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W. Edward Craighead David J. Miklowitz Linda W. Craighead

psychopathology

HISTORY, DIAGNOSIS, AND EMPIRICAL FOUNDATIONS

third edition



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Psychopathology

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**History, Diagnosis, and
Empirical Foundations**

Third Edition

**W. EDWARD CRAIGHEAD,
DAVID J. MIKLOWITZ, AND
LINDA W. CRAIGHEAD
EDITORS**

WILEY

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W. Edward Craighead—To Christine and Glynn Craighead and J. Rex Fuqua

David J. Miklowitz—To Mary Yeager and Ariana Miklowitz

Linda W. Craighead—To Ben and Margo Wilcoxon

Contents

	<i>Preface</i>	ix
	<i>Acknowledgments</i>	xiii
	<i>List of Contributors</i>	xv
CHAPTER 1	DIAGNOSIS: CONCEPTUAL ISSUES AND CONTROVERSIES <i>Scott O. Lilienfeld, Sarah Francis Smith, and Ashley L. Watts</i>	1
CHAPTER 2	SOCIAL ANXIETY DISORDER <i>Deborah Roth Ledley, Brigitte A. Erwin, Amanda S. Morrison, and Richard G. Heimberg</i>	39
CHAPTER 3	PANIC DISORDER <i>Joanna J. Arch, Alex Kirk, and Michelle G. Craske</i>	85
CHAPTER 4	GENERALIZED ANXIETY DISORDER <i>Karen Rowa, Stephanie Waechter, Heather K. Hood, and Martin M. Antony</i>	149
CHAPTER 5	OBSESSIVE-COMPULSIVE AND RELATED DISORDERS <i>Jonathan S. Abramowitz and Shannon M. Blakey</i>	187
CHAPTER 6	POSTTRAUMATIC STRESS DISORDER <i>Patricia A. Resick, Candice M. Monson, and Stefanie T. LoSavio</i>	216
CHAPTER 7	DEPRESSIVE DISORDERS <i>W. Edward Craighead, Daniel N. Klein, Charles F. Gillespie, Lorie A. Ritschel, and Katherine E. Phillips</i>	262
CHAPTER 8	BIPOLAR DISORDER <i>David J. Miklowitz and Sheri L. Johnson</i>	317
CHAPTER 9	SLEEP-WAKE DISORDERS <i>Lu Dong, Jennifer C. Kanady, and Allison G. Harvey</i>	364
CHAPTER 10	SCHIZOPHRENIA AND THE PSYCHOSIS SPECTRUM <i>Arthur T. Ryan, Hanan D. Trotman, Vijay A. Mittal, Kevin D. Tessner, and Elaine F. Walker</i>	392

CHAPTER 11	ALCOHOL USE DISORDER	429
	<i>Lara A. Ray, Kelly E. Courtney, ReJoyce Green, and Guadalupe A. Bacio</i>	
CHAPTER 12	EATING DISORDERS	465
	<i>Linda W. Craighead, Margaret A. Martinez, Kelly L. Klump, James Lock, and Nina Kirz</i>	
CHAPTER 13	SEXUAL DYSFUNCTIONS	520
	<i>Cindy M. Meston and Amelia M. Stanton</i>	
CHAPTER 14	BORDERLINE PERSONALITY DISORDER	562
	<i>Jill M. Hooley and Sara R. Masland</i>	
CHAPTER 15	PSYCHOPATHY AS PSYCHOPATHOLOGY: KEY DEVELOPMENTS IN ASSESSMENT, ETIOLOGY, AND TREATMENT	612
	<i>Jennifer E. Vitale and Joseph P. Newman</i>	
	<i>Index</i>	651

Preface

This book provides a basic description and evaluation of clinical theory and research regarding psychopathology. It is intended primarily as an advanced text for psychopathology courses taught to graduate students in clinical, counseling, and school psychology, as well as neuroscience, psychiatry, and social work. Some instructors may find it appropriate for an upper-level undergraduate course in abnormal psychology or psychopathology. This book also provides updated and refresher materials for mental health professionals engaged in assessment, diagnosis, and treatment of psychological disorders.

