Plate Tectonics in the Classification of Personality Disorder

Shifting to a Dimensional Model

Thomas A. Widiger

University of Kentucky

Timothy J. Trull

University of Missouri

The diagnostic categories of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders were developed in the spirit of a traditional medical model that considers mental disorders to be qualitatively distinct conditions (see, e.g., American Psychiatric Association, 2000). Work is now beginning on the fifth edition of this influential diagnostic manual. It is perhaps time to consider a fundamental shift in how psychopathology is conceptualized and diagnosed. More specifically, it may be time to consider a shift to a dimensional classification of personality disorder that would help address the failures of the existing diagnostic categories as well as contribute to an integration of the psychiatric diagnostic manual with psychology’s research on general personality structure.

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The third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM–III; American Psychiatric Association, 1980) has been recognized as having provided an innovative shift in the classification of mental disorders. Work is now beginning on the fifth edition (DSM–V). It is perhaps time to consider a more fundamental shift in how psychopathology is conceptualized and diagnosed, more specifically, a shift to a dimensional classification of personality disorder that would integrate the psychiatric classification with psychology’s dimensional model of general personality structure.

It is stated in the text revision of the fourth edition of the DSM (DSM–IV–TR) that “DSM–IV is a categorical classification that divides mental disorders into types based on criteria sets with defining features” (American Psychiatric Association, 2000, p. xxxi). The diagnostic categories of DSM–IV–TR were developed in the spirit of a traditional medical model that considers mental disorders to be qualitatively distinct conditions (Guze & Helzer, 1987). Robins and Guze (1970) set forth a widely cited paradigm for the validation of a psychiatric diagnosis. Their work is analogous to the construct validation article of Cronbach and Meehl (1955) that has been equally influential within psychology. The Robins and Guze paradigm included descriptive data, follow-up, family history, and laboratory studies that would validate the disorder as a distinct clinical syn-drome. Their model of validation provided the conceptual and empirical framework for the predominant neo-Kraepelinian perspective of modern psychiatry (Klerman, 1983) and for the construction and validation of the well-regarded DSM–III (Spitzer, Endicott, & Robins, 1975).

DSM–III (American Psychiatric Association, 1980) was a significant, innovative shift in the classification of mental disorders, in part through its provision of operational diagnostic criterion sets and a multiaxial conceptualization (Kendell, 1983; Klerman, 1983; Millon, 1983). However, the question of whether mental disorders are discrete clinical conditions or arbitrary distinctions along underlying dimensions of functioning is a longstanding issue whose importance is increasing with the growing recognition of the limitations of the categorical model (Clark, 2005; Krueger, Markon, Patrick, & Iacono, 2005; Livesley, 2003; Trull & Durrett, 2005; Watson, 2005; Widiger & Clark, 2000; Widiger & Samuel, 2005a). Work is now in progress toward the DSM–V, and it is perhaps time to consider a more fundamental shift in how psychopathology is conceptualized and diagnosed.

Calls for a fundamental change are being provided by persons who work within and outside of the existing diagnostic system. In 1999, a DSM Research Planning Conference was held under the joint sponsorship of the American Psychiatric Association and the National Institute of Mental Health, the purpose of which was to set research priorities that might help to inform the authors of future editions. The impetus for this effort was frustration with the existing nomenclature.

In the more than 30 years since the introduction of the Feighner criteria by Robins and Guze [1970], which eventually led to DSM–III, the goal of validating these syndromes and discovering common etiologies has remained elusive. Despite many proposed candidates, not one laboratory marker has been found to be
specific in identifying any of the *DSM*-defined syndromes. Epidemiologic and clinical studies have shown extremely high rates of comorbidities among the disorders, undermining the hypothesis that the syndromes represent distinct etiologies. Furthermore, epidemiologic studies have shown a high degree of short-term diagnostic instability for many disorders. With regard to treatment, lack of treatment specificity is the rule rather than the exception. (Kupfer, First, & Regier, 2002, p. xviii)

In this article, we argue for a fundamental shift in the conceptualization and diagnosis of personality disorder, more specifically for a shift to a dimensional classification that would be integrated with psychologists’ research on general personality structure. The arguments and illustrations are confined to personality disorders, although many of the points do apply more broadly (Clark, 2005; Krueger et al., 2005; Watson, 2005; Widiger & Samuel, 2005a). We first articulate the failings of the existing categorical model of psychiatry, followed by the strengths of an alternative dimensional classification.

**Failures of the Categorical Model**

There are many failures of the existing *DSM–IV–TR* diagnostic categories, including excessive diagnostic comorbidity, inadequate coverage, arbitrary and unstable boundaries with normal psychological functioning, heterogeneity among persons sharing the same categorical diagnosis, and inadequate scientific base.

**Excessive Diagnostic Co-Occurrence**

*DSM–IV–TR* provides diagnostic criterion sets to help guide clinicians toward a correct diagnosis and provides an additional section devoted to differential diagnosis that indicates “how to differentiate [the] disorder from other disorders that have similar presenting characteristics” (American Psychiatric Association, 2000, p. 10). The intention of this information is to help the clinician determine which particular mental disorder is present, the identification of which would hopefully indicate the presence of a specific pathology and suggest a specific treatment (Frances, First, & Pincus, 1995). It is evident, however, that *DSM–IV–TR* routinely fails in this goal, despite the best efforts of the leading clinicians and researchers who have authored the manual.

“The greatest challenge that the extensive comorbidity data pose to the current nosological system concerns the validity of the diagnostic categories themselves—do these disorders constitute distinct clinical entities?” (Mineka, Watson, & Clark, 1998, p. 380). Quite a few reviews have documented this concern well (Clark, 2005, in press; Krueger et al., 2005; Mineka et al., 1998; Watson, 2005; Widiger & Clark, 2000) and have addressed this issue specifically as it relates to the personality disorders (Bornstein, 1998; Lilienfeld, Waldman, & Israel, 1994; Livesley, 2003). Diagnostic comorbidity is so extensive that some argue for abandoning the term *comorbidity* in favor of a term (e.g., *co-occurrence*) that is more simply descriptive (Lilienfeld et al., 1994). Several studies have further demonstrated that much of the personality disorder diagnostic co-occurrence is readily explained if the *DSM–IV–TR* personality disorders are understood as maladaptive variants of general personality structure (Lynam & Widiger, 2001; O’Connor, 2005).

