to talk to her. Marcus practically pulled her into his room, shut the door, and pleaded with her to help him. Marcus then began to tell Dr. Robinson a bizarre story. He explained that since he had begun masturbating a few months ago, he had discovered that his penis was gradually shrinking. He knew that this was a punishment

from God and he was certain that his penis would not only soon disappear, but that he would die as a result. Dr. Robinson could tell from the terror in Marcus's eyes that he believed every word of this. He also said that he had been hearing the voice of God condemning him, and hearing everyone in the hospital talking about him and his punishment from God.

Dr. Robinson knew immediately that Marcus was **psychotic**—a clinical term that refers to the condition of being out of touch with reality, usually in the form of **delusions** (false, bizarre beliefs) and **hallucinations** (aberrant sensory perceptions). Marcus clearly had both. Dr. Robinson began to think about Marcus's overall situation—the lifelong preoccupation with his physical inadequacy; the recent crisis with puberty; the current unexplained symptoms of tiredness, confusion, and now psychosis. As she headed toward her meeting with the medical team following her strange interview with Marcus, Dr. Robinson began considering whether Marcus's entire symptom picture might be due to a mental illness rather than to a medical condition. In particular she wondered to herself whether Marcus was suffering from an early adolescent onset of schizophrenia, the mental disorder most often associated with psychosis (Chapter 12).

Fortunately, before deciding on this diagnosis, Dr. Robinson checked with the medical team to see if any new test results had come in. Sure enough, the results of a spinal tap conducted days earlier had just arrived—and they indicated that Marcus was suffering from viral encephalitis (an infectious inflammation of the brain). Encephalitis, like general paresis and other infections that reach the brain, can cause psychosis, as well as the fatigue and confusion that Marcus had been experiencing. So the diagnosis was not schizophrenia after all, but acute encephalitis. Marcus was treated with antiviral medications, and his psychosis cleared up quickly. However, emotionally he remained as he had been before the infection—anxious, guilty, and conflicted about his identity, his body, and his emerging sexuality. As a result, Dr. Robinson continued to work with Marcus and his family in therapy to help him overcome his emotional problems.

Psychotic Out of contact with reality, such as experiencing hallucinations or delusions.

Delusions Fixed, false, and often bizarre beliefs.

Hallucinations Abnormal sensory experiences, such as hearing or seeing nonexistent things.

CASE DISCUSSION

The case of Marcus can help us summarize this chapter by reviewing two of the core concepts surrounding explanations of psychopathology: the principle of *multiple causality* and the *connection between mind and body*. Clearly, one has to consider both biological *and* psychological perspectives in order to understand Marcus's symptoms. In his case, the major cause of his symptoms was biological—the encephalitis. But Marcus's psychological makeup was responsible for the way these symptoms appeared. For example, it was Marcus's preexisting preoccupation with his physical inadequacies and the belief he had committed sexual sins that determined the *content* of his delusions, such as the idea that his penis was disappearing. At several points in the case, Marcus's doctors could have taken a *reductionistic* approach, but fortunately they did not. For example, Marcus's pediatrician suggested the medical workup, suspecting a biological cause, but he also encouraged the psychological consultation with Dr. Robinson. Dr. Robinson had almost decided that the

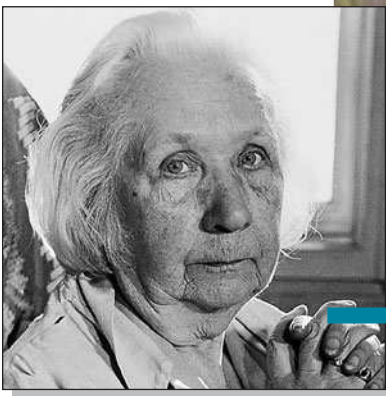
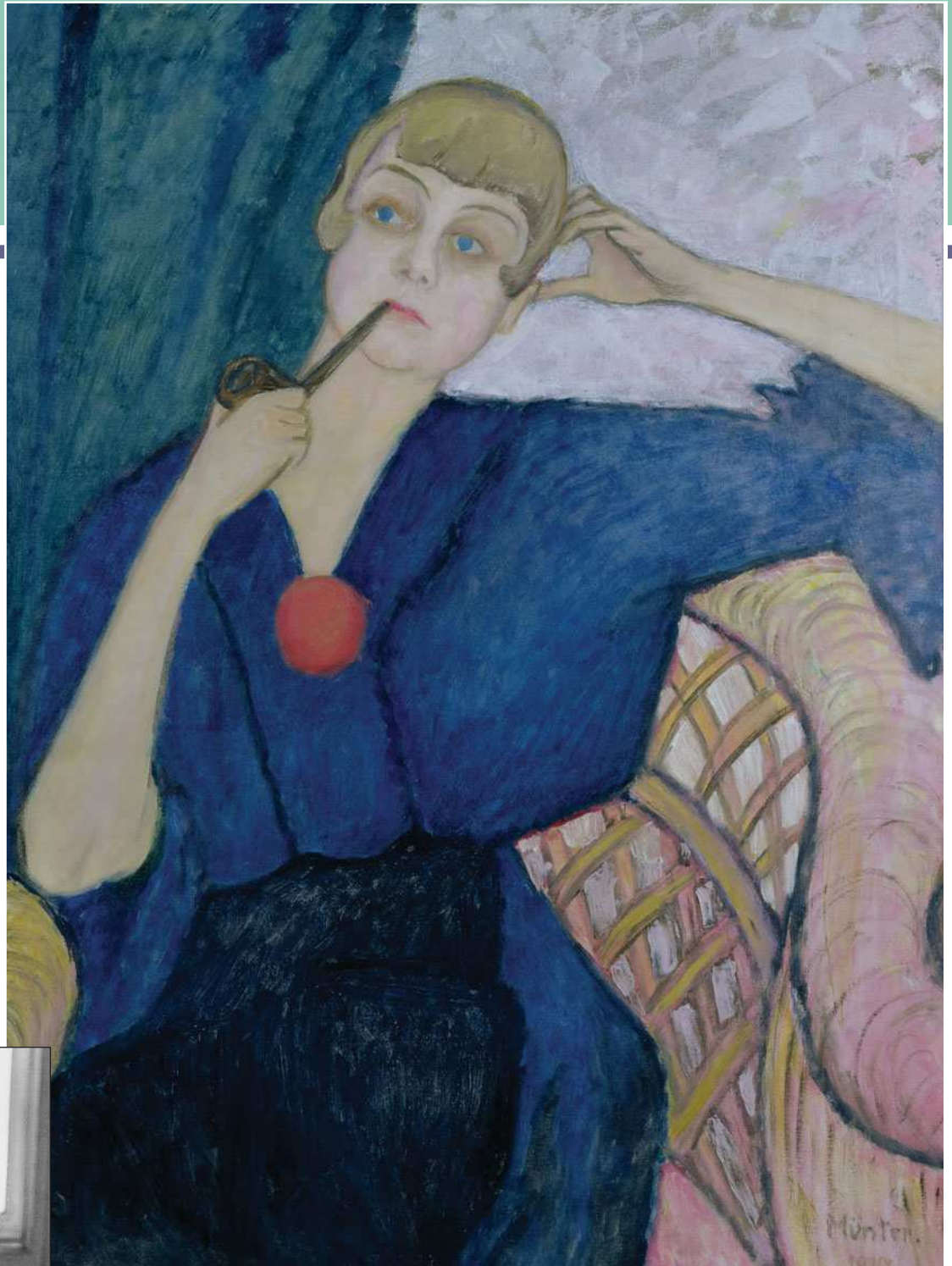
symptoms reflected a mental disorder, but she waited to see the medical test results. The hospital team initiated antiviral treatment, but they also recommended psychotherapy to help Marcus and his family address his emotional problems. In short, these professionals were able to embrace the *principle of multiple causality* and avoid the problem of *reductionism* by seeing Marcus as a whole person rather than reducing his symptoms to a single cause. In addition, the case highlights the *connection between mind and body* in that Marcus's complex symptoms were caused by both biological and psychological factors.

Having discussed the many important issues surrounding explanations and treatments of psychopathology, we now turn to our last introductory topic: how is psychopathology researched and classified? In Chapter 3, we will look at the many different ways that mental disorders can be categorized and researched, as well as at the core concepts that affect these efforts.

Chapter Summary

- In explaining abnormality, three core concepts are especially relevant: *cultural and historical relativism*; the *connection between mind and body*; and the *principle of multiple causality*.
- Because explanations of abnormal behavior vary so widely across time and place, we must be mindful that any explanation is relative to its *cultural and historical* context.
- Despite the common view that abnormal behavior has either biological or psychological causes, these two realms are, in fact, mutually influencing and interdependent, in keeping with the core concept of the *connection between mind and body*.
- The various theoretical perspectives in abnormal psychology overlap in some respects. For example, the psychological perspectives all emphasize the importance of the therapeutic relationship in treatment. In other respects, the perspectives diverge and emphasize different causal processes. Each perspective has something to contribute, and even when they diverge they often complement each other by addressing different aspects of the *multiple causes* of abnormal behavior.

Gabriele Münter,
Portrait of Anna Aagaard, 1917.
Oil on canvas, 94x68 cm.
©New Walk Museum,
Leicester City Museum Service, UK/
Bridgeman Art Library



©Gabriele Münter- und Johannes Eichner-
Stiftung, Munich. Courtesy Lenbachhaus,
Munich

Gabriele Münter (1877-1962), a German Expressionist painter who counted Franz Marc and Wassily Kandinsky among her colleagues, emphasized simplified shapes and darkly outlined colors in her works. The portrait of Anna Aagaard finds Anna deep in thought, yet the look on her face is hard to interpret. Is she pleased, sad, calm, or tense? In this chapter we turn our attention to questions of assessment and diagnosis. How do mental health professionals evaluate, describe, and classify and research psychopathology?

Classifying Abnormality:

DIAGNOSIS, ASSESSMENT, AND RESEARCH

In Chapter 1, we examined the question of how to *define* abnormal behavior and distinguish it from normal behavior. In Chapter 2, we reviewed different ways of *explaining* and *treating* abnormal behavior. In this chapter, we focus on how abnormal behavior can be *classified* and *researched*. The different categories of psychopathology, like the different categories of medical diseases, are technically known as **diagnoses**. The word “diagnosis” is derived from the Greek roots *dia*, meaning “apart,” and *gnosis*, meaning “to know.” Thus, to diagnose is to distinguish different *syndromes*—clusters of symptoms that form a distinctive pattern and follow a particular course over time—from each other. The process of gathering information about a client in order to make a diagnosis is technically known as **assessment**. We will discuss diagnosis, assessment, and the science of psychopathology in this chapter, and we’ll see that classifying and researching abnormality is as complex and interesting as defining, explaining, and treating it. Diagnosis and research are intimately linked, since good research relies on sound diagnostic categories, and sound diagnostic categories are established through good research. Accordingly, this chapter also includes a review of the basic scientific methods for studying abnormal psychology.

THE ADVANTAGES AND LIMITATIONS OF DIAGNOSIS

We begin with a question: Why should we want to categorize and classify different forms of abnormal behavior? The answer may seem obvious, and for most professionals in this field the advantages of having a classification system are clear-cut. But there are actually many sides to this complex issue, as suggested by the core concept of the *advantages and limitations of diagnosis*. Let’s begin with the advantages. These include:

1. Classification allows clinicians, researchers, and teachers to communicate more effectively about their work.
2. Classification facilitates research on the causes of disorders.
3. Classification facilitates research on and decisions about which treatments are most likely to be helpful for particular disorders.

In this sense, the arguments in favor of having a classification system for psychopathology are very similar to the arguments in favor of any scientific classification system, especially those in the field of medicine. However, a classification or diagnostic system (sometimes referred to as a *taxonomy*) is only useful when the categories in the diagnostic system consistently and accurately fit the phenomena being classified. It would not be of much use, for example, to use the categories “black” and “white” to classify the colors of the rainbow. As it turns out, the professions that deal with mental disorders (see Box 3.1) have struggled for decades to come up with

The Advantages and Limitations of Diagnosis

- Reliability
- Validity

The History Of Diagnostic Systems For Psychopathology

- The DSM-III Revolution and Controversy
- Advantages of the Modern DSM Approach
- Limitations of the Modern DSM Approach

Using The DSM-IV-TR: Making A Multiaxial Diagnosis

- Axis I and Axis II
- Axes III, IV, and V
- A Complete DSM-IV-TR Diagnosis

Assessment

- Interviews
- Tests
- Behavioral Observation

Diagnosis and Assessment in Perspective: Classifying and Understanding Dave

- Interview with Dave
- Dave’s Test Results
- Behavioral Observations of Dave

The Advantages and Limitations of the Diagnosis of Dave

Research Methods in Abnormal Psychology

- The Goals of Research and Scientific Thinking
- Statistical and Clinical Significance
- Research Ethics

Diagnoses Categories of disorders or diseases according to a classification system.

Assessment The process of gathering information in order to make a diagnosis.



BOX 3.1 Focus on Psychology In Society

THE MENTAL HEALTH PROFESSIONS: CLINICAL DEGREES AND DISCIPLINES

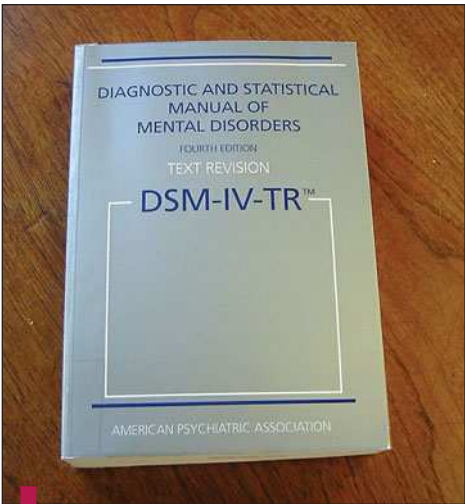
Professionals with different degrees from several different disciplines work in the field of psychopathology. There is some overlap in the activities of these professions, and the boundaries between them are in flux. For example, *clinical psychologists* in many states are currently seeking the right, with proper training, to prescribe medications for treating mental disorders, an area that has traditionally been the province of *psychiatrists*. Similarly, clinicians from any mental health discipline may now seek advanced training

to become *psychoanalysts*—practitioners of psychoanalysis, the most intensive form of psychodynamic therapy (Chapter 2)—whereas psychoanalytic training used to be limited, in the United States, primarily to psychiatrists. Despite the overlap among them, each profession has its own code of ethics covering the appropriate scope and standards of practice for its members. In addition to these ethical guidelines, state and federal governments regulate these professions to some extent.

TITLE	DEGREES	ACADEMIC DISCIPLINE
Clinical Psychologist	M.A., Ph.D., or Psy.D	Psychology
Psychiatrist	M.D., D.O.	Medicine, Osteopathic Medicine
Clinical Social Worker	M.S.W (Master’s), D.S.W. (Doctorate)	Social Work
Psychiatric Nurse	R.N.	Nursing

Validity The accuracy of a test, measurement, or category system.

Reliability The consistency of a test, measurement, or category system.



The DSM-IV-TR This diagnostic manual, published by the American Psychiatric Association, currently dominates diagnostic practice in the United States and many other countries despite some controversy about its utility.

Jerry Marshall

diagnostic systems that are reasonably consistent and accurate. While this might seem surprising at first, think about the cases of Dave and Marcus discussed in Chapters 1 and 2. Both of them have complex emotional problems that in many respects are as unique as their personalities, although we would also expect that some aspects of their problems might well overlap with problems experienced by other people.

Indeed, a vigorous debate exists about the best way to classify psychopathology—and even over whether the disadvantages of classification outweigh the advantages. Some critics (most notably Thomas Szasz and theorists from the humanistic perspective) argue that attempts to categorize psychopathology do more harm than good because no diagnostic system can do justice to the uniqueness of individuals’ emotional problems. Furthermore, such systems have the potential to dehumanize people with oversimplified and stigmatizing “labels” (Kramer & Buck, 1997; Szasz, 1975). Yet the mainstream opinion is that diagnostic classification of abnormal behavior is possible and useful, despite continuing debate over which diagnostic system works best. One particular diagnostic system, developed over many decades by the American Psychiatric Association, has become the standard classification system for psychopathology; we will focus on explaining how it works. This system is usually referred to as the DSM system, because DSM is the abbreviation for the name of the manual (*The Diagnostic and Statistical Manual of Mental Disorders*; APA, 2000) that describes the system and how to use it. Before we discuss the DSM system, we must first consider more fully how to evaluate whether a diagnostic system is useful. This is done by examining two research criteria that tell us how well the diagnostic system’s categories “fit” the disorders being classified. These criteria are **reliability**, which assesses the *consistency* of the diagnostic categories, and **validity**, which assesses the *accuracy* of the diagnostic categories.



Reliability Judges' disagreements in categorization decisions are technically known as problems of reliability.

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Reliability

To be useful, any classification system must have reasonably good **reliability**—a statistical term referring to the stability and consistency of categorization decisions based on the system. For example, when a child is taken to a pediatrician with a sore throat, fever, and rash, the child may well be given a “strep” test (a swab in the throat to test for the presence of *Streptococcus* bacteria) in order to classify the child as “positive” for strep or “negative” for strep. Unless this test gives relatively consistent results—for example, a child given two consecutive tests should get the same result—it is not very useful. Keep in mind that we are not yet concerned with the question of whether the strep test *accurately* detects strep throat; that is a question of validity. For the moment, we are only concerned that the test gives relatively *consistent* results because if it does not, then the accuracy of the test hardly matters because the stability of the results cannot be trusted.

As you might guess, it is much harder to reliably diagnose mental disorders than to reliably diagnose strep throat, partly because there are no objective biological markers of most mental disorders. The diagnosis of mental disorders usually rests on the judgment of a clinical interviewer, sometimes in conjunction with the results of various diagnostic questionnaires (described in the Assessment section later in the chapter). The crucial question is whether the interviewers and questionnaires are *consistent* in their classification decisions. This consistency can be measured in different ways. The two most common ways are **interjudge** (or interrater) **reliability**, which refers to the agreement between two or more different interviewers or raters, and **test-retest reliability**, which refers to results produced by a test given more than once. To illustrate, let's consider the case of a patient with the eating disorder known as anorexia nervosa (Chapter 8). This patient receives a diagnostic interview from two different psychologists who are not aware of her diagnosis beforehand, and she is given a diagnostic questionnaire about anorexia to fill out twice with a one-day interval in between. If both psychologists independently come to the same diagnostic conclusion—regardless of whether they are correct—this is evidence for the *interjudge reliability* of the diagnostic interview for anorexia. If the questionnaire results are consistent—again, regardless of accuracy—then this is evidence for the *test-retest reliability* of the anorexia questionnaire (see Table 3.1). Reliability is typically studied with large groups of patients and measured numerically by looking at the statistical **correlation** between judges or between test and retest results. The higher the correlation, the greater the reliability (see Research Methods section).

Interjudge reliability Consistency or agreement between multiple judges.

Test-retest reliability Consistency or agreement between multiple administrations of the same test.

Correlation A statistical term for a systematic association between variables.

TABLE 3.1 Reliability

INTERJUDGE RELIABILITY		
Client has interview with Clinician 1	Diagnosis:	anorexia
Same client has interview with Clinician 2	Diagnosis:	anorexia
<i>Diagnostic interview is reliable.</i>		
TEST-RETEST RELIABILITY		
Client given diagnostic anorexia test time 1	Result:	anorexia
Same client given same anorexia test time 2 (one day later)	Result:	no anorexia
<i>Diagnostic test is not reliable.</i>		



Validity of lie detector tests The validity, or accuracy, of lie detector tests is questionable enough that many jurisdictions forbid their use as evidence in court. Richard T. Nowitz/Photo Researchers, Inc.

Validity

Once it has been established that a diagnostic category or test is reliable, then we can consider our other important question—is the category or test also *accurate*? (see Table 3.2). Keep in mind that strep tests and psychologists could be consistent but wrong, in which case they would be reliable but not valid. There are many examples of tests that are highly reliable but have questionable validity (Kaplan & Saccuzzio, 1993). IQ tests are perhaps the most notorious example; the consistency (reliability) of their results is rarely disputed, but many experts question whether they truly measure intelligence, as opposed to measuring something else like cultural competence and test-taking ability (Gould, 1993; Suzuki & Valencia, 1997). Similarly, lie detector tests have reasonably good reliability but generally weak validity, which is why they are not admissible as evidence in many legal proceedings (Iancono & Patrick, 1997; Saxe & Ben-Shakhar, 1999).

The goal of a diagnostic system is to have good reliability *and* good validity. We want the two psychologists and the two anorexia questionnaires not only to agree with each other but to be accurate as well. Unfortunately, when dealing with a subject matter as complex, multifaceted, and ambiguous as human behavior, it is not easy to achieve good reliability and validity at the same time. There can be a trade-off between reliability and validity when it comes to classifying abnormal behavior; in order to *increase* reliability, diagnoses must be simplified, which can *decrease* validity through oversimplification (Barron, 1998; McHugh, 1999). For example, let’s imagine that researchers are trying to improve the reliability of the diagnostic category we referred to previously: anorexia. To do so, they might decide to be very specific about what qualifies as anorexia, so that different interviewers can agree on the diagnosis. This is just what the authors of the DSM have done, so that one of the current criteria for the diagnosis of anorexia is a body weight of 15% or more below the normal weight for a given

TABLE 3.2 Validity

Client’s actual disorder:	anorexia
Client’s anorexia diagnostic test result:	anorexia
TEST IS VALID.	
Subject’s actual behavior:	lying
Subject’s lie detector test result:	truthful
TEST IS NOT VALID.	

person. But in defining anorexia so precisely, validity could be compromised if, for example, the actual phenomenon of anorexia includes people who are only 5 or 10% below normal body weight but still have other characteristics of the disorder. Since many, perhaps even most, of the people who seek mental health treatment fall into this “gray area” in which they have some but not all of the symptoms of a mental disorder (a situation sometimes referred to as a *forme fruste*, or incomplete expression of a disorder), this is a significant practical consideration for clinicians (Kramer, 1993; Ratey & Johnson, 1997).

As you can probably tell, some of the challenges of developing a reliable and valid classification system for abnormal behavior relate to the core concept of the **continuum between normal and abnormal behavior**. Some psychologists argue that abnormal behavior would be better classified by a **dimensional system** (that is, one that asks *to what degree* a person exhibits characteristics of a disorder on a continuum) rather than by the DSM’s **categorical system** (which asks *whether or not* a person has a specific disorder, and therefore has to establish a somewhat arbitrary cutoff for saying yes or no) (Krueger & Markon, 2006; Oldham & Skodol, 2000; Westen et al., 2006). In any case, the trade-off between reliability, which improves with more concrete, precise, and descriptive criteria, and validity, which improves with more complex and nuanced criteria, is one of the major challenges to researchers interested in improving diagnostic systems for psychopathology.

Dimensional system A diagnostic system in which individuals are rated for the degree to which they exhibit certain traits.

Categorical system A diagnostic system, like the DSM system, in which individuals are diagnosed according to whether or not they fit certain defined categories.

THE HISTORY OF DIAGNOSTIC SYSTEMS FOR PSYCHOPATHOLOGY

Numerous attempts have been made throughout history to classify abnormal behavior using some kind of diagnostic category system. In general, such attempts have progressed from systems that listed only a few different syndromes to much more detailed contemporary systems, such as the DSM-IV-TR, listing hundreds of different disorders. One of the first modern diagnostic systems for abnormal behavior was developed by the famous French psychiatrist Philippe Pinel (1745–1826). As noted in Chapter 2, Pinel is best known for his work to humanize and liberalize the treatment of psychiatric patients in French hospitals; his “moral treatment” movement was one of the humanitarian reforms in psychiatry during the late eighteenth and nineteenth centuries (see Box 2.1). Pinel also developed a diagnostic system consisting of four different types of mental abnormality: melancholia (depression), mania (extreme excitability), idiocy (mental retardation), and dementia (mental confusion) (Pinel, 1802/1803; Riese, 1969). Nearly a century later, the German physician Emil Kraepelin (1856–1926), often referred to as the father of modern psychiatric diagnosis, proposed a diagnostic system including 13 disorders based on his extensive studies of



Philippe Pinel Pinel orders the chains removed from an asylum patient as part of his reform movement. Pinel’s “moral treatment” movement was one of the great humanitarian reforms in the history of mental health care.

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hundreds of case histories of hospitalized patients (Berrios & Hauser, 1988; Jablensky, 1995; Kraepelin, 1899, 1904).

We can trace the development of increasingly complex diagnostic systems in the United States by examining census questionnaires, which used to include questions about mental illness. In the 1840 census, only one category of mental illness was identified: “idiocy/insanity.” By the 1880 census, seven categories were identified: mania, melancholia, dementia, monomania (obsession with a single idea), paresis (Chapter 1), dipsomania (alcoholism), and epilepsy (at that time considered a psychiatric disorder) (American Psychiatric Association, 1994).

In the twentieth century, the proliferation of diagnostic categories escalated as interest in and research on mental illness increased. In 1952, the American Psychiatric Association (APA) published the first edition of the DSM. The DSM-I was a refinement of the psychiatric section of a medical diagnostic system developed by the World Health Organization (WHO) known as the International Classification of Diseases (ICD). At that time the ICD listed 26 mental disorders; the DSM-I, expanding on these categories, listed 108. Each subsequent edition of the DSM has included a larger number of diagnostic categories. The DSM-II (published in 1968) listed 182 disorders, the DSM-III (1980) included 265, and the DSM-IV-TR (2000), the current edition, has almost 300 separate disorders.

This ever-increasing number of officially identified mental disorders reflects, in part, our vastly increased knowledge about psychopathology, which allows us to differentiate distinct syndromes of psychological symptoms. However, some critics have argued that the proliferation of new diagnoses reflects the “invention” rather than the “discovery” of new disorders (Follette & Houts, 1996; Spiegel, 2005). For example, the DSM-IV-TR includes a category called attention-deficit/hyperactivity disorder (Chapter 13), which applies to children who are particularly impulsive and inattentive. Critics contend that such behavior is normal in many children, but it is now being pathologized as the mental health profession creates diagnostic categories that encroach on territory traditionally considered within the bounds of normality (McHugh, 1999; Searight & McLaren, 1998). Box 3.2 discusses this controversy.

BRIEF SUMMARY

- To *diagnose* means to identify different syndromes according to a classification system, or taxonomy.
- Assessment is the process of gathering information about a client in order to make a diagnosis.
- In order to be useful, diagnostic classification systems must have two statistical properties: reliability and validity. Reliability refers to the consistency of classification decisions. Validity refers to the accuracy of classification decisions.
- Diagnostic classification systems for psychopathology have grown increasingly detailed over time. The current official system in the United States, the DSM system, currently lists over 300 separate disorders in the DSM-IV-TR.

Critical Thinking Question

Why do you think it has been so difficult to develop reliable and valid diagnostic systems in the field of abnormal psychology?

The DSM-III Revolution and Controversy

The history of diagnostic systems may give the impression of a smooth progression toward more complete and comprehensive systems as researchers have been able to identify additional syndromes of psychopathology. But the progression has been anything but smooth. Rather, an enormous upheaval shook the field in the 1970s as the DSM-III was being developed. The reasons for this upheaval go back to our discussions of reliability and validity. Until the 1960s, the mental health field in the United States was dominated by the

BOX 3.2 Too Many Diagnoses?

A CRITIC LOOKS AT THE PATHOLOGIZING OF EVERYDAY LIFE

In December 1999, *Commentary* magazine published an article by Paul R. McHugh, M.D., the psychiatrist-in-chief at the Johns Hopkins Hospital in Baltimore and an influential writer about issues in psychiatry. The article, titled “How Psychiatry Lost Its Way,” was a scathing attack on the DSM-IV. Coming from someone so prominent and sympathetic to contemporary biological psychiatry, the article stirred considerable controversy. McHugh’s criticisms of the DSM-IV and how it has been used will remind you of many of the issues discussed in this chapter. Here is an excerpt from McHugh’s article (pp. 32–33).

With help from the popular media, home-brewed psychiatric diagnoses have proliferated in recent years, preoccupying the worried imaginations of the American public. Restless, impatient people are convinced that they have attention deficit disorder (ADD); anxious, vigilant people that they suffer from post-traumatic stress disorder (PTSD); stubborn, orderly, perfectionistic people that they are afflicted with obsessive-compulsive disorder (OCD); shy, sensitive people that they manifest avoidant personality disorder (APD), or social phobia. All have been persuaded that what are really matters of their individuality are, instead, medical problems, and as such are to be solved with drugs. Those drugs will relieve the features of temperament that are burdensome, replacing them with features that please. The motto of this movement (with apologies to the DuPont corporation) might be: better living through pharmacology.

And—most worrisome of all—wherever they look, such people find psychiatrists willing, even eager, to accommodate them. Worse: in many cases, it is psychiatrists who are leading the charge. But the exact role of the psychiatric profession in our current proliferation of disorders and in the thoughtless prescription of medication for them is no simple tale to tell.

When it comes to diagnosing mental disorders, psychiatry has undergone a sea change over the last two decades. The stages of that change can be traced in successive editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), the official tome of American psychiatry published and promoted by the American Psychiatric Association (APA). But historically its impetus derives—inadvertently—from a salutary effort begun in the early 1970’s at the medical school of Washington University in St. Louis to redress the dearth of research in American psychiatry. The St. Louis scholars were looking into a limited number of well-established disorders. Among them was schizophrenia, an affliction that can manifest itself in diverse ways. What the investigators were striving for was to isolate clear and distinct symptoms that separated indubitable cases of schizophrenia from less certain ones. By creating a set of such “research diagnostic criteria,” their hope was to permit study to proceed across and among laboratories, free of the concern that erroneous conclusions might arise from the investigation of different types of patients in different medical centers.

With these criteria, the St. Louis group did not claim to have found the specific features of schizophrenia—a matter, scientifically speaking, of “validity.” Rather, they were identifying certain markers or signs that would enable comparative study of the disease at multiple research sites—a matter of “reliability.” But this very useful effort had baleful consequences when, in planning DSM-III (1980), the third edition of its Diagnostic and Statistical Manual, the APA picked up on the need for reliability and out of it forged a bid for scientific validity. In both DSM-III and DSM-IV (1994), what had been developed at St. Louis as a tool of scholarly research into only a few established disorders became subtly transformed, emerging as a clinical method of diagnosis (and, presumably, treatment) of psychiatric states and conditions of all kinds, across the board. The signs and markers—the presenting symptoms—became the official guide to the identification of mental disorders, and the list of such disorders served in turn to certify their existence in categorical form.

The significance of this turn to classifying mental disorders by their appearances cannot be under-estimated. In physical medicine, doctors have long been aware that appearances, either as the identifying marks of disorder or as the targets of therapy, are untrustworthy. For one thing, it is sometimes difficult to distinguish symptoms of illness from normal variations in human life. For another, identical symptoms can be the products of totally different causal mechanisms and thus call for quite different treatments. For still another, descriptions of appearances are limitless, as limitless as the number of individuals presenting them; if medical classifications were to be built upon such descriptions, the enumerating of diseases would never end. . . .

