Dimensional-categorical approach to assessing personality disorder pathology

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INTRODUCTION

The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR), like its predecessors takes a categorical approach to the assessment and diagnosis of personality disorders [1]. On the basis of a specified number of descriptive yes/no criteria from a larger set, patients are diagnosed as having or not having one or more of ten personality disorders.

Many problems with this approach have been recognized. Pathological personality traits and impaired functioning manifest in individual patients along a continuum of severity that the present diagnoses fail to capture. An exclusively categorical approach can lead to multiple personality disorder diagnoses being needed to describe a patient's personality pathology and arbitrary distinctions between patients whose conditions meet criteria for a disorder and those who fall just short of meeting criteria. Patients with very different personality characteristics can be grouped within the same diagnostic category [2].

The DSM-5-TR, in a section on "Emerging Measures and Models," also includes an alternative model of personality disorders that takes a hybrid, dimensional-categorical approach [1] and addresses many of these problems.

The alternative DSM-5-TR model for personality disorders is reviewed here. The epidemiology, clinical manifestations, course, assessment, diagnosis, and treatment of personality disorders

(borderline, schizotypal, antisocial, and narcissistic) are reviewed separately.

- (See "Borderline personality disorder: Epidemiology, pathogenesis, clinical features, course, assessment, and diagnosis".)
- (See "Borderline personality disorder: Treatment overview".)
- (See "Borderline personality disorder: Psychotherapy".)
- (See "Schizotypal personality disorder: Epidemiology, pathogenesis, clinical manifestations, course, and diagnosis".)
- (See "Schizotypal personality disorder: Treatment overview".)
- (See "Schizotypal personality disorder: Psychotherapy".)
- (See "Antisocial personality disorder: Epidemiology, clinical manifestations, course, and diagnosis".)
- (See "Antisocial personality disorder: Treatment overview".)
- (See "Narcissistic personality disorder: Epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis".)
- (See "Narcissistic personality disorder: Treatment overview".)
- (See "Personality disorders: Overview of pharmacotherapy".)

LIMITATIONS OF CATEGORICAL APPROACH

The alternative DSM-5-TR model for personality disorders was developed in response to many recognized problems with an exclusively categorical approach, including the following:

- Extensive co-occurrence of personality disorders such that most patients receiving a personality disorder diagnosis meet criteria for more than one [3,4];
- Extreme heterogeneity among patients with the same personality disorder diagnosis, meaning that two patients with a particular disorder may share very few features [2];
- Temporal instability of personality disorder diagnoses occurring at rates incompatible with the basic definition of a personality disorder [5,6];
- Arbitrary diagnostic thresholds in polythetic criteria with little or no empirical basis and limited validity and clinical utility [7-9];
- Poor coverage of personality pathology such that the diagnosis of personality disorder not otherwise specified has been the most commonly used [10].

DIMENSIONAL-CATEGORICAL APPROACH

The alternative model for assessing and diagnosing personality pathology consists of **dimensional** ratings of:

- Severity of impairment in personality (self and interpersonal) functioning. (See 'Assessing personality functioning' below.)
- Twenty-five pathological personality trait facets organized into five broad trait domains. (See 'Assessing pathological personality traits' below.)

When combined with other inclusion and exclusion criteria, these assessments redefine the construct of personality disorder consistently in terms of personality functioning and personality traits and they provide for an efficient step-wise approach to personality disorder assessment. Additionally, they enable the diagnosis of six specific personality disorder **categories**, selected on the basis of their prevalence, empirical support, and/or utility to clinicians, and of personality disorder-trait specified for all other personality disorder presentations. (See 'Assessing specific personality disorders' below.)

The alternative model was deliberately designed to be clinically flexible and “telescoping” in its application. In this model, the assessment of patients might be made at one or more of the following levels based on a clinician’s available time, access to relevant information and expertise:

- Personality functioning (eg, to screen for personality disorder, to follow the longitudinal course of personality pathology, or to track progress in treatment over time). (See 'Assessing personality functioning' below.)
- Pathological personality traits. (See 'Assessing pathological personality traits' below.)
- Personality disorder. (See 'Assessing specific personality disorders' below.)