The first edition of this book emerged from our many discussions regarding how best to provide reading materials for the graduate psychopathology course when we were all professors at the University of Colorado, Boulder. From time to time different faculty members had been called upon to teach this course, and each time this occurred we had lengthy discussions about the most appropriate reading lists and books. In addition to the standard materials regarding psychopathology, we wanted to include clinically relevant materials that focused on vulnerability and stress, genetic markers, human development, affective neuroscience, translational research, and empirically supported treatments including efficacy and effectiveness outcomes. We faced repeated difficulties in assembling such materials and requesting readings from colleagues around the world. We concluded that it was an appropriate time to ask several of our clinical science colleagues to help us create a resource that would incorporate these current and critical areas of interest. We asked them to provide a broad range of information drawn from psychopathology and related basic research for each disorder, so the reader would have a 35- to 45-page comprehensive view of each of the topics. Although we have now moved to other universities and venues for our work, we believe there is still a need in the psychopathology area for an integrative set of reading materials. In order to reflect enormous changes in psychopathology research, we have updated, revised, and produced this third edition of the book.

The initial version of the *DSM-5* was published in May 2013, and this edition of the book is organized around the disorders as defined in *DSM-5*. Nevertheless, most of the relevant psychopathology literature is based on earlier editions of the *DSM*. Additional *DSM-5*-based psychopathology research will supply the basis of future editions. Furthermore, psychopathology research is beginning to take a somewhat different focus. Future books on this topic may present a quite different organizational structure, perhaps surrounding constructs underlying *DSM* categories of psychopathology (see the National Institute of Mental Health [NIMH], at <https://www.nimh.nih.gov/research-priorities/rdoc>).

Historical Perspective

Although descriptions of psychopathological disorders, at least on a nonscientific basis, have existed for hundreds of years, the first modern attempts to classify behaviors,

thoughts, biology, and feelings within a formal classification system are usually attributed to the prominent German psychiatrist Emil Kraepelin, who did most of his work at the end of the 19th century. Psychology emerged as a discipline at about that same time, and except for learning disabilities and a few of the childhood disorders, psychology was largely unconcerned with psychopathology. It was a half-century later that psychiatry (via the American Psychiatric Association [APA]) offered the first full-scale and systematic modern classification manual—the *Diagnostic and Statistical Manual of Mental Disorders*—in 1952. As Lilienfeld, Smith, and Watts note in the first chapter in this book, this diagnostic manual has undergone extensive revision and reorganization over the past half-century.

In order to understand the slow development of psychology's role in the evolution of theories and research in psychopathology, it is important to have at least a glimpse of the history of professional developments within psychology. By the time of World War I (1914–1918), psychologists had emerged on mental health teams as professionals who primarily conducted formal clinical assessments. Psychologists' activities proliferated during World War I, though the emphasis remained on assessment. Psychologists had originally focused primarily on intellectual assessment, but during World War I this focus shifted to include assessment of personality, largely in order to assess and predict what is now known as posttraumatic stress disorder. Between World War I and World War II, clinical psychology continued to emphasize the development of intelligence tests and assessments of intelligence, but the discipline also began in earnest to develop instruments and methods to assess personality. It was only during World War II and subsequent years that psychologists began conducting psychotherapy on more than a minimal basis, initially under the supervision of psychiatrists and only later, during the 1960–1970 era, as independent professionals. This movement toward broader involvement in clinical, counseling, and school intervention brought with it an interest in psychopathology as well as psychotherapy. A number of theoretical and practical developments (ranging from insurance reimbursement for clinical practice to National Institutes of Health funding for research) contributed to wide-scale acceptance of the *DSM* classification system, even though this framework has been associated with much controversy, as will be evident throughout this book.

During the preceding professional developments, it was psychiatrists who first directed and led most mental health teams in child hygiene clinics and community mental health centers. Psychologists only gradually became genuinely concerned with more broadly defined psychopathology and its assessment as they became involved in the delivery of therapeutic services. The field of psychopathology has thus emerged over the past five decades to reflect advances in psychology, psychiatry, and neuroscience. There have been very few books since Maher's *Principles of Psychopathology* (1968) that have provided extensive, comprehensive, and scientifically based overviews of theories and empirical foundations of psychopathology at the graduate level. It is our hope that this tightly coordinated book will be a step toward filling that vacuum.