**Inadequate Coverage**

In addition to the problem of excessive diagnostic co-occurrence, there is the opposite, or perhaps complementary, problem of inadequate coverage. Each class of mental disorders (e.g., mood, anxiety, or personality disorders) includes a diagnosis of *not otherwise specified* (NOS). Clinicians provide an NOS diagnosis when they determine that a person has that particular class of mental disorder but that the person’s symptoms are not adequately represented by any one of the individual diagnostic categories (American Psychiatric Association, 2000). Personality disorder NOS is one of the most frequently used Axis II diagnosis in clinical practice, as indicated in studies of clinical records and in a meta-analysis of NOS usage across structured and unstructured assessments (Verheul & Widiger, 2004). It is not entirely clear how clinicians are using personality disorder NOS within their practice, but many of these studies do suggest that clinicians are not finding the existing diagnostic categories to be adequate in their coverage of personality disorder symptomatology (Verheul & Widiger, 2004; Westen & Arkowitz-Westen, 1998).

With a categorical model of classification, increased coverage is obtained through the addition of new diagnostic categories or through expanded subtyping of the existing categories (e.g., Millon et al., 1996). The strategy of the authors of the current and previous editions of the diagnostic manual has been to add new categories to fill in the gaps and to revise criterion sets to decrease overlap and improve discriminant validity (Frances, 1980; Gunderson, 1992; Millon, 1983; Widiger, Frances, Spitzer, & Williams,
1988). To the extent that the personality disorders are in fact qualitatively distinct conditions, this effort should not be terribly burdensome. However, to the extent that the *DSM–IV–TR* categories are instead describing overlapping constellations of maladaptive personality traits that are distributed continuously within the population, efforts to demarcate a limited number of specific categories to identify homogeneous and distinct groups, yet also provide adequate coverage, will likely continue to be problematic and frustrating (Livesley, 2003; Pincus, Frances, Davis, First, & Widiger, 1992; Widiger & Clark, 2000).

**Arbitrary and Unstable Boundaries With Normal Psychological Functioning**

A significant proportion of the inadequate coverage provided by the current diagnostic manual concerns subthreshold cases. *DSM–IV–TR* includes general definitions of mental and personality disorder, but it is apparent that the thresholds for diagnosis bear little relationship to these general definitions (Wakefield & Spitzer, 2002). The arbitrary threshold for diagnosis is particularly evident for the personality disorders.

*DSM–IV–TR* provides specific and explicit rules for distinguishing between the presence versus absence of each of the individual diagnostic categories (e.g., five of eight specified criteria are necessary for the diagnosis of histrionic personality disorder), but the schizotypal and borderline diagnoses are the only two for which a published rationale has ever been provided. No explanation, rationale, or even supportive discussion has ever been attempted for the diagnostic thresholds for the avoidant, schizoid, paranoid, histrionic, narcissistic, dependent, or obsessive–compulsive personality disorders. In addition, it is evident that the justification for the thresholds for the borderline and schizotypal diagnoses no longer apply (Skodol et al., 2002). Their cutoff points were selected on the basis of maximizing agreement with diagnoses provided by a large sample of clinicians (Spitzer, Endicott, & Gibbon, 1979). There have since been so many revisions, deletions, and additions to their criterion sets that the current diagnostic thresholds no longer relate well to the original thresholds (Blashfield, Blum, & Pfohl, 1992).

These unanticipated and substantial shifts in prevalence rates across revisions to the *DSM* are problematic to scientific theory and public health decisions (Blashfield et al., 1992; Regier & Narrow, 2002). It is difficult to argue that the *DSM* is carving nature at a discrete joint when seemingly minor changes to criterion sets result in substantial changes in prevalence rates. Regier et al. (1998) lamented the difficulty in convincing public health agencies to fund the treatment of mental disorders when the American Psychiatric Association cannot provide consistent estimates of epidemiology.

**Heterogeneity Among Persons With the Same Diagnosis**

Most of the personality disorder diagnostic criterion sets in *DSM–III* (American Psychiatric Association, 1980) were monothetic, in that all of the criteria were required to provide a diagnosis. However, it soon became apparent that persons with the same diagnosis rarely had precisely the same diagnostic features. Therefore, the authors of *DSM–III–R* (American Psychiatric Association, 1987) switched to polythetic criterion sets in which only a subset of diagnostic criteria are required (Widiger et al., 1988). For example, in *DSM–IV–TR*, any four of eight optional criteria are required for the diagnosis of obsessive–compulsive personality disorder (American Psychiatric Association, 2000). Polythetic criterion sets, however, do not resolve the problems associated with the heterogeneity among persons sharing the same diagnosis. Polythetric criterion sets are simply an acknowledgment of the existence of this problematic heterogeneity. It is now possible for two patients to meet the *DSM–IV–TR* criteria for obsessive–compulsive personality disorder and yet not have any diagnostic features in common!

**Inadequate Scientific Base**

Blashfield and Intoccia (2000) conducted a computer search of the personality disorder research literature and concluded that “the only personality disorder whose literature is clearly alive and growing is that of borderline personality disorder” (p. 473). They characterized the literature concerning the dependent, narcissistic, obsessive–compulsive, paranoid, passive–aggressive, schizoid, and histrionic personality disorders as being “dead” or “dying” (Blashfield & Intoccia, 2000, p. 473).

There has been extensive research on the etiology, course, pathology, and treatment of the antisocial, borderline, and schizotypal personality disorders (Millon et al., 1996), and there has been a considerable amount of research on narcissism within the general personality literature (Ronningstam, 2005). However, there has been little
comparable research on the etiology, course, pathology, or
treatment of the paranoid, schizoid, histrionic, avoidant,
passive–aggressive, or obsessive–compulsive personality
 disorders. It is challenging even to find a systematic study
developed to an understanding of the etiology, pathology, or
treatment of the histrionic, schizoid, paranoid, or obses-

sive–compulsive disorders despite the provision over 20
years ago of their research diagnostic criteria within DSM–
provided specific and explicit criterion sets for these per-
sonality disorders in part to facilitate the development of
systematic empirical studies that would provide Robins and
Guze’s (1970) recommended follow-up, family history, and
laboratory construct validation studies that would doc-
ument their validity as distinct diagnostic entities. Kupfer
et al. (2002) and Rounsaville et al. (2002) lamented the
failure of studies to support the validity of distinct diag-
nostic entities for the mood, anxiety, schizophrenia, sub-
stance use, and other classes of psychopathology. In the
case of personality disorders, there hardly even appears to
have been much of an effort. As a result, many of the
DSM–IV–TR personality disorders are failing to establish a
compelling scientific base (Blashfield & Intoccia, 2000).