The four steps described below comprise a stepwise approach to dimensional-categorical assessment of patients for possible personality disorder [11].

Assessing personality functioning — Personality functioning is defined as “cognitive models of self and others that shape patterns of emotional and affiliative engagement” [12].

Core elements — The assessment includes an evaluation of impairments in four core elements of personality functioning – identity, self-direction, empathy, and intimacy, which were identified in the clinical literature as core aspects of personality disorder that can be reliably

assessed [13] and have been shown to have good diagnostic efficiency for identifying personality disorders using a semistructured interview [14]. These impairments are measured in combination on a five-point dimensional scale of severity, the Level of Personality Functioning Scale (LPFS).

Research indicates that generalized severity of personality psychopathology is the most important single predictor of concurrent and prospective psychosocial dysfunction [15]. It is widely agreed among personality disorder experts [16-20] that an assessment of severity is essential to any dimensional system for personality psychopathology. A score of "2 – Moderate" or greater is required for a diagnosis of a personality disorder according to the alternative model because this level of impairment was determined empirically to identify a person with a personality disorder with maximum combined sensitivity and specificity [21]. Thus, a clinician will have a very good sense of whether or not a person has a personality disorder based on the single-item LPFS score.

Domains of personality functioning — Personality functioning is measured in two domains: self and interpersonal.

Self-functioning consists of identity and self-direction, defined as follows [12]:

- Identity – Experience of oneself as unique, with clear boundaries between self and others; stability of self-esteem and accuracy of self-appraisal; capacity for, and ability to regulate, a range of emotional experience.
- Self-direction – Pursuit of coherent and meaningful short-term and life goals, utilization of constructive and prosocial internal standards of behavior, ability to self-reflect productively.

Interpersonal functioning consists of empathy and intimacy, defined as follows [12]:

- Empathy – Comprehension and appreciation of others' experiences and motivations, tolerance of differing perspectives, understanding the effects of own behavior on others.
- Intimacy – Depth and duration of connection with others, desire and capacity for closeness, mutuality of regard reflected in interpersonal behavior.

Detailed descriptions of impairments corresponding to each of five levels of impairment (0 = Little or no impairment, 1 = Some impairment, 2 = Moderate impairment, 3 = Severe impairment, and 4 = Extreme impairment) in each of these areas are provided in the alternative model's LPFS.

Measurement tool — The LPFS Self-Report (LPFS-SR), an 80-item questionnaire, was developed to assist in the assessment of impairment in personality functioning according to the alternative model [22]. Items representing the four subcomponents of the scale were highly internally consistent and the subscales were highly correlated, supporting the unidimensionality of the LPFS. The LPFS correlates with other self-report measures of impairment in personality functioning, supporting the concurrent validity of the new scale. It is found to be highly reliable across a brief test-retest interval and, in community samples, it correlates with a wide range of maladaptive personality traits, personality disorder diagnoses, and interpersonal problems [23].

Another self-report questionnaire to assess impairment in personality functioning is the 12-item Level of Personality Functioning Scale-Brief Form (LPFS-BF 2.0). In two clinical samples of 248 patients, the LPFS-BF was found to significantly correlate with personality disorder diagnoses and other longer measures of personality psychopathology and to be sensitive to change after three months of inpatient treatment [24].

Assessing pathological personality traits — The second step in the assessment of a patient for a personality disorder is an evaluation of pathological personality traits. A personality trait is "a tendency to behave, feel, perceive, and think in relatively consistent ways across time and across situations in which the trait may be manifest" [12].

Trait domains and facets — The alternative model describes pathological personality according to five broad, general personality trait "domains": negative affectivity, detachment, antagonism, disinhibition, and psychoticism, which correspond to the pathological "poles" of the well-known and widely validated five-factor model of personality. Each trait domain consists of from three to six more specific personality trait "facets" (eg, emotional lability in the negative affectivity domain; impulsivity in the disinhibition domain).

Traits can be rated on a four-point dimensional scale of descriptiveness (0 = not at all descriptive, 1 = mildly descriptive, 2 = moderately descriptive; and 3 = very descriptive). A trait judged by a clinician to be moderately or very descriptive of a person "counts" as present. The personality trait assessment serves as a personality trait "review of systems" and describes the myriad manifestations of personality disorder encountered by clinicians in practice.