This book begins with a chapter that picks up where the preceding brief historical review leaves off, as Lilienfeld, Smith, and Watts present an overview of the major issues that arise in the study of psychopathology at an advanced level. This introductory chapter

is followed by overviews of most of the major clinical disorders. In order to ensure consistency in the material presented in each chapter, we asked the authors to follow a specific format, though some chapter topics and their associated research fit less easily within that format than others. The general outline for each chapter is as follows: (a) a description of the diagnostic criteria for each disorder examined in the chapter, including a brief history and a case example; (b) prevalence and epidemiological findings; (c) empirical foundations of each disorder, including findings regarding behavioral, cognitive, emotional, and neurobiological factors; (d) assessment of each disorder, including interviews, clinical rating scales, self-reports, and neurobiological assessments; (e) a brief description and evaluation of the current interventions for each disorder; and (f) a summary and discussion of future directions. We greatly appreciate the willingness of the authors to adhere to this uniform outline. This approach improved our ability to provide consistent coverage across disorders, which makes this volume particular suitable for coursework. It also makes it easier for readers to find the needed information when using this volume as a reference or resource book. Based on feedback from professors who use this book as a text and reviewers of the prior editions, and in order to better match an academic semester, this third edition has been reduced to 15 chapters.

Following a long tradition that dates back to Freud's view of the centrality of anxiety in psychopathology, the *DSM* traditional anxiety disorders are presented first. These include social anxiety disorder, including avoidant personality disorder (discussed by Ledley, Erwin, Morrison, and Heimberg in Chapter 2); panic disorder (Arch, Kirk, and Craske, Chapter 3); and generalized anxiety disorder (Rowa, Waechter, Hood, and Antony, Chapter 4). Both obsessive-compulsive and related disorders (Abramowitz and Blakey, Chapter 5) and posttraumatic stress disorder (PTSD) (Resick, Monson, and LoSavio, Chapter 6), which were formerly treated as subtypes of anxiety disorders, are given separate diagnostic status in *DSM-5* and therefore separate chapters here. This book then continues with two chapters related to what have previously been labeled mood disorders: major depressive and persistent depressive disorder (W. E. Craighead, Klein, Gillespie, Ritschel, and Phillips, Chapter 7) and bipolar disorders (Miklowitz and Johnson, Chapter 8). Sleep-wake disorders, discussed by Dong, Kanady, and Harvey in Chapter 9, are important dysregulations in their own right, but are also particularly important as they relate to mood disorders. Chapter 10, by Ryan, Trotman, Mittal, Tessner, and Walker, provides a thorough discussion of schizophrenia and the psychotic spectrum disorders. Chapter 11, by Ray, Courtney, Green, and Bacio, reports on substance-related disorders, with a focus on alcohol. Just as with mood disorders in Chapter 7, Chapter 12 (L. W. Craighead, Martinez, Klump, Lock, and Kirz), reporting on eating disorders, combines and updates two chapters from the previous edition (on binge eating and bulimia and on anorexia). The remainder of the book presents chapters on sexual dysfunction, by Meston and Stanton (Chapter 13); borderline personality disorder, by Hooley and Masland (Chapter 14); and key developments in the assessment, etiology, and treatment of psychopathy, by Vitale and Newman (Chapter 15). As is apparent from this list, the chapter authors were chosen because of their and their colleagues' and students' major contributions to our knowledge of psychopathology; this is also apparent in the materials included in each chapter.

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We cannot imagine a better editor than Wiley's Patricia Rossi, who has been of great help from our very earliest conceptualization of the first edition right through the production of this third edition. She has been involved in every phase of its production, and in this process we have come to appreciate her insights and professional expertise in every phase of the editing process. It is a pleasure to work with such a talented person and genuinely fine human being. We also appreciate the help of the other cooperative and helpful people at John Wiley & Sons.

Finally, we would like to express our gratitude to the authors of the various chapters in this book. Each chapter's author team includes at least one of the established international leaders studying the topic. Coauthors were carefully chosen in their areas of expertise. As planned, the chapters reflect not only the contributions of the authors but also detailed reviews of the larger literature pertinent to each disorder. Thus, the reader can enjoy the detailed review of the psychopathology of the disorder in each chapter as well as the interesting commentary and thoughts about future directions for research and clinical issues from the perspective of individuals who are intimately involved in ongoing clinical psychopathology research. Our hope is that this will inform readers and also stimulate the thinking of developing research investigators and students to inspire them to ask important questions regarding psychopathology. These outstanding scholars, in composite, have done what no one individual (or even three) can do today—namely, provide a thorough and comprehensive summary of the current state of knowledge regarding psychopathology.