A Dimensional Model of Classification

A dimensional model of classification addresses many, if
not all, of the problems and limitations inherent to the
existing diagnostic categories. Heterogeneity among per-
sons is addressed through the provision of multifactorial
descriptions of an individual’s psychopathology (person-
ality disorder) profile. Multifactorial profile descriptions
avoid lumping persons into single diagnostic categories
that fail to recognize the unique constellation of symptoms,
features, and traits that characterize an individual person.
Rather than provide a person with three, four, five, or even
six “comorbid” but overlapping personality disorder diag-
noses, each presumably with its own unique implications
for etiology, pathology, and treatment, one instead de-
scribes the individual in terms of his or her unique constel-
lation of maladaptive personality traits. Any reasonably
comprehensive dimensional model would also be able to
cover a greater range of maladaptive personality function-
ning without requiring additional diagnostic categories by
avoiding the inclusion of redundant and overlapping diag-
noses, by organizing the traits within a hierarchical struc-
ture, by representing a broader range of maladaptive per-
sonality functioning along a single dimension (e.g.,
introversion versus extraversion), and by allowing for the
representation of relatively unique or atypical personality
profiles (Widiger & Samuel, 2005a). The need for the
frequently used wastebasket NOS diagnosis would de-
ccrease substantially. In addition, there are other important
benefits that are worth emphasizing, particularly if the
classification is integrated with dimensional models of gen-
eral personality structure. As we indicate later, one such
benefit is the provision of a much stronger scientific foun-
dation.

Integration of Psychiatry With Psychology

The National Institute of Mental Health has been encour-
aging for some time translational research, or studies that
integrate basic science and applied, clinical practice. The
“National Institute of Mental Health has developed a num-
ber of initiatives designed to foster and speed the transla-
tion of basic behavioral and neuroscience work into re-
search that addresses the etiology and treatment of mental
disorders” (Cuthbert, 2002, p. 6). An intention of this
mission is to have the clinical understanding of mental
disorders be guided more heavily by the scientific under-
standing of psychological functioning, as developed (in
part) in the fields of cognitive psychology, social psychol-
ogy, and neuroscience, as well as to encourage in turn basic
science research to have a more direct and clear relevance
to clinical practice.

One potential exemplification of this effort would be
the integration of the scientific research in psychology on
personality structure with the psychiatric classification of
personality disorders (Widiger, 2005; Widiger, Simonsen,
Krueger, Livesley, & Verheul, 2005). As expressed well by
Ball (2001) in his introduction to a special issue of the
Journal of Personality, “the application of personality trait
models to the conceptualization of personality disorders
has forged a much needed integration of what were sepa-
rate areas of scientific study for most of the 20th century”
classification of personality disorders within DSM–IV–TR
has been derived from clinical experiences and from psy-
chiatric, psychoanalytic, or psychological research of clin-
ical populations, largely divorced from the study of general
personality structure (Millon et al., 1996). DSM–IV–TR
currently includes 10 personality disorder diagnostic cate-
gories. The theoretical and clinical origins of these diag-
noses are diverse, but none would trace its history or origin
to personality trait research (Livesley, 2001; Millon et al.,
1996).

Five Factor Model

One promising dimensional model of general personality
structure developed within psychology is the five-factor
model (FFM). The FFM was developed originally through
empirical studies of trait terms within existing languages.
This lexical paradigm is guided by the compelling hypo-
thesis that what is of most importance, interest, or meaning
to persons is encoded within the language. Language can be
understood as a sedimentary deposit of the observations of
persons over the thousands of years of the language’s
development and transformation. The most important do-
 mains of personality functioning are those with the greatest
number of terms to describe and differentiate various man-
ifestations and nuances, and the structure of personality is
evident in the empirical relationship among these trait
terms (Ashton & Lee, 2001; Goldberg, 1993).

The initial lexical studies were conducted with the
English language, and these investigations converged well
onto a five-factor structure (Goldberg, 1993). The five
broad domains have been identified as extraversion (or
surgency), agreeableness, conscientiousness (or con-
straint), emotional instability (or neuroticism), and open-
ness (or intellect, imagination, or unconventionality). There
has been some disagreement about the single best term to
describe each domain, in part because it is understandably
difficult to identify a single term to adequately characterize
the entire range of personality functioning included within
a large domain. Subsequent lexical studies have been con-
ducted on many additional languages (e.g., German, Dutch,
Czech, Polish, Russian, Italian, Spanish, Hebrew, Hungar-
ian, Turkish, Korean, and Filipino), and these have con-
firmed reasonably well the existence of the five broad
domains (Ashton & Lee, 2001; Church, 2001).

Empirical support for the construct validity of the
FFM as a dimensional model of personality structure is
extensive (McCrae & Costa, 1999). Instructive and infor-
mative concerns regarding the validity of the FFM have
been raised (Block, 1995; Shedler & Westen, 2004;
Westen, 1995), but it hardly seems an exaggeration to
suggest that the empirical support for the construct validity
of the DSM–IV–TR personality disorder categories pales in
comparison. As acknowledged even by proponents of the
personality disorder diagnostic constructs, “similar con-
struct validity has been more elusive to attain with the
current DSM–IV personality disorder categories” (Skodol,
Oldham, et al., 2005, p. 1923). We illustrate this point here
with respect to heritability, universality, childhood ante-
cedents, and temporal stability (Widiger et al., 2005).

Heritability. There have been many univariate
and multivariate heritability analyses of the personality
traits included within the FFM (Bouchard & Loehlin,
2001). The behavior genetic research has generally sup-
ported the validity of the domains and facets of the FFM
and even the FFM structural model. For example, Yamagata
et al. (2006) conducted multivariate genetic heritabil-
ity analyses of the Revised NEO Personality Inventory
(NEO PI-R; Costa & McCrae, 1992), the predominant
measure of the FFM, with three large, independent twin
samples from Canada, Germany, and Japan. The purpose of
the study was not only to determine the relative contribu-
tion of genes and environment but also to determine
whether the structure of the shared genetic variance was
consistent with the phenotypic personality structure. Mul-
tivariate genetic analyses extend univariate analyses of a
single trait to estimate genetic and environmental influ-
ences on the covariation among two or more traits. Genetic
and environmental covariation matrices can then be fac-
tored to provide information on the inherent genetic struc-
ture underlying the covariation. Yamagata et al. concluded
that the “results support . . . [the] view that the FFM reflects
a genetic structure that is universal” (p. 994).