The five trait domains included in the DSM-5-TR alternative model are defined as follows [12]:

- **Negative affectivity** – Frequent and intense experiences of high levels of a wide range of negative emotions (eg, anxiety, depression, guilt/ shame, worry, anger, etc), and their behavioral (eg, self-harm) and interpersonal (eg, dependency) manifestations.

- **Detachment** – Avoidance of socio-emotional experience, including both withdrawal from interpersonal interactions ranging from casual, daily interactions to friendships to intimate relationships, as well as restricted affective experience and expression, particularly limited hedonic capacity.

- **Antagonism** – Behaviors that put the individual at odds with other people, including an exaggerated sense of self-importance and a concomitant expectation of special treatment, as well as a callous antipathy toward others, encompassing both unawareness of others' needs and feelings, and a readiness to use others in the service of self-enhancement.

- **Disinhibition** – Orientation towards immediate gratification, leading to impulsive behavior driven by current thoughts, feelings, and external stimuli, without regard for past learning or consideration of future consequences.

- **Psychoticism** – Exhibiting a wide range of culturally incongruent odd, eccentric, or unusual behaviors and cognitions, including both process (eg, perception, dissociation) and content (eg, beliefs).

With a profile of descriptive traits, either at the domain or facet level, and a LPFS score, a clinician would have detailed knowledge of both the characteristics of a person's personality psychopathology and of its severity.

Measurement tool — The Personality Inventory for DSM-5 (PID-5; can be access via link by scrolling to and clicking on "Personality Inventories") a 220-item self-report questionnaire, is available for assessing the alternative model's pathological personality trait system [25]. Multiple studies have demonstrated moderate to strong internal consistency reliability for the PID-5 trait domain and facet scales, a replicable factor structure, and good correspondence with other personality assessment instruments [26]. An informant version of the PID-5 has also been developed [27], which can be filled out by an informant with a close relationship to a patient to increase the validity of the trait assessment, or by a clinician who is evaluating a patient in order to structure his or her trait assessment.

Assessing specific personality disorders — The third step in the assessment is to apply the two primary (A and B) criteria for the six specific personality disorders included in the alternative model: antisocial, avoidant, borderline, narcissistic, obsessive-compulsive, or schizotypal personality disorders. The A criteria describe impairments in personality functioning characteristic of each personality disorder and the B criteria list specific personality disorder trait manifestations. The diagnostic thresholds for the A criteria (two or more of four) and assignment, number, and configuration of traits needed to meet the B criteria were also empirically determined to:

- Maximize correspondence with prior criteria for personality disorder diagnoses and, thus, be minimally disruptive to practice and research in shifting to the new DSM-5-TR model;
- Minimize overlap with other personality disorders to reduce comorbidity; and
- Maximize relationships to general impairment in psychosocial functioning [28,29].

Patients who meet criteria A and B for a specific personality disorder may be given a "provisional diagnosis" of that personality disorder. Patients who do not meet the criteria for one of the specific personality disorders in the alternative model may still qualify for a diagnosis of personality disorder-trait specified, if they have moderate or greater impairment in personality functioning and one or more pathological personality traits.

Alternative model criteria for certain personality disorders are reviewed separately. (See "Narcissistic personality disorder: Epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis", section on 'Alternative-model diagnostic criteria' and "Borderline personality disorder: Epidemiology, pathogenesis, clinical features, course, assessment, and diagnosis", section on 'Assessment'.)

Other attributes — The fourth and final step in the assessment is to apply the other inclusion and exclusion criteria (below) of the alternative model's general criteria. If a patient's personality pathology meets these additional conditions, then the diagnosis of a personality disorder can be made.

The impairments in personality functioning and the individual's personality trait expressions should be [12]:

- Relatively inflexible and pervasive across a broad range of personal and social situations;
- Relatively stable across time with onsets that can be traced back to at least adolescence or early adulthood;
- Not better explained by another mental disorder;
- Not solely attributable to the physiological effects of a substance or another medical condition; and
- Not better understood as normal for an individual's developmental stage or sociocultural environment.

