

# Introduction to the Special Section: Toward a Dimensionally Based Taxonomy of Psychopathology

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Much current psychopathology research is framed by categorical constructs. Limitations of categorical constructs have been articulated, and dimensional constructs are often proposed as viable alternatives to categories of psychopathology. The purpose of this Special Section is to articulate and discuss diverse issues that arise in contemplating dimensional constructs as targets for psychopathology research.

The goal of this special section is to synthesize recent advances in the development of dimensional models and approaches to research on psychopathology. Much current psychopathology research is framed by what are basically categorical conceptions of psychopathology, such as the prototypical categories described in the *Diagnostic and Statistical Manual of Mental Disorders (DSM–IV–TR*; American Psychiatric Association, 2000). The modern *DSMs (III, III–R, IV, and IV–TR)* describe explicit criteria for a large number of specific and putatively categorical mental disorders. As such, they have been useful documents in describing potential targets for psychopathology research.

Nevertheless, extensive data challenge the idea that psychopathological variation is best conceptualized in terms of hundreds of distinct categories, even if these categories are described as prototypes (as they are in the *DSMs*) rather than as rigid classes. As documented in the articles in this special section, there is extensive comorbidity among *DSM*-defined mental disorders; most people who meet criteria for a given mental disorder also meet criteria for one or more additional disorders. Furthermore, the prototypical categorical approach allows for extensive within-category heterogeneity. As an example, individuals need to meet criteria for only five of nine symptoms to be formally diagnosed with several of the Axis II personality disorders (PDs; e.g., schizotypal PD, borderline PD, and narcissistic PD); thus, individuals meeting criteria for these disorders may share no more than one common feature. Indeed, in the case of obsessive–compulsive PD, it is theoretically possible for two different diagnosed cases to have no shared features at all. Consequently, persons who meet criteria for a specific mental disorder vary greatly. As a result, diverse diagnostic and prognostic profiles are seen within groups of persons selected because they meet criteria for a specific mental disorder.

Given problems such as extensive comorbidity and within-category heterogeneity, research framed by putative categories of psychopathology can be very hard to interpret, creating a real need for an alternative approach. One promising alternative is the dimensional approach to describing and studying psychopathology. Dimensional approaches have some readily apparent advantages. For example, one can describe psychopathological variation in terms of multiple dimensions of disordered thought, affect, and behavior. In this way, *comorbidity* can be understood and modeled as a specific pattern of elevation across relevant dimensions. In addition, heterogeneity can be handled by isolating correlates of specific dimensions in models that control for the influence of other psychopathological dimensions. Moreover, data can be used to shape and refine these dimensions so as to maximize their homogeneity and minimize their co-occurrence.

Although these advantages of dimensional conceptualizations of psychopathology are relatively clear, many important questions remain. Are there ways to use data to understand whether a psychopathological entity is more dimensional versus more categorical in nature? What dimensions represent the optimal targets for research on psychopathology? Can these dimensions be organized into a few broad, overarching constructs? Are more specific instantiations of these constructs also important? Do these dimensions transcend a putative distinction between more normal and more abnormal psychological phenomena? Finally, should a dimensional understanding of psychopathology inform official nomenclatures such as the *DSM*? Or must psychopathology research part ways with the *DSM* to some extent, given that the *DSM* serves needs that are somewhat separate from those of researchers, such as the need to describe specific categorical diagnoses that can be recorded to facilitate third-party payment for professional services?

The articles and commentaries in this special section provide a rich variety of perspectives and data that speak to these challenging issues. Widiger and Samuel review problems that have arisen by using a categorical conceptualization of psychopathology. More important, however, they go beyond simply identifying problems by also identifying realistic solutions. They note that diagnostic co-occurrence and boundary issues (questions about the optimal

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classification of specific diagnoses) are commonplace when using current categories, but also that these “problems” are perhaps better understood as data that reveal how major dimensions of temperament and personality could provide more useful organizing constructs for psychopathology. They also argue that dimensions can be readily integrated with the need to make specific decisions in clinical practice by setting specific cutoffs on dimensions for various clinical purposes. They conclude by describing how mental retardation might provide a useful model for thinking about the use of dimensions in categorical clinical decisions, inasmuch as the diagnosis of mental retardation constitutes a clinically useful cut-off point on the multifactorial dimension of intelligence.