The search for the specific genes of personality func-
tioning has, of course, produced quite mixed results. How-
ever, a set of genetically defined primary traits would
provide a strong basis for an etiologically based classifica-
tion and would facilitate molecular research by providing
targets with more homogeneous genetic variance (Livesley,
2005a). It is encouraging that two meta-analytic reviews of
the molecular genetic research have supported the further
exploration of FFM neuroticism (Schinka, Busch, & Ro-
bichaux-Keene, 2004; Sen, Burmeister, & Ghosh, 2004).

In contrast, few if any researchers have even at-
ttempted to consider molecular genetic studies of the DSM–
IV–TR personality disorders. It is clear that “the current
DSM system of overlapping and arbitrary categorical diag-
noses . . . yields obscure phenotypes that have limited value
in genetic research” (Jang, Vernon, & Livesley, 2001, p.
242). Behavior genetic (twin or family history) studies of
individual personality disorders have been confined essen-
tially to the borderline, antisocial, and schizotypal person-
ality disorders. The research concerning the seven other
personality disorders has been so sparse that reviews of the
heritability of these personality disorders have in fact based
many of their conclusions on the behavior genetic research
of normal personality traits, implicitly assuming that these
personality disorders are in fact maladaptive variants of
general personality structure (e.g., McGuffin & Thaper,
1992; Nigg & Goldsmith, 1994).

Universality. A common distinction in cross-cul-
tural research is between etic and emic studies (Church,
2001). Etic studies use constructs and measures from one
culture imported into another, determining (in part)
whether the importation reproduces the nomological net of
predictions previously obtained in other cultures. In con-
trast, emic studies use constructs and measures that are
indigenous to a particular culture, determining whether a
particular model of personality structure is evident from the
perspective of that culture. The FFM lexical studies (Ash-
ton & Lee, 2001) would be considered emic studies. There
have been virtually no systematic emic studies of person-
ality disorders.

Etic studies can be informative with respect to the
validity of a diagnostic nomenclature. A criticism of the
emic lexical paradigm is that it might simply be studying
folk concepts that lack any validity beyond the belief
systems of a particular culture (Westen, 1995). For ex-
ample, it is unlikely that all cultures or societies have equally
valid conceptualizations of personality structure or person-
ality disorder. Simply because a personality trait (e.g.,
negative affectivity) or a disorder (e.g., borderline person-
ality disorder) is not recognized within a particular culture
or language does not necessarily mean that the trait or the
disorder does not exist within that culture (Wakefield,
1994).

In any case, there have also been few etic studies of
the personality disorder nomenclature of the DSM–IV–TR
(American Psychiatric Association, 2000). Some studies
have applied the DSM–IV–TR personality disorders within
an individual culture that is different from the predominant
Western society in which the manual was largely created,
but there appears to be only one systematic multinational
study, in which the DSM–III–R (American Psychiatric As-
soiation, 1987) personality disorder criterion sets were
assessed in 14 mental health centers located in 11 different
countries of North America, Europe, Africa, and Asia
(Loranger et al., 1994). With respect to the universality of
the DSM–IV–TR personality disorder nomenclature, it is
perhaps noteworthy that DSM–IV–TR narcissistic person-
ality disorder is still not included within the World Health Organization’s (1992) International Classification of Diseases, despite the presence of this disorder since 1980 within DSM–III.

In contrast, the etic cross-cultural support for the FFM personality structure is extensive (Allik, 2005). McCrae (2002) summarized the results of an extensive etic cross-cultural study of personality structure using translations of the NEO PI-R (Costa & McCrae, 1992). The NEO PI-R was administered in 36 different cultures, with replications of personality structure across gender and age groups. A further extension was provided by McCrae, Terracciano, and 78 members of the Personality Profiles of Cultures Project (2005), using observer ratings of 11,985 individuals obtained in 51 different cultures. The largest cross-cultural study of the FFM to date was conducted by Schmitt and his colleagues as part of the International Sexuality Description project, which includes 100 scientists from 56 countries (Allik, 2005). They administered an FFM measure to 17,837 participants from 56 different countries. Results indicated that the five-dimensional structure was highly robust across major regions of the world, including North America, South America, Western Europe, Eastern Europe, Southern Europe, the Middle East, Africa, Oceania, South-Southeast Asia, and East Asia (Allik, 2005).

**Childhood antecedents.** Although it is widely recognized that adult personality disorders have their roots in a variety of developmental and temperamental variables, there has been remarkably little research examining the childhood and adolescent antecedents of the DSM–IV–TR personality disorders, with perhaps the exceptions of antisocial, borderline, and schizotypal studies. It can even be difficult to find an empirical study on the childhood antecedents of the DSM–IV–TR histrionic, obsessive–compulsive, schizoid, or paranoid personality disorders.

Child and adolescent temperaments are probably among the best candidates for general broadband developmental antecedents for adult personality disorders (Merriam, De Clercq, De Fruyt, & Van Leeuwen, 2005). There is still only a limited amount of research relating empirically the temperaments of childhood with adult personality traits, but Shiner (1998) suggested that many of the apparently disparate temperaments being studied do appear to be well organized within four of the five broad domains of the FFM: extraversion or positive emotionality (i.e., social inhibition, sociability, dominance, energy/activity level), neuroticism or negative emotionality (i.e., anxious distress, irritable distress), conscientiousness or constraint (i.e., attention, inhibitory control, achievement motivation), and agreeableness (i.e., antagonism, prosocial tendencies). Missing from Shiner’s theoretical model of childhood temperament was an openness dimension, which she suggested could reflect that preschool teachers do not generally distinguish curiosity and creativity from conscientiousness. Caspi, Roberts, and Shiner (2005), however, subsequently included an openness dimension in their more recent reviews of the childhood research, consistent with an equally extensive review of the temperament literature by Merriam et al. (2005).