STRUCTURED INTERVIEW FOR DIMENSIONAL-CATEGORICAL ASSESSMENT

A new semistructured interview is available to assist clinicians in the assessment of the three parts of an alternative model – The Structured Clinical Interview for the DSM-5 Alternative Model for Personality Disorders (SCID-5-AMPD) [30]. The interview consists of three modules:

- Module I is used for the assessment of the Level of Personality Functioning Scale.
- Module II is focused on the assessment of the alternative model's five trait domains and 25 pathological personality traits.
- Module III is for the evaluation of the categorical elements of the alternative model – criteria A (required impairments in personality functioning) and B (required pathological trait facets) for the six specific personality disorders in the alternative model and the other inclusion and exclusion criteria necessary for making a personality disorder diagnosis.

The diagnosis of personality disorder-trait specified can also be made using module III, based on a determination of at least a moderate level of impairment in personality functioning and the presence of at least one clinically significant pathological personality trait. Alternatively, personality disorder-trait specified can be made based on the results of module I and module II. The SCID-5-AMPD is designed to be administered by trained clinicians with at least a basic knowledge of concepts of personality psychopathology and some experience in interviewing and evaluating patients with personality problems and disorders.

CLINICAL UTILITY

The alternative model provides an "original, heuristic, flexible, and practical framework" [31] for the assessment of personality pathology. It combines major paradigms of personality assessment, facilitates case conceptualization and can inform patient feedback [31,32].

Reliability and perceived utility — Clinicians with little or no training can make reliable and valid judgments about impairments in personality functioning using the Level of Personality Functioning Scale (LPFS) and about pathological personality traits [33-36]. In field trials [33], borderline personality disorder, defined according to alternative model criteria, was diagnosed with reliability comparable to bipolar I disorder, better than schizophrenia and major depressive disorder, and exceeded only by major neurocognitive disorder and posttraumatic stress disorder.

Clinical studies have found the LPFS to be highly reliable:

- In a reliability study of module I of the Structured Clinical Interview for the Alternative Model of Personality Disorders in Norway, interrater reliability of the four LPFS domains

ranged from intraclass correlation = 0.89 (intimacy) to 0.95 (identity and self-direction) and was 0.96 for the total LPFS score [37]. For a test-retest investigation with an average of 9.2 (standard deviation = 5.4) days between interviews, reliability of the domains ranged from intraclass correlation = 0.59 (identity) to 0.80 (self-direction) and was 0.75 for the total LPFS score.

- In a study of patients rated on all Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) standard criteria and Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) alternative model personality disorder criteria and dimensions, the correlations between criterion counts of standard and alternative diagnostic concepts on 337 patients were as follows: borderline personality disorder, 0.80; antisocial personality disorder, 0.80; avoidant personality disorder, 0.77; narcissistic personality disorder, 0.74; schizotypal personality disorder, 0.63; and obsessive-compulsive personality disorder, 0.57 [28]; suggesting high levels of agreement between DSM-5 standard personality disorder criteria and alternative model criteria.

- A national sample of 123 mental health clinicians rated 12 clinical vignettes representing a range of personality pathology with criteria for borderline personality disorder and alternative model dimensional components and borderline criteria [38]. There was no difference in the reliability of the diagnoses of borderline personality disorder between the two systems, but the alternative model dimensional components were more reliable than Section II categorical diagnoses.

In a national sample of 337 mental health clinicians, the perceived clinical utility of the dimensional-categorical model compared with personality disorder criteria was judged to be more useful with respect to ease of use, communication with patients, comprehensive description of personality pathology, formulation of effective treatment interventions, and description of an individual's global personality, by both psychiatrists and psychologists [39].

Utility for treatment planning — Various specific types of psychotherapy focus on aspects of impairments in sense of self and in interpersonal relationships, as well as on pathological trait domains such as negative affectivity, detachment, or antagonism. As examples:

- Transference-focused therapy, an object relations model of treatment, seeks to change a state of identity diffusion into a more coherent identity by increasing self-reflective functioning and self-modulation of negative emotions [40].

- Mentalization-based therapy challenges automatic, distorted, and simplistic assumptions of the patient about self and others, in a fashion similar to some cognitive therapies.