The new DSM approach of using experts and descriptive criteria in identifying psychiatric diseases has encouraged a productive industry. If you can describe it, you can name it; and if you can name it, then you can claim that it exists as a distinct “entity” with, eventually, a direct treatment tied to it. Proposals for new psychiatric disorders have multiplied so feverishly that the DSM itself has grown from a mere 119 pages in 1968 to 886 pages in the latest edition; a new and enlarged edition, DSM-V, is already in the planning stages. Embedded within these hundreds of pages are some categories of disorder that are real; some that are dubious, in the sense that they are more like the normal responses of sensitive people than psychiatric “entities,” and some that are purely the inventions of their proponents.

Why are psychiatrists not more like other doctors—differentiating among patients by the causes of their illnesses and offering treatments specifically linked to the mechanisms of these illnesses? One reason is that they cannot be. In contrast to cardiologists, dermatologists,

(continues)

ophthalmologists, and other medical practitioners, physicians who study and treat disorders of mind and behavior are unable to demonstrate how symptoms emerge directly from activity in, or changes of, the organ that generates them—namely, the brain. Indeed, many of the profession’s

troubles, especially the false starts and misdirections that have plagued it from the beginning, stem from the brain-mind problem, the most critical issue in the natural sciences and a fundamental obstacle to all students of consciousness.

psychodynamic perspective. Recall that the psychodynamic perspective focuses on the deeper, usually unconscious, roots of mental disorders, and therefore focuses on *syndromes of unconscious conflict* rather than on *syndromes of observable symptoms* in classifying disorders. As a result, the categories listed in DSM-I and DSM-II tended to rely on abstract psychodynamic concepts such as the term *neurosis*, which was loosely defined as any mild to moderate mental disorder involving symptoms caused by unconscious emotional conflict. As you might guess, the reliability of the DSM-I and DSM-II systems tended to be quite poor because of the vagueness of such categories (Beck et al., 1962; Tarter, Templer, & Hardy, 1975). In addition, many clinicians and researchers became frustrated with the psychodynamic concepts built into the DSM-I and DSM-II as they became interested in other theoretical perspectives.

For these reasons, the APA decided to approach the DSM-III in a new way, with two primary aims in mind. First, in order to improve the reliability and validity of the diagnostic system, the APA hoped to make the diagnostic criteria (that is, the guidelines for making a particular diagnosis) in the DSM-III as simple, descriptive, and clear as possible. This aim tied in with the second objective, which was to make the DSM-III diagnoses as *atheoretical* (not based on any theoretical perspective) as possible, which represented a radical change from the psychodynamic assumptions of the DSM-II. In short, the authors of the DSM-III hoped that creating a more detailed and purely descriptive diagnostic manual would produce more reliable and valid diagnoses and reduce theoretical squabbling (APA, 1994) (Table 3.3 compares DSM-II and DSM-III). To illustrate further, let’s take a look at the criteria for the disorder mentioned earlier—attention-deficit/hyperactivity disorder—as they are listed in the DSM-IV-TR, which follows in the spirit of the DSM-III revolution (see Table 3.4). Note how detailed and specific the criteria are, with the aim of good reliability. The emphasis on detail and specificity highlights the changes brought about by the “DSM-III revolution.”

TABLE 3.3 Comparing DSM-II and DSM-III

This table illustrates the revolutionary shift from DSM-II to DSM-III. The DSM-II diagnosis “Depressive neurosis” was divided into four separate diagnoses in the DSM-III in the hope that more precise and specific diagnostic categories would improve their reliability.

DSM-II CATEGORY	DSM-III CATEGORIES
Depressive neurosis (300.4)	<div><div>Major depression, single episode, without melancholia</div><div>Major depression, recurrent, without melancholia</div><div>Dysthymia (minor depression)</div><div>Adjustment disorder with depressed mood</div></div>

In the DSM-III, the changes from DSM-II shown above are explained as follows: The DSM-II category [Depressive neurosis] was defined merely as “an excessive reaction of depression due to an internal conflict or to an identifiable event. . . .” For this reason, it was applied to a heterogeneous group of conditions. The . . . major conditions to which it was applied have each been described descriptively [in DSM-III] without reference to etiology [cause].

TABLE 3.4 Diagnostic Criteria For Attention-Deficit/Hyperactivity Disorder

<p>A. Either (1) or (2):</p> <p>1. six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:</p>	
<p>INATTENTION</p> <p>a. often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities</p> <p>b. often has difficulty sustaining attention in tasks or play activities</p> <p>c. often does not seem to listen when spoken to directly</p> <p>d. often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)</p> <p>e. often has difficulty organizing tasks and activities</p> <p>f. often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)</p> <p>g. often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)</p> <p>h. is often easily distracted by extraneous stimuli</p> <p>i. is often forgetful in daily activities</p> <p>2. six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:</p>	
<p>HYPERACTIVITY</p> <p>a. often fidgets with hands or feet or squirms in seat</p> <p>b. often leaves seat in classroom or in other situations in which remaining seated is expected</p> <p>c. often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)</p> <p>d. often has difficulty playing or engaging in leisure activities quietly</p> <p>e. is often “on the go” or often acts as if “driven by a motor”</p> <p>f. often talks excessively</p>	
<p>IMPULSIVITY</p> <p>g. often blurts out answers before questions have been completed</p> <p>h. often has difficulty awaiting turn</p> <p>i. often interrupts or intrudes on others (e.g., butts into conversations or games)</p> <p>B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.</p> <p>C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).</p> <p>D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.</p> <p>E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).</p>	
<p>CODE BASED ON TYPE:</p> <p>314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type: if both Criteria A1 and A2 are met for the past 6 months</p> <p>314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months</p> <p>314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months</p> <p>Coding note: For individuals (especially adolescents and adults) who currently have symptoms that no longer meet full criteria, “In Partial Remission” should be specified.</p>	

Advantages of the Modern DSM Approach

Because it represented a significant change with implications for treatment, research, and training, the DSM-III was extremely controversial at the time that it was published in 1980. Although the DSM-III approach—carried forward in all subsequent editions of the DSM—has become the standard diagnostic system in the United States, it has remained controversial. Accordingly, we will review some of the achievements and advantages of this new system, followed by a discussion of the critics of the modern DSM approach and their views of its limitations. In so doing, we provide another overview of a core concept in abnormal psychology: the *advantages and limitations of diagnosis*.

Advantage 1: Improved Reliability and Validity

The greatest advantage of the modern DSM approach has been the partial achievement of its primary goal—improved reliability and validity of diagnoses of psychopathology (APA, 2000). This is of enormous importance, since, as we have seen, diagnostic systems are useless without adequate reliability and validity, and research, treatment, and teaching in the field of abnormal psychology are facilitated by a sound diagnostic system. Even though the reliability and validity of the modern DSM system still leave much to be desired (Barron, 1998; Beutler & Malik, 2002; Hilsenroth et al., 2005; Wakefield, 1992), the new system represents a milestone as the first diagnostic system for psychopathology ever to approximate the goal of adequate reliability and validity (see Table 3.5).

Advantage 2: Increased Emphasis on Diagnosis and Research

A second advantage of the modern DSM approach is that it has increased clinicians’ awareness of the importance of diagnosis. This increased attention to issues of classification has helped make the field of abnormal psychology more scientifically rigorous and amenable to empirical research (Hilsenroth et al., 2000; Spitzer, 2001). A related advantage is that the DSM provides a common language for clinicians and researchers. In this sense, the specific details of the modern DSM system may be ultimately less important than the principle it represents: that classification systems for mental disorders can and should be improved.

Limitations of the Modern DSM Approach

Despite its overwhelming acceptance, the modern DSM approach has also had many critics. A summary of their main concerns follows.

Limitation 1: Remaining Reliability and Validity Problems

Many critics focus on what they see as the DSM’s failure to adequately achieve its own primary goal of achieving acceptable reliability and validity (Beutler & Malik, 2002; Kirk & Kutchins, 1994). Some critics even contend that the new system has actually *decreased* the validity of diagnoses (Barron, 1998; Wakefield, 1992). As noted earlier,

TABLE 3.5 Reliability of DSM-III Diagnoses

This table shows the results of two phases of reliability testing for the DSM-III; the first phase involved 339 patients and the second phase 331. The *kappa coefficients*—a way of measuring reliability—reported in the table range from .003 to 1.0. A coefficient of 1.0 represents perfect agreement or consistency; coefficients in the .60 to .70 range or better are usually considered to indicate adequate reliability. As you can see, the reliability for Axis I diagnoses is better than for Axis II, although both improved in phase two.

	KAPPA—PHASE ONE (N=339)	KAPPA—PHASE TWO (N=331)
Axis I Disorders		
Substance Use Disorders	.86	.82
Schizophrenic Disorders	.81	.81
Paranoid Disorders	.66	.75
Affective [Mood] Disorders	.69	.83
Anxiety Disorders	.63	.72
Overall Kappa for Axis I	.68	.72
Axis II		
Personality Disorders	.56	.65
Overall Kappa for Axis II	.56	.64

some say that the DSM has invented rather than discovered disorders, thereby inaccurately pathologizing many normal behaviors (Eriksen & Kress, 2005; Follette & Houts, 1996; McHugh, 1999; see Box 3.2). Concerns about the stigma associated with the diagnosis of a mental disorder add urgency to this argument. (Being labeled with a psychiatric diagnosis can lead to discrimination and shame, which is all the more tragic if the diagnosis may not even be valid!) Others say that the new DSM system decreases validity because it classifies disorders based solely on observable, descriptive criteria. The critics contend that this has led to a superficial approach to diagnosis that overlooks complexity and the need for depth in understanding abnormal behavior (Herzig & Licht, 2006; Jensen & Hoagwood, 1997).

In essence, these criticisms relate to the trade-off between reliability and validity discussed earlier; many critics see the current DSM system as having sacrificed too much validity in the pursuit of greater reliability. Their argument recalls the old joke about the drunken man searching one night for his lost keys under a lamppost. When a friend asks him if he had, in fact, dropped his keys near the lamppost, the drunken man replies, “No, I dropped them way over yonder, but this is where the light is!” According to the critics, the current DSM system only “finds” what it can see by the light of readily observable, descriptive criteria and may lose sight of whatever exists outside of that light. Some clinicians—particularly those associated with the humanistic and psychodynamic perspectives—consider the DSM-IV-TR generally misguided and may use it only when required to do so by a third party such as an insurance company or professional regulatory agency. Humanistic clinicians, as noted earlier, tend to see any form of diagnosis as potentially restricting one’s view of the whole, complex person behind the diagnosis. In this sense, the humanistic model includes an important critique of diagnosis in general by claiming that *classifying* is not the same as *understanding*—and can sometimes interfere with it (Winthrop, 1964). Psychodynamic clinicians, on the other hand, have developed their own diagnostic system (see Box 3.3) based on psychodynamic concepts such as defense mechanisms and personality organization, which they consider as important as descriptive symptoms in classifying disorders (PDM Task Force, 2006). Often, clinicians use psychodynamic diagnoses in combination with a DSM-IV-TR diagnosis in order to address both descriptive symptoms and underlying psychodynamics when making a diagnosis.

Limitation 2: Theoretical Bias

A second area of criticism of the modern DSM approach is that, despite its stated intention to provide an atheoretical approach to diagnosis, the DSM, in fact, has a hidden theoretical bias in favor of the biological perspective. Although the DSM-IV-TR makes no explicit claims about the etiology (cause) of, or most appropriate treatment for, the disorders it lists, many critics note that the DSM-IV-TR contains an implicit assumption that mental disorders are akin to medical disorders, with probable biological causes even if they are not yet known (Barron, 1998; McHugh, 1999). To the extent that the DSM-IV-TR does implicitly prioritize biological factors, it can be criticized as biased or reductionistic.

Limitation 3: Cultural Bias

Finally, the current DSM system has been criticized for being culturally biased (Eriksen & Kress, 2005; Rogler, 1993). As we have noted, forms of psychopathology vary a great deal across different cultural and historical contexts (the core concept of *cultural and historical relativism*), and as a result there is always a danger of either pathologizing something normal or normalizing something pathological because of cultural, racial, class, or gender stereotypes. For example, anthropologists interested in psychopathology have pointed out that talking to dead relatives is considered normal in many cultures, yet it could easily be misinterpreted as a pathological psychotic

BOX 3.3 An Alternate Classification System

THE PSYCHODYNAMIC DIAGNOSTIC MANUAL (PDM)

Many psychodynamic therapists find the DSM-IV-TR diagnostic system to be at odds with their ways of thinking about diagnosis. In general, psychodynamic therapists tend to feel that diagnosis should be based not only on the client's symptoms but also on underlying conditions such as the client's personality organization, defense mechanisms, developmental fixations, and degree of ego strength. As a result, a consortium of major psychoanalytic organizations recently undertook to develop a Psychodynamic Diagnostic Manual (PDM Task Force, 2006), an alternative to the DSM-IV-TR that can be used instead of or as a supplement to the DSM classification system. Leading psychodynamic researchers were recruited to develop the PDM diagnostic system, which includes classification of clients' Personality Patterns and a Profile of Mental Functioning in addition to Symptom Patterns (which are the focus of the DSM approach). The authors of the PDM explain the rationale for its development in the following excerpt from its introduction:

Over the past 30 years or so, in the hope of developing an adequate empirical basis for diagnosis and treatment, the mental health field has progressively narrowed its perspective, focusing more and more on simple symptom clusters. The whole person has been less visible than the various disorder constructs on which researchers can find agreement. Recent reviews of this effort have raised the possibility that such a strategy was misguided. Ironically, emerging evidence suggests that oversimplifying mental health phenomena in the service of attaining consistency (reliability) and capacity to evaluate treatment empirically (validity) may have compromised the laudable goal of a more scientifically sound understanding of mental health and psychopathology. Most problematically, reliability and validity data for many disorders are not as strong as the mental health community had hoped they would be. (PDM Task Force, 2006, p. 3)

hallucination by a clinician from a different cultural background (Liestner, 1998). Because this concern was raised about the DSM-III (Kleinman, 1987, 1996), the DSM-IV-TR explicitly discusses cultural variations in psychopathology, with descriptions of "culture-bound syndromes" (see Table 1.2) and suggestions for helping clinicians consider cultural context when making diagnoses (APA, 2000).

BRIEF SUMMARY

- The DSM system underwent a significant revolution with the introduction of the DSM-III in 1980. In an effort to improve the reliability and validity of previous systems, the DSM-III adopted a new approach emphasizing more specific, descriptive, and atheoretical criteria for diagnosing mental disorders.
- The DSM-III revolution remains controversial, yet the modern DSM approach has been widely adopted. The advantages of the new system have been improved reliability and validity, and an increased emphasis on the importance of diagnosis. Criticism of the new system focuses on remaining problems with reliability and validity, and concerns about theoretical and cultural bias.



Advantages/
limitations
of diagnosis

Critical Thinking Question

Overall, does the "DSM-III Revolution" seem to you to have been a major step forward in the field, a minor step forward, or a step in the wrong direction?

USING THE DSM-IV-TR: MAKING A MULTIAXIAL DIAGNOSIS

Despite its critics' concerns, the DSM-IV-TR is the current standard for diagnosing psychopathology. Accordingly, we will review in detail exactly how the DSM diagnostic system works and how clinicians use it to make diagnoses. The first important point is that the DSM-IV-TR is a *multiaxial* diagnostic system, meaning that a complete diagnosis involves several (five, to be exact) different dimensions or areas. However, the first two *axes* or dimensions contain all of the mental disorders listed in the DSM-IV-TR; the remaining three axes record supplemental information.

Axis I and Axis II

Probably the most difficult and confusing part of the DSM-IV-TR, even for experienced clinicians, is the distinction between Axis I and Axis II (see Table 3.6). This distinction is based on the long-established convention that mental disorders can be broken down into two basic types. The first type, far more common and familiar, are **symptom disorders**, characterized by the onset of unpleasant and unwanted emotional distress or impairments in functioning. This broad category includes everything from phobias to schizophrenia in the DSM-IV-TR, and these are all listed on Axis I. The second category, less common and familiar, are **personality disorders** (Chapter 11), characterized by certain personality *traits* that have become so extreme and rigid that they cause impairments in functioning. For example, “dependent personality disorder” is a diagnosis for individuals who are so dependent on others that they are unable to make decisions for themselves, assert themselves, and act independently. There are 10 such personality disorders listed in the DSM-IV-TR (covered in Chapter 11), and they, along with the diagnosis of mental retardation (Chapter 13), are the only disorders listed on Axis II. One of the first decisions a clinician must make in diagnosing a client is whether his or her disorder seems to be a *symptom disorder* or a *personality disorder* (it is also possible for a person to have multiple diagnoses, a situation known as **comorbidity**). There are certain rules of thumb for distinguishing between symptom and personality disorders, although it is important to keep in mind that the distinction is not entirely clear-cut (leading to some controversy about the distinction itself) and that these rules of thumb have many exceptions.

The first rule of thumb is that personality disorders tend to be long term and *chronic* because personality, by definition, consists of a group of traits and patterns of functioning that are relatively stable over time. Most Axis I disorders, by contrast, tend to be more episodic and *acute*, although chronic disorders like schizophrenia and some forms of depression and anxiety are important exceptions to this rule.

The second rule of thumb is that personality disorders tend to have *pervasive* effects throughout the individual’s life because personality comes into play in everything one does. By contrast, many Axis I disorders have a more *specific* focus and are limited to a particular area of functioning, such as a fear of public speaking. (Again, however, some Axis I disorders can be devastatingly pervasive, as anyone who has known someone with severe depression or schizophrenia can attest.)

The third rule of thumb is that the client’s subjective attitude toward his or her disorder is usually quite different in symptom disorders than in personality disorders. In symptom disorders, individuals usually feel that their problems, whatever they may be, are distressing, unwelcome, and puzzling. This situation is technically described as one in which the problems are **ego-dystonic**. (“Ego” here is a synonym for “self,” and dystonic means “inconsistent,” so that to say that a disorder is “ego-dystonic” means that the afflicted individual feels that the symptoms are inconsistent with his or her usual sense of self.) By contrast, personality disorders are more **ego-syntonic**, meaning that the individual with the disorder may not feel that anything is wrong. Although it may seem surprising that someone could have an extreme, rigid, pathological personality

Symptom disorders Disorders characterized by the unpleasant and unwanted forms of distress and/or impairment.

Personality disorders Disorders characterized by extreme and rigid personality traits that cause distress or impairment.

Comorbidity The presence of two or more disorders in one person, or a general association between two or more different disorders.

Ego-dystonic Behaviors, thought, or feelings that are experienced by an individual as distressing and unwelcome.

Ego-syntonic Behaviors, thought, or feelings that are experienced by an individual as consistent with their sense of self.

TABLE 3.6 General Differences Between Axis I and Axis II Disorders in DSM-IV-TR

	AXIS I SYMPTOM DISORDERS	AXIS II: PERSONALITY DISORDERS
Scope of problem	Often limited/specific	Pervasive
Course over time	Often episodic/acute	Persistent/chronic
Subjective experience	More ego-dystonic	More ego-syntonic

and not know or be bothered by it, keep in mind that most people take for granted and value their personality traits, even if extreme. However, this does have some serious implications for treatment, as you might guess. Because personality disorders tend to be ego-syntonic, individuals with personality disorders are less motivated and less likely to seek treatment than individuals with Axis I disorders, and when they do seek treatment it is often at the urging of others who are adversely affected by their extreme personalities (Oldham, 1994). But here, too, there are exceptions, so that in some cases an individual with a personality disorder may be quite aware of, distressed by, and motivated to change his or her extreme traits, while an individual with an Axis I disorder like anorexia may appear superficially concerned about her symptoms and motivated to change, but the anorexia may be more ego-syntonic under the surface.

Axes III, IV, and V

After a clinician has identified all of the DSM-IV-TR mental disorders that the client is experiencing and listed them on Axes I and II, the DSM-IV-TR includes three additional axes for listing relevant supplemental information.

On Axis III, a clinician lists any medical conditions “that are potentially relevant to the understanding or management of the individual’s mental disorder” (APA, 2000). For example, a client suffering from schizophrenia might also, coincidentally, suffer from severe asthma that requires substantial self-monitoring and self-care. Obviously, the clinician treating this client needs to be aware that schizophrenic symptoms can interfere with effective self-monitoring of asthma. Another example in which an Axis III listing would be appropriate would be the case of a patient diagnosed with a mental disorder—let’s say depression in this instance—for which medication might be recommended as part of the treatment. If this client also suffers from any medical conditions that require medication—arthritis, for example—a clinician would have to consider the possibility of medication interactions should antidepressants be prescribed, and therefore arthritis would be listed on Axis III. Finally, certain medical conditions can be relevant to understanding mental disorders if the mental disorder is a psychological reaction to the medical problem. For instance, someone may develop depressive symptoms after being diagnosed with AIDS. In this case, the DSM-IV-TR diagnosis, on Axis I, would probably be a disorder called “adjustment disorder with depressed mood” (ad-

Axis IV: Psychosocial and Environmental Stressors

Axis IV of the DSM-IV-TR multiaxial system is used to describe stressful events or situations that may be associated with a mental disorder. This woman is examining her home in New Orleans after the devastation of hurricane Katrina. If she subsequently developed an anxiety or adjustment disorder, the event would belong on Axis IV.

Mario Tama/Getty Images News and Sport Services



justment disorders are symptomatic reactions to stressful life events) while AIDS would be listed on Axis III.

Axis IV is used for reporting current or recent stressors in an individual's life, which may affect the diagnosis, *prognosis* (expected course over time), or treatment of the disorders diagnosed on Axes I and II. The DSM-IV-TR provides a list of "Psychosocial and Environmental Problems" that could be relevant to the individual's condition (APA, 2000). As you can see from Table 3.7, this list focuses on common areas of life stress such as relationship, financial, and work stresses. How can this information be relevant to the "diagnosis, prognosis, or treatment" of mental disorders? Consider the case of a woman with mild depressive symptoms who, it turns out, has just been left by her husband of 40 years and has had to move out of her home and lower her standard of living. Knowing about the divorce, and all of the psychosocial stressors

TABLE 3.7 **AXIS IV of DSM-IV-TR: Psychosocial and Environmental Problems**

AXIS IV PSYCHOSOCIAL AND ENVIRONMENTAL PROBLEMS
Problems with primary support group Problems related to the social environment Educational problems Occupational problems Housing problems Economic problems Problems with access to health care services Problems related to interaction with the legal system/crime Other psychosocial and environmental problems
<ul style="list-style-type: none"> • Problems with primary support group—e.g., death of a family member; health problems in family; disruption of family by separation, divorce, or estrangement; removal from the home; remarriage of parent; sexual or physical abuse; parental overprotection; neglect of child; inadequate discipline; discord with siblings; birth of a sibling. • Problems related to the social environment—e.g., death or loss of friend; inadequate social support; living alone; difficulty with acculturation; discrimination; adjustment to life-cycle transition (such as retirement). • Educational problems—e.g., illiteracy; academic problems; discord with teachers or classmates; inadequate school environment. • Occupational problems—e.g., unemployment; threat of job loss; stressful work schedule; difficult work conditions; job dissatisfaction; job change; discord with boss or co-workers. • Housing problems—e.g., homelessness; inadequate housing; unsafe neighborhood; discord with neighbors or landlord. • Economic problems—e.g., extreme poverty; inadequate finances; insufficient welfare support. • Problems with access to health care services—e.g., inadequate health care services; transportation to health care facilities unavailable; inadequate health insurance. • Problems related to interaction with the legal system/crime—e.g., arrest; incarceration; litigation; victim of crime. • Other psychosocial and environmental problems—e.g., exposure to disasters, war, other hostilities; discord with nonfamily caregivers such as counselor, social worker, or physician; unavailability of social service agencies.

it involves, may help the clinician to correctly diagnose the woman with an adjustment disorder rather than with a mood disorder. This information would also be relevant to prognosis and treatment, since an adjustment disorder has different prognostic and treatment implications than a mood disorder (Chapter 5).

Axis V is for “reporting the clinician’s judgment of the individual’s overall level of functioning” (APA, 2000). The DSM-IV-TR provides a rating scale to assist the clinician in making this judgment. This scale, known as the **Global Assessment of Functioning Scale (GAF)**, ranges from 100 (excellent functioning, no problems or symptoms) to 1 (extremely impaired functioning); it is shown in Table 3.8. The Axis V

Global Assessment of Functioning (GAF)
A scale rating an individual’s level of functioning used for Axis V of the DSM-IV-TR.

TABLE 3.8 Axis V of DSM-IV-TR: Global Assessment of Functioning

GLOBAL ASSESSMENT OF FUNCTIONING (GAF) SCALE	
Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning due to physical (or environmental) limitations.	
CODE ¹	
100 91	Superior functioning in a wide range of activities, life’s problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.
90 81	Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members).
80 71	If symptoms are present, they are transient and expectable reactions to psychosocial stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social, occupational, or school functioning (e.g., temporarily falling behind in schoolwork).
70 61	Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning (e.g., occasional truancy, or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships.
60 51	Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).
50 41	Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).
40 31	Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
30 21	Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day; no job, home, or friends).
20 11	Some danger of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).
10 1	Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.
0	Inadequate information

¹Note: Use intermediate codes when appropriate, e.g., 45, 68, 72.

rating can be useful to the clinician in several ways. First, it provides an overall indication of how severely the individual is affected by his or her problems. Second, the Axis V ratings can be used to monitor clients' progress in treatment, as the client's GAF score can be assessed periodically during treatment. Third, Axis V ratings can, in certain situations, provide crucial diagnostic information. For example, one of the characteristics of schizophrenia is a decline over time in an individual's ability to function; this, along with symptoms of psychosis, is a hallmark of the disorder (APA, 2000). GAF ratings of the client's prior levels of functioning (based on the client's or family members' retrospective reports) can be compared with a current GAF score when diagnosing schizophrenia. Finally, by quantifying the concept of "level of functioning," the Axis V rating generally facilitates research in abnormal psychology.

A Complete DSM-IV-TR Diagnosis

Now that we have described the multiaxial system and the specific purposes of Axes I through V, let's see what a complete DSM-IV-TR diagnosis might look like for a hypothetical client with multiple problems. You will note that each diagnosis has a code number in addition to a descriptive title.

- Axis I:* Social phobia (DSM-IV-TR code number 300.23)
Alcohol abuse (code number 305.00)
- Axis II:* Dependent personality disorder (code number 301.6)
- Axis III:* Asthma (code number 493.90)
- Axis IV:* Unemployment
- Axis V:* 50

Now let's consider a familiar case—the case of Dave, presented in Chapters 1 and 2. As you recall, Dave attends college; he is a successful student and has generally considered himself happy and well adjusted despite some family stresses and his occasional lapses into a pessimistic frame of mind. However, during his sophomore year, Dave became increasingly anxious and insecure. He was so self-conscious and fearful of rejection that he began to avoid his friends and usual activities. Despite these problems, Dave was able to maintain good grades. Let's look at how Dave's situation would translate into a complete DSM-IV-TR diagnosis.

- Axis I:* Social phobia; 300.23 (Dave's social anxiety and fear of rejection are all characteristic of the anxiety disorder classified as social phobia; Chapter 4.)
- Axis II:* No diagnosis (Dave shows no evidence of a personality disorder or mental retardation.)
- Axis III:* Cardiac dysrhythmia; 427.9 (This is probably not a serious medical problem, but it could be relevant to Dave's treatment since it consists of heart palpitations similar to those that can occur when a person is anxious.)
- Axis IV:* Problems in primary support group (There are stresses in Dave's family associated with Dave's brother's problems and the discord between Dave's parents.)
- Axis V:* 65 (Moderate symptoms.)

Now that you have had a chance to see what a diagnosis might look like for a person whose story is familiar to you, you can better evaluate the *advantages and limitations of diagnosis*. Clearly, assigning a DSM-IV-TR diagnosis to Dave does help to classify his problems (telling us *what kind* of problem he has). But it is also clear

that the diagnosis, by itself, tells us little about Dave as a person. At the end of the chapter, we will return to this issue of the advantages and limitations of diagnosis—including the difference between *classifying* and *understanding* a person with emotional problems, like Dave.

BRIEF SUMMARY

- The current DSM system is a multiaxial system; a complete diagnosis includes five axes, or dimensions.
- Axis I lists all of the mental disorders except the personality disorders and mental retardation, which are listed on Axis II. Axes III, IV, and V contain supplemental information on relevant medical conditions, psychosocial and environmental problems, and a global assessment of functioning (GAF), respectively.



Cultural
and historical
relativism

Critical Thinking Question

The DSM system is increasingly being used around the world. What kinds of problems might clinicians encounter in using the DSM-IV-TR in other cultures?

ASSESSMENT

Assessment refers to the process of gathering information for the purpose of making a diagnosis and arriving at an understanding of a client's emotional problems. As you might expect, clinicians can use numerous methods to gather such information. For convenience, we will divide these data-gathering methods into three general categories: (1) interviews, (2) tests, and (3) observations.

Interviews

The term *interview* simply refers to the process of gathering information about a person by talking with him or her. Just as a company looking to hire an employee, or a medical doctor trying to diagnose a patient, usually begins by talking with the person, clinical psychologists also typically start with a clinical interview (Nietzel, Bernstein, & Milich, 1994). In general, there are two types of clinical interviews, *structured* and *unstructured*, although they are on a continuum and are often combined in actual practice (Barker, Pistrang, & Elliott, 1994; Mackinnon, Michels & Buckley, 2006). In a structured interview, the clinician follows a script, which prompts him or her to ask the client about certain content areas. For example, the Structured Clinical Interview for DSM-IV Axis I Disorders (known as the SCID) (First, Spitzer, Gibbon, & Williams, 1997) is a structured interview designed to cover the DSM-IV Axis I diagnostic categories. Structured interviews are used in both clinical and research settings. For example, a clinician might use the SCID interview in a research study on schizophrenia in order to select subjects who clearly meet the criteria for the disorder.

Another important structured interview, and a much briefer one, is the **Mental Status Exam** (MSE). The Mental Status Exam consists of a series of questions designed to assess whether a client is experiencing any major problems with basic cognitive functions and orientation to reality (Trzepacz & Baker, 1993). For example, during an MSE, clients are asked if they know where they are, what year it is, if they can count backward from 100 by sevens, and other questions that allow the clinician to assess whether cognitive functions have been disrupted by a physical (for example, head injury) or a mental (for example, schizophrenic psychosis) disorder.

Unstructured interviews, by contrast, focus less on obtaining answers to specific questions and more on gathering information about a client by facilitating a wide-ranging exploration of the client's situation. The ultimate aim of an unstructured interview is

Mental Status Exam A series of questions designed to assess whether a client has major problems with cognitive functions and orientation to reality.



Clinical interviewing The clinical interview is the most important method for assessment of mental disorders. Here a clinician conducts an unstructured interview with a woman about her depression.