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Psychopathology

Chapter 1

Diagnosis

Conceptual Issues and Controversies

SCOTT O. LILIENFELD, SARAH FRANCIS SMITH, AND ASHLEY L. WATTS

Psychoiatric diagnosis is fundamental to the understanding of mental illness. Without it, the study, assessment, and treatment of psychopathology would be in disarray. In this chapter, we examine (a) the *raison d'être* underlying psychiatric diagnosis, (b) widespread misconceptions regarding psychiatric classification and diagnosis, (c) the present system of psychiatric classification and its strengths and weaknesses, and (d) fruitful directions for improving this system.

A myriad of forms of abnormality are housed under the exceedingly broad umbrella of mental disorders. Indeed, the current psychiatric classification system, as described in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, contains well over 300 diagnoses (American Psychiatric Association [APA], 2013). In addition, Chapter V of the International Classification of Diseases, 10th edition (ICD-10), contains approximately 100 diagnoses housed within 26 categories (World Health Organization, 1992). The enormous heterogeneity of psychopathology makes a formal system of organization imperative. Just as in the biological sciences, where Linnaeus's hierarchical taxonomy categorizes fauna and flora, and in chemistry, where Mendeleev's periodic table orders the elements, a psychiatric classification system helps to organize the bewildering subforms of abnormality. Such a system, if effective, permits us to parse the variegated universe of psychological disorders into more homogeneous, and ideally more clinically meaningful, categories.

From the practitioner's initial inchoate impression that a patient's behavior is aberrant to his or her later and better-elaborated case conceptualization, diagnosis plays an integral role in the clinical process. Indeed, the essential reason for initiating assessment and treatment is often the observer's sense that "something is just not quite right" about the person. Meehl (1973) commented that the mental health professional's core task is to answer the question: "What does this person have, or what befell him, that makes him different from those who have not developed clinical psychopathology?" (p. 248). Therein lies the basis for psychiatric diagnosis.

General Terminological Issues

Before proceeding, a bit of terminology is in order. It is crucial at the outset to distinguish two frequently confused terms: classification and diagnosis. A system of *classification* is an overarching taxonomy of mental illness, whereas *diagnosis* is the act of placing an individual, based on a constellation of signs (observable indicators, like crying in a depressed patient) or symptoms (subjective indicators, like feelings of guilt in a depressed patient), or both, into a category within that taxonomy. Classification is a prerequisite for diagnosis.

Another key set of terminological issues concerns the distinctions among syndrome, disorder, and disease. As Kazdin (1983) observed, we can differentiate among these three concepts based on our levels of understanding of their pathology—the underlying pathophysiology that may accompany the condition—and etiology, that is, causation (Gough, 1971; Lilienfeld, Waldman, & Israel, 1994).

At the lowest rung of the hierarchy of understanding there are *syndromes*, which are typically constellations of signs and symptoms that co-occur across individuals (*syndrome* means “running together” in Greek). In classical syndromes, neither pathology nor etiology is well understood, nor is the syndrome’s causal relation to other conditions established. Antisocial personality disorder is a relatively clear example of a syndrome because its signs (e.g., the use of an alias) and symptoms (e.g., lack of remorse) tend to covary across individuals. Nevertheless, its pathology and etiology are largely unknown, and its causal relation to other conditions is poorly understood (Lykken, 1995). In contrast, some authors (e.g., Lilienfeld, 2013; but see Lynam & Miller, 2012) argue that psychopathic personality (psychopathy) may not be a classical syndrome. These researchers contend that psychopathy is instead a configuration of several largely independent constructs, such as boldness, coldness, and disinhibition, that come together in an interpersonally malignant fashion (Patrick, Fowles, & Krueger, 2009; see also Vitale & Newman, Chapter 15, in this book).