- Traditional cognitive-behavioral therapy uses cognitive restructuring, exposure, and intimacy skills training to decrease social anxiety and social avoidance, either in individual or group treatment [41].

- Schema-focused therapy is based on the premise that rigid patterns of avoidance and other compensatory behaviors develop to avoid triggering painful schemas about self and others. Modification of maladaptive schemas formed early in life leads to reduced expression of pathological traits (eg, withdrawal, intimacy avoidance).

Utility in predicting treatment outcome and future functioning — Self/interpersonal problems, such as insecure attachment and maladaptive schemas, have been shown to be associated significantly with personality disorder psychopathology and impairments in psychosocial functioning, in general, as well as to affect treatment alliance and outcome [42-52]. Self-pathology has been shown to have incremental validity over interpersonal pathology in predicting overall severity of personality pathology [53] and social and occupational impairment [54]. Both components are represented in the DSM-5 LPFS.

The severity of impairment in self and interpersonal functioning also has predicted important factors such as treatment utilization and treatment course and outcome [45,51-53,55-58]; thus, personality functioning is measured on a dimensional scale of severity in the alternative model.

In addition to the independent utility of personality functioning constructs and of pathological personality traits, a number of more recent studies support a model of personality psychopathology that specifically combines ratings of disorder and trait constructs (ie, a hybrid model). Each approach has been shown to add incremental value to the other in predicting important antecedent (eg, family history, history of child abuse), concurrent (eg, functional impairment, medication use), and predictive (eg, future functioning, hospitalization, suicide attempts) variables [8,9,59,60].

A survey of clinicians' assessments of their patients examined the relationships between standard personality disorder diagnoses and DSM-5-TR alternative model personality disorders and their components to clinical judgments [21,61] concerning:

- Current psychosocial functioning
- Risk for self-harm, violence, and criminality
- Optimal level of treatment intensity
- Prognosis

Alternative-model components together and individually (personality functioning level and traits) had appreciably stronger correlations with these judgments than standard personality

disorder categories in 11 of 12 comparisons. The only exception was for the prediction of perceived risk, which was more associated standard personality disorders than with alternative-model level of personality functioning ratings (however, alternative-model traits in isolation and alternative-model LPFS ratings and traits combined were superior to standard categories in predicting perceived risk).

Virtually all valid variance in standard personality disorder diagnoses was captured by the alternative-model, but the converse was not true. Incremental validity of the standard and alternative personality disorder systems was examined as the associations between each of the two personality disorder systems and the four clinical judgments above, while controlling for the effects of the other. The partial multiple (and corrected) correlations showed that alternative personality disorder renderings improved upon standard personality disorders in predicting all four clinical judgments, while standard did not provide any information above and beyond that provided by the alternative model.

Two reviews summarize the majority of the research on the alternative DSM-5 model for personality disorders since its publication.

- A review of 237 studies on the alternative model found acceptable interrater reliability and validity in terms of consistent latent structures of its components and convergence with a range of theoretically and clinically relevant measures [62]. There was also evidence of incremental validity over and above categorical personality disorder diagnoses.

- A review focusing on the DSM-5 LPFS supported its reliability and its structure as a unidimensional measure of the severity of personality pathology with predictive and clinical utility [63]. With the normative developmental emergence of integrated self and identity functions in adolescence, the potential for personality dysfunction also emerges, thus explaining the usual onset of personality disorders in adolescence.

CLINICAL BURDEN

Adoption of the DSM-5-TR alternative approach to assess personality pathology does not increase the time needed for patient assessment and requires a relatively minor amount of training for a new or experienced clinician to use.

The alternative approach has fewer indicators to evaluate in conducting a routine clinical assessment than does the standard DSM-5-TR approach to personality disorders. The alternative approach involves a single rating of personality functioning and rating 25 traits on a

four-point descriptiveness scale). The clinical effort required is comparable with the standard model's application of 94 criteria for 10 personality disorders using the standard approach [12].

Training and experience needed — Multiple studies suggest that relatively untrained and inexperienced raters can make reliable and valid judgments based on the alternative model after no more than one to two days of didactic and experiential learning [34,35,64].