David Young- Wolff/PhotoEdit

similar to that of a structured interview—arriving at a diagnosis and an understanding of the client—but in an unstructured interview the clinician uses different strategies for gathering information. First, the clinician allows the client to choose the topics of discussion and to elaborate on problems and concerns. Usually, this is accomplished by asking nondirective questions such as “How have things been going for you?” or “Could you tell me more about your difficulties at work?” rather than following a prescribed format. Also, the clinician gathers information not just about *what* the client says, but also about *how*, *when*, and *why* he or she says it. For example, in an unstructured interview, a clinician might discover that a particular client waits until near the end of the session to mention a major sexual problem. This might help the clinician understand that the client is feeling embarrassed or ashamed about the problem, a fact that might not have come out if the clinician had followed a structured interview format that included questions about sexual problems early on. Clearly, in both structured and unstructured interviews the clinician must be skilled at making clients feel safe and comfortable enough to talk about difficult personal matters. Interviewing technique is one of the most important topics clinicians study during their graduate training. Clinicians must learn how to create a climate of trust, caring, confidentiality, and professionalism in order to establish the conditions under which clients can provide the information necessary for a good assessment process (Nietzel et al., 1994).

Advantages and Limitations of Interviews

The difference between structured and unstructured interviews brings us back to the issue of *reliability*. The major advantage of structured interviews is that their consistent format improves their reliability. Numerous studies have shown that unstructured interviews are highly problematic when it comes to reliability, and it is more likely that two clinicians will arrive at the same diagnosis using a structured interview than an unstructured one (Kaplan & Saccuzzo, 1993).

On the other hand, as we have seen before, a consistent structure that improves reliability can compromise validity if it narrows the range and depth of the questions asked. When it comes to interviewing as an assessment method, most clinicians find that they can have the best of both worlds by using both structured and unstructured techniques to interview clients. Sometimes these two methods can be alternated during various parts of a clinical interview, and sometimes they can be combined in a halfway structured format known as a *semistructured* interview (Wiens, 1976).

Tests

Literally hundreds of tests are available to clinicians for the purpose of assessing psychopathology (Cohen & Swerdlik, 2001; Groth-Marnat, 2003; Kaplan & Saccuzzo, 1993). Tests are not always used as part of the assessment process, but they can be especially helpful for answering particular diagnostic questions, assessing specific areas of functioning, or conducting research. In order to be useful, tests must go through a rigorous development process to establish standard administration techniques, reliability and validity, and statistical norms for various demographic groups—a process known as *standardization*. We will divide assessment tests into four general categories: (1) symptom and personality questionnaires; (2) projective tests; (3) cognitive tests; and (4) biological tests.

Symptom and Personality Questionnaires

Symptom and personality questionnaires are designed to measure psychological symptoms or personality traits based on clients’ responses to questions administered either on paper or at a computer terminal. There are many such questionnaires available, though only a few are widely used. We will describe two of these tests, one symptom

Symptom and personality questionnaires
Tests designed to measure symptoms or personality traits based on clients’ responses to structured questions.

TABLE 3.9 Sample Items and Instructions from the Beck Depression Inventory-II (BDI-II)

Date: _____

Name: _____ Birth Date: _____

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

Item 1. Sadness

0	I do not feel sad.
1	I feel sad much of the time.
2	I am sad all the time.
3	I am so sad or unhappy that I can't stand it.

Item 2. Pessimism

0	I am not discouraged about my future.
1	I feel more discouraged about my future than I used to be.
2	I do not expect things to work out for me.
3	I feel my future is hopeless and will only get worse.

Beck Depression Inventory-II (BDI-II) A widely used depression symptom questionnaire.

Minnesota Multiphasic Personality Inventory-2 (MMPI-2) A widely used personality questionnaire.

questionnaire and one personality questionnaire, in order to provide examples of what these kinds of tests look like and how they work.

The **Beck Depression Inventory-II (BDI-II)** assesses symptoms of depression. As you can see in Table 3.9, the BDI-II is a simple questionnaire (the full questionnaire has 21 items) about depressive symptoms, which are rated by the client on a scale from 0 to 3. A total score above a certain level indicates that the client may be clinically depressed (Beck et al., 1961; Beck, 1996). However, the BDI-II can do more than just provide a standardized, valid assessment of whether a person is “clinically depressed.” It can also be used to gather information about the particular pattern of a client’s depressive symptoms and to track changes in depressive symptoms over the course of treatment (Maruish, 1999).

Personality questionnaires (or *inventories*) have a similar format but focus on broader personality traits rather than specific symptoms. The most widely used personality questionnaire is the **Minnesota Multiphasic Personality Inventory (MMPI)** currently in its second, revised edition known as the **MMPI-2** (Butcher, 2004; Butcher et al., 1989). This test, developed and standardized over many decades at the University of Minnesota, consists of 567 “true or false” questions that tend to differentiate between people with and without various mental disorders. Responses to these questions yield scores on 10 clinical scales of the MMPI-2, shown in Table 3.10.

Advantages and Limitations of Symptom and Personality Questionnaires The chief advantage of symptom and personality questionnaires is the relative ease with which they produce reliable and valid measures of psychological variables. Of course, no questionnaire has perfect reliability or validity, and the *psychometric* (that is, psychological measurement) properties and limitations of each individual questionnaire have

TABLE 3.10 **The 10 Clinical Scales of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2)**

- 1. **Hs** ■ Hypochondriasis (anxiety related to bodily functioning)
- 2. **D** ■ Depression (depressive traits and symptoms)
- 3. **Hy** ■ Conversion Hysteria (expression of emotional distress through physical symptoms)
- 4. **Pd** ■ Psychopathic Deviance (exploitive and irresponsible traits)
- 5. **Mf** ■ Masculinity-Femininity (traits usually associated with the opposite sex)
- 6. **Pa** ■ Paranoia (extreme suspiciousness)
- 7. **Pt** ■ Psychasthenia (overanxious and self-doubting traits)
- 8. **Sc** ■ Schizophrenia (bizarre and psychotic traits)
- 9. **Ma** ■ Hypomania (grandiose and overexcited traits)
- 10. **Si** ■ Social Introversion (shy, insecure, and easily embarrassed)

to be taken into account by the clinicians and researchers who use them. As we have seen, the major disadvantage of highly standardized assessment tools, such as questionnaires, is that standardization sacrifices flexibility in the collection of information.

Projective Tests

Projective tests are based on the *projective hypothesis*, which holds that people’s responses to and interpretations of ambiguous stimuli reveal a great deal about how their personalities operate in general (Exner, 1976). We all remember the game of looking up at cumulus clouds on a summer afternoon and deciding what they look like. According to the projective hypothesis, when three people look at the same cloud and one sees a violent fistfight, the next sees a sad-looking child, and the third sees a couple tenderly kissing, each is revealing something about his or her own inner world and personality tendencies.

As implied in this description, projective tests are generally used to assess global issues such as personality traits rather than specific symptoms. However, they differ from personality questionnaires in that they are less structured. In a projective test, the client may be asked to say what an inkblot looks like (the *Rorschach test*) or to make up a story about a picture (the *Thematic Apperception Test*) rather than to answer a yes-no or numerical question. If the difference between personality questionnaires and projective tests sounds similar to the difference described earlier between structured and unstructured interviews, you are exactly right. The rationale, advantages, and limitations of projective personality tests are precisely the same as those of unstructured interviews. That is, projective testing is most commonly used when clinicians and researchers want to assess a client’s internal world in more depth than a personality questionnaire can do (Cohen & Swerdlik, 2001; Exner, 1976). Projective tests gather tailor-made information about a client, but often at the expense of reliability and validity (Lanyon, 1984). This is not because projective tests cannot be standardized; in fact, most projective tests have elaborate standardized instructions for administration and scoring. But whenever clinicians are dealing with unstructured responses from clients (sometimes referred to as *qualitative* data) it is harder to convert them into highly reliable, *quantitative* data (Kaplan & Saccuzzo, 1993).

We will now discuss three widely used projective tests: the Rorschach test, the Thematic Apperception Test (TAT), and projective drawing tests. Most people have heard of the Rorschach test, and in fact the term *rorschach* has come into colloquial use to refer to any ambiguous situation that tends to elicit widely varying reactions in people.

Projective tests Tests designed to measure client characteristics based on clients’ responses to and interpretations of ambiguous stimuli.

Rorschach test A projective test in which clients' responses to inkblots are interpreted and scored.

Thematic Apperception Test (TAT) A projective test in which clients are asked to make up stories about pictures of people in ambiguous situations.

Draw-A-Person Test (DAP) A projective test in which clients are asked to draw pictures of themselves and other people.



The Rorschach test This psychologist is administering a Rorschach type inkblot test. The client tells the psychologist what the inkblot looks like to her. Later, the client may be asked to explain how she mentally constructed the image.
Laura Dwight Photography

The actual test was developed by the Swiss psychoanalyst Hermann Rorschach (1884–1922). The **Rorschach test** consists of a standard series of 10 symmetrical inkblots on pieces of cardboard about the size of this textbook page. Clients are asked to tell the clinician what the inkblots look like to them. Later, clients are asked to explain exactly how they mentally constructed the image, because most Rorschach interpreters consider the *form* of the response (for example, which part of the inkblot is used or the exact sequence of responses) to be as important as the *content* of the response. The Rorschach is used primarily to assess personality structure and unconscious emotional conflicts (Allison, Blatt, & Zimet, 1968). There are numerous standardized systems for scoring Rorschach responses, including databases of common response profiles by various diagnostic groups. Despite debate about the relative merits of various Rorschach scoring systems, and about the reliability and validity of the Rorschach in general (Blatt, 1990; Kaplan & Saccuzzo, 1993; Wood et al., 2003), the Rorschach test has, overall, shown moderate-to-good reliability and validity (Board of Trustees of JPA, 2005; Exner, 1995; Hiller et al., 1999; Meyer, Mihura & Smith, 2005; Mihura et al., 2003).

Another popular and influential projective test, the **Thematic Apperception Test (TAT)**, was developed by the Harvard psychologist Henry Murray in 1935. Murray designed a series of pictures of people in ambiguous situations about which clients are asked to “make up a story.” Typically, a clinician will ask a client to make up stories for 10 to 20 cards. Murray believed, in keeping with the projective hypothesis, that the stories made up about the picture would reveal a great deal about the client’s basic needs, feelings, motives, and interpersonal patterns (Morgan & Murray, 1935; Murray, 1938, 1943). (See Box 3.4 for TAT stories of nondepressed versus depressed subjects.) Clinicians follow a set of standardized instructions for administering the TAT, which include asking the client to make up a story with a beginning, middle, and end, and to describe what the characters are thinking and feeling. Numerous scoring systems for the TAT have been developed, but, as with the Rorschach, it has been a challenge to develop reliable and valid scoring systems because of the difficulty of translating complex stories into categories that can be quantitatively compared and analyzed (Kaplan & Saccuzzo, 1993; Westen et al., 1994).

Projective drawing tests work on the assumption that people’s drawings reveal a great deal about their inner emotional worlds. In the **Draw-A-Person Test (DAP)**, a popular projective drawing test, a client is asked to draw a picture of a person, then a picture of a person of the opposite sex, and then a self-portrait (Machover, 1949). Although some standardized scoring systems have been devised for interpreting the DAP and other projective drawing tests for adults and children, their reliability and validity is not impressive; thus, they are rarely used for research, and clinicians usually rely on clinical intuition in interpreting them (Attkinson et al., 1974; Trevisan, 1996). For example, drawings that appear bleak and without animation may indicate a depressive state, and drawings of only the head and face may reveal detachment from feelings and a tendency toward intellectualization.

Advantages and Limitations of Projective Tests Numerous other projective tests are available to clinicians; we have chosen to describe three of the most commonly used tests in order to illustrate the principles and techniques of projective testing. All projective tests share a similar set of advantages and disadvantages, which should be familiar by now. The major advantage of projective tests is that they assess clients’ deeper, less easily observable emotional and personality patterns. These data may assist in diagnostic classification of clients and in clinical research, although they are most often used for developing a psychological *understanding* of clients, which, as we have seen, is an important supplement to a diagnostic classification.

Unfortunately, projective methods have the same built-in limitations as most methods devoted to more in-depth, “tailor-made” assessment tools, namely, that it is difficult

BOX 3.4 Projective Testing

TAT STORIES OF NONDEPRESSED VERSUS DEPRESSED SUBJECTS

Card 1 of the TAT shows a young boy sitting at a table, looking at an ambiguous object that appears to be a violin. Note the difference in both the story content and the speech process of the nondepressed versus the depressed subject.

Story Told by a Nondepressed 24-Year-Old Male Subject

This boy, he looks at eight or nine...he's been studying the violin for a few months, and he's wondering how far he wants to go with it. He likes playing it, and his lessons have been going well, but sometimes he feels bored and wants to play outside. His parents have said it's up to him. It's a hard decision because he feels like if he keeps practicing he could get really good, but he might miss out on other things and he likes sports a lot, too. So he thinks about it for a while,

and eventually decides to practice every day but for a shorter time, so he can have time for other things. And it turns out to be a good decision, because he ends up playing for many years and getting lots of enjoyment from his musical ability.

Story Told by a Depressed 30-Year-Old Male Subject

This kid looks really sad...I don't know why. (Long pause) I'd say he feels that nothing he does works out. He tried learning to play the violin and he couldn't do it. (Long pause) He feels...worn out. Tired. Discouraged. Disappointed in himself. (Long pause) Doesn't know what to do. So he sits there, waiting for something to happen. Unfortunately, he's all alone, so nothing really changes. That's the end.

to standardize projective methods so as to achieve adequate reliability and validity (Kaplan & Saccuzzo, 1993; Wood et al., 2003). Nonetheless, many clinicians still find projective tests very useful because they have developed a sophisticated clinical intuition from many years' experience in "reading" Rorschachs or TATs, just as experienced radiologists develop sophisticated clinical intuition in reading X-rays.

Cognitive Tests

Cognitive tests, which are used to assess cognitive abilities and deficits, are among the most commonly used tests by psychologists. They can be subdivided into three groups: (1) intelligence tests; (2) achievement tests; and (3) neuropsychological tests. Although cognitive tests are often administered for reasons other than the assessment of psychopathology—such as for school placement or educational assessment—they can also be useful for clinical purposes, as we will describe.

Intelligence Tests The two most widely used intelligence tests today (Aiken, 1987) are the *Stanford-Binet, Fourth Edition* (Thorndike, Hagen, & Sattler, 1986) and the *Wechsler Adult Intelligence Scale—Third Edition (WAIS-III)* (Wechsler, 1997). The **Stanford-Binet** was developed in 1916 and is based on the pioneering work of the French psychologist Alfred Binet (1857–1911), who was asked by French authorities to develop a method to assess individual differences in intellectual ability among French schoolchildren for educational tracking purposes. Binet's test consisted of a series of verbal and nonverbal tasks, geared to the age level of the subject, which tapped reasoning, communication, arithmetic, and memory skills. The Stanford psychologist Louis Terman (1877–1956) modified Binet's test (hence, Stanford-Binet) and coined the phrase **intelligence quotient**, or **IQ**, which is still used today as the term for the final result of intelligence tests—a general score representing overall intellectual ability. (Keep in mind that intellectual ability is different from academic *achievement*, which is assessed by *achievement tests*. However, intelligence tests are relatively good predictors of academic achievement, which is an indication of their *validity*.)

The **Wechsler Adult Intelligence Scale (WAIS)** was first developed by the psychologist David Wechsler in 1936, and it has surpassed the Stanford-Binet in popularity. Like the Stanford-Binet, the WAIS has been continually revised over the years and is subject to extensive and rigorous standardization. The current version, the **WAIS-III-R** (Wechsler, 1997), consists of seven "verbal" subscales (assessing skills such as reasoning

Stanford-Binet The first widely used intelligence test.

Intelligence quotient (IQ) A measurement, obtained by intelligence tests, of overall intellectual ability.

Wechsler Adult Intelligence Test (WAIS) Currently, the most widely used intelligence test.

and memory) and seven “performance” subscales (assessing skills such as spatial ability and visual problem solving). The test yields a verbal IQ score, a performance IQ score, and an overall IQ score. Alternate versions of the test are available for children (the Wechsler Intelligence Scale for Children–Fourth Edition, or WISC-IV) and for preschoolers (the Wechsler Preschool and Primary Scales of Intelligence–Revised, or WPPSI-R; Wechsler, 1989).

Why would a clinical psychologist want to administer an intelligence test as part of an assessment of psychopathology? First, there is one specific disorder listed in the DSM-IV-TR that is defined, in part, by very low intelligence—mental retardation. Second, intelligence tests can sometimes provide information about other disorders. For example, intelligence tests and achievement tests together can provide the data necessary to diagnose learning disabilities (see Achievement Tests, below, and Chapter 13). Third, intelligence tests are sometimes administered during a general psychological evaluation because it is helpful to have a sense of a client’s intellectual ability and functioning as part of an overall understanding of his or her life situation and problems (Iverson, Turner, & Green, 1999; Sattler, 1988).

Achievement Tests Achievement tests are used to measure what a person (usually a child) has actually learned or achieved in a particular subject area such as mathematics or reading. Achievement tests are used primarily by educators to evaluate students and programs. Their use in clinical psychology is mostly related to the diagnosis of learning disabilities, which are defined as a level of academic achievement (as measured by achievement tests) in reading, writing, mathematics, or another area that is “substantially below” what would be expected on the basis of a child’s intellectual ability (as measured by an intelligence test). Many different achievement tests are available for these purposes, such as the widely used *Wechsler Individual Achievement Test (WIAT)* (Wechsler, 1992) and the *Woodcock-Johnson* test (Woodcock, 1977).

Neuropsychological Tests As their name suggests, neuropsychological tests are designed to assess neurological (brain) deficits as they affect psychological functions such as perception, attention, memory, and problem solving (Lezak, 1976). Because the focus of these tests is on assessing neurological deficits and their effects, they are often used in medical settings, for example, to assess and treat victims of strokes and head injuries. Neuropsychological tests can also play a role in the assessment of several forms of psychopathology, usually in one of two ways. First, neuropsychological assessment can help a clinician determine whether a client’s symptoms might be due to neurological deficits rather than psychological factors, which would obviously have implications for treatment. For example, a significantly lower score on the WAIS-III-R performance subtests than on the verbal subtests could be indicative of depression, which sometimes slows down motor performance (Iverson et al., 1999; Sattler, 1988). However, the performance deficit could also be a result of a learning disability or other neurological problem, which could be systematically assessed with neuropsychological tests (Cornoldi et al., 1999). In fact, the WAIS-III-R is sometimes used as a screening device for neurological problems; if general cognitive deficits show up on the WAIS, then neuropsychological testing might be recommended to pinpoint the deficits and assist in treatment planning (Gregory, 1999).

A second area in which neuropsychological tests are sometimes used in the assessment of psychopathology involves a few disorders in the DSM-IV-TR which are characterized by neuropsychological symptoms (Franzen & Smith-Seemiller, 1998; Weiner, 1991). The most prominent example of such a disorder is attention-deficit/hyperactivity disorder (ADHD, Chapter 13); many of the primary cognitive and behavioral symptoms of ADHD (for example, inattentiveness and impulsivity) can be assessed with neuropsychological tests (Clark, Prior, & Kinsella, 2000; Doyle et al., 2000; Franzen & Smith-Seemiller, 1998; Muir-Broaddus et al., 2002). However, ADHD can also be assessed using symptom questionnaires and through behavioral observations (see below) so that neuropsychological tests are generally necessary only in complex cases (Barkley, 1998).

The administration and interpretation of neuropsychological tests is a subspecialty within clinical psychology requiring specialized training. Neuropsychologists can choose from among dozens of different neuropsychological tests to assess clients, depending on the particular diagnostic questions. When neuropsychologists want to do an extensive neuropsychological assessment of a client, they typically use a complete *battery* of cognitive, memory, and motor tests, which may require a full day to administer. The two most widely used neuropsychological test batteries are the *Halstead-Reitan Neuropsychological Battery* (Reitan & Wolfson, 1986) and the *Luria-Nebraska Neuropsychological Battery* (Golden, 1989), each of which includes a number of different tests measuring a wide range of neuropsychological functions. When a full battery of tests is not necessary, neuropsychologists can assemble a group of tests specifically designed to assess the cognitive functions in question.

Biological Tests

Despite the recent prominence of the biological perspective within the field of abnormal psychology, at present few biological tests are helpful in the assessment of mental disorders. Thus far, most efforts to find biological data that could serve as reliable and valid indicators of specific mental disorders have proved disappointing. For example, in the 1980s researchers began experimenting with a test of cortisol functioning known as the *Dexamethasone Suppression Test (DST)*, which, it was hoped, would help diagnose a particular form of depression (Andreason, 1984; Carroll et al., 1980). (Abnormal levels of cortisol, a hormone sometimes referred to as the “stress hormone” because it is released by the adrenal glands at times of stress, appear to be related to depression; see Chapter 5.) However, on further investigation the DST did not prove adequately valid, and it is no longer used (Valenstein, 1998).

New brain scanning (*computerized axial tomography*, or *CAT*) and imaging (*positron emission tomography*, or *PET*, and *magnetic resonance imaging*, or *MRI*) techniques provide fascinating pictures of the physical structure and functioning metabolism of the brain. Accordingly, researchers are increasingly able to find brain abnormalities associated with particular mental disorders, such as neurotransmission changes in depression and schizophrenia (see Chapter 3 Visual Essay and Box 3.5). But such findings are generally not yet

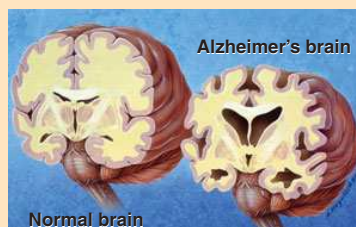


Brain imaging and assessment Brain imaging has great potential as an assessment tool for psychopathology, but it is still in its early stages.

William Strode/Woodfin Camp & Associates, Inc.
DC

Evaluating and Researching Abnormality: Techniques for Studying the Brain

Brain Dissection/Autopsy



Techniques

Brain dissection involves carefully cutting and studying the brain structures of deceased people who have donated their bodies for scientific study.

Examples of applications to psychopathologies

An autopsy is currently the only test that can confirm a diagnosis of Alzheimer's disease (Chapter 14). The brains of deceased individuals with Alzheimer's disease show evidence of tissue shrinkage and damage.

Robert Margulies/Phototake/Alamy Images

Ablation/Lesions



Ablation involves surgically removing parts of the brain. Lesioning involves destroying specific areas of the brain. These procedures can result in major personality, emotional, and behavioral changes.

Prefrontal lobotomy is a type of lesioning technique in which brain tissue connecting the prefrontal lobes with other areas of the brain is destroyed. Lobotomies were commonly used up until the 1950s to treat a variety of mental illnesses, including schizophrenia and depression.

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Electroencephalogram (EEG)

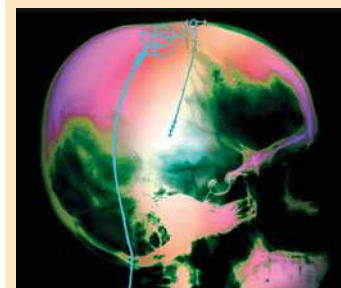


In EEG, electrodes are placed on the surface of a person's scalp, and electrical activity from the brain is recorded. This activity is displayed on a computer monitor or printed out on a paper chart. EEG is commonly used to study the sleep cycle and to diagnose medical conditions such as epilepsy or brain tumors.

Researchers have found that the individual subpersonalities of people with dissociative identity disorder (DID; Chapter 7) appear to have different EEG profiles and different degrees of EEG coherence (Hopper et al., 2002). EEG coherence reflects the degree to which brain waves from separate parts of the brain are synchronized with each other.

Alexander Tsiaras/Stock Boston

Electrical Brain Stimulation

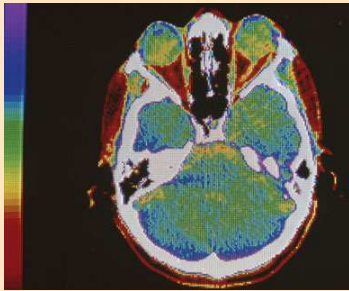


Electrical brain stimulation involves stimulating different regions of the brain with a weak electrical current. Wilder Penfield (1958) mapped the functions of different areas of the brain by using electrical brain stimulation. For example, when he stimulated a person's temporal lobe (a region involved in audition), the person reported hearing "clicks" and "buzzes."

Deep brain stimulation is a specific type of electrical brain stimulation that has been developed to treat Parkinson's disease (Chapter 14). Deep brain stimulation involves using a pacemaker and electrodes to stimulate regions of the brain thought to be implicated in disordered functioning. This technique has been more recently applied to the treatment of depression (see Chapter 5) and tic disorder.

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Computerized Axial Tomography (CAT)



Techniques

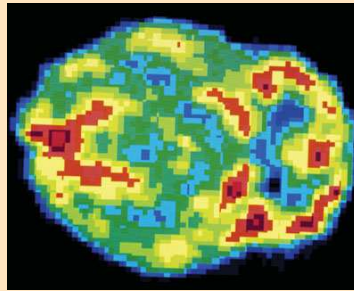
CAT uses an x-ray beam to scan the brain from all angles resulting in a three-dimensional image of the skull and brain. Although this technique is relatively inexpensive, the resolution of the image is not as high as it is in other imaging techniques.

Examples of applications to psychopathologies

CAT has identified structural brain abnormalities in the pre-frontal cortex, basal ganglia, cerebellum, and hippocampus of people suffering from unipolar depression (Chapter 5).

Ohio Nuclear Corporation/Photo Researchers, Inc.

Positron Emission Tomography (PET)

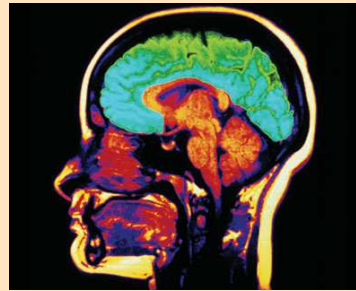


PET involves injecting a person's bloodstream with a radioactive form of glucose that is then detected by a scanner. PET produces an image of the brain in "real time" such that one can see the activity of different regions of the brain while a person engages in ordinary tasks, such as reading or singing.

With PET scans, researchers have been able to show that psychotherapies affect and change brain functioning. For example, studies have found that successful behavioral therapies for obsessive-compulsive disorder (Chapter 4) can lead to reduced activity levels in the right caudate nucleus.

Hank Morgan/Photo Researchers, Inc.

Magnetic Resonance Imaging (MRI)

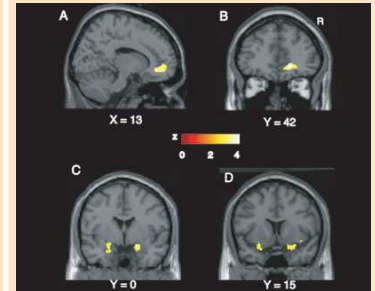


MRI involves passing a high-frequency magnetic field through the brain which then can be detected and depicted in a three-dimensional picture of the brain. Although more expensive, MRI produces pictures of the brain that are of a higher resolution than those produced by CAT scans.

In people suffering from schizophrenia (Chapter 12), MRI scans have identified enlarged ventricles and reduced gray matter in brain areas involved in attention, planning, emotion, and memory.

Scott Camazine/Photo Researchers, Inc.

Functional MRI (fMRI)



fMRI uses a magnet to detect the level of oxygen in brain blood vessels that are involved when a person engages in particular activities. Like PET, fMRI produces an image of the brain in "real time." Although it is more expensive than PET, fMRI produces higher quality images of the brain.

Since fMRI can detect changes in the brain resulting from low blood flow, it can be used to make a rapid diagnosis of stroke (Chapter 14). fMRI scans of individuals with attention deficit/hyperactivity disorder (Chapter 13) have shown diminished blood flow to prefrontal and striate regions of the brain.

From Neuron, Cognitive Modulation of Olfactory Processing, vol. 46, 671–679, May 2005. Photo courtesy of Edmund T. Rolls

BOX 3.5 Brain Scanning and Imaging

AN ASSESSMENT TOOL OF THE FUTURE?

FOCUS ON RESEARCH

Researchers have been using brain imaging techniques for some time now to explore structural and functional changes associated with mental disorders. Until recently, these imaging techniques had little to offer as assessment tools. This situation may be on the verge of changing. This article by Erica Goode describes a recent study that suggests that brain imaging may soon be a useful assessment tool in the diagnosis of early schizophrenia.

Brain Imaging May Detect Schizophrenia in Early Stages by Erica Goode, *The New York Times*, December 11, 2002

Scientists have known for some time that people who suffer from schizophrenia show abnormalities in the structure of their brains. But in a new study, researchers for the first time have detected similar abnormalities in brain scans of people who were considered at high risk for schizophrenia or other psychotic illnesses but who did not yet have full-blown symptoms. Those abnormalities, the study found, became even more marked once the illness was diagnosed. The subjects in the study who went on to develop psychoses had less gray matter in brain areas involved in attention and higher mental processes like planning, emotion and memory, the researchers found. Experts said the study's results, reported yesterday in an online version of The Lancet, the medical journal, offered the possibility that imaging techniques might eventually be used to predict who will develop schizophrenia, a devastating illness that affects more than 2.8 million Americans. Doctors could then offer treatment while the disease was still in its earliest stages, possibly preventing further damage to the brain.

But Dr. Christos Pantelis, an associate professor of psychiatry at the University of Melbourne and the lead author of the report, cautioned that much more research was needed before magnetic resonance imaging, the method used in the study, could serve as a diagnostic tool for individual people with schizophrenia.

"I think it's still too early to say how helpful it will be," Dr. Pantelis said.

Still, other researchers called the study's findings exciting and said that the areas of the brain in which the abnormalities were found would now be an active focus for study.

"This is a terrific first step," said Dr. Paul Thompson, a professor of neurology at the University of California at Los Angeles and an expert on brain imaging and schizophrenia.

Dr. Herbert Y. Meltzer, a professor of psychiatry at Vanderbilt University and an expert on schizophrenia, said, "It proves that the psychosis is almost a late stage in the evolution of the disease process." He added, "The key message is that this is a neurodevelopmental disorder and that changes in memory, learning, attention and executive decision-making precede the experience of the psychosis."

People who suffer from schizophrenia typically experience auditory hallucinations and have blunted emotional responses and difficulty with activities that require planning or other higher-level processes.

Some studies have suggested that the earlier the illness is treated with antipsychotic drugs the better the prognosis. At least two research groups, one led by Dr. Patrick McGorry, an author of the Lancet report, and another at Yale, are conducting studies in which young people who are experiencing some symptoms but have not yet developed schizophrenia are treated with antipsychotic drugs. But the studies have been controversial because it is not yet clear which symptoms predict later illness.

In the new study, the researchers used magnetic resonance imaging to scan the brains of 75 people who were deemed "at high risk" for psychosis because they had a strong family history of severe mental illness or had other risk factors, including transient or mild symptoms of mental disturbance or a decline in mental functioning. Over the next 12 months, 23 of the subjects developed a full-blown psychosis and 52 did not fall ill, the researchers found. A comparison of the brain scans from the two groups re-

vealed significant differences in the volume of gray matter in areas of the frontal and temporal lobes and the cingulate gyrus. All three regions have been linked to schizophrenia by previous research, Dr. Pantelis said. When the researchers conducted additional brain scans on some subjects who developed psychoses, they found further reductions in gray matter not seen in the scans taken before the illnesses were diagnosed.



