COMPETING MODELS OF PERSONALITY DISORDERS

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This paper reviews the virtues of applying a dimensional model and/or the more traditional categorical model to classification of personality disorders. The authors suggest how the particular merits of both might be incorporated. A model is proposed that organizes personality typology around a dimension of severity of impairment or dysfunction. This model would utilize the categorical model for those patients with the more severe functional failures for which traditional etiological research is most likely to bear fruit, and it would utilize the dimensional model for less functionally impaired patients whose psychopathology merges with normalcy.

A visible and articulate group of colleagues (Clarkin et al., 1983; Frances, 1982; Frances & Cooper, 1981; Frances & Widiger, 1986a, b; Widiger & Frances, 1985) have suggested that personality disorders are essentially continuous with each other and that a dimensional model is best suited for conceptualizing their taxonomy. Frances and Widiger (1986b), in fact, have confidently predicted "that dimensional approaches will gradually supplant the categorical in the classification of personality disorders" (1986, p. 396). As such these authors are entering a debate that has a long, colorful history and are joining other prominent exponents of the dimensional model (Eysenck, Wakefield, & Friedman, 1983; Hine & Williams, 1975; Kendall, 1975; Mezzich, 1979; Strauss, 1973). A good review of this literature goes beyond the purpose of this paper. Here we wish to redress the balance by reexamining the arguments for a dimensional model and comparing its virtues and limits to those of the more traditional categorical model.

We believe the merits of these two models of personality disorder should be measured by whether one model communicates more information about cause, pathogenesis, course, prognosis, and treatment than the other. As such this review judges these models on the basis of their claims or aptitude for external validation and clinical utility. After examining the relative strengths of the dimensional and categorical approaches, a synthesis of the two models is proposed that we believe can further the development of psychiatric classifications for personality disorders.

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THE DIMENSIONAL MODEL

This model sees the types of personality as having intrinsically gray boundaries and the effort to divide them into discrete categories as inherently arbitrary and distorting to their true nature. Figure 1 illustrates how three of the existing DSM-III-R (American Psychiatric Association, 1987) categories could be seen to exist on a continuum. In the dimensionalist's view the separation of borderline, histrionic, and dependent into these categories may helpfully communicate quantitative differences and hence have practical value, but this separation also conveys a misleading sense of distinctiveness. Widiger and Frances (1985) have proposed that reliance upon the dimensional model might resolve many of the current problems with personality disorder diagnosis. An initial step in this direction, suggested by Stone (1980) and by Millon (1981), could be to "dimensionalize" the current list of 11 DSM-III-R personality types. Thereby, a patient could be rated on the extent to which he or she has each of these maladaptive personality traits.

The suggested advantages of the dimensional model are the following:

A. Dimensional subtyping lends itself to numerical representation and has a continuous distribution. The dimensional model accepts the enormous diversity of personality traits and the great range of possible combinations amongst them found in nature. As such, this model may do more justice to the uniqueness of individuals. Dimensional models have enjoyed great popularity within academic psychology since T. Leary's interpersonal circumplex (1957). By examining a broad range of personality traits to see how they cluster in normal populations, a discrete number of personality types are developed and often separated into symmetrically polar types (called a personality circumplex). Pathological personality types are seen as extremes of these conceptually organized normally occurring traits. In DSM-III, the avoidant category was derived from this conceptual/intellectual tradition.

Although personality variables may lend themselves to numerical representation, this is not sufficient justification for deciding on such a model for diagnostic purposes. For example, blood pressure is a continuous measure that is best displayed in numerical representation. However, a cutoff
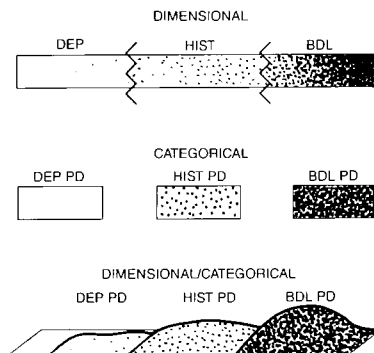

Figure 1. Models for Diagnosing Personality Disorders

is chosen for diagnostic purposes to define "hypertension" so that this latter term communicates essential information about prognosis and treatment.

