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## NOTE FROM THE FIELD

# The Lay Concept of "Mental Disorder" among American Undergraduates



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Lay concepts of "mental disorder" were investigated in a pilot study of beliefs about 68 conditions, 47 of which corresponded to DSM-IV mental disorders. Undergraduates who had no formal education in abnormal psychology rated the conditions on features proposed in technical definitions of "mental disorder" and judged whether the conditions were mental disorders. The features composed three dimensions—social deviancy, harmful dysfunction, and peculiarity—the last two of which were strongly and independently associated with judgments of mental disorder ( $R = 0.83$ ). Lay and DSM-IV understandings of "mental disorder" showed moderate convergence. © 2002 Wiley Periodicals, Inc. *J Clin Psychol* 58: 479–485, 2002.

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Few questions are more basic to clinical psychology than how "mental disorder" should be defined, and this issue is a focus of heated controversy in the field (Clark, 1999). Some argue that an explicit definition is pragmatically and intellectually indispensable, a position taken equally by the developers of the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV; American Psychiatric Association, 1994) and those who propose alternative definitions (Wake-

field, 1992). Others contend that no sharp boundary can be drawn around "mental disorder" (Lilienfeld & Marino, 1995), "a fundamentally messy construct [that is] an irreducible mixture of personal, social, cultural and scientific beliefs" (Pressman, 1993, p. 80). To some, mental disorders share no defining features, and the diverse conditions now recognized as disorders are bound together by little more than psychiatric tradition, shifting cultural value judgments, and the pragmatics of need for treatment (e.g., Kirmayer & Young, 1999).

One relatively neglected question, amid the professional debates over definition, is how lay people conceptualize "mental disorder." This question matters for several rea-

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sons. First, formal definitions of "mental disorder," such as the one first developed for the *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition (DSM-III, American Psychiatric Association, 1980) by Robert Spitzer and colleagues, are typically based on conceptual analyses that rely on widely shared lay judgments. In such analyses "proposed accounts of a concept are tested against relatively uncontroversial and widely held judgments of what does and what does not fall under the concept" (Wakefield, 1992, p. 233). If it is sufficiently confirmed a concept, it becomes a guide for adjudicating more controversial cases, but if it fails, the test of lay judgments it is called into question. Second, lay concepts of "mental disorder" may illuminate how the disordered are stigmatized and why they may fail to seek appropriate help. Third, discrepancies between professional and lay concepts may show how popular beliefs about mental disorder lag behind professional practices and suggest directions for educating the public.

A significant literature on lay beliefs about mental disorders exists, distributed among a variety of academic disciplines (Guimón, Fischer, & Sartorius, 1999). However, little systematic empirical attention has been paid to concepts or judgments of "mental disorder," per se. Indeed, only one study investigated such judgments (Kirk, Wakefield, Hsieh, & Pottick, 1999), and its scope was limited to adolescent antisocial behavior. The need for further work is pressing.

As people are unlikely to hold readily articulated definitions of mental disorder, the best way to study lay concepts is to infer them from the criteria that people use in judging whether conditions exemplify mental disorders. If people reliably use a particular criterion to make these judgments about a set of conditions that may or may not be mental disorders, the criterion can be inferred to reflect an aspect of their concept. This rationale underpinned an exploratory pilot study of lay definitions of "mental disorder." Participants judged whether a sample of conditions—some recognized disorders and some questionable—were mental disorders

and rated them on features proposed in definitions presented in textbooks and the professional literature (e.g., American Psychiatric Association, 1994; Wakefield, 1992). We inferred that features correlating with judgments of "mental disorder" point to aspects of the lay definition and sought patterns in these features.

### Method

Participants were 31 undergraduates at a New York City college who volunteered in several introductory-level psychology classes for a paid study of "beliefs about mental disorders." The sample was ethnically diverse, and included 24 women and 7 men with a mean age of 21.0 years (range = 18–23). No participants had formally studied abnormal psychology or taken an introductory psychology class, so they were assumed to be naïve about technical definitions of "mental disorder."

Participants completed a questionnaire that contained paragraph descriptions of conditions to be rated on a series of items corresponding to elements of proposed definitions of "mental disorder." A sample of 68 conditions was chosen (see Appendix 1), of which 47 corresponded to DSM-IV disorders and 21 did not. The DSM-IV disorders were sampled to represent all major classes of adult disorders. The non-DSM-IV conditions were selected to represent a range of states that currently are not recognized as mental disorders but reside near the periphery of psychopathology (i.e., character flaws, moral failings, legal transgressions, bad habits, neurological or medical disorders) or whose status is controversial. Untitled descriptions of the conditions (mean length = 45.5 words) were written to render their primary characteristics—diagnostic criteria in the case of the DSM-IV disorders—in non-technical language: Psychiatric terminology was minimized, symptoms exemplified, and generally duration, cut-off, and rule-out requirements of DSM-IV conditions were not included. These brief descriptions (see Appendix 2) do not fully encompass the respective DSM-IV formal criteria, but cap-

ture the core features of the respective disorders. The full range of features within and across the conditions was adequately represented so that valid correlations between elements of definitions and mental disorder judgments across the sample of conditions could be derived.