**Temporal stability.** Fundamental to the concept of personality is temporal stability. Temporal stability “goes to the heart of how personality traits are conceptualized” (Roberts & DelVecchio, 2000, p. 3). A personality disorder is likewise defined in DSM–IV–TR as “an enduring pattern of inner experience and behavior” that is “stable and of long duration, and its onset can be traced back at least to adolescence or early adulthood” (American Psychiatric Association, 2000, p. 689). Empirical support for the temporal stability of personality disorders, however, has been elusive (McDavid & Pilkonis, 1996).

A special issue of the *Journal of Personality Disorders* was devoted to the apparent failure of longitudinal studies to verify the temporal stability of personality disorders. Livesley (2005b) suggested that “probably no other single recent finding on personality disorder has greater implications for classification” (p. 464), as authors of these prospective longitudinal studies have concluded that their results question whether temporal stability should continue to be a defining feature of personality disorder (Skodol, Gunderson, et al., 2005; Zanarini et al., 2005).

Temporal stability, however, has been well documented for general personality structure. For example, Roberts and DelVecchio (2000) conducted a meta-analysis of the findings of 152 longitudinal studies involving 3,217 test–retest correlations that covered various spans of time from childhood to older age. Trait consistency increased from .31 in childhood to .54 during the college years, to .64 at age 30 and then appeared to plateau at .74 between the ages of 50 and 70 years. A potential limitation of their meta-analysis is that it was confined largely (but not exclusively) to self-report measures. However, with this qualification in mind, their conclusion that “traits are quite consistent over the life course” (Roberts & DelVecchio, 2000, p. 20) does appear to be reasonable and contrary to the findings for the psychiatric classification of personality disorder.

The widely published Collaborative Longitudinal Personality Disorders Study (Skodol, Gunderson, et al., 2005) has included assessments of FFM general personality structure, and initial results over a two-year period do suggest that “traits of general personality functioning (e.g., Five-Factor traits) tend to be stable, with stability estimates in the r = .70 to .80 range over two years” (Skodol, Gunderson, et al., 2005, p. 495). As concluded by the authors of this particular component of the longitudinal project, the finding “supports the contention that personality disorders stem from particular constellations of personality traits” (Warner et al., 2004, pp. 222–223).

**Five Factor Model of Personality Disorder**

An integration of the psychiatric personality disorder nomenclature with psychological models of general personality structure would go far in buttressing the weak construct validity of the DSM–IV–TR diagnostic categories (Mullins-Sweatt & Widiger, 2006). It is evident, however, that there is in fact considerable resistance to integrating
the psychiatric nomenclature with dimensional models of general personality structure (First, 2005; Millon et al., 1996; Shedler & Westen, 2004). The primary concerns are obtaining a consensus structure, implementation, and clinical utility. Each of these are discussed in turn.

**Consensus Structure**

By one count, there are 18 alternative proposals for a dimensional model of personality disorder ( Widiger & Simonsen, 2005). The existence of these alternative proposals has been highlighted by opponents to shifting DSM–V toward a dimensional classification as indicating that the proposals are so disparate that no consensus is likely to emerge (Millon et al., 1996). Disparate models of personality structure have been a familiar concern within psychology. “Personality psychology has been long beset by a chaotic plethora of personality constructs that sometimes differ in label while measuring nearly the same thing, and sometimes have the same label while measuring different things” (Funder, 2001, p. 200). The FFM, however, has been used effectively in many prior studies and reviews as a basis for comparing, contrasting, and integrating seemingly diverse sets of personality scales (Funder, 2001; McCrae & Costa, 1999). “One of the apparent strengths of the Big Five taxonomy is that it can capture, at a broad level of abstraction, the commonalities among most of the existing systems of personality traits, thus providing an integrative descriptive model for research” (John & Srivastava, 1999, p. 122). Goldberg (1993) has likened the Big Five to providing the latitude and longitude along which alternative personality constructs can be placed and compared. For example, O’Connor (2002) conducted interbattery factor analyses with previously published correlations involving FFM variables and the scales of 28 other personality inventories published in approximately 75 studies. He concluded that “the factor structures that exist in the scales of many popular inventories can be closely replicated using data derived solely from the scale associations with the FFM” (O’Connor, 2002, p. 198).

One alternative proposal for DSM–V would be to simply convert each diagnostic category to a 5-point Likert scale (Oldham & Skodol, 2000). One could then use these scales to provide profile descriptions of a patient. A significant limitation of this proposal is that dimensions consisting of the existing categories would be grossly overlapping. Descriptions of patients in terms of such scales would essentially reify the excessive and confusing diagnostic co-occurrence that is currently obtained (Bornstein, 1998; Lilienfeld et al., 1994). It is comparable to “solving” the problem of diagnostic heterogeneity by converting to polythetic criterion sets that accept rather than resolve the heterogeneity.

Two predominant dimensional models of the DSM–IV–TR personality disorder symptomatology are the 18 scales of the Dimensional Assessment of Personality Pathology (DAPP; Livesley, 2001, 2003) and the 12 scales of the Schedule for Nonadaptive and Adaptive Personality (SNAP; Clark, Simms, Wu, & Casillas, in press). These two instruments were constructed by factor analyzing personality disorder diagnostic criteria and symptoms to yield more distinctive scales of maladaptive personality traits. The DAPP and SNAP scales would provide profile descriptions that would be more differentiating and less susceptible to construct and scale overlap than 5-point Likert scales of the existing diagnostic categories. However, a limitation of both the 18 DAPP and the 12 SNAP personality disorder symptom scales as a sole replacement for the DSM–IV–TR diagnostic categories would be an absence of an explicit coordination with general personality structure.

Independent reviews of the many studies that have related measures of the FFM to personality disorder symptomatology have concluded that the latter can be well understood as maladaptive variants of the FFM (Clark, in press; Livesley, 2001; Saulsman & Page, 2004). These reviews include a number of studies devoted specifically to the DAPP and SNAP scales (Clark, in press; Clark & Livesley, 2002; Livesley, 2001). The predominant models of normal and abnormal personality functioning do appear to converge onto at least four of the five broad domains of the FFM (Bouchard & Loehlin, 2001; Clark, in press; John & Srivastava, 1999; Livesley, 2003; Markon, Krueger, & Watson, 2005; Trull & Durrett, 2005; Watson, Clark, & Harkness, 1994; Widiger & Simonsen, 2005). It is apparent that a unified hierarchical model is not a substantial barrier toward the implementation of a dimensional model of personality disorder (Markon et al., 2005). Given that these alternative models are all trying to do largely the same thing (i.e., identify the fundamental dimensions of maladaptive personality functioning that underlie and cut across the existing diagnostic categories), it should hardly be surprising that a common ground could be found. In fact, the optimal decision for the authors of a future edition of the diagnostic manual might not be a zero–sum game, where one specific model is chosen at the expense of all others. The ideal solution is likely to be a common, integrative representation that includes the important contributions and potential advantages of each respective model (Widiger & Simonsen, 2005).