B. The dimensional model better demonstrates the relationship of personality disorders to traits occurring in the normal population. Frances (1982) has argued that dimensional models are superior to categorical models for those cases scoring at or close to the boundary between two categories, that is, normality versus abnormality. The assignment of such cases to categories greatly contributes to the problems of reliability and validity. If many patients are located at the perimeters of the categories, this argument is accurate. If most patients are prototypic for the categories, then it is not. In either event it can only be tested if and when prototypic cases are well defined.

C. The dimensional model has measurement advantages and increases reliability. A statistician would prefer a continuous or ratio variable over one that transforms these into nominal or categorical variables. Norman and Streiner (1986) insist that "classifying good ratio measures into large categories is akin to throwing away data." A dimensional model may improve the poor reliabilities (Mellsop, Varghese, Joshua, & Hicks, 1982; Spitzer, Forman, & Nee, 1979) that are observed when clinicians make Axis II diagnoses using the present DSM-III categories. However, the decision about a model should not be based only on psychometric properties but comes back to the purposes for the model. Elevated blood pressures may be best measured for statistical purposes as a continuous variable, but in terms of an outcome we may be most interested in the threshold at which lethal/nonlethal categories exist.

D. The dimensional model explains the problem of diagnostic overlap. This model has been used to explain the overlapping diagnoses observed whenever DSM-III criteria have been employed. Typically, psychiatric patients who fulfill criteria for any DSM-III personality disorder meet criteria for several others (Mellsop et al., 1982; Stangl et al., 1985; Zanarini et al., 1987). Advocates for the dimensional model believe that the high degree of overlap reflects accurately the true complexity of the subject. They argue that critics fail to appreciate that such overlap exists because "Maladaptive personality traits are . . extreme variants of normal traits that are not exclusive" (Widiger & Frances, 1985, p. 616). Overlapping personality diagnoses may simply mirror the complexity intrinsic to human personality; they are needed just as multiple personality traits are needed to describe normal individuals. However, patients with overlapping or multiple diagnoses may be the most severely disturbed individuals and/or may be very different from cases with specific diagnoses. For example, children with both attention deficit disorder and conduct disorder appear to be qualitatively different from children with one of these disorders alone (Szatmari, 1987). The issue of overlapping diagnoses is a research priority for all of psychiatry.

It is instructive to take the historical view and realize that the current overlaps in definitions of Axis II disorders are to some extent a repeat of the same developmental processes that occurred in the formulation of discrete Axis I categorizations. In the early 1970s, due to frequent concurrence, there was uncertainty about whether depression and anxiety were separate disorders, one disorder, or merely symptoms that should be measured as

dimensional traits. Syndromes were identified in two fashions. First astute clinicians, through clinical experience and reviews of the literature, made clinically plausible formulations. An example of this would be Marks and Lader's (1973) review of anxiety. Secondly, researchers utilized mathematical techniques to attempt to identify categories. Examples of this in the affective disorders are Derogates et al. (1972), Gurney et al. (1972), and Prusoff and Klerman (1974). These categorizations then were validated by methods such as course of illness, family studies, and eventually biochemical studies. Just as these Axis I categorizations were criticized for their overlap of symptoms, now the same nosologic developmental process is unfolding for the criteria for the personality disorders' categorizations. First is description by skilled clinicians. Second is the definition of disorders by assembling large samples and differentiating them by statistical means from each other and from traits. Significant examples include Tyrer and Ferguson (1987) and Cloninger (1987). Similarly, attempts are being made at personality disorder validation by course of illness, family studies, and biological markers (eye tracking, REM latency, and responses to acoustical stimuli).

The second problem facing DSM-III personality disorders that has already occurred for Axis I disorders is co-occurrence. Although this has led to criticism that such personality disorders are not discrete entities, community epidemiologic surveys that indicate overlap of Axis I disorders (Myers et al., 1984; Robins et al., 1984) have not led to conclusions that the individual diagnoses are invalid. For Axis I disorders it simply raises interesting questions about the relationships between these disorders. Given that clinical populations have an even greater overlap, this overlap, in itself, is not a devastating criticism of categorical integrity. So it may be that what we are seeing in Axis II research is a repeat of developments seen for Axis I.