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sufficiently reliable or valid to serve as assessment tools because of the vast complexity of the brain and the relative newness of these methods (Filipek, 1999; Saab & Bilder, 2006). At present, brain scanning and imaging techniques are used mostly for research, not for clinical diagnostic purposes. Even when it comes to assessing brain damage (such as might result from severe alcoholism, a head injury, or a stroke) neuropsychological tests often provide more subtle and useful assessment than brain scans or imaging (Rao, 2000). However, as the sophistication of these brain assessment techniques increases, they are certain to play a larger role in the diagnosis of psychopathology.

Other biological tests can play a role in the assessment of specific disorders. For example, *psychophysiological tests*, which measure aspects of physiological arousal, can be helpful in the assessment of anxiety and sexual disorders, both of which involve abnormalities in states of physical arousal. In assessing anxiety disorders, *electromyographs (EMG)*, which measure muscle tension, or recordings of pulse and blood pressure, are sometimes used to objectively determine the level of a client's anxiety. Although interviews and symptom inventories are usually adequate to diagnose an anxiety disorder, biological tests can provide useful detail about the precise nature and extent of a client's anxiety, and they can be helpful in designing psychophysiological treatments for anxiety such as *biofeedback* (Chapter 4) (Blanchard, 1994; Moore, 2000).

Similarly, certain sexual disorders (Chapter 10) can be assessed using psychophysiological tests to provide an objective measure of sexual arousal. The *penile plethysmograph* is a mercury-filled rubber tube placed around the penis while the subject watches erotic videos; the expansion of the mercury in the tube can be measured, assessing sexual arousal (Gaither & Plaud, 1997). In addition, the *vaginal plethysmograph*, a tampon-like probe that indirectly measures blood flow in the vagina, can be used to objectively assess female sexual arousal (Wincze & Lange, 1981; Rellini et al., 2005).

A final area of biological assessment involves genetic tests. As we saw in Chapter 2, many mental disorders have a genetic component, and researchers are in hot pursuit of the specific genetic markers for these disorders. However, *genetic linkage* efforts are mostly still in the exploratory stage. Several studies have identified particular genes that seem to be linked to mental disorders in a sample population, but such findings have typically not been replicated in later studies with different populations. Nonetheless, it will undoubtedly be possible at some point in the near future to test for genetic vulnerability to some mental disorders—just as it is currently possible to test for genetic vulnerability to certain medical disorders.

Behavioral Observation

The third general method of assessment, in addition to interviews and tests, is direct observation of clients. Of course, some direct observation of clients naturally occurs when clinicians interview or test them; clinicians may notice anxiety symptoms, or emotional reactions to certain topics, which can help in assessment. But we are referring here to *systematic* observation strategies that can be used in the assessment process and in diagnostic research. These systematic observation strategies can be divided into those conducted by clients themselves, known as *self-monitoring*, and those conducted by someone else, usually a clinician or researcher, or, in the case of a child, a parent or teacher.

Self-monitoring, also referred to as *self-observation*, is used in some cases when it is helpful to have clients monitor their own behavior as part of an assessment process. For example, a client seeking help for a drinking problem may be asked to observe and record his or her alcohol consumption over a period of time. This can help the clinician develop a more complete picture of the client's drinking than would be possible from interviews and tests alone (Watson, 1999).

When an outside observer is used, observation of the client can be done in a *controlled setting*, such as a research laboratory, or a *naturalistic setting*, such as at home,

Observational assessment

Clinicians will sometimes gather diagnostic information by observing a client's behavior.

Dan McCoy/Rainbow/PictureQuest



work, or school (Aiken, 1999). In certain situations, behavioral observation can be essential for DSM-IV-TR classification purposes. For example, as noted previously, the diagnosis of childhood attention-deficit/hyperactivity disorder (ADHD) indicates that the child exhibits symptoms of inattention, impulsivity, and hyperactivity (APA, 2000). Various behavior rating scales, such as the *Conners' Rating Scale* (Conners, 1997, 2004), have been developed to help clinicians, parents, and teachers systematically observe and record these symptoms at home or at school (see Table 3.11).

TABLE 3.11

The Conners' Rating Scale: A Behavioral Observation Assessment Method—Instructions and Sample Items of the Teacher Version

Instructions Below are a number of common problems that children have in school. Please rate each item according to how much of a problem it has been in the last month. For each item, ask yourself “How much of a problem has this been in the last month?” and circle the best answer for each one. If none, not at all, seldom, or very infrequently, you would circle 0. If very much true, or it occurs very often or frequently, you would circle 3. You would circle 1 or 2 for ratings in between. Please respond to all the items.

	NOT TRUE AT ALL (Never, Seldom)	JUST A LITTLE TRUE (Occasionally)	PRETTY MUCH TRUE (Often, Quite a Bit)	VERY MUCH TRUE (Very Often, Very Frequent)
1. Defiant	0	1	2	3
2. Restless in the “squirmy” sense	0	1	2	3
3. Forgets things he/she has already learned	0	1	2	3
⋮				
7. Temper outbursts; explosive, unpredictable behavior	0	1	2	3
8. Excitable, impulsive	0	1	2	3
9. Fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities	0	1	2	3

Clinicians within the behavioral tradition are especially interested in systematic observations of clients' behaviors and environments. For example, a behavioral assessment might include asking parents to observe and record a child's problematic behaviors (such as excessive tantrums) and the events occurring just before and after the tantrums. This is not so much because it helps the clinician classify the child's problem using the DSM-IV-TR, but because it helps in understanding the symptom using the behavioral perspective with its focus on observable behavior and the reinforcements that shape it. Many behavioral therapists stress the importance of conducting a *functional analysis*—a thorough individualized analysis of the behavioral context of problematic behaviors—that can then be used as a basis for a treatment plan (Scotti et al., 1996; Virués-Ortega & Hayes, 2005).

Advantages and Limitations of Behavioral Observation

Systematic behavioral observations offer another potentially rich source of data for the clinician and can be especially important when the behaviors requiring assessment cannot be accessed in an interview or test situation (Stricker & Trierweiler, 1995). The major limitation of systematic behavioral observations relates to the possible biases of the observer, which can compromise reliability and validity (Goodwin, 1995).

BRIEF SUMMARY

- Clinicians rely on three data-gathering methods for assessing clients: (1) clinical interviews; (2) tests; and (3) observations.
- Clinical interviews may be structured, unstructured, or semistructured. Structured interviews are more systematic and reliable, whereas unstructured interviews offer the advantage of greater flexibility.
- Tests used in the assessment of psychopathology can be divided into four types: (1) symptom and personality questionnaires; (2) projective tests; (3) cognitive tests; and (4) biological tests.
- Symptom and personality questionnaires are lists of questions that yield measures of psychological symptoms and personality profiles. The Beck Depression Inventory-II (BDI-II) is an example of a widely used symptom inventory; the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) is an example of a widely used personality inventory.
- Projective tests are based on the projective hypothesis which holds that individuals' interpretations of ambiguous stimuli reveal a great deal about their mental and emotional functioning. Examples of such tests are the Rorschach, the Thematic Apperception Test (TAT), and the Draw-A-Person Test (DAP). Researchers have had mixed success in developing reliable and valid scoring systems for projective tests. Their chief advantage is the possibility of obtaining more in-depth information about clients.
- Cognitive tests are typically used for educational purposes, but they also have applications in clinical psychology. Cognitive tests can be subdivided into three groups: (1) intelligence tests; (2) achievement tests; and (3) neuropsychological tests. Intelligence tests are designed to measure intellectual ability, whereas achievement tests measure academic achievement in various subjects. Both can be useful for identifying certain disorders with primarily cognitive symptoms such as learning disabilities, or for developing a full understanding of a person with other mental disorders. Neuropsychological tests are designed to assess neurological (brain) deficits affecting perception, attention, memory, and problem solving; these tests, too, can be helpful in diagnosing and understanding some forms of psychopathology.
- Biological tests are designed to identify biological markers of mental disorders, using techniques ranging from brain imaging to physiological tests that measure

arousal. At present, only a few biological tests have proven useful in the assessment of psychopathology, but this is likely to change as research on the biological aspects of mental illness continues to progress.

- Behavioral observation refers to assessing clients through systematic monitoring of their behavior, either by a clinician, researcher, parent, or teacher, or by the individual client through self-monitoring. Observing, recording, and analyzing behavior patterns over time can be helpful in assessing and understanding certain disorders.

Critical Thinking Question

Which assessment techniques seem most useful for classifying/diagnosing clients? Which seem most helpful for understanding clients? Do some seem especially useful for both?

DIAGNOSIS AND ASSESSMENT IN PERSPECTIVE: CLASSIFYING AND UNDERSTANDING DAVE

Having considered many of the assessment methods available to clinicians and researchers, we may have given the impression that most or all of these methods are used in a typical clinical evaluation or research study. In fact, most studies utilize only a few assessment techniques that are specifically tailored to the research questions, and in most clinical outpatient evaluations the assessment process consists simply of one or two clinical interviews, perhaps supplemented by the administration of some symptom or personality questionnaires. Occasionally, in situations such as an inpatient evaluation of a diagnostically complex client, or when specific diagnostic questions need to be answered, more extensive interviewing, testing, or behavioral observations may be added.

In order to illustrate the use of the assessment methods we have covered, we will describe the assessment of Dave, who happened to have a thorough evaluation when he sought help at the college counseling center. Because Dave was seeking mental health treatment for the first time, he and the psychologist (who we'll call Dr. Ramirez) evaluating him decided that a complete assessment, including interviews, tests, and some behavioral observation, should be undertaken. We will review the results of this evaluation, which highlight the use of several assessment methods, and illustrate the difference between *classifying* and *understanding* Dave's problems. As you will see, some of the assessment methods provide data that help to *classify* Dave's problems (his DSM-IV-TR diagnosis, social phobia, was described earlier in the chapter), some methods provide data that help to *understand* Dave's problems, and some methods provide both.

Interview with Dave

The following is an excerpt from the *unstructured* portion of the evaluation interview with Dr. Ramirez.

Dr. R: Please sit down. Where would you like to start?

Dave: (Looking tense and near tears) I've been having a hard time this year. . . with anxiety. . . I don't know what's wrong, but I feel so tense all the time. . . I'm a perfectionist and a bit of a control freak; I think I have to be perfect and in control all the time and I'm not. . . I can't be with people, I just freak out. . . I don't really know where to start. (Ten second pause) I feel embarrassed to talk about this—I've never seen a psychologist before. (Brief pause) My brother has problems but I never have. (Dave's tone changes to an unemotional, factual mode.) He has an anxiety disorder resulting from my family dynamic patterns—I've done quite a lot of reading on it. He's become the focus of our family; he uses it to get attention. Maybe I'm just whining, maybe nothing's really wrong—it's probably just a sophomore slump.

Dr. R: It sounds like it's not easy for you to come here, that you feel that you shouldn't have any problems. Is that right?

Dave: (Seeming more emotional again) Yeah, I'm supposed to be the strong one in the family. And I don't see any other kids here having problems like I do. They all seem confident and secure, and I don't know if I can measure up here—the competition is a lot tougher than in high school. My parents have been through so much with my brother. If my dad knew I was having problems too he'd ... well, I know he'd be there for me, but it might be too much for them! (Five second pause) There's so much to tell. This anxiety has been building up for a long time—I've just been keeping it inside as much as possible. Should I tell you about what's going on now, or where it all started?

Dr. R: Whichever you'd like. We'll have time to get to everything.

Dave: Well, the main thing is I feel really anxious in public, especially at social events. I can't talk, I can't think. . . That's why I'm here. There's a long story behind it. . .

Interpretation/Commentary

Dr. Ramirez begins by trying to make Dave comfortable and by assessing the content and process of Dave's thoughts at the start of their session. Even in this initial segment of the interview, it becomes apparent that Dave's problems probably "fit" the DSM-IV-TR diagnostic category called social phobia, an excessive anxiety about social performance (Chapter 4). But this unstructured portion of the interview does not only focus on *classifying* Dave's problems. Dr. Ramirez also gathers data that will lead to an initial *understanding* of Dave's problems, such as Dave's tendency to feel extreme shame and embarrassment, to compare himself to his family and peers, and to feel that he is responsible for keeping his family together by being the "strong one." Also, Dave seemed to suddenly use the defense mechanism of intellectualization when he talked about his brother, suggesting that this is a particularly troublesome topic for him.

Understanding Dave's problems includes developing some initial hypotheses about their causes. For example, the unstructured interview data suggest that Dave's anxiety problem may be related to the reinforcement of anxiety within his family, to his perfectionistic thinking, and to his emotional conflicts over competition and achievement. It is also important to note that Dave seemed to respond positively to Dr. Ramirez's initial empathic comments which may bode well for a therapeutic relationship.

The following is an excerpt from the *structured* portion of the interview with Dr. Ramirez (Mental Status Exam).

Dr. R: Dave, I want to ask you some questions just as part of our evaluation of how you're doing overall. Can you tell me where we are?

Dave: Sure, we're at the Counseling Center.

Dr. R: And what year is it?

Dave: It's 2007.

Dr. R: Okay, and could you count backwards for me from 100 by 7's.

Dave: 100, 93, 86, 79, 72...

Dr. R: Fine.

Interpretation/Commentary

Dr. Ramirez conducts a standard mental status exam, which Dave "passes"; there are no indications that Dave has any severe impairments in his thinking such as would be present in a psychotic disorder.

Dave's Test Results

Beck Depression Inventory-II (BDI-II)

Score: 10 out of a possible 63.

Interpretation/Commentary

This score is indicative of very mild depressive symptoms. Depression is unlikely to be the primary diagnosis with this score.

MMPI-2

Score/Profile: (Elevations reported are in comparison to sample of “normal” subjects.)

Validity Scales

Lie (“L” scale: Denial of problems; trying to look good): **Moderately elevated**

Carelessness (“F” scale: Symptom exaggeration or faking): **Not elevated**

Defensiveness (“K” scale: Evasiveness or guardedness): **Not elevated**

Clinical Scales

Hypochondriasis (“Hs” scale: Anxiety related to bodily functions): **Not elevated**

Depression (“D” scale: Depressive traits and symptoms): **Moderately elevated**

Conversion Hysteria (“Hy” scale: Expression of emotional distress through physical symptoms): **Not elevated**

Psychopathic Deviance (“Pd” scale: Exploitative and irresponsible traits): **Not elevated**

Masculinity-Femininity (“Mf” scale: For male subjects, stereotypically feminine traits): **Moderately elevated**

Paranoia (“Pa” scale: Extreme suspiciousness): **Not elevated**

Psychasthenia (“Pt” scale: Overanxious and self-doubting): **Highly elevated**

Schizophrenia (“Sc” scale: Bizarre and psychotic traits): **Not elevated**

Hypomania (“Ma” scale: Grandiose and over-excited traits): **Not elevated**

Social Introversion (“Si” scale: Shy, insecure, easily embarrassed): **Moderately elevated**

Interpretation/Commentary

The validity scales indicate that Dave answered the test questions relatively honestly, and that the results can be trusted. He is able to be somewhat open in acknowledging personal problems, although he has a tendency to minimize them as seen on the “L” scale. The clinical scales indicate that Dave is probably not suffering from any severe psychopathology since only a few of the scale scores are elevated (the moderate elevation on the Masculinity-Femininity scale is typical of male college students, who tend to be relatively tolerant, sensitive, and intelligent). The significant elevations in the Depression, Psychasthenia, and Social Introversion scales indicate that Dave tends to be anxious, lacking in confidence, conventional, controlled, shy, and insecure. On the positive side, his scores suggest a conscientious and reflective tendency in his personality, and this may bode well for psychological treatment.

Wechsler Adult Intelligence Scale (WAIS)

Scores: Verbal IQ = 118; Performance IQ = 111; Full Scale IQ = 115.

Interpretation/Commentary

Dave’s scores indicate intellectual ability in the high average range. This is consistent with Dave’s high level of academic achievement. Individual subtest scores were also consistently in the high average range. There is no evidence of cognitive deficits, and there is no need for further cognitive evaluation with achievement or neuropsychological tests.

Thematic Apperception Test (TAT)

(Card 1: This card shows a boy sitting with an object that is often seen as a violin on a table in front of him: see Box 3.4.)

Dave's Response: This kid looks pretty worried. His parents have pushed him to play the violin since he was five years old, and he has a big competition coming up. He's not mad at his parents for all the pressure, he just wonders if he can handle it. He's always been a star, but now the competition is getting tougher. The biggest problem is that he's holding it all inside. He thinks his nervousness could ruin his performance, and his parents would be worried about him. But he goes to the competition and does great. He realizes that anxiety is just a misfiring of neurons in his brain. The nervousness goes away and everybody is happy. That's all.

Interpretation/Commentary

Dave's intense anxiety about competition and performance come across strongly in this response. He also clearly conveys his feeling of pressure from the family to perform and excel. Dave's response also shows his use of defense mechanisms such as denial, intellectualization, and minimization at the end when he attempts to cover over the anxiety and the anger at the parents with a sugar-coated ending to the story.

Rorschach

(Card 1: This card has a symmetrical black inkblot, which is frequently seen as resembling a butterfly or bat.)

Dave's Response: It looks like a butterfly, based on the overall shape and configuration. . . one of those specimens you see in a museum. They prepare them carefully and mount them on a wall—it doesn't hurt the butterfly of course because it's deceased. The specimen appears to be shaking a little bit, as though there's a breeze in the room. The white spaces could be where the wings got damaged during the process. Somebody screwed up. That's all I see in the card.

Interpretation/Commentary

Dave's general response—a butterfly—is a common one, suggesting a conventional tendency in his personality. His tendency to feel ashamed, exposed, inadequate, and anxious comes across in seeing the butterfly as a "specimen," and a damaged one at that. This may also reflect his anxiety about his psychological evaluation, in which he feels like a specimen. The movement Dave sees in the card is often considered a sign of anxiety as well (Weiner, 1998), particularly in this case because it is described as "shaking." Use of the white spaces inside the inkblot is often interpreted as indicating an oppositional or defiant tendency (Weiner, 1998), which, if also seen on other cards, could suggest that underneath Dave's conventional and compliant personality he struggles with rebellious feelings. Finally, Dave's tendency to use the defense mechanisms of intellectualization and denial are seen in his use of scientific language and the museum concepts.

In clinical practice, the TAT and the Rorschach are interpreted only when the complete test, a sequence of several cards, is administered; our interpretation of one TAT and one Rorschach card alone is intended only to illustrate the interpretive process. The hypotheses about Dave's responses to this card would have to be balanced against hypotheses based on responses to additional cards. Furthermore, the responses on all the cards would typically be scored using a standardized scoring system and compared to established norms for various diagnostic groups.

Behavioral Observations of Dave

Dr. Ramirez asked Dave to monitor his anxiety for one week after their appointment by keeping a daily journal and by rating his anxiety on a scale of 1 to 10 each time he felt anxious. Dave's journal entries described his preoccupation with being seen as unattractive and inferior to others. He compared himself unfavorably with his friends, his brother, and his father. Dave's anxiety ratings were in the 7- to 9-range several times each day, especially when he had to be in social situations.

Interpretation/Commentary

Dave's journal entries and self-ratings of anxiety are indicative of pronounced social anxiety and suggest that this is linked to feelings of inadequacy in comparison to others. The intensity of Dave's daily anxiety ratings alerts Dr. Ramirez to the urgency of providing Dave with some rapid relief from his high level of distress.



THE ADVANTAGES AND LIMITATIONS OF THE DIAGNOSIS OF DAVE

The data from this overall assessment of Dave allow us to both *classify* and *understand* Dave and his problems. Diagnostically, Dave's anxiety problem can be classified as a social phobia (Chapter 4), a persistent, irrational fear and avoidance of social situations, according to the DSM-IV-TR (see Dave's complete DSM-IV-TR diagnosis). But this diagnostic classification, though important, is not the same as *understanding* Dave and his problems. Many people have the same diagnosis as Dave and yet are vastly different as people, with different life histories and different causes of their problems. In short, the case of Dave highlights the core concept at the heart of this chapter: the **advantages and limitations of diagnosis**. Although diagnosing a client is an important goal of the assessment process, it is equally important to develop an understanding of the client. Fortunately, the assessment process can also offer information that can help us understand clients and their problems. For example, the interviews, tests, and observations converge in showing that Dave's anxiety symptoms are related to his perfectionistic thinking and expectations, to the pressures from his family to be successful, to his feelings of competitive inadequacy, and to his emotional conflicts about anger. This initial understanding of Dave cannot be reduced to a diagnosis, but it is crucial to helping Dave. In fact, Dave began psychotherapy at his college's psychological clinic, and addressing these cognitive, behavioral, psychodynamic, and family themes helped him to overcome his anxiety. In sum, classification and understanding complement each other in any complete assessment and treatment of psychopathology.

RESEARCH METHODS IN ABNORMAL PSYCHOLOGY

As we discussed at the beginning of the chapter, the topics of diagnosis and research are closely linked. Without reliable and valid diagnostic categories, it is very difficult to conduct meaningful research studies on the causes and treatments of mental disorders. Indeed, with the advent of the modern DSM system, research on the prevalence, causes, and treatments of disorders has proliferated (although it is constrained by the limitations of the DSM, which we have already discussed). Research, in turn, can and has focused on diagnostic practices and led to improvements in classification. We now turn, therefore, to a discussion of research methods in abnormal psychology. What methods can researchers use to foster the scientific advancement of this field?

The Goals of Research and Scientific Thinking

The aims of scientific research, though straightforward, are often misunderstood. The goals of scientific investigation, in any area, are to *accurately describe and understand our world* (often referred to as *basic research*), with the background aim of using these descriptions and understandings to better predict the future and solve practical problems (often referred to as *applied research*) (Leary, 1995). These goals

apply just as readily to the field of abnormal psychology as to the fields of physics, geology, or any other area of scientific interest. However, a common misunderstanding of science is that only certain phenomena are appropriate subjects for scientific research—those that are not too complex or too elusive to be studied in a laboratory. By this account, many aspects of human behavior—say, religion, or “the unconscious,” or feelings of hopelessness in a depressed client—cannot really be studied scientifically. But nothing could be further from the truth. In fact, religion (e.g., Knight, 2004), the unconscious mind (e.g., Shevrin et al., 1996), feelings of hopelessness (e.g., Murphy et al., 2000), and countless other complex and elusive aspects of human experience have been rigorously studied both under laboratory conditions and outside the lab.

Admittedly, it is very challenging to find appropriate scientific methods for studying complex human behaviors such as those involved in abnormal psychology. But this is precisely what psychologists are trained to do—psychologists attempt to develop and use appropriate research methods to accurately describe and understand the world of human behavior, including abnormal behavior. In this sense, behavioral scientists are simply trying to do more rigorously and systematically what most human beings do intuitively in the course of daily life. We all try to accurately understand our interpersonal and social worlds, and life is easier when we can understand and predict the behavior of our friends, family members, bosses, teachers, and leaders. Behavioral scientists simply bring specialized tools and a systematic approach to this job of describing and understanding the world of human behavior. The two main tools that psychologists use for this task are *critical thinking* skills and *research design* skills.

Critical Thinking

A crucial part of a scientific attitude is the practice of critical thinking. In principle, the nature and importance of critical thinking can be described very simply: critical thinking is *the application of sound logic to ideas, beliefs, theories, and accepted “truths.”* In practice, good critical thinking is challenging and requires training and experience, which is an important component in the education of scientists. Critical thinking is equally important for “consumers” of information, including students—thus our emphasis on critical thinking in this textbook. Certain critical thinking problems are especially common in psychology and therefore especially important for psychology students to understand (Levy, 1997). For example, failing to distinguish between *correlation* and *causation* is a frequent problem in interpreting psychological research. As we will describe in more detail below, correlation refers to a statistical association between two or more variables, but a correlation between variables does not imply that one is the cause of the other. For instance, in Chapter 12 (Psychosis and Schizophrenia) we describe the association or correlation between lower socioeconomic status (SES) groups and higher prevalence rates of schizophrenia. But this correlation does not indicate—as is sometimes assumed—that lower SES is a cause of schizophrenia, or that schizophrenia is a cause of low SES. The proper interpretation of such correlations requires good critical thinking skills, such as the understanding that other variables may be responsible for the correlation.

As you can see from the list (see Table 3.12) of common critical thinking errors in abnormal psychology, many of these problems can be avoided by attention to our six core concepts—which is another reason for our emphasis on these core concepts.

TABLE 3.12 Some Common Critical Thinking Errors in Abnormal Psychology

Name of Error	Description of Error	Relevant Core Concepts
<i>Reductionism</i>	Using oversimplified explanations (e.g., “depression is caused by a neurochemical imbalance”)	Principle of multiple causality; the connection between mind and body
<i>Dichotomization</i>	Treating continua as all-or-nothing binaries (e.g., “you’re either mentally ill or you’re healthy”)	The continuum between normal and abnormal behavior
<i>Fundamental Attribution Error</i>	Underestimating the importance of external influences (e.g., “blaming the victim”)	The importance of context
<i>Reification</i>	Treating abstract concepts (e.g., “self-esteem”) as concrete and universal	Cultural and historical relativism; The advantages and limitations of diagnosis

Adapted from Levy, 1997.

Research Design

In addition to applying critical thinking to existing ideas about human behavior, behavioral scientists strive to generate new information that can help us understand and describe our world. They do so by systematically studying an area of interest in order to better understand behavioral phenomena (basic research), to solve practical problems (applied research), or both. Sound research depends on two technical procedures—appropriate *sampling* and appropriate *research design*.

Sampling Issues In a perfect world, a researcher interested in studying a topic such as the causes of schizophrenia would gather data on every known case of the disorder. In practice, of course, this is impossible, even for rare disorders. As a result, most researchers collect data on a *sample* of the whole population in which they are interested. Obviously, the larger and the more representative (that is, typical of the whole population of interest) the sample, the more researchers can accurately generalize from study findings to the actual characteristics of the population. The ability to accurately generalize from a sample to a population should remind you of the issue of *validity*; this ability is referred to as the *external validity* of a research study. For example, a study of the symptoms of schizophrenia that gathers data on 1000 clients with demographic profiles that closely match the demographic profiles in the overall population of clients with schizophrenia will, all other things being equal, have greater external validity than a similar study of 50 clients all from a single demographic group.

Thus, proper *sampling*—the selection of the part of the population of interest that will actually be studied—is a crucial aspect of sound, meaningful research. Given appropriate sampling, behavioral scientists can use various statistical principles and methods to make statements about the whole population based on the information gathered from a sample of the population.

Types of Research Designs The three major types of research designs are **experimental designs**, **descriptive designs**, and **correlational designs** (see Table 3.13). It is important to keep in mind that no one type of research design is inherently

Experimental design Isolation and manipulation of a limited number of variables under highly controlled conditions in order to test specific causal hypotheses.

Descriptive design Collection of quantitative and/or qualitative data that can be organized to present an accurate overview or detailed example of a phenomenon of interest.

Correlational design Statistical examination of the systematic associations between two or more variables of interest.

TABLE 3.13 Types of Research Designs

Experimental Design: Isolation and manipulation of a limited number of variables under highly controlled conditions in order to test specific causal hypotheses.

Descriptive Design: Collection of quantitative and/or qualitative data that can be organized to present an accurate overview or detailed example of a phenomenon of interest.

Correlational Design: Statistical examination of the systematic associations between two or more variables of interest.

superior to any other. Rather, the crucial issue is that the *research design is appropriate for the subject matter to be studied*. Behavioral scientists use a variety of different research designs because they study a wide range of phenomena that require different methods of investigation.

Experimental Designs In our ideal world, researchers would have almost complete control over the situation they wish to study, a large, representative *sample*, easily manipulated *variables* (the factors they wish to study), and clear *hypotheses* (testable propositions about the variables) to test. Sometimes, these conditions can be nearly met, and such a situation is known as a true Experimental Design. For example, researchers interested in discovering whether a new antidepressant medication (the *independent variable*, which the researcher will manipulate) is effective in relieving depression (the *dependent variable*, because it depends on the effects of the independent variable) can gather an appropriate sample of depressed clients and assign them into groups, some of whom get the drug and some of whom do not. But things get complicated very quickly, because of a number of possible threats to the study's *internal validity*—that is, the existence of other factors that could *confound* the results, or cause changes in the dependent variable that are not directly related to manipulations of the independent variable.

First, the researchers would need a *placebo control* group, a group that receives everything that the drug group gets except the actual medicine. This is necessary to ensure that changes in depressive symptoms among the group receiving the medication can be attributed with certainty to the drug itself (the independent variable), rather than to clinical attention from doctors, hopeful expectations, or other influences to which the group receiving the drug are also exposed.

Second, the research subjects must be *randomly* assigned to the groups to ensure that any differences in outcomes among the groups are not due to preexisting differences in the groups.

Third, both the research subjects and the researchers must be kept unaware of (“blind” to) the medication status of each group, lest their knowledge somehow affect the results by subtly causing different conditions for the two groups.

When all of these conditions are met—when the major threats to internal validity have been addressed—the study is called a *randomized, double-blind study*, a type of experimental design that is considered the “gold standard” in experimental research. Many of the best studies of new treatments in abnormal psychology meet this standard (including many experimental studies of antidepressant medications, described in Chapter 5). Studies that meet some but not all of the standards of experimental designs are classified as *quasi-experimental designs* (such as the famous Rosenhan study described in Chapter 1). However, many important research

questions in abnormal psychology simply cannot be studied experimentally or quasi-experimentally because they are not amenable to laboratory control and manipulation. For example, it would not be ethical or practical to test a hypothesis about child abuse as a possible cause of childhood anxiety disorders by deliberately exposing children to abuse. Other types of research designs—descriptive designs and correlational designs—have been developed for these situations.

Descriptive Designs In contrast to experimental designs, which aim to isolate the effects of specific variables through experimental controls, descriptive designs seek to provide an accurate overview or a detailed example of a topic of research interest. In a descriptive design, as the name implies, data that can help researchers accurately *describe* the phenomenon of interest are carefully collected and then organized for presentation. For example, researchers interested in family therapy for depressed adolescents need accurate demographic information on the prevalence of adolescent depression and detailed case studies of such families in order to study this issue.

Sometimes, a descriptive research study is a first step toward the later development of an experimental design; for example, researchers might want descriptive data about how commonly eating disorders occur among young athletes before developing and experimentally testing hypotheses about treatments for these clients. In other situations, experimental designs are simply not possible or useful, and descriptive designs offer the best opportunity to develop an accurate understanding of a phenomenon. For instance, when a Michigan State University researcher wanted to study what would happen when three clients with schizophrenia (Chapter 12), each of whom held the same delusion (that he was Jesus Christ) encountered each other, a detailed case study was the appropriate research design. Rokeach (1964) spent two years gathering data by closely observing and interviewing the three men and then summarized his findings in a classic book (see Box 12.2: The Three Christs of Ypsilanti: A Study in Delusions).