As an example, 22 untrained and clinically inexperienced psychology undergraduate students in Germany made DSM-5-TR Level of Personality Functioning Scale (LPFS) ratings based on psychodynamic diagnostic interviews of 10 patients [34]. In preparation, students spent a median four hours reading about personality disorders in general and one hour reading about the psychodynamic diagnostic interview. The reliability of individual raters' LPFS ratings was an acceptable 0.51 (intraclass correlation [2,1]) and the reliability across raters was an extremely high 0.96 (intraclass correlation [2,22]). Students' LPFS ratings were associated with the presence of a personality disorder as measured by a semistructured interview, the number of personality disorder diagnoses, and structural personality impairments as measured by the operationalized psychodynamic diagnosis system; they were highly congruent with expert ratings of written case vignettes.

Time required for assessment — Assessment of personality pathology by semistructured clinician interview and by patient self-report requires comparable amounts of time, whether the assessments are based on the standard or the alternative models for assessment.

As an example, the amount of time necessary for assessment by clinical interview depends primarily on the amount of pathology present and the talkativeness of the subject rather than which model the assessment is based on. Use of semistructured clinical interviews for assessment (ie, the Structured Clinical Interview for DSM-5 Personality Disorders [65] or the Structured Clinical Interview for the DSM-5 Alternative Model for Personality Disorders module III) is estimated at 20 minutes for a patient with little or no personality pathology to up to one and a half to two hours for a talkative patient with much pathology, who might meet criteria for several personality disorders.

Modules I and II are approximately one-third shorter than module III and, thus, would be expected to take somewhat less time. In a reliability study of module I in Norway [37], the average duration of module I interviews was 80 minutes, including time to collect demographic information and take education/work and past psychiatric histories (parts of the interview). More experienced raters averaged about 10 minutes less than less experienced raters.

ICD-11

The International Classification of Diseases – 11th revision (ICD-11) proposes a dimensional approach to personality disorder classification with a single category of personality disorder severity measured as mild, moderate, and severe with five descriptive trait domain modifiers applied categorically (ie, present/absent): negative affectivity, detachment, dissocial, disinhibition, and anankastic, the first four of which are very similar to the trait domains of the DSM-5-TR alternative model, but no specific personality disorder types, except a borderline "specifier" [31,66,67].

SUMMARY

- The categorical approach to the assessment and diagnosis of personality disorders has many limitations (see 'Limitations of categorical approach' above):
  - Extensive co-occurrence – Most patients receiving the diagnosis meet criteria for more than one
  - A high degree of heterogeneity among patients with the same personality disorder diagnosis
  - Temporal instability of personality disorder diagnoses
  - Arbitrary diagnostic thresholds in polythetic criteria
  - Poor coverage of personality pathology
- The alternative Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) model for personality disorders, which uses a dimensional-categorical approach, enables clinicians to identify personality psychopathology, quantify its severity, and characterize its myriad clinical manifestations in terms of impairments in personality functioning and pathological personality traits. (See 'Dimensional-categorical approach' above.)
- Clinicians can use the alternative model's Level of Personality Functioning Scale to (see 'Assessing personality functioning' above):
  - Screen patients for the possible presence of a personality disorder;
  - Gauge the severity of personality disorder, if present;

- Target specific impairments in personality functioning to address in treatment;
- Follow the longitudinal course of personality pathology over time and monitor treatment progress.

- Clinicians can use the alternative model's personality trait domains and facets to (see 'Assessing pathological personality traits' above):
  - Perform a personality "review of systems" to discern general patterns of problematic personality features (domain-level assessment) and to focus attention on particular problematic pathological personality traits (facet-level assessment) for treatment planning;
  - Communicate with patients and concerned others about patients' tendencies to behave, feel, perceive, and think in ways that cause them problems in social, occupational, and leisure functioning;
  - Determine whether or not a patient's condition meets pathological personality trait criteria for a specific alternative model personality disorder or for personality disorder-trait specified;
  - Describe their patients' problematic personality traits, even when the patient does not have a personality disorder.
- Adoption of personality pathology assessment based on the alternative model would yield reliable and valid judgments, would not increase the time needed for patient assessment, and would require no more than one to two days of didactic and experiential learning. (See 'Clinical utility' above and 'Clinical burden' above.)

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