Clark delves more extensively into the theme of temperament as a useful way to organize research on psychopathology. She reviews historical antecedents and current data to arrive at a richly integrative model of key dimensions to organize psychopathology research. Specifically, her model posits three major, heritable components of temperament—negative affectivity, positive affectivity, and disinhibition—that transact with the environment to produce both adaptive and maladaptive outcomes. Clark describes how this model can make sense of a wide range of phenomena, including specific patterns of comorbidity among disorders in current nosologies as well as the role of development in psychopathology. She concludes by suggesting that this model could provide a useful organizing framework not only for research but also for official nosologies such as *DSM-V*.

Krueger, Markon, Patrick, and Iacono describe a dimensional-spectrum conceptualization of adult externalizing psychopathology. They review evidence that antisocial behavior, substance use problems, and aggressive and impulsive personality traits form an etiologically coherent spectrum of interrelated phenotypes. They also review evidence that specific elements within the externalizing spectrum, such as specific substance use disorders, are dimensional in nature. They then develop a novel statistical framework for comparing dimensional and categorical models of psychopathology. They apply this framework to the co-occurrence patterns of *DSM*-defined disorders within the externalizing spectrum and find that their data better support a dimensional account of the overall liability to experience disorders in this spectrum. These authors conclude by describing how their model could be useful in reframing research and classification of externalizing phenomena by focusing such efforts on the unifying externalizing liability as well as its variegated manifestations in specific forms of dysfunction.

Watson focuses on the quantitative structure that underlies the mood and anxiety disorders. He notes that *DSM-IV* essentially represents a rational (i.e., subjectively based) taxonomy in which disorders are sorted into diagnostic classes on the basis of perceived phenotypic similarity. Based on his review of recent advances in this area, he argues that we now have sufficient empirical data to replace this rational scheme with a quantitative taxonomy that reflects the actual similarities among disorders. His review of both phenotypic and genotypic evidence suggests that the current nosological distinction between the mood and anxiety disorders is problematic and fails to organize these disorders optimally. Instead, the empirical evidence establishes that these disorders should be collapsed together into a broader “superclass” of emo-

tional disorders. Furthermore, the currently available data suggest that this superclass can be decomposed into at least three subclasses—distress disorders, fear disorders, and bipolar disorders. Watson’s proposed quantitative structure—which is based entirely on existing *DSM* syndromes—provides an interesting transitional step toward the development of a fully dimensional model of this domain.

In assembling this special section, the guest editors felt that it was important to solicit commentaries from a diverse group of scholars and were fortunate to be able to include views from two prominent psychiatrists who have been major contributors to the nosology of mental disorders (Michael First and David Kupfer), as well as a psychologist who serves as Chief of the Adult Psychopathology and Psychosocial Intervention Research Branch of the National Institute of Mental Health (Bruce Cuthbert), and two psychologists who have conducted innovative dimensional research on anxiety and mood disorders (Tim Brown and David Barlow).

These commentators provide a diversity of perspectives and each deserves careful reading. Yet, despite their diversity, an important theme that pervades the commentaries is that we have arrived at a critical juncture in the history of psychopathology research. Preparations have recently begun for developing an adequate research base for *DSM-V*, with a series of international conferences planned to discuss relevant issues across the entire diagnostic manual (see <http://www.dsm5.org> for a description of these endeavors). The first authors of the four target articles in this special section were all attendees at one of these meetings in December 2004, which focused on the Axis II personality disorders. The conference attendees displayed a remarkable degree of consensus on two key points. First, they generally concluded that Axis II of *DSM-V* should be organized by dimensions. Second, they generally agreed that the extensive literature on the empirical structure of personality—a literature that also frames the articles in this special section—provides the necessary guidance about the empirically optimal organizing dimensions for Axis II of *DSM-V* (Widiger, Simonsen, Krueger, Livesley, & Verheul, 2005). Thus, it can no longer be claimed that, although conversion to a dimensional system for describing personality pathology might be desirable in some abstract sense, there is insufficient agreement about the nature of the dimensional system that should be adopted.