THE CATEGORICAL MODEL

Figure 1 also illustrates a categorical model. Like the dimensional model, the types it includes may have quantitative differences (e.g., levels of severity, prevalence rates, etc.) and have nearer or further neighbors. Unlike the dimensional model, the types are believed to have distinct boundaries defined by qualitative differences. That is, they have defining, core, or essential characteristics that either qualify or disqualify an individual for the diagnosis.

Proponents offer the following four advantages for use of the categorical model:

A. Categorical models are familiar to clinicians and aid acceptance of a typology. Moreover, clinician-identified syndromes inevitably reflect pathological processes; the syndromes describe people with significant distress who are seeking help. A diagnostic system thus rooted bypasses questions of inappropriately categorizing normal subjects and intuitively carries more prototypic recognition.

B. The categorical model is consistent with both of the conceptual paradigms that have guided psychiatric diagnoses, that is, the earlier dynamic

and current biological traditions. Psychiatrists trained in either the dynamic or the biological framework believe that the observable, phenotypic descriptive methods for characterizing psychopathology are weak reflections of underlying organizing qualitative differences. The traditions differ only in the degree to which they think these organizing factors are psychosocial or biogenetic in nature. Hence, some of the overlap observed among DSM-III categories reflects the fact that these descriptive, observable characteristics are secondary, even superficial, features—not the primary psychopathology—and that the task is to identify the primary features that more closely reflect distinct etiological pathways.

C. The use of categories for personality disorder diagnoses stimulates research that will clarify the boundaries. Indeed, the limited knowledge upon which the existing Axis II criteria are based helps account for both the current high overlap and the low reliability in these diagnoses. With the utilization of a better clinical base and the development of a better scientific base, categorical proponents believe that the criteria for personality disorders will evolve and change, and come to reflect more discrete and more reliable types based on etiologic pathways and therapeutic indications.

D. Categorical models are able to provide a large amount of information simply and efficiently. As a result of synthesis and abstraction, categories work particularly well for more typical cases. Categorical typologies generally develop out of clinical observations in which distinctive syndromes are thought to exist that have clinical meaning or etiological significance. An example illustrating clinical significance is the evolution of the borderline category, which prepares clinicians for the regressive potential and countertransference issues that generally will occur. An example illustrating etiological significance is the schizotypal category, which conveys a genetic linkage with schizophrenia. Similarly, compulsive and paranoid personalities are frequently related premorbidly and perhaps genetically to affective disorder and paranoid psychosis, respectively (Siever & Klar, 1986). An example with both clinical and etiological significance is cyclothymic personality, which has both pathogenetic and therapeutic similarities with affective disorders. Because the linkage between specific types of personality and specific Axis I disorders is unlikely to be random, personality disorder categories should be developed that reflect linkages to other psychiatric disorders in terms of pathogenesis or treatment response.

Dimensional models have relied heavily upon cross-sectional descriptions, and have tended to overlook the potential contributions of two areas that usually inform clinical diagnosis: etiological issues (such as those that help define the schizotypal category) and treatment response issues (such as those that stimulated the borderline category). As a result, a personality profile system such as the MMPI or Millon Clinical Multiaxial Inventory (Millon, 1982) often is interpreted as supplementary to and reflective of diagnosis rather than vice versa—the interpretations are descriptive, without clear reference to the longitudinal course of the person's life. Finally, although dimensional schemes usually place personality types in relationship to each other, they do not place them in relationship to other (most notably Axis I) diagnoses or to each other in terms of severity.

Although limits to the expanding value of a categorical model are doubt-

lessly severe for all psychiatric disorders (Strauss, 1973), we are a long way from utilizing the merits of this approach to define what these limits are with respect to personality diagnoses. In the meantime, we cannot assume that this model is less useful for personality than for Axis I disorder, where it has been helpful despite its serious limitations.

A PROPOSED SYNTHESIS

Having reviewed the alleged advantages of each of the models, it follows that a model that synthesizes their strengths would be desirable. We believe that such a synthesis can be derived by organizing the personality typology around a dimension of functional disability. The existing Axis II categories cover such a broad range of functional capacity that they have already prompted suggestions as to how they might be subgrouped by level of severity (Kernberg, 1975; Millon, 1981). Figure 2 illustrates an effort in this direction prepared earlier by one of us (Gunderson, 1984). In this scheme some Axis II personality types are seen as categorical disorders that extend on one side toward Axis I whereas others are seen as trait disorders that extend in the other direction toward normalcy.