**Implementation**

A second concern is how a dimensional model of general personality structure would in fact be implemented in clinical practice (Clark, in press; Trull, 2005; Verheul, 2005). Inherent to a dimensional model of classification is the absence of qualitative distinctions, yet clinicians do have to make a number of specific decisions (e.g., whether to treat a patient, whether to provide a particular medication, whether to provide disability coverage, and whether to hospitalize a patient). However, the absence of illusory qualitative distinctions within a dimensional model does not imply that no useful clinical distinctions could be made along a respective continuum. In fact, we argue that a dimensional classification is better suited for these myriad clinical decisions than the existing diagnostic categories because it can include different cutoff points for different clinical decisions (Trull, 2005; Widiger & Samuel, 2005a).

A dimensional classification of mental disorders is viewed by many as a radical shift for the psychiatric
nomenclature, but *DSM–IV–TR* in fact already includes a strong precedent in the diagnosis of mental retardation (fortuitously, yet appropriately, another resident on Axis II; American Psychiatric Association, 2000). The domain of intelligence, like personality, is distributed as a hierarchical, multifactorial continuous variable, as the intelligence levels of most people, including most of those with mental retardation, are the result of a complex interaction of multiple genetic, fetal and infant development, and environmental influences. There are no discrete breaks in the distribution of intelligence levels that would provide an absolute distinction between normal and abnormal intelligence. The point of demarcation for the diagnosis of mental retardation is an arbitrary, quantitative distinction along the normally distributed levels of hierarchically and multifactorially defined intelligence. The current point of demarcation is an IQ of 70, along with a clinically significant level of impairment. This point of demarcation is arbitrary in the sense that it does not carve nature at a discrete joint, but it was not randomly or mindlessly chosen. It is a well-reasoned and defensible selection that was informed by the impairments in functioning commonly associated with an IQ of 70 or below. Persons with IQs below 70 who in addition demonstrate a clinically significant level of impairment are said to warrant a diagnosis of mental retardation and the professional intervention of specialists to help them overcome or compensate for their relatively lower level of intelligence. A similar procedure could be used to implement an FFM personality disorder diagnosis.

**FFM description.** Widiger, Costa, and McCrae (2002) proposed a four-step procedure for an FFM diagnosis of personality disorder. The first step is to obtain a hierarchical and multifactorial description of an individual’s general personality structure in terms of the five domains and 30 facets of the FFM, providing therein a reasonably comprehensive description of the person’s adaptive and maladaptive personality traits. Quite a few alternative instruments are available to facilitate this assessment (De Raad & Perugini, 2002), including, for example, the NEO PI-R (Costa & McCrae, 1992), a well-validated and heavily researched self-report inventory, and the Structured Interview for the Five Factor Model (SIFFM; Trull & Widiger, 1997), a semistructured interview for the assessment of the FFM. We generally recommend that clinicians use both a self-report inventory and a semistructured interview because multiple methods provide more valid assessments of personality disorder (Clark, in press; Widiger & Samuel, 2005b). Our own approach is to use a self-report inventory to first identify personality scale elevations, followed by a semistructured interview that either can be administered in its entirety or, to save time, can be confined to just the scales elevated on the self-report inventory. However, we recognize that many clinicians lack a sufficient amount of time to administer even part of a semistructured interview. In such cases, FFM self-report inventories and brief clinician rating scales can be used (De Raad & Perugini, 2002; Mullins-Sweatt, Jamerson, Samuel, Olson & Widiger, 2006).

A practical concern for the FFM approach is that a description of a person in terms of the 30 facets of the FFM is more complex than a single diagnostic category. It is true that more accurate and precise descriptions invariably contain more information than is provided by a single diagnostic category. However, as demonstrated in a case study illustration of FFM personality disorder diagnosis by Widiger and Lowe (in press), a typical FFM description can be quite succinct, as the clinically significant elevations (e.g., with $T$ scores above 55 or below 45) are confined to just a subset of the 30 FFM facets.

**Identify social and occupational impairments.** The second step is to identify social and occupational impairments and distress associated with extreme scores on the FFM personality traits. Widiger et al. (2002) and McCrae, Löckenhoff, and Costa (2005) have identified problems likely to be found in people scoring high or low on each of the FFM domains and facets. Questions for the assessment of these maladaptive variants of each of the facets of the FFM are explicitly included within the SIFFM. The diagnostic interview focuses on only those sets of problems identified by the personality assessment as potentially relevant for the client.

An assessment such as this can appear to be too time consuming. A systematic assessment of the 30 facets of the FFM with the SIFFM takes, on average, approximately one hour (Trull & Widiger, 1997). However, we note that this is approximately half the time it takes to administer a *DSM–IV–TR* personality disorder semistructured interview, in part because there is less redundancy in coverage and because of the confinement of the assessments of impairment to instances of facet elevation. Most of the time in a *DSM–IV–TR* personality disorder interview is spent assessing large numbers of overlapping diagnostic criteria that are not present.

**Clinically significant level.** The third step is to determine whether the dysfunction and distress reach a clinically significant level of impairment that would warrant a diagnosis of personality disorder. We use as our guide for this decision the Global Assessment of Functioning (GAF) scale provided on Axis V of *DSM–IV–TR* (American Psychiatric Association, 2000) and used in quite a number of clinical studies (Hilsenroth et al., 2000; Regier & Narrow, 2002). A score of 71 or above on the GAF indicates a normal range of functioning (e.g., problems are transient and expectable reactions to stressors); a score of 60 or below represents a clinically significant level of impairment (moderate difficulty in social or occupational functioning, such as having few friends or significant conflicts with coworkers) (American Psychiatric Association, 2000). Further explication of this scale is provided by the Global Assessment of Relational Functioning and the Social and Occupational Functioning scales (American Psychiatric Association, 2000; Hilsenroth et al., 2000).