Descriptive designs can involve collection of *quantitative* (numerical) data, *qualitative* (narrative) data, or a combination of the two. For example, when we describe various mental disorders later in the book, we provide demographic statistical data on the prevalence of the disorders within the general population. This is an example of quantitative descriptive research. In contrast, Dr. Hoffman's detailed accounts of his self-experimentation with LSD (Chapter 9) and Freud's narrative case study of Little Hans's phobia of horses (Chapter 4) provide examples of qualitative descriptive research.

Correlational Designs Sometimes researchers are more interested in the relationships, or associations, among variables than in either simply describing phenomena (descriptive designs) or manipulating variables to study cause-and-effect connections (experimental designs). For instance, is there actually an association between mental disorders and creativity, as is commonly believed? Such questions are addressed by correlational designs. A *correlation* is a systematic statistical association between two or more variables indicating that when one of the variables changes, so does, on average, the other variable(s).

Correlations can be either positive (both variables increase or decrease together) or negative (one variable increases as the other decreases). For instance, correlational studies have shown that mental illness and creativity are, indeed, positively correlated—the greater the number of individuals with mental illness in a given sample the higher the number of creatively talented individuals (see Box 5.3: Focus on Research: Are Mood Disorders and Creativity Linked?). Correlations are statistically described using a

correlation coefficient, which ranges from -1.00 (a perfect negative correlation) to +1.00 (a perfect positive correlation.) (If two variables are completely unrelated, their correlation coefficient is zero.)

As mentioned earlier, one of the most important critical thinking maxims in behavioral research is that “correlation does not imply causation.” Just because two variables systematically co-vary does not mean that one causes the other; additional variables may be influencing their correlation. The positive correlation between mental illness and creativity is a good example of the complexity involved in interpreting correlations. It is possible that mental illness is a contributing cause of creativity, but it is also possible that creativity might contribute to mental illness, or that both mental illness and creativity are influenced by additional factors (such as temperament). Correlational designs can identify which variables are related to one another, but other research designs are necessary to tease out cause-and-effect relationships.

Statistical and Clinical Significance

A group of depressed clients receiving a certain medication as part of an experimental study may show more improvement than a control group, but how do we know whether the difference between the two groups is significant? Behavioral scientists often rely on statistical tests to make this determination. The most common standard in behavioral research for achieving *statistical significance* is demonstrating that there is less than a 5% chance that a given result is due to chance or error (the technical notation for this standard is $p < .05$). Various statistical techniques are available for calculating whether a particular group difference or correlation found in a research study meets this standard. However, the fact that a finding is statistically significant does not necessarily mean that it is *clinically* significant, and many researchers argue that clinical significance is the more important standard (Plante, 1999). For instance, an antidepressant medication may cause a statistically significant change in a sample of depressed clients, but the typical client’s improvement may not be clinically significant if the client begins the study with severe depression and ends with moderate depression.

Another safeguard for ensuring that research results are trustworthy is *replication*. Behavioral scientists are usually cautious about accepting new research findings until they have been replicated, or repeated, by other researchers, especially if the new findings are especially important or surprising. After a number of studies on a certain topic have been completed, researchers can use a statistical technique called *meta-analysis* to synthesize results from all of the aggregated studies, offering an even more trustworthy summary finding. For example, many landmark studies of the effectiveness of psychotherapy have been meta-analyses that examined the results of dozens of individual studies (see Box 2.6: Focus on Research: The Effectiveness of Psychotherapy).

Research Ethics

The Ethics Code for Psychologists (APA, 2002) describes the standards for ethical behavior expected of behavioral scientists. Society’s interest in the advancement of knowledge through research has to be balanced against expectations that research will not violate accepted human and animal rights and will uphold the integrity of the scientific enterprise. Although researchers often disagree about specific ethical questions and guidelines, the Psychologists’ Ethics Code, legal codes, other institutional

and governmental ethics codes and review boards, and common standards of courtesy provide a generally accepted framework for conducting ethical research. Some of the most common ethical issues regarding the use of human subjects involve the importance of informed consent by research participants, the avoidance of physical or psychological harm to participants, and the protection of confidentiality (Leary, 1995).

BRIEF SUMMARY

- *Basic research* attempts to accurately understand our world. *Applied research* attempts to better predict the future and solve practical problems.
- Behavioral scientists rely on *critical thinking* skills and *research design* skills in their efforts to understand human behavior. Critical thinking is the application of sound logic to ideas, beliefs, theories, and accepted “truths.”
- Good research depends on appropriate *sampling* and choosing an appropriate research design.
- The three major types of research designs are *experimental designs*, *correlational designs*, and *descriptive designs*. Each type of design has advantages and limitations; the crucial issue is a good fit between the chosen design and the subject matter to be studied.
- Behavioral scientists are expected to conform to ethical standards developed by professional associations and other institutional and governmental bodies.

Chapter Summary

- To diagnose means to identify different syndromes of psychopathology according to a classification system, or taxonomy. Assessment is the process of gathering information about a client in order to make a diagnosis.
- In order to be useful, diagnostic classification systems must have two statistical properties: reliability and validity. Reliability refers to the consistency of classification decisions using a certain system; validity refers to the accuracy of classification decisions.
- Diagnostic classification systems for psychopathology have grown increasingly detailed over time. The current official system in the United States, the DSM system, lists over 300 separate disorders in the DSM-IV-TR.
- Clinicians rely on three data-gathering methods for assessing clients: (1) clinical interviews; (2) tests; and (3) observations.
- The purpose of an assessment process is to both classify (diagnose) and to understand (that is, develop an explanation of) a client's problems. Both goals are important, and different assessment methods contribute to each.
- The case of Dave illustrates the *advantages and limitations of diagnosis*, and the importance of both diagnosing and understanding a client in order to help the client in treatment.
- Critical thinking skills and research design skills are the two most important tools used by behavioral scientists in their efforts to understand and predict behavior. Various types of research designs are available for investigating different behavioral phenomena; all designs must be implemented in accordance with accepted ethical standards.



Edvard Munch, *The Dance of Life*. National Gallery, Oslo, Norway/SuperStock, Inc. © 2007 Estate of Edvard Munch/Artists Rights Society (ARS), New York



Roger Viollet/Getty Images News and Sport Services

Edvard Munch (1863-1944), a Norwegian artist most famous for his painting "The Scream" (1893), endured a lifetime of tragedy. Munch's mother died when he was five, his sister, only a year his elder, died soon after his mother, and his father died while Munch was a young adult. Though Munch's paintings tend to reflect themes of emotional pain and brooding introspection, he was not able to channel all of his distress into his artwork. In 1908, Munch was hospitalized for anxiety and treated with electroshock therapy. Despite his emotional troubles, Munch produced many significant paintings until the time of his death and played an instrumental role in the development of German Expressionism.

Anxiety and the Anxiety Disorders

CASE Vignettes

Arthur, a 22-year-old community college student, visited his primary care physician complaining that he had been experiencing occasional “spells” over the past two months. During the episodes he felt anxious, dizzy, nauseous, had intense headaches, and sometimes had difficulty breathing. After having a “spell” Arthur worried about when the next one would occur. A thorough medical exam and a series of laboratory tests found that nothing was physically wrong with Arthur. The physician suspected that Arthur was suffering from panic attacks and asked if he had been experiencing increased stress in recent weeks. Arthur acknowledged that he was somewhat anxious about graduating from college in a month; however, he doubted that his “spells” could have an emotional basis since the symptoms were mostly physical. Arthur was the first person in his family ever to have to go to college, and he had done very well in school despite being in a difficult engineering program. He had already been hired by a bioengineering firm near his hometown and was nervous about beginning his professional life. Arthur explained that his parents were extremely proud of his success and that his entire extended family was planning to attend his graduation.

Greg, a 35-year-old paralegal, decided to seek psychological help when his wife and children could no longer stand his cleaning habits. Greg had always been compulsive about straightening up his own possessions, but in recent years he had become increasingly picky about maintaining order in the entire house. Greg became agitated if the glasses in the kitchen cabinet were arranged in uneven rows, or if the throw pillows on the couch were not perfectly aligned with the couch’s striped pattern. When stray hairs were left in the bathroom, he flew into a panic and insisted that the offender clean the area immediately. Greg also felt, superstitiously, that he had to repeatedly check, double-check, and triple-check that everything was clean. Greg acknowledged that these were “overreactions” but said that he could not control them and feared that something terrible would happen if he did not have everything in proper order. Greg’s 7-year-old son stopped inviting friends over to the house because he knew that their play would irritate Greg, and his 12-year-old daughter reached the point where she would not follow any of her father’s cleaning rules because she found them so ridiculous.

CASE VIGNETTES

Defining Anxiety and Anxiety Disorders

- The Importance of Context in Defining Anxiety Disorders
- The Continuum Between Normal and Abnormal Anxiety

Classifying Anxiety Disorders

- The DSM-IV-TR Categories
- The Advantages and Limitations of the DSM-IV-TR Anxiety Disorder Diagnoses
- Classification in Demographic Context
- Cultural and Historical Relativism in Defining and Classifying Anxiety Disorders

Explaining and Treating Anxiety and Anxiety Disorders

- Biological Components
- Behavioral Components
- Cognitive Components
- Psychodynamic Components
- Humanistic and Existential Components
- The Multiple Causality of Anxiety Disorders
- The Connection Between Mind and Body in Anxiety Disorders

CASE VIGNETTES

Treatment

DEFINING ANXIETY AND ANXIETY DISORDERS

All of us know what it is like to feel anxious or scared. Anxiety and its close relative, fear, are normal parts of everyday life. **Anxiety** is usually defined as an unpleasant emotion associated with a general sense of danger—the feeling that something bad is going

Anxiety An unpleasant emotion characterized by a general sense of danger, dread, and physiological arousal.

to happen. In *fear*, the danger is more specific. Most of us have felt anxiety and fear when we've been in a minor car accident or had a near miss. You may have worried for a split-second that you would be seriously hurt. Perhaps you momentarily "froze" and felt unable to act quickly and appropriately. Whether or not you were aware of it, your pupils probably dilated, and your mouth may have become dry as a small burst of adrenaline was released into your bloodstream. After the danger passed, you may have noticed that your heart was pounding or that you had broken out in a sweat. In sum, the experience of fear and anxiety is not just emotional, but involves cognitive, behavioral, and physical components as well (see Table 4.1).

Fear and anxiety are normal human responses to threatening or dangerous situations. Indeed, the capacity for a hearty fear response is an evolutionary gift from our ancestors (Akiskal & Akiskal, 2005). The cave dwellers who didn't react to the presence of a saber-toothed tiger either by freezing (and thereby hiding themselves) or making an adrenaline-boosted sprint probably don't have too many descendants walking around today! But if fear and anxiety are normal and evolutionarily adaptive, on what basis do we decide that someone suffers from an anxiety *disorder*? When it comes to defining anxiety disorders, two core concepts are critical: the *context* in which the anxiety occurs, and the severity of the anxiety along the *continuum* from mild to severe.



The
importance
of context

The Importance of Context in Defining Anxiety Disorders

People with anxiety disorders experience anxiety and fear in *contexts* that do not warrant such feelings. People with anxiety disorders feel anxious or even terrified in the face of a minor threat or when no threat is present at all. For example, a person with an intense, persistent, and irrational fear of snakes (a *phobia*, which will be discussed in detail later in the chapter), might shake with fear and break out in a sweat when seeing a small garter snake in the woods. Even though the snake presents a miniscule threat, the person with the phobia experiences the danger as intense. Some people with anxiety disorders experience anxiety when *no* danger exists at all. For example, the phenomenon known as a *flashback* is a common symptom in *posttraumatic stress disorder* (also discussed in detail later in the chapter). During a flashback, people with posttraumatic stress disorder recall a previous traumatic experience with such intensity that they feel as if they are reexperiencing the event. For example, when a rape survivor experiences a flashback, she may feel as if she is being attacked again and experiences all of the terror she felt during the original attack, even if she is actually alone and in a safe place.



Normal-
abnormal
continuum

The Continuum Between Normal and Abnormal Anxiety

In addition to matters of context, anxiety disorders are also defined by the intensity of the anxiety. In other words, the *continuum between normal and abnormal behavior* has to be considered in order to define pathological anxiety. Although everyone expe-

TABLE 4.1 Common Components of Anxiety

EMOTIONAL	COGNITIVE	BEHAVIORAL	PHYSICAL
Fright	Hypervigilance	"Fight-or-flight" response ¹	Muscle tension
Nervousness	Poor concentration	Freezing up	Pounding heart
Irritability	Rumination	Avoidant behavior	Dry mouth

¹ An extreme sympathetic nervous system arousal that prepares humans to flee or attack when faced with danger (see Chapter 2).

periences anxiety at times, some people feel anxious rarely and mildly while others feel anxious often and intensely. The continuum between low and high levels of anxiety applies to two kinds of anxiety studied by psychologists: *trait* and *state* anxiety (Endler & Kocovski, 2001). **Trait anxiety** reflects an individual's general tendency to respond to a wide variety of situations with more or less anxiety. People with high levels of trait anxiety feel anxious most of the time, regardless of external circumstances. In contrast, people low in trait anxiety rarely feel anxious, even when anxiety would be an expected response (see Box 4.1).

State anxiety is typically defined as an individual's level of anxiety in response to a specific situation (an impending exam, going to a job interview). Like trait anxiety, state anxiety occurs along a continuum. Imagine, for example, the various levels at which people might fear snakes. One person might feel a little nervous around snakes but still be intrigued by the idea of seeing them at the zoo. Indeed, part of the fun of going to the zoo is getting to see potentially dangerous animals in a safe setting. Another person may decide to skip her visit to the snake house and agree to wait outside while her friends go in. A third person may feel so frightened of snakes that he refuses to go to the zoo with his friends and feels sorry that he missed the outing. The first two people share a mild fear of snakes, but the level of their anxiety does not appear to interfere with their functioning. The third person's state of anxiety can be considered pathological because his irrational fear of snakes causes intense distress and impairs his ability to function.

BRIEF SUMMARY

- Fear and anxiety are normal emotions that have evolved to help people respond adaptively to danger.
- Pathological anxiety is defined as anxiety that occurs in an inappropriate *context* or is overly intense on the *continuum* between mild and extreme anxiety.

Critical Thinking Question

We have suggested that abnormal anxiety can be defined as anxiety that is relatively intense or inappropriate to its context. With this definition in mind, which of Greg's reactions (described at the beginning of the chapter) seem to be unusually intense? Does any of his anxiety seem to be appropriate to its context?

CLASSIFYING ANXIETY DISORDERS

Anxiety is a part of many different mental disorders, but the DSM-IV-TR category for anxiety disorders includes only those disorders in which anxiety is the *main symptom*, in keeping with the DSM-IV-TR descriptive classification philosophy explained in Chapter 3. Anxiety disorders are some of the most common mental disorders among the U.S. population, affecting at least 18% of Americans in any given year and a much higher percentage over their lifetimes (Kessler et al., 2005; see Table 4.2). We'll begin with a description of the DSM-IV-TR anxiety disorders and then turn our attention to the core concepts of the *advantages and limitations* of the DSM-IV-TR anxiety disorder diagnoses and the issues of *cultural and historical relativism* in classifying anxiety disorders.



Everyday anxiety Anxiety, seen on the face of this young woman as she works her way through an exam, is a part of everyday life.

Superstudio/Getty Images, Inc.

Trait anxiety An individual's tendency to respond to a variety of situations with more or less anxiety.

State anxiety An individual's level of anxiety at a specific time.



Just for the thrill of it Bungee jumping may be terrifying for some, but highly enjoyable and exhilarating for others. People with low levels of trait anxiety may seek out activities that people with high levels of trait anxiety would actively avoid.

The Image Bank/Getty Images

BOX 4.1 High-Risk Takers

TOO LITTLE ANXIETY?

Ask a group of individuals how they would feel if they were hanging off the side of Mount Everest or chasing an armed criminal, and the majority would probably admit that they would feel scared or anxious. For a small percentage of individuals, however, these activities might be more exhilarating than anxiety provoking. Sometimes referred to as “high-risk takers,” such individuals fall on the other end of the “anxiety continuum” from those suffering from the disorders discussed in this chapter. Rather than experiencing uncomfortably high levels of anxiety, high-risk takers may experience levels of anxiety that are actually lower than normal.

Compared to those who experience high levels of anxiety and are uncomfortable taking risks, risk takers are drawn to jobs in which they place themselves or others in physical jeopardy, are more likely to engage in physically risky sports, and are less likely to experience fear in typically frightening situations, such as being exposed to a spider or left alone in the dark. Such individuals may also not *anticipate* feeling anxious in situations, such as those described above, which would generally be expected to produce anxiety (Lissek et al., 2005). But can a person experience too little anxiety? From an evolutionary perspective, the answer appears to be “yes.” As discussed earlier in the chapter, anxiety serves an important adaptive function (Akiskal & Akiskal, 2005). Though sometimes uncomfortable, the sensations associated with anxiety helped prepare our ancestors to fight in or flee from dangerous situations, thus promoting survival. And though most of us no longer need to protect ourselves from actual predators, the experience (or even the anticipation) of anxiety can help prepare us for situations that are potentially harmful. Because risk takers are less likely to experience or anticipate anxiety in dangerous situations, they are more prone to hurt themselves. For example, they are more likely to engage in potentially risky sexual practices, smoke cigarettes, abuse illegal drugs, and gamble (Zuckerman, 2000).

Some experts have also argued that anxiety actually *helps* most people learn socially appropriate behavior: we

behave appropriately partly in order to reduce the anxiety caused by the disapproval of others. Interestingly, low levels of anxiety and high levels of risk taking have been linked to antisocial personality disorder (APD), a disorder marked by chronic, pervasive impulsivity, deceitfulness, and lack of concern for the rights of others (Chapter 11). The low levels of anxiety exhibited by those with APD may make it difficult for them to learn to behave in socially acceptable ways. Indeed, one classic study showed that individuals with this disorder had difficulty learning to avoid incorrect responses to a laboratory game, even when these responses were paired with anxiety-producing stimuli, such as an electric shock (Lykken, 1957). If the experience of anxiety can be a useful teacher, those with APD appear to be at a learning disadvantage without it.

Individuals with APD are not the only ones who exhibit low levels of anxiety. While some studies have found that convicted people and criminals with APD do exhibit low levels of anxiety (Langato-Stadler et al., 2002), others have found similarly low levels of anxiety among people training to be police officers (Lorr & Strack, 1994). This appears to be one trait that police officers and criminals share.

So how does one become a high-risk taker with “too little anxiety?” Human beings may have a built-in optimal level of arousal: a moderate amount that is high enough to maintain focused attention, but low enough to maintain comfort. While the majority of individuals may be naturally close to this optimal level, risk takers appear to be chronically “underaroused” (Lissek et al., 2005). Their low levels of anxiety and chronic underarousal may lead them to seek out risky, highly stimulating situations that would be uncomfortably anxiety-provoking for most people, but serve to bring risk takers closer to the optimal state of arousal.

In other words, risk takers might be drawn to activities like mountain climbing as a corrective to their baseline underarousal. For those of us who do not experience chronically low levels of arousal and anxiety, it will probably be stimulating enough to watch such activities on TV!



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TABLE 4.2 The DSM-IV-TR Anxiety Disorders

- Generalized anxiety disorder** ■ Chronic, debilitating nervousness (lifetime prevalence estimate: 5% of the population).
- Panic disorder** ■ Episodes of acute terror in the absence of real danger (lifetime prevalence estimate: between 1%–2%).
- Phobias** ■ Persistent, irrational fear and avoidance of particular objects or situations (lifetime prevalence estimate: between 9% and 24%).
- Obsessive-compulsive disorder** ■ Anxiety-producing, unwanted thoughts, usually leading to compulsive rituals (lifetime prevalence estimate: 1%–2.5%).
- Posttraumatic stress disorder and acute stress disorder** ■ Various, specific symptoms occurring in the wake of a traumatic experience (lifetime prevalence estimate: over 8%).

Adapted from the DSM-IV-TR, APA, 2000

The DSM-IV-TR Categories

The DSM-IV-TR identifies six main anxiety disorders: *generalized anxiety disorder*, *panic disorder*, *phobias*, *obsessive-compulsive disorder*, *posttraumatic stress disorder*, and *acute stress disorder*.

Generalized Anxiety Disorder

People with **generalized anxiety disorder** (GAD) experience chronic and pervasive anxiety. They feel tense and worried most of the time, which causes them distress and interferes with their functioning (Table 4.3).

Generalized anxiety disorder Chronic, pervasive, and debilitating nervousness.

TABLE 4.3 Diagnostic Criteria for Generalized Anxiety Disorder (GAD)

- Pervasive anxiety for at least six months.
- Difficulty controlling the anxiety.
- The anxiety includes three or more of the following symptoms: restlessness, fatigue, difficulty concentrating, irritability, muscle tension, sleep disturbance.
- The anxiety, worry, or physical symptoms cause significant distress or impairment in normal functioning and are not due to the effects of a medication, drug, or medical condition.

Adapted from DSM-IV-TR, APA, 2000

CASE ILLUSTRATION

Sharon had always considered herself to be a “worrier,” but when she took a position as a bank teller she felt for the first time that her anxiety was really interfering with her life. Sharon felt tense most of the time that she was at work because she worried that she’d be caught in a bank robbery. When she wasn’t at work, Sharon worried that she would be mugged or that someone would hack into the bank’s computers and drain her personal accounts. She also constantly worried that her aging mother would experience a stroke or a heart attack and be unable to call for help. Sharon worried so much that even when she was very tired it took hours for her to fall asleep because she would lie in bed ruminating about her financial security, her mother’s health, or her own future. After beginning her job at the bank, Sharon began to experience painful tension headaches that made it difficult for her to concentrate and caused her to miss several days of work. Not surprisingly, she became worried that she would be fired because of her absences. These concerns only increased her general anxiety and contributed to more frequent headaches.

Sharon experiences many of the symptoms commonly found in GAD. She feels anxious most of the time, worries about almost everything, and has trouble sleeping. Her anxiety is not limited to a specific situation—it pervades most aspects of her life. For Sharon, the physical symptoms of anxiety (her tension headaches) have begun to interfere with her ability to go to work. Other people with GAD find that their constant worrying can contribute to a wide variety of physical symptoms (such as dry mouth, nausea, or sweating) that may prevent them from pursuing or enjoying social relationships and new experiences (Hoehn-Saric, 2005).

Panic Disorder

Panic disorder Panic attacks that cause ongoing distress or impairment.

Panic attack Discrete episode of acute terror in the absence of real danger.

People with **panic disorder** (PD) experience discrete episodes of intense terror—known as **panic attacks**—in which they feel overwhelmed by anxiety and have a strong urge to escape or get help. In contrast to generalized anxiety disorder (GAD), which involves *chronic* but milder anxiety, people with PD experience *acute* bursts of extreme anxiety (Table 4.4).

CASE ILLUSTRATION

While on an airplane flight for a business trip, Simon began to feel like he was having a heart attack even though he could not understand how this was possible, given that he was a healthy 25-year-old man. He felt an enormous sense of dread and doom, his heart began to pound, he broke out in a sweat, and his throat felt like it was closing. The other passengers did not seem to notice his intense distress, but Simon was sure that he was going to die if he did not receive immediate medical attention. Yet, 20 minutes later while still on the plane, Simon felt better and decided that he probably didn't need to go to the emergency room. In the next few weeks, Simon had similar episodes of excruciating, short-lived anxiety while at work, in his car, and grocery shopping. Simon's girlfriend finally insisted that he consult a doctor when he started making excuses not to go out of his apartment for fear that he would have another attack.



What agoraphobics fear People suffering from agoraphobia avoid crowded places, like this New York subway platform, due to the fear that they would feel trapped or helpless if they were to experience a panic attack in a large crowd.

©AP/Wide World Photos

Panic disorder is defined by the presence of panic attacks that lead to behavioral changes or worry about having future attacks. Panic attacks often seem to happen “out of the blue,” but they may also be triggered by stressful circumstances (Starcevic, 2005). Regardless of what triggers a panic attack, the attacks themselves usually come on quickly, are experienced by their sufferers as terrifying and overwhelming, and last less than half an hour. After having a panic attack, many people become preoccupied with the possibility of having future attacks and find themselves in a distressing cycle of fearing fear itself (see Figure 4.1). Some people become so fearful of future panic attacks that they become housebound, a condition known as *agoraphobia*. Agoraphobia, a type of phobia that is a frequent consequence of panic disorder, is discussed in detail later in the chapter.

TABLE 4.4 Diagnostic Criteria for Panic Disorder (PD)

- Episodes of intense panic (*panic attacks*), including at least four of the following symptoms: pounding heart, sweating, shaking, shortness of breath, feeling of choking, chest pain, nausea, dizziness, fear of losing control, fear of dying, numbness or tingling, chills or hot flashes.
- Persistent concern about having additional attacks, worry about consequences of an attack, or changes in behavior because of the attack.
- The panic attacks are not due to the direct physiological effects of a drug, medication, or medical condition.

Adapted from the DSM-IV-TR, APA, 2000

Panic attack sufferers often report feeling such intense anxiety and physical discomfort during the attacks that they are sure they are seriously ill or even dying. In fact, one study estimated that nearly a quarter of all people who come to hospital emergency rooms complaining of severe chest pain are actually experiencing a panic attack (Lynch & Galbraith, 2003).

Phobias

Phobias, the most common of the DSM-IV-TR anxiety disorders, are persistent and exaggerated fears of particular objects or situations (Table 4.5). Most people with phobias go out of their way to avoid the thing they fear, even if such avoidance is inconvenient and disruptive. The DSM-IV-TR distinguishes among three subtypes of phobias:

- *Social phobia*
- *Agoraphobia*
- *Specific phobia*

In **social phobia**, fears are focused on social situations or other activities where there is a possibility of being observed and judged, such as speaking in public or meeting new people. People who suffer from social phobia feel sure that other people are watching them closely and looking for signs of inadequacy. They often recognize that their fears are excessive, and yet their worries interfere with their daily functioning and/or cause considerable emotional distress.

People with social phobia often worry that they will humiliate or embarrass themselves, and they tend to be “rejection sensitive.” Often, their worries center on bodily functions, such as a fear of sweating or having one’s stomach growl in public, which they fear will lead to humiliation or rejection. Those with fears of public speaking may anticipate being criticized by others if their hands shake or their voices tremble (Starcevic, 2005). As a result of their fears, people who suffer from social phobia may avoid speaking, eating, or drinking in public and may refuse to use public restrooms. When faced with a feared situation, people with social phobia may become so anxious that they experience a panic attack (APA, 2000). They often avoid social situations even at considerable economic or emotional expense.

Phobia An intense, persistent, and irrational fear and avoidance of a specific object or situation.

Social phobia A phobia in which fears are focused on social situations or other activities where there is a possibility of being observed and judged.

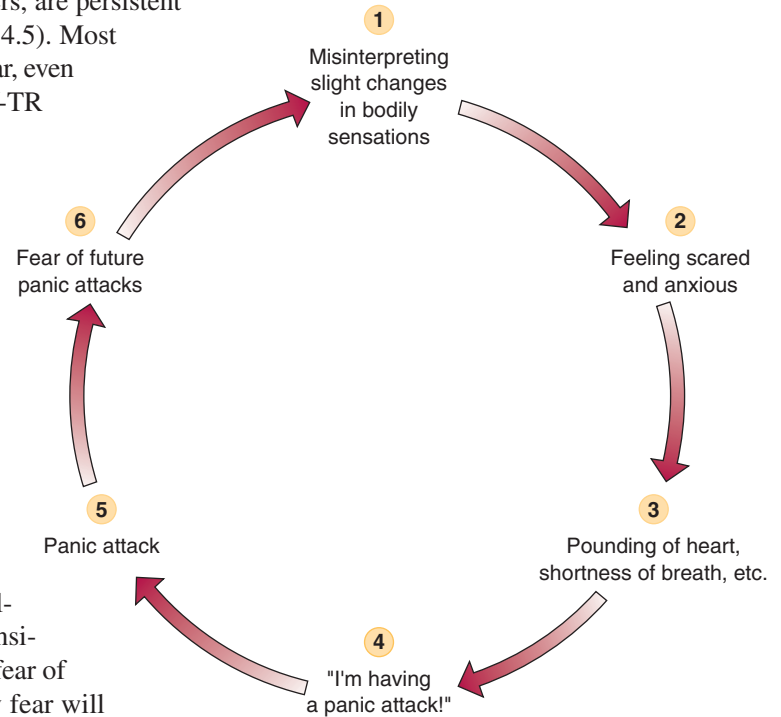


Figure 4.1 A panic attack cycle The fear of having a panic attack can actually contribute to future panic attacks. Unfortunately, the more scared people become of future panic attacks, the more likely they are to experience intensifying physical symptoms such as quickening heart beat and difficulty breathing, that can lead to further attacks. (Based on Wells, 1997, p. 105)

TABLE 4.5 Diagnostic Criteria for Phobias

- Persistent, irrational fear of a specific object or situation.
- Exposure to the feared object or situation usually provokes an intense anxiety reaction.
- The person recognizes that the fear is excessive or unreasonable.
- The phobic object or situation is avoided or else endured with intense anxiety or distress.
- The avoidance, anxious anticipation, or worry about the feared object or situation interferes significantly with normal everyday functioning or there is substantial distress about having the phobia.

Adapted from the DSM-IV-TR, APA, 2000



Creepy crawlies Almost half of all children experience phobias at one time or another, the most common fears being of the animal or natural environment type.

Mark Clarke/Photo Researchers, Inc.

Agoraphobia A fear of wide open spaces or crowded places.

Specific phobia Any phobia that is not a social phobia or agoraphobia.



Anxiety goes Hollywood In the movie *As Good as It Gets* (1997), Jack Nicholson's character has obsessive-compulsive anxieties and rituals. He also demonstrates many symptoms of *obsessive-compulsive personality disorder*, a disorder described in detail in Chapter 11.

Photofest

CASE ILLUSTRATION

Manuel, a first-year law student, came to a college counseling center when he could no longer tolerate his fear of speaking in class. Manuel had never been comfortable with public speaking, but he spent his college years at a large university where he was rarely expected to talk in front of his peers. Now, while sitting in class, Manuel worried that his mind would go blank, that his voice would waver, or that his classmates would think that he was stupid. Manuel's fear that he would be called on interfered with his ability to take notes and listen to his classmate's questions. Increasingly he found that he preferred to get class notes from his roommate rather than putting himself through the torture of attending class. Though far less bothersome, Manuel also avoided having lunch with his classmates because he worried that they would secretly criticize his table manners or his contributions to the lunchtime conversation. Between avoiding class and lunch, Manuel felt alarmingly disconnected from the life of the law school.

The second subtype of phobia is known as **agoraphobia**, which comes from the Greek for "fear (phobia) of the marketplace (agora)." People who suffer from agoraphobia are afraid of wide-open or crowded places and are often reluctant to leave their own homes. As we mentioned earlier in discussing panic disorder, agoraphobia frequently develops after a person has experienced panic attacks. In general, people suffering from agoraphobia are not afraid of public places per se, but of having a panic attack in a public place where it might be difficult to escape or get help (Starcevic, 2005). For example, a woman who experiences a panic attack in a clothing store might develop an aversion to clothing stores and then soon find herself avoiding stores of any kind. Before long, she may feel uncomfortable in all public places. In this way, agoraphobia has a tendency to build over time until a person refuses to leave his or her own home or will only go out in public while in the company of a trusted companion. However, not all people who suffer from panic disorder develop agoraphobia, and in some comparatively rare circumstances people, such as Bill (described below), suffer from agoraphobia without a history of panic attacks.