In other cases, syndromes may also constitute groupings of signs and symptoms that exhibit minimal covariation across individuals but that point to an underlying etiology (Lilienfeld et al., 1994). For example, Gerstmann’s syndrome in neurology (Benton, 1992) is marked by four major features: agraphia (inability to write), acalculia (inability to perform mental computation), finger agnosia (inability to differentiate among fingers on the hand), and left-right disorientation. Although these indicators are negligibly correlated across individuals in the general population, they co-occur dependably following certain instances of parietal lobe damage.

At the second rung of the hierarchy of understanding there are *disorders*, which are syndromes that cannot be readily explained by other conditions. For example, in the present diagnostic system, obsessive-compulsive disorder (OCD) can be diagnosed only if its symptoms (e.g., recurrent fears of contamination) and signs (e.g., recurrent hand washing) cannot be accounted for by a specific phobia (e.g., irrational fear of dirt). Once we rule out other potential causes of OCD symptoms, such as specific phobia, anorexia nervosa, and trichotillomania (compulsive hair pulling), we can be reasonably certain that an individual exhibiting marked obsessions or compulsions, or both, suffers from a well-defined disorder (APA, 2000, p. 463).

At the third and highest rung of the hierarchy of understanding there are *diseases*, which are disorders in which pathology and etiology are reasonably well understood (Kazdin, 1983; McHugh & Slavney, 1998). Sickle-cell anemia is a prototypical disease because its pathology (crescent-shaped erythrocytes containing hemoglobin S) and etiology (two autosomal recessive alleles) have been conclusively identified (Sutton, 1980). For other conditions that approach the status of bona fide diseases, such as Alzheimer's disease, the primary pathology (senile plaques, neurofibrillary tangles, and granulovacuolar degeneration) has been identified, while their etiology is evolving but incomplete (Selkoe, 1992).

With the possible exception of Alzheimer's disease and a handful of other organic conditions, the diagnoses in our present system of psychiatric classifications are almost exclusively syndromes or, in rare cases, disorders (Kendell & Jablensky, 2003). This fact is a sobering reminder that the pathology in most cases of psychopathology is largely unknown, and their etiology is poorly understood (Kendler, 2005; Kendler, Zachar, & Craver, 2011). Therefore, although we genuflect to hallowed tradition in this chapter by referring to the major entities within the current psychiatric classification system as mental "disorders," readers should bear in mind that few are disorders in the strict sense of the term.

Functions of Psychiatric Diagnosis

Diagnosis serves three principal functions for practitioners and researchers alike. We discuss each in turn.

DIAGNOSIS AS COMMUNICATION

Diagnosis furnishes a convenient vehicle for communication about an individual's condition. It allows professionals to be reasonably confident that when they use a diagnosis (such as persistent depressive disorder or borderline personality disorder) to describe a patient, other professionals will recognize it as referring to the same condition. Moreover, a diagnosis distills relevant information, such as frantic efforts to avoid abandonment and chronic feelings of emptiness, in a shorthand form that aids in other professionals' understanding of a case. Blashfield and Burgess (2007) described this role as "information retrieval." Just as botanists use the name of a species to summarize distinctive features of a specific plant, psychologists and psychiatrists rely on a diagnosis to summarize distinctive features of a specific mental disorder (Blashfield & Burgess, 2007). Diagnoses succinctly convey important information about a patient to clinicians, investigators, family members, managed care organizations, and others.

ESTABLISHING LINKAGES WITH OTHER DIAGNOSES

Psychiatric diagnoses are organized within the overarching nosological structure of other diagnoses. Nosology is the branch of science that deals with the systematic classification of diseases. Within this system, most diagnostic categories are arranged in relation

to other conditions; the nearer in the network two conditions are, the more closely related they ostensibly are as disorders. For example, social anxiety disorder (social phobia) and specific phobia are both classified as anxiety disorders in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5; APA, 2013)*, and are presumably more closely linked etiologically than are social anxiety disorder and narcissistic personality disorder, the latter of which is classified as a personality disorder in *DSM-5*. Thus, diagnoses help to locate the patient's presenting problems within the context of both more and less related diagnostic categories.