The existing thresholds for a personality disorder diagnosis do not have any consistent or explicit reference to a level of impairment that might warrant a diagnosis or have a meaningful implication for any particular social or clinical decision (e.g., hospitalization, disability, or insur-
ance coverage). There is, in contrast, a considerable amount of reliability and validity data on the GAF scale (Hilsenroth et al., 2000). However, an important area of future research will be studies relating the GAF (along with the more specific Global Assessment of Relational Functioning and Social and Occupational Functioning scales) to maladaptive personality functioning in order to develop precise cutoff points for specific clinical decisions.

**Prototypal matching.** The fourth step is optional: a quantitative matching of the individual’s FFM personality profile to prototypic profiles of diagnostic constructs (e.g., Miller & Lynam, 2003; Trull et al., 2003). This last step is provided for clinicians and researchers who wish to continue to provide or study single diagnostic constructs (e.g., borderline). In fact, an advantage of the FFM method of diagnosis is that clinicians and researchers can develop FFM profiles for personality disorder constructs not included within DSM–IV–TR (e.g., successful psychopath). However, prototypal matching is not generally recommended, as the purpose of the FFM diagnosis would not simply be to provide a roundabout method of returning to the DSM diagnostic categories (Clark, in press). Because prototypal cases are rare in general practice, the prototypal matching serves primarily to indicate the extent to which any single construct (e.g., borderline) fails to provide a fully accurate or precise description of the individual person. In the vast majority of cases, the optimal description is provided by the actual FFM profile of the individual person rather than the profile of a hypothetical prototype or the extent to which the person’s FFM profile matches that prototype.

**Clinical Utility**

Perhaps the strongest argument being raised against a dimensional classification of personality disorder is clinical utility. As First (2005) argued in his rejoinder to proposals for converting the psychiatric diagnostic categories into dimensions, “the most important obstacle standing in the way of its implementation in DSM–V (and beyond) is questions about clinical utility” (p. 561).

First (2005), however, appears to have assumed that the existing diagnostic categories have compelling clinical utility. In an international survey of psychiatrists and psychologists, Maser, Kaelber, and Weise (1991) indicated that the section of the DSM with which respondents were most dissatisfied was the section for personality disorders. Maser et al. did not determine precisely the nature of the clinicians’ dissatisfaction, but the heterogeneity of diagnostic membership, the lack of precision in description, the excessive diagnostic co-occurrence, the failure to lead to a specific diagnosis, the reliance on the personality disorder NOS wastebasket diagnosis, and the unstable and arbitrary diagnostic boundaries are likely to be sources of considerable frustration for clinicians. These are matters of clinical utility (as well as validity). Kupfer et al. (2002) and Ronn saville et al. (2002) called for a conversion to a dimensional classification of personality disorder because of the failure of the existing diagnostic categories to have sufficient clinical utility.

As expressed by Kupfer et al. (2002), “lack of treatment specificity is the rule rather than the exception” (p. xx). There are a number of texts to help clinicians treat personality disorders. However, it is perhaps telling that it has been over 10 years since the American Psychiatric Association has published practice guidelines for the diagnostic categories of DSM–IV (American Psychiatric Association, 1994), and practice guidelines have been developed for only 1 of the 10 personality disorder diagnostic categories. The reason is straightforward: There have been no adequate empirical studies on the treatment of the avoidant, schizoid, paranoid, histrionic, narcissistic, obsessive–compulsive, or dependent personality disorders. Very little can be said empirically regarding their treatment.

This is not to imply that personality disorders are untreatable. Personality disorders are among the more difficult disorders to treat, in part because they involve pervasive and entrenched behavior patterns that have been present throughout much of a person’s life, and persons consider many aspects of their personality to be integral to their sense of self (Millon et al., 1996). There is also likely to be considerable variation across (and within) the DSM–IV personality disorders in their responsiveness to treatment. Nevertheless, “psychotherapy studies indicate that, as a group, personality disorders improve with treatment” (Perry & Bond, 2000, p. 25). There is compelling empirical support to indicate that a meaningful response to treatment does occur (Leichsenring & Leibing, 2003; Perry, Banon, & Ianni, 1999).

However, what is also evident from this research is that treatment rarely involves a comprehensive or complete cure of the personality disorder and does not appear to focus on the entire personality structure (Paris, 2006). It appears to be the case, for example, that clinicians treat the affective instability, the fears of abandonment, the behavioral dyscontrol, or the self-mutilation of persons diagnosed with borderline personality disorder. Effective change occurs with respect to these components rather than the entire, global construct. One of the empirically supported treatments for borderline personality disorder (American Psychiatric Association, 2001) is dialectical behavior therapy. Research has demonstrated that dialectical behavior therapy is an effective treatment for many of the components of this personality disorder, but it is evident to even the proponents of this clinical approach that the treatment is not entirely comprehensive in its effectiveness (Linehan, 2000). Dialectical behavior therapy has been particularly effective with respect to decreasing parasuicidal behavior and angry hostility, but not with other aspects of borderline psychopathology, such as hopelessness (Linehan, 2000; Scheel, 2000).

An integrated dimensional model of personality disorder would consist precisely of the dimensions of maladaptive personality functioning that are currently the focus of clinical attention (Widiger & Simonsen, 2005). A significant limitation of the FFM is that some of the lower order facet scales focus primarily on the normal variants of personality functioning (e.g., altruism, openness to aesthetics, straightforwardness) that are themselves unlikely to be
the focus of clinical interventions. However, as we indicated earlier, the FFM has been well integrated with dimensional models that focus primarily on the abnormal variants of personality, such as the DAPP (Livesley, 2003) and the SNAP (Clark et al., in press). For example, the conscientiousness domain of the FFM aligns well with the compulsivity domain of the DAPP and the constraint domain of the SNAP, and the lower order SNAP scales of workaholism and impulsivity and the lower order DAPP scale of compulsivity align well with the FFM personality scales of achievement striving, dutifulness, order, self-discipline, deliberation, and competence. A modified version of the four-step procedure described earlier (Widiger et al., 2002) is to use scales from the DAPP and/or SNAP, as each has already been aligned empirically and conceptually as a maladaptive variant of the FFM (Clark & Livesley, 2002; Widiger & Simonsen, 2005). In this modification, one could retain the FFM domain scales (e.g., conscientiousness) but use DAPP and/or SNAP scales for the maladaptive variants. For example, high scores on FFM conscientiousness would lead to a consideration of DAPP compulsivity and/or SNAP workaholism, whereas low scores would lead to an assessment of DAPP passivity and SNAP impulsivity. A disadvantage of this modification is that the description of the adaptive personality traits would be confined to just the five broad domains. However, the scales of the DAPP and the SNAP do concern the personality disorder features that are the focus of clinical attention (e.g., mistrust, manipulativeness, insecure attachment, identity problems, affective lability, and self-harm). A diagnostic manual whose scales described precisely the behaviors that are the focus of clinical interest would surely have as much, if not more, clinical utility than the DSM–IV–TR diagnostic categories.