Moreover, our advocacy for using an axis of severity is buttressed by the belief that more severe forms of psychopathology are apt to have more discrete clinical syndromes and possibly more discrete etiologic pathways. This model for personality typology can be captured by an analogy to geology. A stone with structural faults will break in a largely predictable and limited number of ways. If the fault is deep, the more discrete is the number of ways in which the stone can break. When applied to psychopathology, the analogy is that more profound/severe types will be more apt to fit categorical models, and that those that are closer to the surface will have much greater variation in form. The dimensional model deals with the observable surface characteristics and is most applicable to the less severe personality disorders that move imperceptibly into normally occurring traits. The categorical model assumes primary, nonobservable defining characteristics for personality diagnosis and is more suitable for types of personalities whose "faults" are deeper, more severe, and/or earlier in their origins. Ordering the
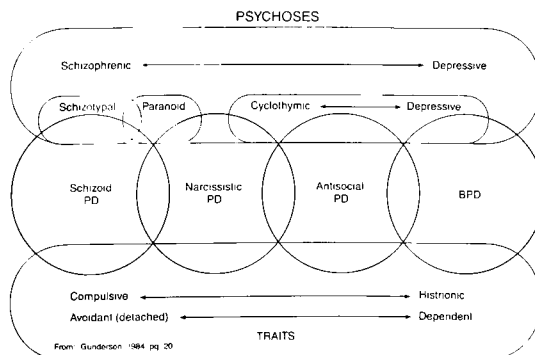

Figure 2. Grouping of Personality Types

disorders on the basis of a dimension of severity may help focus research directed at underlying primary faults or etiologic factors towards those personality types where profound neurophysiological changes preceded or accompanied early developmental failures. These are the types that are likely to be most responsive to somatic or other discrete specific treatments.

In the proposed model a dimensional measure would quantify the subjective distress and social dysfunction of an individual that characterizes the person's habitual adjustment. Two recent editorials from the United Kingdom stress the need to define the "significant impairment" that is part of a DSM-III and DSM-III-R personality disorder diagnosis (Davis, 1987; Tyrer & Ferguson, 1987). Some of the existing Axis II criteria would be altered and enhanced to become measures of such dysfunction. For example, criteria such as "has no close friends or confidants" or "avoids social or occupation activities that involve significant interpersonal contact" (APA, 1987), which now are designated for a specific personality disorder (i.e., avoidant), may be aspects of more general impairment that should be used to make personality categories more robust.

The advantages of the proposed "synthesis model" are as follows:

1. The combination of categorical diagnoses plus a measure of impairment can increase the reliability and improve the sensitivity and specificity of the diagnoses (Bird et al., 1987). The synthesis model will enhance the reliability and the diagnostic properties of categorical diagnoses.

2. The proposed model may improve the validation process for personality disorders. Individuals with traits leading to quantifiable impairment are less likely to show differences related to situation and informant variation (Achenbach et al., 1987). The issue of whether personality disorders are consistent across situations and informants deserves careful study (Mischel & Peake, 1982) and is central to establishing valid disorders. The proposed model will help address this fundamental issue.

3. The dimensional measure will provide a better description of those cases on the border to normality. By avoiding categorical diagnoses for people without significant impairment, the detrimental effects of labeling will be minimized. Moreover, diagnoses would be reserved for those with sufficient disability to warrant reimbursement.

4. Combining a measure of severity with the categorical approach will focus more attention on those individuals in which a medical model may be most relevant. For example, the severely disturbed are most likely to come to psychiatric attention, they are more likely to have coexisting medical and psychiatric disorders, they will have the worst prognosis, and, we believe, they are more likely to have prominent etiologic factors that can be identified.

5. The dimension of impairment may provide a measure of change that can be more readily used in treatment and intervention trials than change measures for the personality disorders themselves.

This model, then, suggests future research priorities: First, attention should be given to defining cutoff criteria and developing reliable measures of the impairment that would be part of the generic definition of personality disorders; and second, continued efforts should be directed at developing distinct and externally validated personality diagnostic categories for the more severe disorders.

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