PROVISION OF SURPLUS INFORMATION

Perhaps most important, a diagnosis helps us to learn new things; it affords us surplus information that we did not have previously. Among other things, a diagnosis allows us to generate predictions regarding case trajectory. As Goodwin and Guze (1996) noted, perhaps hyperbolically, "diagnosis is prognosis" (Kendler, 1980). The diagnostic label of bipolar I disorder describes a distinctive constellation of indicators (e.g., one or more manic or mixed episodes) that discriminates the course, rate of recovery, and treatment response from such related conditions as major depression and bipolar II disorder, the latter of which is marked by one or more episodes of hypomania and disabling depression. But a valid diagnosis does considerably more than predict prognosis. Robins and Guze's (1970) landmark article delineated formal criteria for ascertaining whether a diagnosis is valid. *Validity* refers to the extent to which a diagnosis measures what it purports to measure. More colloquially, validity is truth in advertising: A valid diagnosis is true to its name in that it correlates in expected directions with external criteria. Specifically, Robins and Guze outlined four requirements for the validity of psychiatric diagnoses. According to them, a valid diagnosis offers the following:

1. Clinical description, including symptomatology, demographics, precipitants, and differences from seemingly related disorders. The last-named task of distinguishing a diagnosis from similar diagnoses is called *differential diagnosis*.
2. Laboratory research, including data from psychological, biological, and laboratory tests.
3. Natural history, including course and outcome.
4. Family studies, especially studies examining the prevalence of a disorder in the first-degree relatives of probands—that is, individuals identified as having the diagnosis in question.

As a further desideratum, some authors have suggested that a valid diagnosis should ideally be able to predict the individual's response to treatment (Waldman, Lilienfeld, & Lahey, 1995). Nevertheless, this criterion should probably not be mandatory given that the treatment of a condition bears no necessary implications for its etiology. For example, although both schizophrenia and nausea induced by food poisoning generally respond to psychopharmacological agents that block the action of the neurotransmitter dopamine, these two conditions spring from entirely distinct causal mechanisms. Some authors (e.g., Ross & Pam, 1996) have invoked the felicitous phrase *ex juvantibus* reasoning (reasoning

backward from what works) to describe the error of inferring a disorder's etiology from its treatment. Headaches, as the hoary example goes, are not caused by a deficiency of aspirin in the bloodstream, and similarly, bipolar I disorder is not caused by a lithium deficiency.

There is reasonably strong evidence that diagnoses of many mental disorders fulfill Robins and Guze's (1970) criteria for validity. When these criteria are met, the diagnosis offers additional information about the patient, information that was not available before this diagnosis was made. For example, if we correctly diagnose a patient with schizophrenia, we have learned that this patient

- Is likely to exhibit psychotic symptoms that are not solely a consequence of a severe mood disturbance, such as major depressive disorder.
- Has a higher than expected likelihood of exhibiting abnormalities on several laboratory measures, including indices of sustained attention, smooth pursuit eye tracking, and detection of biological motion (Kim, Park, & Blake, 2011).
- Has a higher than average probability of having close biological relatives with schizophrenia and schizophrenia-spectrum disorders, such as schizotypal and paranoid personality disorders.
- Is likely to exhibit a chronic course, with few or no periods of entirely normal functioning, but approximately a 30% chance of overall improvement.
- Is likely to respond positively to medications that block the action of dopamine, although this is most likely to be the case for the positive symptoms (e.g., delusions, hallucinations) but not the negative symptoms (e.g., anhedonia, loss of motivation) of the disorder (Subotnick et al., 2011).

Andreasen (1995) extended the Robins and Guze (1970) framework to incorporate indicators from molecular genetics, neurochemistry, and functional and structural brain imaging as additional validating indicators for psychiatric diagnoses (Kendell & Jablensky, 2003). Her friendly amendment to the Robins and Guze criteria allows us to use endophenotypic indicators to assist in the validation of a diagnosis. Endophenotypes are typically biomarkers or laboratory indicators, that is, "measurable components unseen by the unaided eye along the pathway between disease and distal genotype" (Gottesman & Gould, 2003, p. 636; Gottesman & McGue, 2015; Waldman, 2005). They are often contrasted with exophenotypes, the traditional signs and symptoms of a disorder.

We can view the process of validating psychiatric diagnoses within the overarching framework of construct validity (Cronbach & Meehl, 1955; Loevinger, 1957; Messick, 1995; but see Borsboom, Cramer, Kievit, Zand Scholten, & Franic, 2009, for a different perspective on construct validity), which refers to the extent to which a measure assesses a hypothesized attribute of individuals. As Morey (1991) noted, psychiatric classification systems are collections of hypothetical constructs; thus, the process of validating psychiatric diagnoses is also a process of construct validation. More broadly, we can conceptualize most or even all psychiatric diagnoses as open concepts (Meehl, 1977, 1990). Open concepts are marked by (a) fuzzy boundaries, (b) a list of indicators (signs and symptoms) that are indefinitely extendable, and (c) an unclear inner nature.