Even the FFM, as it is currently described within the NEO PI-R, might have more clinical utility than the existing diagnostic categories. The FFM domains could in fact have more specific treatment implications than the existing diagnostic categories, as extraversion and agreeableness are relatively specific to interpersonal dysfunction; neuroticism concerns mood, anxiety, and emotional dyscontrol; conscientiousness concerns impulse dyscontrol at the low end and excessive constraint at the high end; and maladaptive openness implies cognitive–perceptual aberrations (Widiger & Samuel, 2005a). Samuel and Widiger (2006) surveyed members of Division 42 of the American Psychological Association (Psychologists in Independent Practice). They provided them with relatively detailed descriptions of actual persons with maladaptive personality traits (e.g., Ted Bundy). They asked the psychologists to describe the person with respect to the FFM and the DSM–IV–TR personality disorders and to then provide their professional judgment as to various aspects of clinical utility. The clinicians consistently indicated that the FFM dimensional rating was more useful than DSM–IV–TR with respect to providing a global description of the individual’s personality, communicating information to clients, encompassing all of the individual’s important personality difficulties, and even assisting in formulating effective treatment interventions. Nevertheless, an important focus of future research is further studies on the potential clinical utility of the FFM and other dimensional models of personality disorder (Verheul, 2005), including, for example, the implications for the precise form and foci of treatment suggested by the five different domains of the FFM.

Conclusions

Most (if not all) mental disorders appear to be the result of a complex interaction of an array of interacting biological vulnerabilities and dispositions with a number of significant environmental, psychosocial events that often exert their effects over a progressing, developing period of time (Rutter, 2003). The symptoms and pathologies of mental disorders appear to be highly responsive to a wide variety of neurobiological, interpersonal, cognitive, and other mediating and moderating variables that help to develop, shape, and form a particular individual’s psychopathology profile. This complex etiological history and individual psychopathology profile are unlikely to be well described by single diagnostic categories that attempt to make distinctions at nonexistent discrete joints along continuous distributions (Widiger & Samuel, 2005a). The publication of DSM–III provided a significant, major advance in the diagnosis and classification of psychopathology (Klerman, 1983). The time is perhaps right for another significant change, this time one in which there would be an integration of the American Psychiatric Association’s diagnostic nomenclature with psychologists’ classification of general personality structure.

Robins and Guze’s (1970) paradigm for the validation of categorical diagnosis has been widely influential within psychiatry (Klerman, 1983; Kupfer et al., 2002; Spitzer et al., 1975). Proposals for new diagnoses and studies concerned with the validation of existing diagnoses routinely cite their model of construct validation. In 1989, L. N. Robins and Barrett (1989) edited a text in honor of this classic article. Kendell (1989) provided the final word in his closing chapter. His conclusions, however, were curiously negative: “Ninety years have now elapsed since Kraepelin first provided the framework of a plausible classification of mental disorders. Why then, with so many potential validators available, have we made so little progress since that time?” (Kendell, 1989, p. 313). He answered his rhetorical question in the next paragraph: “One important possibility is that the discrete clusters of psychiatric symptoms we are trying to delineate do not actually exist but are as much a mirage as discrete personality types” (Kendell, 1989, p. 313). Robins and Guze identified appropriate variables for establishing the validity of personality and other mental disorder diagnostic categories (e.g., heritability, temporal stability, and discriminant validity), but it is perhaps time to shift from Robins and Guze’s model of construct validation, which was developed primarily to validate the existence of distinct diagnostic categories, to Cronbach and Meehl’s (1955) broader model of construct validation, which has informed the construction of the dimensional models of personality structure developed within psychology (Smith, 2006).
A dimensional model of personality disorder classification would address effectively many of the severe limitations and handicaps of the existing diagnostic categories, including the heterogeneity among patients sharing the same diagnosis, the unstable diagnostic boundaries, the excessive diagnostic co-occurrence, the inadequate coverage, and the weak scientific base. It could be said that the FFM is currently itself limited in its coverage of personality (being confined to just 5 domains and 30 facets), but the level of detail in the personality description of an individual provided by the 30 facets of the FFM, including both adaptive and maladaptive personality traits, is substantially greater than is currently provided by the DSM–IV–TR diagnostic categories. The FFM approach may even help somewhat with the stigmatization of a mental disorder diagnosis, as a personality disorder would no longer be conceptualized as something that is qualitatively distinct from general personality traits (Schacht, 1985). All persons vary in the extent of their neuroticism, in the extent to which they are agreeable versus antagonistic, and in the extent to which they are conscientious, impulsive, and/or undependable. Persons with personality disorders would no longer be said to have disorders that are qualitatively distinct from normal psychological functioning but would instead be simply persons who have relatively extreme and maladaptive variants of the personality traits that are evident within all persons.

The primary purpose of an official diagnostic nomenclature is to provide a common language of communication (Kendell, 1975). All of us, clinicians and nonclinicians, think with our language, or at least it can be difficult to think outside of one’s language, and the current language of psychopathology is the DSM–IV–TR. The professions of social work, law, nursing, psychiatry, and psychology must speak, and therefore, to a related extent, think in terms of a diagnostic model that conceptualizes personality (and other mental disorders) as “qualitatively distinct clinical syndromes” (American Psychiatric Association, 2000, p. 689). An FFM dimensional model of personality disorder would describe abnormal functioning with the same model and language used to describe general personality structure. It would transfer to the psychiatric nomenclature a wealth of knowledge concerning the origins, development, and stability of the dispositions that underlie personality disorder; it would bring with it well-validated and researched instruments and methods of assessment; it would facilitate the development of a more truly universal diagnostic system; and it would represent a significant step toward a rapprochement and integration of psychiatry with psychology.

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