In addition, as is documented clearly in the articles in this special section, Axis I and Axis II disorders are not well distinguished empirically, suggesting that the emerging dimensional perspective on Axis II would logically lead not only to a reorganization of Axis II but also to a reorganization of much of Axis I. This is perhaps the more provocative idea because it suggests that to place *DSM-V* on solid empirical footing, the ideas in this special section need to pervade not only Axis II but deeper structural elements of the *DSM*, such as the multiaxial system itself.

Nevertheless, as can be seen from the diversity of opinions described in the commentaries, the process of linking emerging conceptualizations in research with the *DSM* per se is complex. This is not surprising in the sense that the *DSM* is an extremely complex document, shaped not only by research but also by numerous other forces, such as advocacy, economics, and politics. Yet the complexity of the *DSM* process need not prevent research on dimensional approaches to psychopathology from flourishing in

the pages of the *Journal of Abnormal Psychology*, and this research could eventually help to place future *DSMs* on solid empirical ground, or perhaps even result in the creation of a separate approach to psychodiagnosis that more specifically serves the needs of researchers (as suggested in the commentary by First). After all, the process that led to the creation of the *DSM-III* was revolutionary in the context of the then-current zeitgeist—and not universally welcome—because it was initiated by people who were motivated by a desire to link psychodiagnosis primarily to data as opposed to clinical opinion. We again find ourselves in a situation where commonly accepted ideas about psychopathology—now enshrined in current *DSM* categories—are being ques-

tioned. Our hope is that this special section contributes to thinking and research that can help to answer these questions by pursuing innovative dimensional alternatives to categorical conceptions of psychopathology.

### References

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- Widiger, T. A., Simonsen, E., Krueger, R., Livesley, J. W., & Verheul, R. (2005). Personality disorder research agenda for *DSM-V*. *Journal of Personality Disorders, 19*, 315–338.

### New Editors Appointed, 2007–2012

The Publications and Communications (P&C) Board of the American Psychological Association announces the appointment of three new editors for 6-year terms beginning in 2007. As of January 1, 2006, manuscripts should be directed as follows:

- *Journal of Experimental Psychology: Learning, Memory, and Cognition* ([www.apa.org/journals/xlm.html](http://www.apa.org/journals/xlm.html)), **Randi C. Martin, PhD**, Department of Psychology, MS-25, Rice University, P.O. Box 1892, Houston, TX 77251.
- *Professional Psychology: Research and Practice* ([www.apa.org/journals/pro.html](http://www.apa.org/journals/pro.html)), **Michael C. Roberts, PhD**, 2009 Dole Human Development Center, Clinical Child Psychology Program, Department of Applied Behavioral Science, Department of Psychology, 1000 Sunnyside Avenue, The University of Kansas, Lawrence, KS 66045.
- *Psychology, Public Policy, and Law* ([www.apa.org/journals/law.html](http://www.apa.org/journals/law.html)), **Steven Penrod, PhD**, John Jay College of Criminal Justice, 445 West 59th Street N2131, New York, NY 10019-1199.

**Electronic manuscript submission.** As of January 1, 2006, manuscripts should be submitted electronically through the journal's Manuscript Submission Portal (see the Web site listed above with each journal title).

Manuscript submission patterns make the precise date of completion of the 2006 volumes uncertain. Current editors, Michael E. J. Masson, PhD, Mary Beth Kenkel, PhD, and Jane Goodman-Delahunty, PhD, JD, respectively, will receive and consider manuscripts through December 31, 2005. Should 2006 volumes be completed before that date, manuscripts will be redirected to the new editors for consideration in 2007 volumes.

In addition, the P&C Board announces the appointment of **Thomas E. Joiner, PhD** (Department of Psychology, Florida State University, One University Way, Tallahassee, FL 32306-1270), as editor of the *Clinician's Research Digest* newsletter for 2007–2012.