CASE ILLUSTRATION

Just over a year ago Bill, age 28, heard about a mugging in his neighborhood, which was overall quite safe. At first, Bill began to feel nervous in crowded places. Soon, Bill was getting uneasy in any public place, and he felt increasingly reluctant to leave the safety of his apartment. He decided to quit his job as a mechanic and to try working from home as a telephone salesman. Rather than leaving his apartment to go shopping, he began to order the things he needed over the phone or over the Internet. On the occasions when Bill could not avoid leaving the house, such as when he needed to go to the dentist, he asked his older sister to accompany him.

The third type of phobia, **specific phobia**, refers to any phobia that is not a social phobia or an agoraphobia. Most often, specific phobias (formerly called *simple phobias*) fall into one of four common types described by the DSM-IV-TR: animal type (fear of spiders, snakes, dogs, etc.), natural environment type (heights, tornadoes, water), blood-injection-injury type (needles, injuries, the sight of blood), and situational type (enclosed spaces, flying in airplanes, elevators) (see Box 4.2). People who suffer from specific phobias, like Jenny (described below), usually recognize that their fears are excessive. However, they are usually unable to talk themselves out of being afraid and persistently avoid the feared object or situation.

CASE ILLUSTRATION

Jenny, a high school sophomore who enjoys a wide variety of activities and plays for her high school's field hockey team, is deathly afraid of hypodermic needles. She does not mind the sight of blood—indeed she sees blood regularly when she or a teammate is injured—but she cannot stand the sight, or even thought, of syringes. When Jenny's father was hospitalized with cancer, she was re-

luctant to visit him for fear that she would accidentally see or come into contact with a hypodermic needle. Jenny finally got up the courage to visit her father but passed out immediately when a nurse came into her father's room carrying a syringe.

Obsessive-Compulsive Disorder

Obsessive-compulsive disorder (OCD) is a condition involving repetitive, unwanted, anxiety-producing thoughts and compulsive rituals intended to protect against anxiety. (See Box 4.3 for one person's struggle with OCD.) The terms **obsession** and **compulsion** have specific technical definitions here that are different from their colloquial uses: obsessions are defined as unwanted and upsetting thoughts or impulses, whereas compulsions are defined as irrational rituals that are repeated over and over again in an effort to control or neutralize the anxiety brought on by the obsessions (Table 4.6).

CASE ILLUSTRATION

Jackson constantly imagines that his wife will be killed in a gruesome car accident. This thought seems to “pop” into his head when he is trying to get work done at his office. Jackson knows that his fear is irrational—his wife is a good driver who has never had an accident—yet he feels very anxious when he imagines her fatal car accident. Jackson has found that he can reduce his anxiety about his wife's safety if he walks around his office in a particular pattern, touching certain pieces of furniture as he goes. He often has to repeat the pattern several times until it feels “right” before he can go back to doing his work. At home, Jackson feels anxiously compelled to perform a number of “checking” rituals, such as continually rechecking to make sure that the stove is turned off and that the doors are locked. On some days, Jackson must repeat his rituals several times in a row throughout the day in order to keep his anxiety under control.

Obsessive-compulsive disorder An anxiety disorder in which distressing and unwanted thoughts lead to compulsive rituals that significantly interfere with daily functioning.

Obsessions Unwanted and upsetting thoughts or impulses.

Compulsions Irrational rituals that are repeated in an effort to control or neutralize the anxiety brought on by obsessional thoughts.

BOX 4.2 Excessive Fears

SOME COMMON AND NOT SO COMMON PHOBIAS

People can develop phobias to a wide variety of objects or situations. Some phobias, like claustrophobia (the fear of confined spaces), are relatively common, while other phobias are highly idiosyncratic and occur very rarely. Consider the following lists of common and unusual phobias:

Common Phobias

- Acrophobia—Fear of heights
- Arachnophobia—Fear of spiders
- Claustrophobia—Fear of confined spaces
- Cynophobia—Fear of dogs



© Pierre Perrin/Corbis Sygma

- Hemophobia—Fear of blood
- Hydrophobia—Fear of water
- Myctophobia—Fear of darkness
- Pteromerhanophobia—Fear of flying
- Thanatophobia—Fear of death or dying

Unusual Phobias

- Ablutophobia—Fear of washing or bathing
- Botanophobia—Fear of plants
- Chaetophobia—Fear of hair
- Dromophobia—Fear of crossing streets
- Ereuthrophobia—Fear of blushing
- Francophobia—Fear of France, French culture
- Genuphobia—Fear of knees
- Linonophobia—Fear of string
- Melanophobia—Fear of the color black
- Ornithophobia—Fear of birds
- Peladophobia—Fear of bald people
- Scoptophobia—Fear of being seen or stared at
- Vestiphobia—Fear of clothing

(From www.phobialist.com)

TABLE 4.6 Diagnostic Criteria for Obsessive-Compulsive Disorder (OCD)

- The presence of obsessions and/or compulsions.

Obsessions

- Are recurrent, anxiety-producing thoughts, impulses, or images that are intrusive, unwanted, and inappropriate to the current context.
- Cause the sufferer to attempt to ignore or suppress the obsessional thoughts, impulses or images, or to neutralize them with some other thought or action.

Compulsions

- Are ritualized behaviors (for example, hand-washing) or mental acts (such as counting) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.
- Are intended to magically prevent some dreaded event or situation.
- At some point in the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable.
- The obsessions and compulsions cause significant distress, are time-consuming, and/or interfere with the person's normal routine.
- The obsessions or compulsions are not due to the effects of a medication, drug, or medical condition.

Adapted from the DSM-IV-TR (APA, 2000)



Written on their faces These children of the Hema ethnic group in northeastern Congo watched as members of their tribe were massacred during intertribal warfare for land and other resources. Their faces show the intense psychological distress associated with traumatic experiences.

©AP/Wide World Photos

Trauma An emotionally overwhelming experience in which there is a real or perceived possibility of death or serious injury to oneself or a loved one.

Interestingly, obsessions usually focus on a few specific areas, such as fears of contamination, disarray, or aggressive/destructive, sexual, or socially inappropriate behavior (Allen & Hollander, 2005). For example, people with OCD may worry that they will contract a horrible disease from touching a doorknob (contamination), feel extremely uncomfortable if the books on their shelves are not perfectly aligned (disarray), fear that they have accidentally poisoned a loved one (aggression), or worry that they will blurt out obscene words in front of a boss (sexually or socially inappropriate). Obsessions may also take the form of repeated doubts, such as worrying that one has forgotten to turn off a stove or an iron. A person with OCD might check an iron repeatedly, unplug it from the wall, or even move it away from any electrical outlet and yet still have concerns that the iron has not been properly turned off.

The compulsive behaviors associated with OCD can involve seemingly logical, though irrationally excessive, attempts to reduce the anxiety associated with obsessive thoughts, such as when people with fears of contamination wash their hands several times after touching a doorknob. However, some compulsive behaviors lack any apparent connection with the obsessions they are designed to counteract. For example, people with OCD may have elaborate rituals such as counting to one hundred by fours, or reciting a meaningless phrase in order to “undo” an obsessional thought about harm coming to a loved one.

Posttraumatic Stress Disorder and Acute Stress Disorder

In everyday conversation, we often use the term *trauma* to describe any stressful or upsetting event, but for the purpose of diagnosing stress disorders a **trauma** is defined as an emotionally overwhelming experience in which there is a real or perceived possibility of death or serious injury to oneself or a loved one (APA, 2000). Following a traumatic experience, some people experience the symptoms described in Table 4.7. If these symptoms last more than two days, but less than a month, are accompanied by dissociative symptoms (a change in state of consciousness, such as feeling detached from

BOX 4.3 Living with OCD

PASSING FOR NORMAL

In her book, *Passing for Normal: A Memoir of Compulsion*, Amy Wilensky describes her struggles with obsessive-compulsive disorder. In addition to OCD, Ms. Wilensky also suffers from Tourette's syndrome, a disorder characterized by multiple motor tics (involuntary movements such as eye blinking or grimacing) and one or more vocal tics (such as making sounds, clicks, or grunts). Tourette's disorder co-occurs in about 5 to 7% of people with OCD (APA, 2000).

CASE

My senior year of high school my parents planned a family trip to Maui for us and my grandmother over Christmas vacation. . . . I've rarely been as convinced of anything as that I was doomed to die in that plane [to Hawaii]. I offered to stay home by myself, told my parents—and meant it—that I'd rather walk to California in bare feet and swim the Pacific Ocean than get on [the plane]. But my parents had little tolerance for my newfound fear of flying and even less for a child so spoiled as to be ungrateful for such an extravagant trip. . . . As the date for our departure neared, the rituals that had become an integral part of my daily routine tripled. Like fractals, old ones spawned new ones, especially designed to prevent the plane from crashing, to keep me alive until I'd landed safely back in Boston. At first, I was not allowed to touch any (ground) cover—floor, carpet, grass—with my bare feet. After a few days I amended this and decided that I could not *have* bare feet, so I slept in my sneakers and socks; the sneakers were for insurance. I washed my hair in the bathtub faucet and my body with a washcloth so I wouldn't have to

shower or bathe with my shoes or socks on. Through it all, I twitched more than ever, as if I'd stuck my finger in an electrical socket and was holding it there. Then, one afternoon a week before we were scheduled to leave, when I was absentmindedly chewing a piece of gum, it struck me that chewing gum until the plane landed safely would be another terrific insurance policy against a crash. For the next week I kept that same piece of gum in my mouth, tucking it between my gum and the inside of my cheek whenever I had to eat or drink.

The truth is, even as I followed through with the most bizarre of these rituals—sweating in bed at night in my heavy wool socks, praying that I wouldn't choke on my gum in my sleep—I wasn't truly convinced they would have the intended protective effect. Today, when I occasionally tap the threshold of my apartment door twice each time I leave and enter, I know more than ever how unconnected the ritual is with anything at all, let alone my personal safety or happiness or success.

(Wilensky, 1999, pp. 88–91)

one's body; described in detail in Chapter 7), and cause significant distress or impairment, a diagnosis of **acute stress disorder** (ASD) is indicated according to the DSM-IV-TR. If stress symptoms continue for more than one month, or begin more than a month after the trauma, the diagnosis of **posttraumatic stress disorder** (PTSD) applies. The DSM-IV-TR distinguishes among three types of PTSD: *acute*, when symptoms last less than three months, *chronic*, when symptoms last more than three months, and *with delayed onset*, when at least six months pass between the traumatic event and the onset of symptoms.

Much of what we know about stress disorders comes from research on survivors of war trauma, but many different kinds of events can be traumatic, including natural disasters (such as earthquakes, tornadoes, and floods) and human-made disasters besides war (such as domestic violence and rape). Everyday events such as car accidents or the death of a loved one may be considered traumatic if they are accompanied by terror, horror, or helplessness. PTSD and ASD may also develop after witnessing a traumatic event, such as a parent who watches his or her child being hit by a car, or in bystanders who see horrible events like those who witnessed the collapse of the World Trade Center in the attacks of September 11, 2001. It has been estimated that as many as 90% of rape victims, prisoners of war, and concentration camp survivors (such as during the Holocaust) develop stress disorders (e.g., Rothbaum et al., 1992). By contrast, 5 to 10% of people develop a stress disorder following a serious car accident. Initial studies indicated that about 20% of the residents of lower Manhattan experienced stress disorders in the wake of the September 11, 2001 attacks (Galea et al., 2002).

Acute stress disorder Significant posttraumatic anxiety symptoms that occur within one month of a traumatic experience.

Posttraumatic stress disorder Significant posttraumatic anxiety symptoms occurring more than one month after a traumatic experience.

TABLE 4.7 Diagnostic Criteria for Posttraumatic Stress Disorder (PTSD)

- The person experienced a traumatic event involving the possibility of death or serious injury *and* the person's response involved intense fear, helplessness, or horror.
- The traumatic event is persistently reexperienced in one or more of the following ways:
 - Recurrent, intrusive, and distressing memories of the event.
 - Recurrent distressing dreams about the event.
 - Acting or feeling as if the traumatic event is recurring ("flashbacks").
 - Intense psychological distress when exposed to internal or external cues that symbolize or resemble an aspect of the traumatic event.
 - Physiological reactivity (for example, heart pounding, sweating) when exposed to internal or external cues that symbolize or resemble an aspect of the traumatic event.
- The person avoids reminders of the trauma and experiences a numbing of general responsiveness as indicated by three or more of the following:
 - Efforts to avoid thoughts, feelings, or conversations associated with the trauma.
 - Efforts to avoid activities, places, or people that arouse recollections of the trauma.
 - Inability to recall important aspects of the trauma.
 - Markedly diminished interest or participation in significant activities.
 - Feeling detached or estranged from others.
 - Restricted range of affect (such as dulled emotions, lack of certain feelings).
 - Sense of a foreshortened future.
- The person experiences persistent symptoms of increased arousal as indicated by at least two of the following:
 - Difficulty falling or staying asleep.
 - Irritability or outbursts of anger.
 - Difficulty concentrating.
 - Hypervigilance.
 - Exaggerated startle response.
- The disturbance causes significant distress or impairment in normal functioning.

Adapted from DSM-IV-TR (APA, 2000).

CASE ILLUSTRATION

Mary, a 37-year-old mother of three, began to take business classes at her local community college once her youngest child started attending preschool. One day, while walking to her car after class, Mary was attacked by a stranger and pulled into an alley where she was raped. After the attack, Mary had the presence of mind to go to an emergency room where she was medically treated and then interviewed by the police. Later in the same week she was able to pick her attacker out of a book of photographs at the police station, and he was soon arrested and jailed. Though Mary's attacker was in jail, she could not seem to recover emotionally. For months following the attack, Mary had nightmares in which she was running away from a faceless man. She could not discuss the rape with anyone, and she quickly changed the subject if a friend or family member asked her how she was doing. Mary stopped

taking her business classes because she lost interest in her studies and felt uncomfortable going back to the area where she was attacked. Even in the safety of her own home she could not concentrate and felt nervous and edgy. As time wore on, Mary's husband grew increasingly concerned about his wife and urged her to seek therapy.

Mary has all of the major symptoms associated with PTSD: reexperiencing the trauma in her mind (her nightmares), avoidance of events related to the trauma (stopping attending classes, not discussing the rape), emotional numbing (loss of interest in her business studies, difficulty feeling a range of emotions), and increased arousal (her nervousness and edginess).

While Mary reexperiences her attack through her nightmares, traumatic experiences can also be reexperienced in the form of intrusive thoughts that occur while awake, or by becoming very upset when reminded of the trauma. One of the most extreme forms of re-experiencing a traumatic event is the phenomenon known as a **flashback**. During a flashback, a person feels as if he or she is reliving the actual trauma, even when in a safe and familiar environment. For example, a walk on a particularly hot, dry day may trigger a flashback for a veteran of the Iraq war reminded of the smell and feel of being in a desert setting. Even though he is perfectly safe, he may believe that he is again under fire in Vietnam and relive all of the terror of that experience.

Most people with PTSD will try to avoid experiences, thoughts, and feelings associated with the traumatic experience. Just as Mary decided to stop taking her business classes after the rape, a war veteran might avoid discussing traumatic events from the war, or a survivor of a flood might begin to avoid water. Unfortunately, such efforts to avoid the thoughts and feelings associated with a past traumatic event often contribute to general feelings of emotional numbness and disengagement. Many trauma survivors report a loss of their “zest” for life and of their interest in relationships and the future. Paradoxically, many people who have experienced a trauma also feel overly aroused, irritable, edgy, or tense even while they are feeling emotionally numb. They may feel that they are constantly on guard, and they often develop a strong startle response that causes them to jump or flinch at the slightest surprise. They may have difficulty managing frustrations and can become chronically irritable or explosively angry.

Some experts have wondered whether the “jumpiness” frequently associated with PTSD occurs as a result of being traumatized, or whether PTSD is simply more likely to occur in a “jumpy” person who experiences a trauma. To answer this question, researchers located 130 combat veterans who had identical twins who had never been exposed to combat (Orr et al., 2003). The combat veterans (some of whom had PTSD) and their twins listened to a series of loud, startling tones while attached to machines that measured their heart rates. The combat-exposed twins who suffered from PTSD had significantly higher heart rates in response to the tones than their own twins, the veterans who did not suffer from PTSD, and the twins of veterans who did not suffer from PTSD. In other words, it seems that the “jumpiness” often observed in a traumatized person is, in fact, a symptom of PTSD, not a physiological (or familial) vulnerability factor that leads to PTSD.

Sadly, the symptoms of PTSD can last for years, if not entire lifetimes. In 1963, nearly 2000 Italians living in the Vajont valley were killed when a landslide caused a precariously located dam to fail. Several small villages were totally destroyed by flooding in one of the worst man-made disasters of all time. A follow-up study conducted *36 years later*, found that 26% of the survivors of the Vajont disaster continued to suffer from PTSD, while an additional 33% experienced partial PTSD symptoms (Favaro et al., 2004). People who suffer from PTSD have also been found to experience elevated rates of substance abuse, depression, and other anxiety disorders (Jacobsen, Southwick,



Community-wide trauma Here, tourists walk through what is left of the lower Ninth Ward of New Orleans after the flooding caused by Hurricane Katrina in December, 2005. Social support, a factor known to ward off stress reactions, is often in short supply when entire communities are traumatized by natural disasters.

©AP/Wide World Photos

Flashback A vivid and often overwhelming recollection of a past traumatic experience.

& Kosten, 2001). Research on PTSD and its effects has developed rapidly over the past two decades; the more we know about PTSD, the more we have come to appreciate the lasting and devastating effects of the disorder.

Studies have found that large-scale disasters such as earthquakes or major industrial accidents can lead to epidemics of PTSD affecting entire communities (Brom & Kleber, 1989, Cao, McFarlane, & Klimidis, 2003; Suar, Mandal, & Khuntia, 2002). In response to these and other findings, the American Psychological Association and the American Red Cross teamed up to create the Disaster Response Network in 1991. The Network sends groups of volunteer psychologists and relief workers to disaster sites—from natural disasters such as floods and hurricanes to human-made disasters such as the attack on the World Trade Center. Unfortunately, current research indicates that brief crisis interventions for trauma survivors do not appear to prevent the development of PTSD (Rose et al., 2002). In a study of police officers, researchers compared the stress symptoms of traumatized officers who did or did not participate in three debriefing sessions that included traumatic stress education (Carlier, Voerman, & Gersons, 2000). Interestingly, the officers who participated in the debriefing sessions reported significantly higher rates of PTSD symptoms than their non-debriefed peers one week after experiencing a trauma. Six months after experiencing a trauma, the debriefed and non-debriefed officers exhibited similar levels of posttraumatic symptoms.

Traumatic situations are not always single events; trauma can also be chronic, such as the experience of living in extreme poverty or in a dangerous neighborhood (Schwartz et al., 2005). Stress disorders are extremely prevalent in areas where many people are chronically exposed to traumatic events, such as in a war-torn country or in a violent inner-city neighborhood.

BRIEF SUMMARY

- The DSM-IV-TR recognizes six anxiety disorders: generalized anxiety disorder, panic disorder, phobias (specific phobia, social phobia, and agoraphobia), obsessive-compulsive disorder, posttraumatic stress disorder, and acute stress disorder.
- Generalized anxiety disorder (GAD) involves chronic and pervasive nervousness.
- Panic disorder (PD) involves episodes of acute terror, known as panic attacks, which lead to worry about experiencing future panic attacks.
- Phobias are persistent and unreasonable fears of particular objects or situations.
- Obsessive-compulsive disorder (OCD) involves anxiety-producing, unwanted thoughts or impulses (obsessions), and/or uncontrollable rituals meant to decrease anxiety (compulsions).
- Posttraumatic stress disorder and acute stress disorder involve a variety of anxiety symptoms that occur in the wake of a traumatic experience.

BOX 4.4 Factors Associated with Heightened Risk for PTSD Among Individuals Who Experience a Trauma

- Having past experiences of being traumatized
- Having psychological problems prior to the trauma
- Having psychopathology in one's family of origin
- Being fearful of death during the trauma
- Receiving poor social support following the trauma
- Having a dissociative experience (a disruption in conscious experience, memory, or identity) during or immediately after the trauma
- Having a high degree of exposure (i.e., physical proximity) to the trauma
- Being female

(Adapted from Galea, Nandi, & Vlahov, 2005; Ozer et al., 2003)

Critical Thinking Question

With the *continuum between normality and abnormality* in mind, can you come up with examples of mild versions of each of the anxiety disorders we've covered? In other words, what are some of the ways in which people who do not warrant an anxiety disorder diagnosis experience anxiety?

The Advantages and Limitations of the DSM-IV-TR Anxiety Disorder Diagnoses

The DSM-IV-TR anxiety disorder diagnoses have a number of *advantages and limitations*. One major advantage is that the reliability and validity of the DSM-IV-TR anxiety diagnoses are relatively good (Brown, 1996). In other words, two different clinicians are likely to apply the same DSM-IV-TR diagnosis to the same client (reliability), and the diagnosis is likely to be accurate (validity). However, the DSM-IV-TR anxiety disorders are also highly **comorbid** with other DSM-IV-TR diagnoses; clients often meet criteria for more than one disorder. Indeed, one study found that over half of all people with one anxiety disorder were diagnosed with at least one other anxiety or mood disorder (anxiety and mood disorders—see chapter 5—have especially high rates of comorbidity) (Brown et al., 2001). As you can see in Figure 4.2, 65% of the research participants with GAD and 92% of research participants with PTSD were also assigned another DSM-IV-TR anxiety or mood disorder diagnosis. While these people may simply have had multiple disorders, such findings also highlight the possibility that the DSM-IV-TR diagnostic categories artificially divide complex clinical conditions. Accordingly, clinicians frequently find that many clients with anxiety symptoms do not neatly fit into any of the DSM-IV-TR categories, and some experts generally oppose the descriptive DSM system for classifying anxiety disorders. They argue that since anxiety is present in almost all mental disorders it is arbitrary to classify some as anxiety disorders just because certain clients may emphasize their anxiety symptoms.



Advantages/
limitations
of diagnosis

Comorbidity The presence of two or more disorders in one person, or a general association between two or more different disorders.



The
importance
of context

Classification in Demographic Context

While we have described the general features of anxiety disorders, we should be mindful that anxiety disorders occur in specific individuals and that every individual is unique. Nonetheless, demographic factors such as an individual's age, gender, and social class are among the variables that can significantly influence how anxiety disorders are manifested.

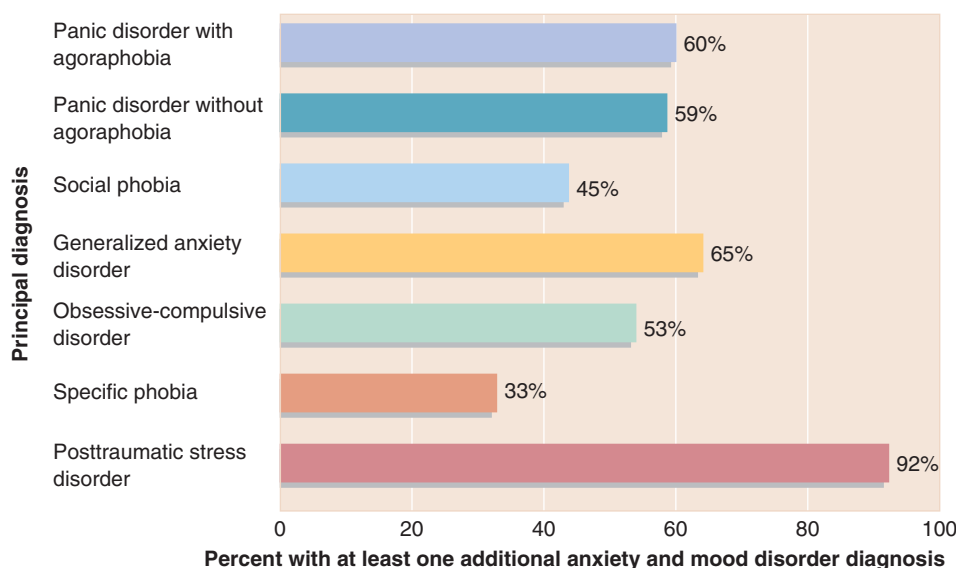


Figure 4.2 Comorbidity rates for DSM-IV-TR diagnoses A high percentage of individuals diagnosed with an anxiety disorder also warrant at least one other anxiety or mood disorder diagnosis. (Adapted from Brown et al., 2001)



Posttraumatic repetitive play

Children who have been traumatized, such as these boys who live in the war-torn region of Bosnia and Herzegovina, often repeat the traumatic experiences through their play. Some theorists suggest that by doing so, children hope to gain mastery over situations that left them feeling helpless and overwhelmed.

Stephen Jaffe/The Image Works

Age

Everyone experiences anxiety from time to time, but people of different ages tend to experience anxiety differently. Adults often describe their anxiety in terms of their emotional experience (feeling nervous, tense, or on edge), cognitive experience (mind going blank, thoughts racing), or physiological reactions (heart beating faster, palms sweating). Children, on the other hand, may not be able to verbalize their experience of anxiety and instead may express fear and anxiety behaviorally by crying, having tantrums, freezing up, or clinging to a caretaker. Children may also experience and express anxiety through physical complaints such as stomachaches and headaches (Muratorì & Picci, 2005). In addition, children may not be distressed by their own anxious behavior. For example, children who have OCD are often not bothered by their repetitive rituals. Indeed, they may see them as “solutions” to the problem of otherwise uncontrollable anxiety. Although adults who suffer from phobias are often distressed by the very fact of having a phobia, children rarely appreciate that their phobic fears are excessive. In fact, childhood phobias are fairly common and usually transitory, with roughly 5% of all children experiencing a phobia at one time or another (Ollendick, King, & Muris, 2002).

Young children with PTSD often reexperience traumatic events through their play. Lenore Terr (1983; 1990; 1991; Terr et al., 1999) has written extensively about the repetitive, joyless, and solitary play often seen in children who have been traumatized. For example, she described the play of several children who survived the harrowing experience of having their school bus hijacked and then buried in a cave. For months after surviving the kidnapping, a number of the children repeatedly played out scenes in which toy buses and cars were “stolen” and buried away.

Most of the anxiety disorders described in this chapter can occur at any age, but there is one anxiety disorder known as *separation anxiety disorder (SAD)* that occurs exclusively in children. SAD is discussed in detail in Chapter 13. Traditionally, panic disorder has been described as occurring only in late adolescents and adults, but new information indicates that panic attacks may be more common among children than initially thought. While adults tend to describe panic attacks in terms of feeling that they are dying, going crazy, or losing control, children often describe fears of suddenly becoming ill or of unexpectedly throwing up. Adolescents, whose cognitive abilities are more like those of adults, tend to describe panic attacks in the same terms that adults do. Interestingly, investigations indicate that panic attack onset seems to be correlated with pubertal development, occurring more often as teens make their way through puberty (Albano, Chorpita, & Barlow, 2003).

Anxiety disorders are believed to be widely underdiagnosed among older adults despite the general recognition that declining health, monetary resources, personal relationships, and mental capacities often contribute to heightened anxiety. Research suggests that geriatric anxiety disorders are especially associated with negative life events (such as the death of a spouse), difficulties with daily living, and comorbid depression (Flint & Rifat, 2002). Anxiety disorders in older adults often differ from anxiety disorders in young and middle-aged adults (Lauderdale, Kelly, & Sheikh, 2006). For example, older adults are more likely to suffer from situational phobias, such as fearing heights or driving, while younger adults are more likely to suffer from animal or blood-injection-injury phobias. Social phobia appears to occur less often, and GAD occurs more often in older adults than in young and middle-aged adults; OCD occurs at roughly the same rates for middle-aged and older adults. Older adults who suffer from panic disorder tend to have less severe symptoms than their younger counterparts; panic disorder sufferers over the age of 60 report better overall functioning, less intense panic attacks, and lower levels of overall anxiety.

than panic sufferers under the age of 60 (Sheikh et al., 2004). Not surprisingly, anxiety frequently accompanies dementia (neurological degeneration often associated with aging, discussed in detail in Chapter 14) and can easily be confused with or exacerbate dementia symptoms such as agitation, irritability, and the presence of unusual physical movements (Porter et al., 2003).

Critical Thinking Question

Given that heightened anxiety is a common and understandable result of declining health in the elderly, how might you decide when an older adult suffers from an anxiety disorder that warrants concern and treatment?



The importance of context

Gender

One of the most striking demographic facts about anxiety disorders is that they occur disproportionately in women. Generalized anxiety disorder, panic disorder (with or without agoraphobia), specific phobias, and PTSD are all two to three times more common in women than they are in men (Pigott, 2003; Yonkers & Kidner, 2002). Epidemiological studies also indicate that social phobia occurs somewhat more often in women, but men tend to seek treatment for social phobia more often than women do; of all the DSM-IV-TR anxiety disorders, only OCD occurs at roughly equal rates in men and women (Yonkers & Kidner, 2002).

Sociocultural explanations of the disproportionate rates of anxiety disorders in women have noted that traditional female gender roles have not typically emphasized assertion and self-sufficiency—skills that are important for overcoming anxiety. Support for the gender-role explanation of anxiety comes from studies in which the presence or severity of anxiety disorders in women appears to be inversely correlated with scores on measures of stereotypically “masculine” traits such as independence and leadership (e.g., Moscovitch, Hofmann, & Litz, 2005; Palapattu, Kingery, & Ginsburg, 2006). In other words, the more stereotypically masculine the woman, the less likely she is to be suffering from an anxiety disorder.

Gender differences in panic disorder have been linked to genetic and hormonal differences between men and women. Evidence for a genetic basis of panic disorder in women comes from studies finding that panic disorder tends to co-occur with two medical disorders that are more common in women than they are in men: mitral valve prolapse (in which the mitral valve in the heart fails to close completely causing blood to backflow into the left ventricle) and hyperthyroidism (elevations of the hormones produced by the thyroid gland) (Yonkers & Kidner, 2002; Zaubler & Katon, 1996). These medical conditions may contribute to panic disorder by producing physical and emotional symptoms associated with anxiety.

Fluctuating hormonal levels in menstruating women are believed to influence neurotransmitter balances and other physiological systems associated with the onset of panic symptoms (Smith, Friedman, & Paradis, 2002). Some empirical evidence supports the hypothesis that women are more vulnerable to panic at specific stages of their menstrual cycle (Sigmon et al., 2000).

Although OCD occurs at equal rates in men and women, the disorder appears to manifest itself somewhat differently in each sex. Females tend to develop OCD later in life (between ages 26–35) than males do (between ages 5–15), and they are more likely to experience depression along with OCD symptoms. Also, cleaning rituals and worries related to aggression are found more often among women than men (Pigott, 2003).