Recalling that psychiatric diagnoses are open concepts helps us to avoid the perils of premature reification of diagnostic entities (Faust & Miner, 1986). For example, the

present diagnostic criteria for schizophrenia are not isomorphic with the construct of schizophrenia; they are merely fallible, albeit somewhat valid, indicators of this construct. Yet, the past few decades have occasionally witnessed a troubling tendency to reify and deify the categories within the current classification system, with some authors regarding them as fixed Platonic essences rather than as rough approximations to the true state of nature (Ghaemi, 2003; Kendler, 2005; Michels, 1984). This error is manifested, for example, when journal or grant reviewers criticize researchers for examining alternative operationalizations of mental disorders that depart from those in the current diagnostic manual (see the section “Psychiatric Classification from *DSM-I* to the Present,” later in this chapter). It is also manifested by the common error of referring to measures of certain psychiatric conditions as “gold standards” (see Skeem & Cooke, 2010, for a discussion of this tendency in the field of psychopathy). This phrasing is erroneous in view of the fact that all signs and symptoms of psychopathology are at present fallible—in that they are necessarily imperfect indicators of the constructs of interest—and provisional.

In a classic article, Cronbach and Meehl (1955) adopted from neopositivist philosophers of science the term *nomological network* to designate the system of lawful relationships conjectured to hold between theoretical entities (states, structures, events, dispositions) and observable indicators. They selected the network metaphor to emphasize the structure of such systems in which the nodes of the network, representing the postulated theoretical entities, are connected by the strands of the network, representing the lawful relationships hypothesized to hold among the entities (Garber & Strassberg, 1991).

For Cronbach and Meehl (1955), construct validation is a progressive and never-ending process of testing the links between hypothesized strands of the nomological network, especially those that connect latent constructs, which include psychiatric diagnoses (e.g., schizophrenia and major depression), to manifest indicators, which include the external criteria (e.g., laboratory tests and family history) laid out by Robins and Guze (1970). The more such construct-to-manifest indicator links are corroborated, the more certain we can be that our conception of the diagnosis in question is accurate. From this perspective, the approach to diagnostic validation outlined by Robins and Guze is merely one specific instantiation of construct validation.

One limitation of the Robins and Guze (1970) approach to construct validation is its exclusive emphasis on external validation, that is, the process of ascertaining the construct’s associations with correlates that lie outside the construct itself. As Skinner (1981, 1986; also Loevinger, 1957) observed, internal validation, ascertaining the construct’s inner structure, is also a key component of construct validation. Internal validation can help investigators to test hypotheses regarding a construct’s homogeneity (versus heterogeneity) and factor structure (Waldman et al., 1995). For example, if analyses suggest that a diagnosis consists of multiple subtypes that are largely or entirely statistically independent, the validity of the diagnosis would be called into question. Alternatively, factorial validity (i.e., the extent to which the factor structure of a diagnosis comports with theoretical predictions) can inform debates regarding the validity of a diagnosis. For example, factor analyses of attention-deficit/hyperactivity disorder (ADHD) generally support the separation of inattention from impulsivity and hyperactivity, as implied by the *DSM* criteria for this disorder (Martel, Von Eye, & Nigg, 2010).

In summary, valid psychiatric diagnoses serve three primary functions:

1. They summarize distinctive features of a disorder and thereby allow professionals to communicate clearly with one another.
2. They place each diagnosis under the umbrella structure of other diagnoses. This nosological framework links one diagnosis to both more and less related diagnoses.
3. They provide practitioners and researchers with surplus information regarding a diagnosed patient's clinical profile, laboratory findings, natural history, family history, and possible response to treatment; they may also offer information regarding endophenotypic indicators.

Misconceptions Regarding Psychiatric Diagnosis

Beginning psychology graduate students and many among the general public hold a plethora of misconceptions regarding psychiatric diagnosis; we examine five such misconceptions here. Doing so will also permit us to introduce a number of key principles of psychiatric diagnosis. As we will discover, refuting each misconception regarding psychiatric diagnosis affirms at least one important principle.