As noted earlier, PTSD occurs twice as often in women as in men. While women and men are exposed to traumatic events at similar rates, men are more likely to experience trauma related to combat, crime, or kidnapping, whereas women are more likely to be victims of rape and/or physical assault (Wong & Yehuda, 2002). However, even when the type of traumatic event is equivalent, women are significantly more likely to develop PTSD than men. For example, a study of 122 men and women who experienced a serious motor vehicle accident found that women were 4.7 times more likely to experience avoidance and numbing and 3.8 times more likely to experience increased arousal (for example, hypervigilance and startle response) than men (Fullerton et al., 2001). Another study found that 36% of women who were victims of assault developed PTSD as compared to 6.2% of men (Breslau et al., 1998). Gender differences in the rates of PTSD after exposure to trauma seem to be related to rates of preexisting anxiety or depression (which tend to be much higher among women), and possibly to a heightened vulnerability to anxiety as a function of normal hormonal fluctuations in women (Wong & Yehuda, 2002).

Studies have also found that generalized anxiety disorder (GAD) is two to three times more common in women than in men. In addition to suffering from GAD at dramatically higher rates than men, women with GAD are also more likely to suffer from additional psychological disorders, such as depression, than men with GAD (Pigott, 2003). Recent evidence suggests that, for women, genetic factors may contribute to the development of GAD and that there may be some overlap in genetic vulnerability to GAD and depression (Hettema, Neale, & Kendler, 2001).

Class

People living in poor urban environments are at increased risk for developing PTSD. There are at least two reasons for this: (1) they are more likely to have traumatic experiences than people living in other environments, and (2) they are more likely to experience additional psychological and sociocultural risk factors for PTSD (Buka et al., 2001). For example, inner-city residents witness more violence (gun fights, murders, etc.) than their middle-class counterparts, and they are also more likely to be the victims of violent crime (Hien & Bukszpan, 1999). A large community-based study in Baltimore found that inner-city adolescents with high rates of exposure to violence were more fearful, anxious, and likely to suffer from PTSD than their peers who had been exposed to lower rates of violence (Cooley-Quille et al., 2001). In addition, researchers have found that high levels of psychological stress prior to a trauma and a lack of social support afterward significantly increase the likelihood of developing a stress disorder in the wake of a traumatic experience (Ozer et al., 2003). Unfortunately, chronic psychological stress and inadequate social support are more often the rule than the exception in poor urban communities. For instance, one study found that urban, ethnic minority males with high levels of family conflict and low levels of family support were at greatest risk for developing PTSD when exposed to community violence (Buka et al., 2001). Evidence of heightened levels of anxiety among poor populations extends beyond elevated rates of PTSD. For example, the inherently stressful nature of being poor likely contributes to findings that low socioeconomic status is associated with high rates of panic disorder, phobias, and generalized anxiety disorder (Muntaner et al., 2004).



Cultural
and historical
relativism

Cultural and Historical Relativism in Defining and Classifying Anxiety Disorders

The core concept of *cultural and historical relativism* highlights some additional challenges for the DSM-IV-TR system of classifying anxiety disorders. Anxiety disorders

do not have universally agreed upon features; different cultures experience, define, and classify anxiety problems differently (Lopez & Guarnaccia, 2000). For example, Latino populations in Latin America and in the United States frequently use the term **nervios** (NER-vee-ose) to describe a range of symptoms of nervous distress similar to those listed in the DSM-IV-TR diagnosis of GAD (APA, 2000). Nervios may be characterized by headaches, irritability, stomachaches, and difficulty sleeping or concentrating. In some cases, it is accompanied by feelings of being nervous, but nervios may also involve subjective feelings of depression (Chapter 5) or dissociation (Chapter 7). The phrase **ataque de nervios** (ah-TAH-kay duh NER-vee-ose) is also used in some Latino cultures to describe an episode of intense anxiety similar to a panic attack (APA, 2000). Symptoms associated with an ataque de nervios include a feeling of being out of control, shaking, unrestrained shouting or crying, heat in the chest rising into the head, and aggressive verbal or physical behavior. Such ataques may also include feelings of faintness, dissociation, or suicidal thoughts and gestures. Unlike panic attacks which tend to occur “out of the blue,” ataques de nervios are usually associated with an upsetting precipitating event (such as learning about the death of a loved one). Also, they do not typically involve the dread of experiencing another such attack, which is one of the diagnostic criteria for panic disorder.

The Chinese Classification of Mental Disorders recognizes a syndrome known as **shenjing shuairuo** (shen-jing shwai-row), which shares similarities with the DSM-IV-TR descriptions of both anxiety and mood disorders (APA, 2000). Symptoms of shenjing shuairuo include difficulty sleeping and concentrating, physical or mental exhaustion, physical pains, and neurological symptoms such as dizziness, headaches, and memory loss. The Japanese diagnostic system includes a disorder known as **taijin kyofusho** (TIE-jean kyo-FOO-show), which is characterized by anxiety that one’s body or aspects of one’s body will be displeasing or offensive to others in terms of appearance, smell, or physical movement. This disorder has much in common with social phobia, although taijin kyofusho focuses specifically on concerns about bodily appearance or functioning.

As you may have already noted, members of Latino and Asian cultures often experience and describe anxiety mainly in terms of physical, not emotional, distress. This is related to the fact that emotional distress is highly stigmatized in some cultures and the expression of such distress to anyone outside of the immediate family is discouraged (Anand & Cochrane, 2005). Thus, in working with people from different cultures, clinicians need to be aware that anxiety is experienced and expressed differently in clients from different cultural contexts.

Anxiety disorders that are often assumed to have universal basic features, such as OCD, are also shaped by cultural factors. For example, a study of OCD sufferers in Bali, Indonesia, found that their most frequent obsessional concerns involved anxiety about the size of their social networks, concern about the identity and rank of passers-by, and thoughts related to witchcraft and the spirit world (Lemelson, 2003).

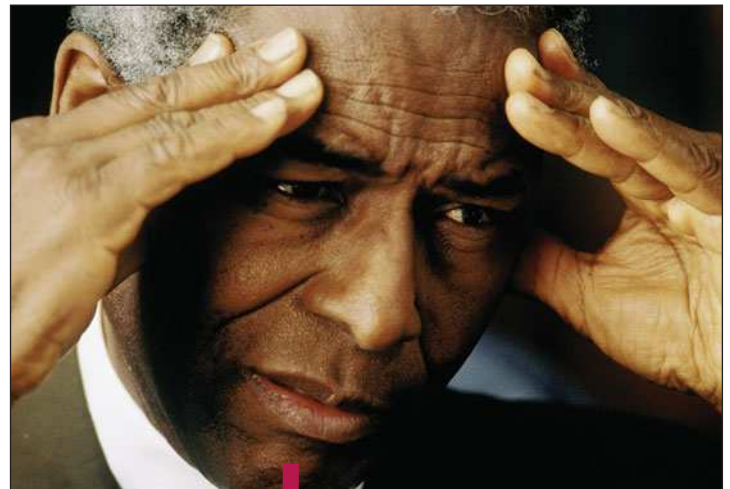
As with cultural diversity, historical changes in the classification of anxiety disorders suggest that classification systems are always limited by the knowledge, values, and concerns of their particular historical settings. For example, the diagnosis of PTSD was not included in the DSM until 1980 with the publication of the DSM-III (APA, 1980), in spite of the fact that posttraumatic stress symptoms were commonly recognized in soldiers fighting in the American Civil War and both world wars (see Figure 4.3). During these wars, posttraumatic combat stress was often viewed as a sign of malingering and cowardice rather than as a legitimate disorder, and the

Nervios A term used by Latino populations in Latin America and in the United States to describe a range of symptoms of nervous distress.

Ataque de nervios A term used in some Latino cultures to describe an episode of intense anxiety.

Shenjing shuairuo An anxiety syndrome recognized in China including symptoms of physical or mental exhaustion, difficulty sleeping and concentrating, physical pains, dizziness, headaches, and memory loss.

Taijin kyofusho An anxiety disorder recognized in Japan characterized by worry that one’s body or aspects of one’s body will be displeasing or offensive to others.



A universal language The experience of intense anxiety is often accompanied by muscle tension and a fearful facial expression.

Bruce Ayres/Stone/Getty Images, Inc.

Figure 4.3 PTSD: Evolution of a diagnosis
The current form of the diagnosis of PTSD evolved over many decades. As you can see, advances in the understanding of the disorder have often occurred at times of war when clinicians are able to observe large numbers of traumatized veterans and civilians.

(Adapted from Goode, 2001, p. D1)



Learning from experience Studies of Vietnam War veterans have contributed significantly to our modern understanding of posttraumatic stress disorder (PTSD) and played a crucial role in the inclusion of PTSD as a diagnosis in the DSM-III in 1980. Nick Daly/Digital Vision/Getty Images, Inc.

1871	Jacob Mendes Da Costa, an Army surgeon in the Civil War, describes “irritable heart” in soldiers, characterized by shortness of breath, chest pains, dizziness, disturbed sleep, irritability and depression.
1883	Herbert Page, an English physician, asserts that “railway spine,” the wide array of symptoms displayed by some train accident survivors, is a result of “nervous shock.”
1895	Sigmund Freud and Josef Breuer publish <i>Studies on Hysteria</i> , arguing that mental disorders are sometimes rooted in psychological traumas.
World War I	<p>In 1919, Sir Thomas Lewis, a British cardiologist, notes “soldier’s heart” in World War I veterans, with symptoms similar to those described by Da Costa.</p> <p>Other World War I surgeons identify “shell shock,” blaming it on concussions from exploding shells. The symptoms—breakdown in battle, a dazed or detached manner, severe anxiety, and an exaggerated startle response—are now considered hallmarks of PTSD.</p> <p>Dr. William Rivers, a psychiatrist at a military hospital in Scotland, becomes one of the first doctors to treat returning veterans by having them recall traumatic events. The poet and war hero Siegfried Sassoon was one of his patients.</p>
World War II	<p>In 1941, Abraham Kardiner, an American psychologist, suggests that “war neurosis” or “battle fatigue” has a physiological as well as a psychological basis.</p> <p>Twenty-five percent of evacuations from the front during World War II are for psychiatric reasons. Doctors find that soldiers treated promptly and near their combat units are better able to return to battle.</p>
Korean War	Psychiatric casualties are often treated near the battlefield. In some cases, sodium amytal, or “truth serum,” is used to aid recall of trauma.
1960s	Studies of Holocaust and Hiroshima survivors by Dr. Robert Jay Lifton and others document the impact of trauma on civilians.
Vietnam War	Troops frequently rotated in tours of duty often lack the bonds of earlier veterans, whose units were kept together. Many develop “post-Vietnam syndrome,” the diagnostic forerunner to PTSD.
Late 1970s, 1980s	Researchers recognize that survivors of rape, earthquakes, and other nonmilitary traumas show many of the same symptoms as traumatized combat veterans.
1980	Posttraumatic stress disorder first appears in the third edition of the American Psychiatric Association’s Diagnostic and Statistical Manual. (DSM-III)

soldiers were often punished rather than given treatment. The addition of the PTSD diagnosis to the DSM-III was prompted by clinicians who specialized in the treatment of Vietnam War veterans. These clinicians argued that the psychological effects of war trauma were genuine, common, severe, and persistent. In fact, studies have found that up to 30% of Vietnam War veterans experienced significant PTSD symptoms, and 15% continued to have symptoms for at least 15 years after returning from the war (Friedman, 2004; Thompson, Gottesman, & Zalewski, 2006).

Few questions remain about whether PTSD is a legitimate diagnosis, but much controversy remains about whether PTSD is best classified as an anxiety disorder. Although there are compelling arguments that anxiety is the major symptom of PTSD, some experts argue that PTSD would be better classified as a dissociative disorder (Chapter 7) since it often involves significant and persistent changes in states of consciousness such as flashbacks and extreme emotional detachment (Briere, Scott, & Weathers, 2005). Other experts have called for the creation of an entirely new diagnostic category of posttraumatic stress spectrum disorders that considers trauma type, stress symptom severity, and accompanying features such as depression, anxiety, and dissociation (e.g., Moreau & Zisook, 2002).

BRIEF SUMMARY

- There are important advantages and limitations of the DSM-IV-TR anxiety disorder diagnoses. While the reliability and validity of these diagnoses are relatively high, different anxiety disorders often co-occur, and they are also highly comorbid with disorders in other diagnostic categories.
- Children tend to express anxiety behaviorally (for example, crying, clinging) or in the form of physical complaints (stomachaches, headaches) and may be less bothered than adults by compulsive rituals or phobic behavior.
- Anxiety disorders are widely underdiagnosed among older adults and may differ in form and frequency from anxiety disorders in young and middle-aged adults.
- With the exception of OCD (which occurs equally in men and women) anxiety disorders are two to three times more common in females than in males.
- The gender differences in the rates of anxiety disorders may be explained by: sociocultural factors (for example, women are taught to be less assertive and self-sufficient), hormonal factors (panic attacks appear to be linked to hormonal fluctuations), and other biological factors (panic disorder is linked to mitral valve prolapse and hyperthyroidism, which are found more frequently in women).
- People who live in poor and violent neighborhoods are more likely to experience posttraumatic and acute stress disorders. Economically disadvantaged racial minorities have been found to have the highest rates of GAD.
- The core concept of *cultural and historical relativism* highlights some additional challenges for the DSM-IV-TR system of classifying anxiety disorders. Anxiety disorders do not have universally agreed upon features; different cultures experience, define, and classify anxiety problems differently. Furthermore, the classification of anxiety disorders has changed substantially over time, as in the relatively recent inclusion of PTSD in the DSM.

Critical Thinking Question

Attempts to be culturally sensitive to the various presentations of anxiety disorders risk engaging in cultural stereotyping. Does specifying cultural patterns (such as that Asian individuals tend to express anxiety through physical symptoms) seem helpful, to be an example of stereotyping, or both?



Cultural and historical relativism

EXPLAINING AND TREATING ANXIETY AND ANXIETY DISORDERS

All of the major theoretical perspectives in abnormal psychology offer concepts relevant to the explanation and treatment of anxiety disorders. First, we'll describe the biological, behavioral, cognitive, psychodynamic, humanistic, and existential components of the etiology (causes) and treatment of anxiety disorders. Then, we'll turn our attention to the core concepts of *multiple causality* and the *connection between mind and body* to emphasize the ways in which theoretical components complement, interact, and overlap with each other.

Biological Components

The experience of anxiety involves important physiological reactions. As we discussed at the beginning of this chapter, the human body has an extensive set of adaptive reactions to danger situations. It should come as no surprise, then, that the biological perspective has much to contribute to the explanation and treatment of anxiety disorders.



A threatened mountain lion The fight-or-flight response is an adaptive, primitive reflex shared by all animals, humans included.

George D. Lepp/Corbis

Autonomic nervous system (ANS) The part of the central nervous system that regulates involuntary bodily systems, such as breathing and heart rate; it is made up of the sympathetic and parasympathetic nervous systems.

Sympathetic nervous system The part of the autonomic nervous system that activates the body's response to emergency and arousal situations.

Parasympathetic nervous system The part of the autonomic nervous system that regulates the body's calming and energy-conserving functions.

Fight-or-flight response Extreme sympathetic nervous system arousal that prepares animals to flee or attack when faced with danger.

Limbic system A group of subcortical structures involved in the experience and expression of emotions and the formation of memories.

Amygdala A brain structure which registers the emotional significance of sensory signals and contributes to the expression of emotion.

Hippocampus A brain structure involved in the formation of memories.

Hypothalamus A subcortical brain structure that controls the endocrine, or hormonal, system.

The Autonomic Nervous System

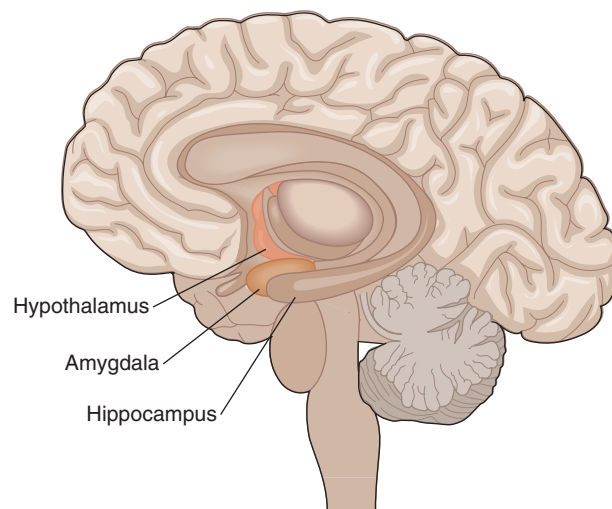
The experience of fear and anxiety, whether pathological or normal, is almost always accompanied by the mobilization of the **autonomic nervous system** (which regulates involuntary bodily systems) (see Figure 2.5 in Chapter 2) and its two divisions: the **sympathetic** and **parasympathetic systems**. The sympathetic division activates survival responses to perceived threats. Under the direction of the sympathetic nervous system, the adrenal glands secrete stress hormones (adrenaline and noreadrenaline), the heart beats faster, pupils dilate, muscles tense, and breathing speeds up and deepens. An extreme version of sympathetic nervous system arousal is known as the **fight-or-flight response**, which prepares animals to flee or attack when faced with danger. The existence of the fight-or-flight response reminds us that anxiety reactions are primitive and evolutionarily based. When the danger has passed, the parasympathetic system reverses the work of the sympathetic nervous system and returns the body to its resting, pre-anxiety state.

From a biological perspective, panic attacks can be viewed as an activation of the fight-or-flight response that occurs in the absence of any real threat. In other words, people who repeatedly experience panic attacks suffer from a fight-or-flight response that is triggered inappropriately. Researchers have shown that when the sympathetic nervous system is artificially stimulated (for example, by asking research participants to deliberately hyperventilate), people who have previously experienced panic attacks will often develop a full-blown panic attack while people with no history of panic attacks will not (Nardi et al., 2001).

The Limbic System

Located beneath the cerebral cortex, the **limbic system** includes the **amygdala** (uh-MIG-duh-la), **hippocampus**, and **hypothalamus** (see Figure 4.4). The limbic system plays an integral part in emotional reactions (such as anxiety), motivation, learning, and certain aspects of memory. The amygdala registers the emotional significance of the sensory signals it receives from the cortex, and the formation of memories appears to involve changes in the neural pathways of the amygdala and hippocampus (Weyandt, 2006). The amygdala sends information along to the hypothalamus, an area of the brain believed to play an important role in the development of conditioned emotional responses. When a person with a spider phobia sees a spider, the relevant sensory infor-

Figure 4.4 The limbic system The limbic system, located near the center of the brain, includes the amygdala, hippocampus, and parts of the hypothalamus. The amygdala, in particular, plays a crucial role in recognizing the emotional significance of stimuli.



mation (the visual image of the spider) is processed by the amygdala, which works in concert with the hippocampus to remember the emotional significance of the spider, and then to send a signal to the hypothalamus saying “Danger! Activate emergency responses!”

Neurotransmission

The neurotransmitter **gamma-aminobutyric acid (GABA)** serves an inhibitory function in the central nervous system, meaning that it works to suppress nervous system activity. The limbic system is particularly rich with GABA receptors, and researchers believe that GABA works to calm the limbic system when it becomes overly excited (Sibille et al., 2000). For reasons that are not well understood, GABA does not seem to work effectively in the brains of people who suffer from high levels of chronic anxiety (as in GAD). It remains unclear whether highly anxious people have insufficient levels of the neurotransmitter, whether other neurochemicals interfere with GABA functioning, or whether they have problems with their GABA receptors. Medications such as Valium and Xanax (which belong to a class of drugs known as benzodiazapines) and alcohol exert their relaxing effects partly by binding to GABA receptors.

Norepinephrine, another neurotransmitter, plays an active role in the functioning of the **locus coeruleus** (LO-cus sew-REEL-yus), a part of the brain stem associated with activation of the sympathetic nervous system (Figure 4.5). The locus coeruleus helps regulate arousal: monkeys with underactivated neurons in the locus coeruleus seem inattentive and drowsy, while monkeys with excessive neural firing in the locus coeruleus are distracted and disorganized (Berridge & Waterhouse, 2003). Once conditioned to a fear response, the neurons in the locus coeruleus become hypersensitive, firing even with minimal stimulation. Hypersensitive norepinephrine pathways in the locus coeruleus seem to be involved in panic attacks and PTSD (Shekhar et al., 2002). Norepinephrine has been found at unusually high levels in people who have experienced extreme stress, and in keeping with the core concept of the *connection between mind and body*, it appears that chronic exposure to uncontrollable stress may increase the sensitivity of norepinephrine receptors in the brain (Southwick et al., 1999).

Serotonin can have anxiogenic (anxiety-producing) or anxiolytic (anxiety-reducing) effects based on the region of the brain in which serotonin is released and the particular type of receptor activated by the serotonin (Charney & Drevets, 2002). Some research has found reduced serotonin functioning in people who suffer from repeated panic attacks, leading to the proposal that serotonin deficiencies cause the fight-or-flight system in the brain to fire at the slightest provocation (e.g., Neumeister et al., 2004). However, the balance of research on the relationship between sero-

Gamma-aminobutyric acid (GABA) A neurotransmitter that inhibits nervous system activity.

Norepinephrine A neurotransmitter associated with the activation of the sympathetic nervous system; involved in depression and panic attacks.

Locus coeruleus A part of the brain stem associated with activation of the sympathetic nervous system.

Serotonin A neurotransmitter associated with depression and anxiety.



Mind-body connection

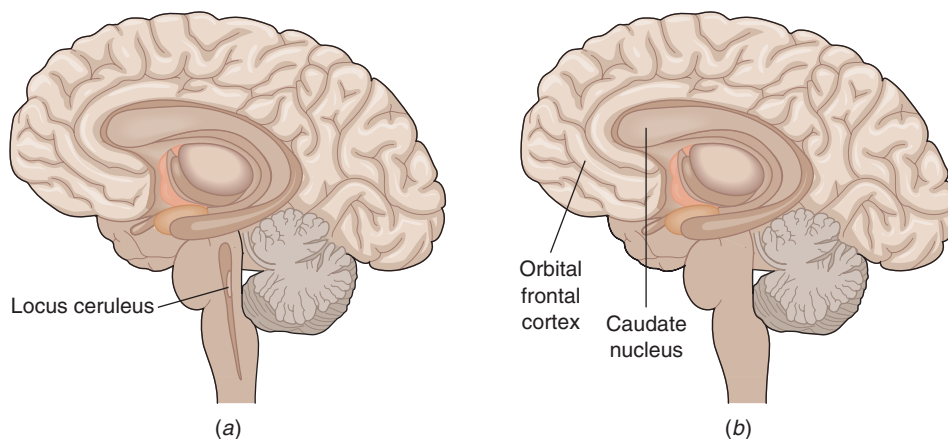


Figure 4.5 Brain structures involved in panic attacks, PTSD, and OCD

Hypersensitive norepinephrine pathways in the locus coeruleus (Part a), a brain structure that regulates physiological arousal, appear to play a role in the generation of anxiety symptoms associated with panic attacks and PTSD. Overactive primitive brain structures, such as the caudate nucleus and the orbital frontal cortex (Part b), have been implicated in the intrusive, unwanted thoughts associated with OCD.

tonin and panic disorder has yet to find a systematic relationship between serotonin function and panic symptoms (Charney & Bremner, 2004). Serotonin has also been implicated in OCD, although the relationship between the two is not well understood (Micallef & Blin, 2001). The link between serotonin and obsessive-compulsive symptoms was discovered when clients with OCD who were taking serotonin-stimulating drugs for other reasons (primarily depression) reported a reduction in their obsessions and compulsions.

Another interesting line of speculation about the biological basis of OCD (which, you'll see, overlaps with psychodynamic explanations) suggests that we all have constant sexual or violent urges in the "primitive" part of our brains, but these impulses normally do not "break through" to consciousness and therefore do not usually cause anxiety. Some evidence suggests that the primitive brain structures that may give rise to such "forbidden" impulses (for example, the caudate nuclei and the orbital frontal cortex; Figure 4.5) are overly active in people who suffer from OCD, causing unwanted and disturbing thoughts to make their way into consciousness (Beutel, Stern, & Silbersweig, 2003).

Autoimmune Disorders

Not long ago, Dr. Susan Swedo and her colleagues identified a disorder they named Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections, or PANDAS (Swedo et al., 1998). PANDAS describes an unusual condition in which children who recently suffered from strep throat develop OCD symptoms. While OCD usually develops gradually and may have periods in which it is more or less severe, the OCD symptoms associated with PANDAS often begin literally overnight, and then disappear before returning periodically. The cause of PANDAS is still under active investigation, but researchers believe that antibodies that develop in response to a streptococcal infection attack the **basal ganglia** and the caudate nucleus, causing OCD symptoms. Indeed, the development of OCD appears to be more likely to occur when antistreptococcal antibodies are present, and brain imaging studies have found swelling in the basal ganglia and caudate nucleus when antibody levels are high (Swedo & Grant, 2005).

PANDAS is typically treated with a combination of medications and cognitive-behavioral therapy (described below). Plasma transfusions or intravenous immunoglobulin (to counter the effects of antistreptococcal antibodies) have also been found to effectively reduce OCD symptoms in PANDAS sufferers (Perlmutter et al., 1999). While PANDAS is (thankfully) rare, researchers are hopeful that further study of the disease's mechanisms and brain effects will shed light on the neurological processes involved in non-PANDAS OCD.

Genetic Factors

Genetic vulnerabilities appear to play a role in most of the anxiety disorders. Studies of concordance rates in monozygotic (identical) versus dizygotic (fraternal) twins demonstrate that genetic factors account for 30 to 50% of an individual's vulnerability to developing an anxiety disorder (Gordon & Hen, 2004). However, the amount of genetic influence varies considerably among the different DSM-IV-TR disorders. Panic disorder appears to be especially heritable; lifetime rates of panic disorder among the first-degree relatives of people known to have the disorder range between 7.7 and 17.3% compared to a range from 0.8 to 4.2% among first-degree relatives of people who do not have panic disorder (Noyes & Hoehn-Saric, 1998). Genetic factors also play a significant role in OCD, phobias, and GAD (Hettema, Neale, & Kendler, 2001; Weyandt, 2006). Recent research suggests that early-onset OCD may result from a very specific genetic anomaly that contributes to irregularities in the neurotransmission of glutamic

Basal ganglia A subcortical brain structure involved in the regulation of movement.

acid (Dickel et al., 2006). Interestingly, genetically based disruptions in the transmission of glutamic acid appear to contribute to OCD in men only.

Biological Interventions

Barbiturates, powerful sedating drugs such as Amytal, were widely used to treat anxiety symptoms until the 1950s when it became apparent that they were dangerously addictive (Chapter 9). **Benzodiazepines** (such as Valium, Xanax, and Ativan), which enhance the functioning of the inhibitory neurotransmitter GABA, seemed at first to be a much safer alternative to barbiturates. However, it has since been recognized that the benzodiazepines are also physically addictive, often have undesirable side effects (such as drowsiness and loss of coordination), and do not provide long-term relief from anxiety. Furthermore, the benzodiazepines heighten the effects of other depressant drugs, such as alcohol, and are potentially lethal when taken in combination with other depressants. However, benzodiazepines are widely used for the short-term treatment of anxiety.

Panic Disorder and Agoraphobia Researchers discovered in the 1960s that certain antidepressant drugs could reduce or eliminate panic attacks—even in clients who were not depressed—although the same drugs did not generally help with other anxiety disorders (Klein, 1964). This evidence led to the hypothesis that the biological basis of panic might be different from that of other forms of anxiety, a hypothesis that remains a focus of research. Antidepressant medications are the leading biological treatment for panic disorder. Antidepressants, especially **SSRIs** (selective serotonin reuptake inhibitors such as Prozac, Zoloft, and Paxil) and **tricyclic antidepressants** (such as Tofranil, Elavil, and Sinequan), affect levels of key neurotransmitters such as serotonin and norepinephrine (Chapter 5). These medications can be a very effective treatment for panic disorder. Over 80% of clients in one study reported relief from panic attacks while taking antidepressants (Perna et al., 2001). Research indicates that some clients may be helped by a selective norepinephrine reuptake inhibitor (selective NRI) antidepressant known as reboxetine (brand name Edronax). A recent study found that reboxetine significantly reduced panic attacks, anxiety, and depression in clients who had not responded well to SSRI treatment (Dannon, Iancu, & Grunhaus, 2002). Unfortunately, most clients taking antidepressants for the treatment of panic attacks relapse when they stop taking the medication.

Obsessive-Compulsive Disorder The SSRIs are also widely prescribed to reduce OCD symptoms: while only about half of OCD sufferers respond well to the first SSRI they try, as many as 80% will ultimately be helped by at least one of the many SSRI medications (Swedo & Snider, 2004). When necessary, benzodiazepines and neuroleptics (medications that are typically used to treat psychosis—Chapter 12) can be used to augment the efficacy of SSRIs in the treatment of OCD (Walsh & McDougale, 2004). Neuroleptics appear to be especially useful when OCD symptoms are accompanied by a tic disorder, as in the case featured in Box 4.3.

Posttraumatic and Acute Stress Disorders Some, but not all, of the SSRIs have been found to aid in the management of anxiety and intrusive thoughts in PTSD and ASD (Yehuda et al., 2002). A non-SSRI antidepressant known as bupropion (brand name Wellbutrin) appears to reduce PTSD symptoms by inhibiting the reuptake of norepinephrine in the central nervous system, thus reducing the firing rates of norepinephrine neurons (Dong & Blier, 2001). As you'll recall, hypersensitivity of the norepinephrine system is thought to contribute to the symptoms found in PTSD (Goddard et al., 2004).



Medicating anxiety

Benzodiazepines, such as Xanax and Valium, can be useful in the treatment of anxiety. However, because they are highly addictive, benzodiazepines should only be used to treat anxiety on a temporary basis.

© Bill Aron/PhotoEdit

Barbiturates Sedative drugs formerly used to treat anxiety.

Benzodiazepines Sedative drugs that treat anxiety by increasing the activity of gamma-aminobutyric acid (GABA).

Selective serotonin reuptake inhibitors (SSRIs) A “second generation” class of antidepressant medications that block the reuptake of serotonin from the synapse; used in the treatment of depression and other disorders.

Tricyclic antidepressants A “first generation” class of antidepressant medications which increases the availability of both serotonin and norepinephrine.

The Sympathetic and Parasympathetic Systems in Action

Step One

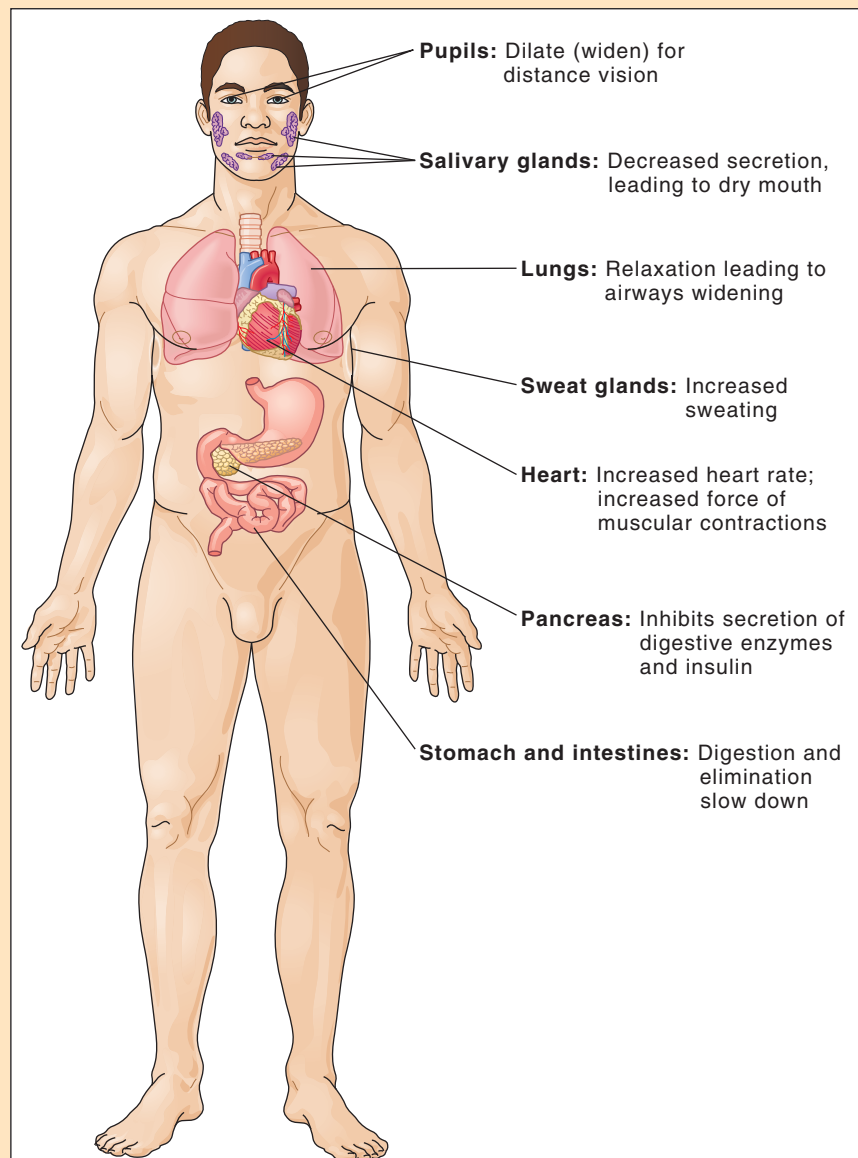
Exposure to an anxiety-producing threat



Cobra about to attack.
©John Terence Turner/Alamy

Step Two

Mobilization of the sympathetic nervous system to prepare body for fight-or-flight



The experience of fear and anxiety, whether pathological or normal, is almost always accompanied by the mobilization of the *autonomic nervous system* (which regulates involuntary bodily systems) and its two divisions: the *sympathetic* and *parasympathetic systems*. The sympathetic division activates survival responses to perceived threats.

Under the direction of the sympathetic nervous system, the adrenal glands secrete stress hormones (adrenaline/epinephrine and noreadrenaline/norepinephrine) and the heart beats faster and harder while pupils dilate to improve distance vision. The mouth dries up, and digestion slows while blood is directed away from the stomach toward the muscles in case they need oxygen for fast action. Sweating increases and breathing speeds

up and deepens as the lung airways widen. The physiological processes activated by the sympathetic nervous system prepare animals to flee or attack when faced with danger, a phenomenon known as the *fight-or-flight response*. The existence of the fight-or-flight response in humans reminds us that anxiety reactions are primitive and evolutionarily based.

When the danger has passed, the parasympathetic system reverses the work of the sympathetic nervous system and returns the body to its resting, pre-anxiety state sometimes known as the *rest-and-digest response*. The parasympathetic nervous system is responsible for maintaining the body's energy stores, and does so by regulating blood sugar levels and heart rate, stimulating the secretion of saliva, and eliminating bodily wastes.

Step Three

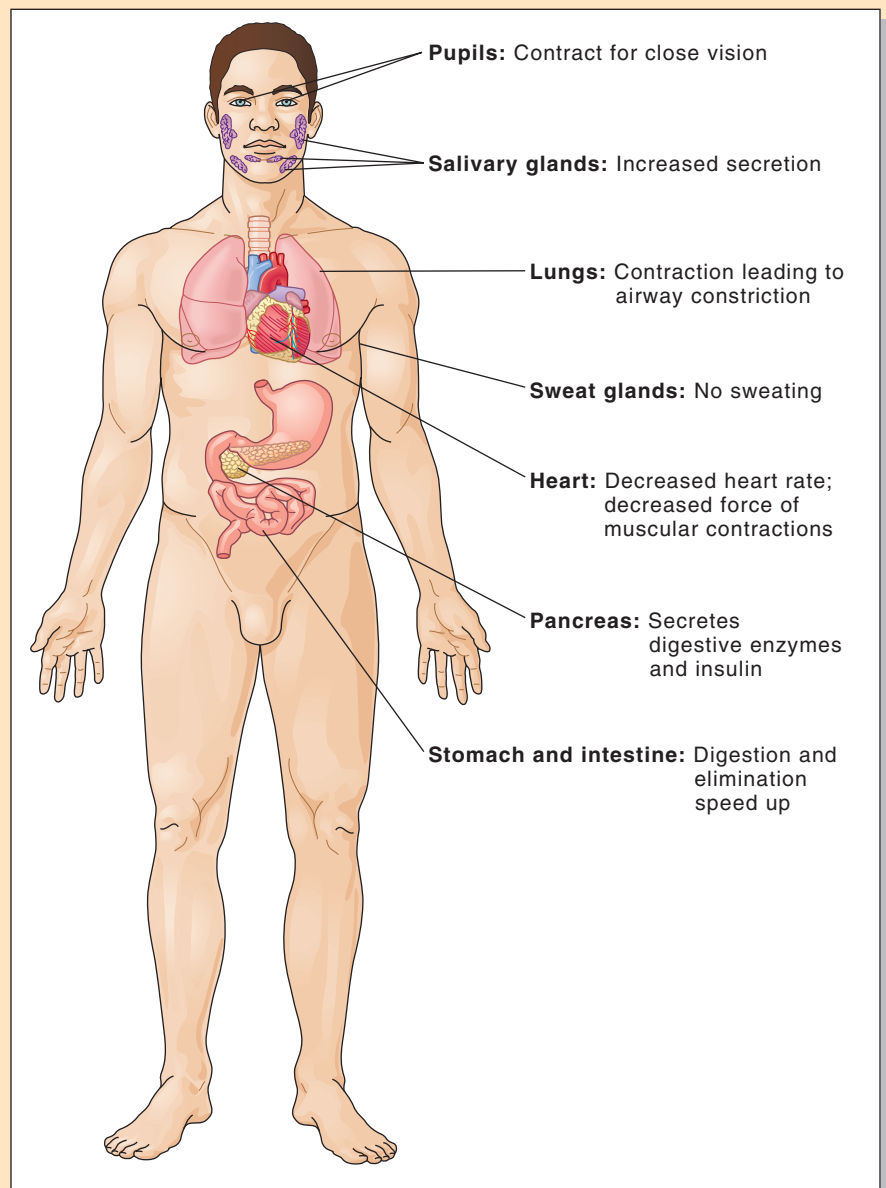
Anxiety-producing threat abates



Cobra relaxes, slithers away.
Tierbird Okapia/Photo Researchers, Inc.

Step Four

Mobilization of the parasympathetic nervous system to return body to its relaxed rest-and-digest state



Beta-blockers Drugs that treat anxiety by decreasing the activity of norepinephrine.

Azaspirones Drugs that treat anxiety by regulating serotonin.

Classical conditioning Learning that takes place via automatic associations between neutral stimuli and unconditioned stimuli.

Operant conditioning A form of learning in which behaviors are shaped through rewards and punishments.

Modeling Learning based on observing and imitating the behavior of others; see also **social/observational learning**.

Social Phobia SSRIs are currently considered to be the most effective medical treatment for social phobia, though they only appear to be effective for about half of the people to whom they are prescribed (Goddard et al., 2004). **Beta-blockers** (such as Inderal), which decrease the activity of norepinephrine and benzodiazapines are sometimes prescribed when social phobias are limited to circumscribed situations (such as public speaking) and the medications can be taken on a limited basis. Given that social phobia is associated with high rates of alcoholism and other forms of substance abuse, responsible clinicians are cautious when prescribing benzodiazapines to social phobia sufferers (Kessler, 2003).

Generalized Anxiety Disorder The SSRI paroxetine (brand name Paxil) and the serotonin-norepinephrine reuptake inhibitor (or SNRI) venlafaxine (brand name Effexor) are two antidepressants that are commonly used to treat GAD (Pollack et al., 2001). In the past, antidepressant medications help to ease, but not eliminate, the symptoms of GAD. Recent studies suggest that venlafaxine, a relatively new treatment option for GAD, may be able to substantially reduce, and in some cases eliminate, GAD symptoms (Sheehan, 2001). **Azaspirones** (such as BuSpar), which help regulate serotonin, are sometimes used to treat GAD when paroxetine and venlafaxine have been insufficiently effective (Goddard et al., 2004).

BRIEF SUMMARY

- The biological perspective emphasizes the role of the autonomic nervous system, the limbic system, neurotransmitters, autoimmune processes, and genetic factors in anxiety disorders.
- Presently, antidepressants are the preferred biological treatment for panic disorder, obsessive-compulsive disorder, posttraumatic and acute stress disorder, social phobia, and generalized anxiety disorder.
- Benzodiazepines and neuroleptics are sometimes prescribed for the treatment of obsessive-compulsive disorder; beta-blockers benzodiazepines can be used to diminish situation-specific social phobia; azaspirones can be prescribed to aid in the treatment of generalized anxiety disorder when antidepressants are insufficiently effective.

Behavioral Components

Behavioral approaches to anxiety disorders draw on the three forms of learning described in Chapter 2:

- **Classical conditioning:** learning based on automatic mental associations
- **Operant conditioning:** learning based on reinforcement
- **Modeling:** learning based on observation of others

We will focus on the behavioral explanation of phobias, since it best illustrates the use of behavioral concepts to explain an anxiety disorder. According to classical conditioning theory, an irrational fear (a phobia) can be created when a neutral stimulus that does not usually cause fear happens to be present during a strong fear response to a naturally frightening stimulus. As you recall from Chapter 2, this theory was tested in John Watson's famous "Little Albert" experiment in which an 11-month-old infant boy was taught to fear a white rat that he had initially liked (Watson & Raynor, 1920). To do this, Watson and his assistant presented the rat (a neutral stimulus) to Little Albert and waited until Albert expressed interest in playing with the animal. When Albert eagerly reached for the rat, the experimenters banged a metal bar with a hammer, terrifying the boy with the loud noise. (To review, the noise is known as an unconditioned

stimulus—UCS—because it automatically elicits a fear reflex without any conditioning.) The procedure was repeated several times and before long Little Albert became frightened of the rat by itself (the conditioned stimulus—CS—since conditioning was necessary to make the rat elicit fear). Little Albert began to associate the rat and the noise because they were present together in time, a situation known as **temporal contiguity**. In addition, Watson demonstrated that Little Albert generalized this fear to other similar-looking objects including a rabbit, a fur coat, and a Santa Claus beard. Although Watson’s treatment of Little Albert is highly unethical by modern research standards, the experiment provides a vivid example of the original classical conditioning explanation of phobias.

Interestingly, operant conditioning also plays an important role in behavioral explanations. Once people develop a phobic response, they tend to avoid what they fear. According to the principles of operant conditioning theory, this avoidance behavior is **negatively reinforced** because it removes people from feared unpleasant situations. As you’ll recall, negative reinforcement involves the removal of an unpleasant stimulus. The term *negative* refers to the removal of the stimulus, and *reinforcement* refers to the fact that the behavior that preceded the removal of the stimulus will be more likely (as opposed to less likely) to recur in the future. Put simply, if a man with a dog phobia sees a dog, he’ll feel better when he hurries away from the dog (removes the unpleasant stimulus); having felt better (reinforcement) after hurrying away, it’s likely that he’ll hurry away again the next time he sees a dog. Because people feel better when they avoid feared objects, they usually continue their avoidance which, unfortunately, reduces the opportunity for **extinction** (that is, deconditioning, or unlearning) of the phobia. In other words, a person who develops a dog phobia through classical conditioning after being bitten (UCS) by a dog (CS) may actively avoid all dogs (reinforcing the phobia through operant conditioning) and never come into contact with warm and friendly hounds that might help counteract the phobia. Modeling, or *vicarious conditioning* (learning by watching others), is another possible behavioral mechanism for the acquisition of phobias. For example, the son of a father with a dog phobia who sees his father panic at the sight of dogs might soon develop a fear of dogs.

Modern behavioral theorists have noted that some phobias are acquired much more easily than others, possibly because of our genetic heritage (Ohman & Mineka, 2001). You may recall that most phobias involve potentially dangerous animals, or potentially risky natural situations, such as elevated or enclosed spaces, while few people have gun or knife phobias, even though guns are certainly more dangerous than spiders. Such observations lead to a theory of **prepared conditioning**, a modern revision of the original classical conditioning model (Seligman, 1971). According to this approach, humans may have a genetic predisposition to fear once-dangerous objects and situations such as snakes and heights because our ancestors who shared such fears are more likely to have survived to contribute to the gene pool. This could explain why phobias to these “prepared” stimuli can sometimes develop after a single conditioning experience without requiring repeated pairings of the UCS and CS.

In recent years, behaviorists have added several layers of complexity to their theories in order to account for the fact that not everyone who experiences an unfortunate pairing of a CS (such as a dog) and an aversive UCS (such as a dog bite) goes on to develop an anxiety disorder. Modern behavioral theories of anxiety rely on the **principle of multiple causality** by emphasizing the importance of additional variables that precede, accompany, and follow anxiety-provoking experiences (Mineka & Zinbarg, 2006).

Preceding Variables

Behavioral theories consider several variables that predispose a person to, or protect a person from, developing an anxiety disorder when faced with a harrowing experience: genetic factors, early life events, and previous learning experiences. With regard to

Temporal contiguity Two events occurring closely together in time.

Negative reinforcement Increasing the probability of a behavior by removing an unpleasant stimuli when the behavior occurs.

Extinction The weakening of a connection between a conditioned stimulus and a conditioned response.

Prepared conditioning Classical conditioning based on an evolutionarily derived sensitivity to certain stimuli that were dangerous in an ancestral environment.



Multiple causality

genetic factors, research indicates that people who are extremely timid and shy beginning in early childhood—a genetic trait often referred to as *behavioral inhibition*—are more likely than their outgoing peers to develop anxiety disorders (e.g., Gladstone et al., 2005). In terms of early life events, people raised in predictable environments that foster a sense of control and mastery appear to be less likely to develop anxiety disorders when faced with a traumatic or uncontrollable event than children raised in unpredictable and frightening environments (e.g., Ozer et al., 2003). As for previous learning experiences, behaviorists have described a phenomenon known as *latent inhibition* in which prior exposure to a CS in the absence of an aversive UCS decreases the likelihood of developing an anxiety disorder once the CS and UCS are paired (Craske & Waters, 2005). Put simply, a man with a friendly dog of his own is far less likely to develop a phobia after being bitten by a dog than a man who had minimal exposure to dogs before being bitten!

Accompanying Variables

Factors that accompany a frightening experience, such as the degree to which a person feels he or she can control the event, may also influence whether the person goes on to develop an anxiety disorder. For example, a man who is attacked by a dog but manages to escape is less likely to go on to develop an anxiety disorder than a man who is attacked by a dog and rescued by someone else (Mineka & Zinbarg, 2006). Even in situations such as physical assault or political imprisonment or torture, people who feel that they were mentally defeated are more likely to go on to develop PTSD than people who felt that they maintained mental, if not physical, control of the experience (Dunmore, Clark, & Ehlers, 2001; Ehlers, Maercker, & Boos, 2000).

Postevent Variables

Behaviorists have observed a phenomenon known as *inflation* or *reinstatement of fear* that sometimes occurs after a person has developed or recovered from a mild fear response. Research indicates that a person who has a mild fear of a CS, or has recovered from fearing a CS, might develop a heightened fear of the CS if faced with a totally unrelated aversive UCS (Hermans, 2005). For example, the man who develops a mild fear of dogs (CS) after being bitten (UCS) by a dog might suddenly find his fear of dogs intensified if he happens to be in a frightening car accident (unrelated UCS) in which no dogs are present. Another postevent variable that can heighten fear responses is a *reevaluation effect* that occurs when a person receives new information about a past traumatic experience. Mineka and Zinbarg (2006) give the example of a person with mild PTSD following an assault who later develops full-blown PTSD upon learning that the assailant had murdered other victims.

Behavioral Interventions

Behavioral interventions are designed to extinguish (or unlearn) learned abnormal anxiety reactions. Although there are a number of behavioral approaches to treating anxiety, all rely on the principle that people must be *exposed* to the objects or situations that they fear in order to overcome their fears. In this way, fears can be unlearned in the same way they were learned in the first place.

Systematic desensitization Intervention involving gradually increasing exposure to a conditioned stimulus (such as a feared object) while practicing relaxation techniques.

Relaxation training Technique for teaching people to calm themselves by regulating their breathing and attending to bodily sensations.

Fear hierarchy In systematic desensitization, a list of feared situations ranging from least to most terrifying.

Phobias One of the most widely used interventions for phobias, **systematic desensitization**, involves two critical components: **relaxation training** and the construction of a **fear hierarchy**. First, clients are taught to relax themselves by focusing on their breathing while flexing and relaxing their muscles in a predetermined sequence. With practice, many clients develop the ability to achieve a deep state of relaxation

very quickly. Next, the therapist and client work together to develop a fear hierarchy in which they rank frightening situations from least to most terrifying. For example, a woman with a spider phobia might create a fear hierarchy that ranges from looking at a picture of a spider in a magazine to holding a jar containing a spider, touching a spider, and allowing several spiders to crawl on her arm. Eventually, she would participate in each of these activities in sequence while using her relaxation training to keep her feelings of anxiety at bay. For example, when able to feel relaxed while looking at a picture of a spider in a magazine, she would move on to holding a jar containing a spider, and so forth. Because it is impossible to feel relaxed and fearful at the same time, systematic desensitization works by helping clients to unlearn the connection of the feared object (in this case, spiders) and the fear response. If **in vivo desensitization** (actual physical exposure to the feared object) is not possible or desired, **covert desensitization** can be used instead. In covert desensitization the client *imagines* the frightening object or situation, such as being trapped in a room full of spiders, while using relaxation techniques to combat anxiety.

Computer-generated environments, also known as *virtual reality*, can be used in place of actual exposure to feared objects or situations. Although research in this area is still quite new, early results suggest that virtual reality therapy can be an effective treatment for a wide variety of phobias, including fears of flying, driving, or being in social situations (Arbona et al., 2004; Klinger et al., 2005; Walshe et al., 2003).

Flooding is another form of exposure therapy in which clients are directly confronted with the object or situation that they fear, but without working through a fear hierarchy first. Ideally, such exposure extinguishes the phobia because the experience proves that the pairing of the UCS and CS was merely accidental and the phobic object is not dangerous by itself. Flooding typically involves prolonged exposure to the feared object or situation so that the client's anxiety has time to come to a peak and then decline. For example, one young man had an intense fear of the noise made by a popping balloon and avoided all situations in which he might possibly come into contact with balloons. In three flooding sessions on three consecutive days he participated in the popping of hundreds of balloons and soon after reported that his balloon phobia was substantially diminished (Houlihan et al., 1993).

Empirical research has found exposure-based therapies to be highly effective in the treatment of phobias (Barlow, Raffa, & Cohen, 2002). For example, a study evaluating the effectiveness of exposure interventions for people suffering from claustrophobia (fear of enclosed spaces) compared intensive exposure (similar to flooding), gradual exposure (like systematic desensitization), and interventions that drew on both cognitive and behavioral techniques (CBT) (Ost et al., 2001). Eighty percent of the participants who underwent a single 3-hour session of intensive exposure (containment in an enclosed space) reported significant improvement, as did 81% of the participants in the gradual (5-session) exposure group and 79% of the participants in the CBT group. One year later, 100% (intensive exposure), 81% (gradual exposure), and 93% (CBT) of the participants reported that the improvement had been maintained.

Panic Disorder Systematic desensitization can also be used to address panic disorder. Clients construct a hierarchy of situations in which they feel they are most likely to have a panic attack and then use *in vivo* or covert *desensitization* to expose themselves to such situations while remaining relaxed. Unfortunately, some people with panic disorder find that everyday bodily sensations become classically conditioned to trigger a panic attack. For example, a woman whose heart races during a panic attack may start to have a panic attack (or become terrified of having a panic attack) every time her heart rate becomes elevated. In classical conditioning terms, heart rate acceleration becomes

In vivo desensitization Behavioral desensitization training in which the client is actually confronted with the feared stimulus.

Covert desensitization Behavioral desensitization intervention for phobias in which the client practices relaxation techniques while imagining being confronted with the feared stimulus.

Flooding Intensive exposure to a feared stimulus.



Facing one's fears Using systematic desensitization, a therapist can help a client to feel relaxed in the presence of what had been a terrifying stimulus.

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Interoceptive exposure Deliberate induction of the physiological sensations typically associated with a panic attack.

Exposure and response prevention A behavioral intervention in which clients are encouraged to confront a frightening thought or situation and then prevented from engaging in anxiety-reducing behaviors.

Covert response prevention Exposure and response prevention in obsessive-compulsive disorder for clients whose compulsions are mental processes (not behaviors).

Prolonged imaginal exposure A behavioral intervention in which clients suffering from posttraumatic stress disorder are encouraged to describe the traumatizing experience(s) in detail.

a CS that can induce panic attack once it has been paired with an actual panic attack (UCS). In a technique known as **interoceptive exposure**, clients are encouraged to run up and down stairs to increase their heart rates, spin themselves in chairs until they feel dizzy, or hyperventilate until they feel numb and tingly in order to induce panic-like symptoms. They are then encouraged to resist the impulse to overreact to their bodily sensations, and they consequently learn that the feared bodily sensations are normal and do not necessarily herald a panic attack (Meuret et al., 2005). *Interoceptive exposure* can be combined with cognitive interventions designed to correct panic-inducing, catastrophic misinterpretations of normal bodily sensations.

Obsessive-Compulsive Disorder According to behavioral theory, OCD develops when a compulsive ritual happens to reduce anxiety caused by a disturbing thought, thereby negatively reinforcing the ritual behavior. Thus, in the leading behavioral intervention for OCD, clients are encouraged to entertain disturbing thoughts while they are prevented from carrying out their anxiety-reducing compulsive rituals—a process known as **exposure and response prevention**. For example, a man who feels compelled to constantly sort, clean, and organize in order to calm his disturbing thoughts that he will otherwise “lose control” of himself might be given the following instructions:

- Do not sort through the mail on the day it arrives—allow it to sit on the kitchen counter for two days.
- Do not make your bed for an entire week.
- Do not put your clothes away in the evening, lay them on your bedroom chair instead.

This intervention addresses both the compulsions and the obsessions. It interrupts the compulsive rituals and therefore keeps them from being negatively reinforced by a reduction in anxiety. It also gives the client the chance to see that his anxiety (about losing control) is unfounded and tolerable, because he does not lose control. When both the obsessions and compulsions are mental processes—for example, an intrusive urge (obsession) to swear out loud in church countered by the ritual (compulsion) of silently reciting the Hail Mary exactly 55 times—**covert response prevention** may be used to break into the cycle. Such a person would be told to prevent herself from reciting the 55 Hail Marys after having the urge to swear out loud in church in order to create exposure to the anxiety and lead to its extinction. *Exposure and response prevention* therapy has been found to be a relatively effective intervention for OCD (Franklin et al., 2000).

Posttraumatic Stress Disorder Behavioral explanations of PTSD assume that posttraumatic anxiety is maintained by the persistent avoidance of everything associated with the traumatic experience, which prevents exposure to the conditioned stimulus (CS) that could lead to extinction of the anxiety. In a technique known as **prolonged imaginal exposure**, clients are encouraged to recount all of the events surrounding the traumatic experience and describe the trauma as if it were happening all over again. By exposing themselves to their own memories of the traumatic event, clients learn that remembering the event is not the same as reliving it, and the link between the actual trauma and stimuli that evoke anxiety because they were associated with the trauma is weakened (Harvey, Bryant, & Tarrier, 2003). Training in relaxation techniques and the development of adequate coping mechanisms can help clients tolerate the anxiety that often accompanies the exposure process.

Consider how behavioral techniques were used to help a woman suffering from PTSD after the World Trade Center attacks:

CASE ILLUSTRATION

Normally buoyant and filled with energy, Ms. Mendez, who worked as a security guard at the World Trade Center, has been disabled by the horrors she experienced on September 11.

She feels dizzy and has heart palpitations. Plagued by insomnia she hardly sleeps; when she does, she has terrible nightmares. She is afraid of crowded places, startles at any loud noise and is reluctant to leave her apartment in Queens. Most upsetting, any reminder of the terrorist attacks sets off a cascade of terrifying mental images, like a movie she cannot turn off. . . .

In mid-October, Ms. Mendez, 59, sought help at a medical clinic in Midtown Manhattan and was referred to Dr. Jaime Carcamo, a psychologist in private practice who is also a researcher at Columbia University.

“The first session, she wasn’t able to talk about what happened to her,” Dr. Carcamo said. “She was very brief in what she talked about and there were a lot of things she didn’t remember.”

But on her second visit, Ms. Mendez was able to tell her story in great detail, how she had been standing on the plaza when the planes hit, how she ran through a dark cloud of dust and debris, how she sat on a fire hydrant on Varick Street, weeping as she watched the towers collapse.

At the end of that session, “she was actually very relieved,” Dr. Carcamo said. In future sessions, he said, he will ask Ms. Mendez to recount her experience over and over in the present tense, periodically asking her to rate her anxiety level on a scale from 0 to 100. He will also teach her relaxation techniques to use when she becomes frightened, and give her assignments, like watching the news for one hour or telling a relative about her experience. At some point, he said, he may accompany her to a crowded place or some other situation she fears.

(Goode, 2001, pp. D1, D6)

Critical Thinking Question

How do Ms. Mendez’s symptoms demonstrate the *connection between mind and body*?



Mind-body connection

Cognitive Components

People with anxiety disorders tend to misinterpret events in three important ways: they fixate on perceived dangers and threats, they overestimate the severity of the perceived danger or threat, and they drastically underestimate their ability to cope with the dangers and threats they perceive (Wells, 1997). People are especially likely to misinterpret events when maladaptive beliefs and assumptions influence their thinking (Brown & Beck, 2002). Maladaptive beliefs are global negative thoughts about the self or the world that go unquestioned by the person who holds the belief (for example, “I’m dumb,” or “I’m unlovable”). Maladaptive assumptions are negative expectations about the relationship between behaviors and outcomes (for example, “Unless I do things perfectly, people will think I’m an idiot”) (Ellis, 1997).

Beliefs and assumptions are part of general thought patterns known as **cognitive schemas** (Beck, Emery, & Greenberg, 2005). Dysfunctional cognitive schemas are more rigid, simplistic, and negative than healthy cognitive schemas. For example, when someone who is an adequate but reluctant public speaker is asked to speak in front of an audience, a dysfunctional cognitive schema might be: “I’m incompetent and will certainly fail.” In contrast, the same hypothetical person with a more adaptive cognitive schema might think, “I generally succeed when I try.”

Cognitive schemas Mental models of the world that are used to organize information.

Dysfunctional cognitive schemas give rise to negative automatic thoughts that fixate on the threat (“I can’t stop thinking about that speech I have to give”), overestimate the threat involved (“I’ll never recover from this failure”), and underestimate the individual’s ability to cope with the threat (“I’m a totally incompetent public speaker”), all of which contribute to anxiety. On the day of her presentation, the reluctant public speaker described above might experience a further barrage of negative automatic thoughts that only exacerbate her anxiety:

- “I’ve flubbed my introduction, there’s no point in continuing.”
- “This talk is a total disaster!”
- “I’m such a fool.”
- “That person looks distracted, she hates my presentation.”

Cognitive theorists have identified several maladaptive cognitive schemas that contribute to specific anxiety disorders (see Table 4.8).

Cognitive theories of anxiety focus both on the *content* of anxious thinking—dysfunctional cognitive schemas and negative automatic thoughts—and on the thought *processes* that generate anxiety-provoking themes. Cognitive theorists have identified several common **cognitive distortions**, or biased thought processes, that contribute to the maladaptive interpretation of events (see Table 4.9). If we return to our public speaker’s negative automatic thoughts, we can see how each results from a cognitive distortion.

- “I’ve flubbed my introduction, there’s no point in continuing.” **Dichotomous reasoning**
- “This talk is a total disaster!” **Catastrophizing**
- “I’m such a fool.” **Labeling**
- “That person looks distracted, she hates my presentation.” **Personalization**

Anxiety-producing thoughts interfere with optimal functioning and create a vicious cycle. Returning once again to our public speaker, we can see how her negative automatic thoughts might interfere with her ability to give a good speech. Rather than thinking about her presentation, she’s worrying about what the audience is thinking about her. When the presentation goes poorly, she will be even more convinced of her incompetence as a public speaker. While other people might understand that being anxious makes it hard to give a good speech, the cognitive distortions that shape our speaker’s thinking may prevent her from considering that possibility.

As described in the section on Behavioral Components, an individual’s anxious thoughts can lead to avoidance behaviors that prevent the extinction of anxiety and maintain anxious cognitions. Consider, for example, a man who avoids elevators because he fears that the elevator will get stuck, causing him to experience a humiliating panic attack in front of his colleagues. Since he always takes the stairs, he never has experiences that could contradict his maladaptive beliefs that: (1) elevators are likely to get stuck, (2) his racing heartbeat while in a stuck elevator will cause a panic attack, and (3) if he has a panic attack in front of his colleagues, they will think less of him.

Empirical evidence supports several aspects of the cognitive explanation of anxiety disorders. To test whether highly anxious people do, in fact, focus their attention on dangerous situations, one research team presented research participants, some with generalized anxiety disorder (GAD) and some without GAD, with pictures of four kinds of faces: threatening, happy, sad, and neutral. They found that the participants with GAD were more likely to look at the threatening faces first and that, compared to the control group, they shifted their gaze quickly *toward* the threatening face rather than quickly *away* from it (Mogg, Millar, & Bradley, 2000).

Cognitive distortions Irrational beliefs and thinking processes.

Dichotomous reasoning A cognitive distortion involving thinking in terms of extremes and absolutes.

Catastrophizing A cognitive distortion involving the tendency to view minor problems as major catastrophes.

Labeling A cognitive distortion in which people or situations are characterized on the basis of global, not specific, features.

Personalization A cognitive distortion in which one wrongly assumes that he or she is the cause of a particular event.