MISCONCEPTION #1: MENTAL ILLNESS IS A MYTH

The person most closely associated with this position is the late psychiatrist Thomas Szasz (1960), who argued famously for over 40 years that the term *mental illness* is a false and misleading metaphor (Schaler, 2004). For Szasz, individuals whom psychologists and psychiatrists term mentally ill actually suffer from problems in living (i.e., difficulties in adjusting their behaviors to the demands of society). Moreover, Szasz contended that mental health professionals often apply the mental illness label to nonconformists who jeopardize the status quo (Sarbin, 1969; Szasz, 1960). This label serves as a convenient justification for forcing maladjusted, malcontented, and maverick members of society to comply with prevailing societal norms.

Specifically, Szasz maintained that medical disorders can be clearly recognized by a lesion to the anatomical structure of the body, but that the disorder concept cannot be imported to the mental realm because there is no such lesion to indicate deviation from the norm. According to him only the body can become diseased, so mentally ill people do not suffer from an illness akin to a medical disorder.

It is undeniable that psychiatric diagnoses are sometimes misapplied. Nevertheless, this legitimate pragmatic concern must be logically separated from the question of whether the mental illness concept itself exists (Wakefield, 1992). We should recall the logical principle of *abusus non tollit usum* (abuse does not take away use): Historical and sociological misuses of a concept do not negate its validity.

Wakefield (1992) and others (e.g., Kendell, 1975) have observed that the Szaszian argument is problematic on several fronts. Among other problems, it assumes that

medical disorders are in every case traceable to discernible lesions in an anatomical structure, and that all lesions give rise to medical disorders. Yet identifiable lesions cannot be found in certain clear-cut medical diseases—such as trigeminal neuralgia and senile pruritis—and certain identifiable lesions, such as albinism, are not regarded as medical disorders (Kendell, 1975; Wakefield, 1992). Szasz's assertion that identifiable lesions are essentially synonymous with medical disorders is false; therefore, his corollary argument that mental disorders cannot exist because they are not invariably associated with identifiable lesions is similarly false.

MISCONCEPTION #2: PSYCHIATRIC DIAGNOSIS IS MERELY PIGEONHOLING

According to this criticism, when we diagnose people with a mental disorder, we deprive them of their uniqueness: we imply that all people within the same diagnostic category are alike in all important respects.

To the contrary, a psychiatric diagnosis does nothing of the sort; it implies only that all people with that diagnosis are alike in at least one important way, namely, that they display the signs and symptoms of that condition. In this respect, psychiatric diagnosis is no different from medical diagnosis. Physicians understand that all patients with essential hypertension are linked by high blood pressure, but can differ in myriad other ways. Similarly, psychologists and psychiatrists are well aware that even within a given diagnostic category, such as schizophrenia or bipolar I disorder, people differ dramatically in their race and cultural background, personality traits, co-occurring psychological conditions, interests, and cognitive skills (APA, 2013).

MISCONCEPTION #3: PSYCHIATRIC DIAGNOSES ARE UNRELIABLE

Reliability refers to the consistency of a diagnosis. As many textbooks in psychometrics remind us, reliability is a prerequisite for validity but not vice versa. Just as a bathroom scale cannot validly measure weight if it yields dramatically different weight estimates for the same person over brief periods of time, a diagnosis cannot validly measure a mental disorder if it yields dramatically different scores on measures of psychopathology across times, situations, and raters.

Because validity is not a prerequisite for reliability, extremely high reliability can exist without validity. A researcher who based diagnoses of schizophrenia on patients' heights would end up with extremely reliable but entirely invalid diagnoses of schizophrenia.

There are three major subtypes of reliability. Contrary to popular (mis)conception, these subtypes are frequently discrepant with one another, so high levels of reliability for one metric do not necessarily imply high levels for the others.

Test-retest reliability refers to the stability of a diagnosis following a relatively brief time interval, typically about a month. In other words, after a short time lapse, will patients receive the same diagnoses? Note that we wrote *brief* and *short* in the previous sentences; marked changes following lengthy time lapses, such as several years, may reflect genuine changes in patient status rather than the measurement error associated with test-retest unreliability.