Following each description in the questionnaire were 16 items rated on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Fifteen items operationalized conceptual features often considered relevant to the definition of "mental disorder" (see Appendix 3). Ten items corresponded to positive features of possible definitions [i.e., the condition being: (1) statistically abnormal, (2) categorically distinct from normality, (3) due to a malfunction of a psychological mechanism, (4) an unexpected response to life circumstances, (5) environmentally caused, and (6) associated with emotional distress, (7) impaired functioning, (8) incomprehensibility, (9) irrationality, or (10) psychological conflict]. Five items referred to potential exclusionary criteria [i.e., the condition being: (11) biologically caused, (12) a conflict with society, (13) a form of social deviance, (14) a product of flawed character, and (15) under the person's control]. Some of these features are most identified with aspects of the DSM's understanding of disorder (e.g., Items 4, 6, & 7), some with Wakefield's (1992) harmful dysfunction analysis (e.g., Item 3), some with writings of anti-psychiatrists such as Szasz and Foucault (e.g., Items 5 & 11–14), and some frequently appear in abnormal psychology textbooks (e.g., Items 1, 2, 8–10, & 15). One item assessed judgments of mental disorder ("These people have a mental disorder.") Items were presented in a standard, randomized order.

Eight alternative forms of the questionnaire were developed. Four samples of 17 conditions were selected from the 68, each including 11 or 12 DSM-IV disorders and 5 or 6 nondisorders. Two alternative orders of each sample of 17 conditions were constructed, one with the DSM-IV disorders preceding the nondisorders and the other reversed. Participants were randomly as-

signed one of the eight alternative questionnaire forms, signed a consent sheet, and took the questionnaire home to complete at their leisure. Four participants completed each form, except for one form which was completed by three participants. Each condition thus was rated by seven or, more often, eight participants. Questionnaires were returned within a week, and participants were debriefed. The questionnaire took about 45 minutes to complete.

### Results and Discussion

Shared understandings of "mental disorder" were the focus of study, thus participants' ratings were aggregated. The effective data set for the analyses therefore consisted of the mean ratings, across seven or eight participants, of the 68 conditions on the 16 items. Participants were highly concordant in their ratings of the conditions, translating into median  $\alpha$  coefficients of 0.82, indicating that the modest number of participants nevertheless was sufficient to yield good reliability in the aggregated ratings.

Inspection of participants' judgments of which conditions were mental disorders, operationalized as a mean rating above 4 (*neither agree nor disagree*) on the pertinent item, indicated moderate convergence with the DSM-IV. Thirty-two of the 47 DSM-IV disorders were judged to be disorders whereas only 4 of the 21 non-DSM-IV conditions ( $\chi^2_{(1)} = 14.01, p < .001; \phi = 0.45$ ) were. Participants may hold a narrower understanding of mental disorder than that in the DSM-IV.

To describe the structure of our participants' beliefs about the disorder-related features, we conducted a principal components analysis of the 15 items. The relevant  $N$  for this analysis is 68, the number of cases over which correlations among items were calculated. Although this  $N$  and its associated cases-to-variables ratio (4.6) are relatively small for principal components analysis, experts suggest some flexibility in this matter. Stevens (1996) suggests that although a ratio of 5 or more is desirable, the presence of many high loadings ( $>0.6$ ) can mitigate

the importance of this consideration. As the loading matrix contained a great many such loadings and was readily interpretable, there are reasons for some confidence in the factor structure obtained in this analysis despite the modest *N*. The scree test indicated a three-component solution accounting for a substantial 67.8% of the variance. Identical factors emerged from an iterative factor analysis. Oblique rotation indicated that Components 2 and 3 correlated significantly ( $r = 0.26, p < .05$ ). Table 1 presents item loadings and correlations with "mental disorder" ratings.

Items loading highly on Component 1 reflect a belief in social deviancy, in which people with flawed characters come into conflict with societal norms as a result of activities that are under their control and not biologically determined. Component 2 corresponds quite closely with Wakefield's (1992) understanding of mental disorder as "harmful dysfunction." Items loading on the component refer to the existence of a "malfunction of a normal psychological capacity or mechanism" that is coupled with harm to the person, manifest in emotional distress,

impaired ability to cope with the demands of everyday life, and psychological conflict. Component 3 composes a dimension of perceived peculiarity, identifying high-scoring conditions as rare, different in kind from normality, difficult to comprehend, and not based on expected or normal responses to life circumstances. These components will be referred to as social deviancy, harmful dysfunction, and peculiarity, respectively.

The three components were very strongly associated with the judgments of whether the respective conditions were mental disorders, yielding a multiple correlation of 0.83. The harmful dysfunction ( $r = 0.80, p < .0001$ ) and peculiarity components ( $r = 0.41, p < .01$ ) contribute independently to this effect. This result implies that the conditions judged by participants to be mental disorders tended to be marked by distress and impairment and psychological malfunction as well as being different in kind from psychological normality. Although many of the features composing the social deviancy component often are taken to exclude conditions from being recognized as mental disorders, the component ( $r = 0.10, p > .05$ ) and its

Table 1  
*Component Loadings of Disorder-Related Items and Their Correlations with Mental Disorder Judgments*

	Component 1	Component 2	Component 3	"Mental disorder"
Conflict with society	<b>86</b>	23	-08	18
Social deviance	<b>82</b>	-16	07	02
Irrationality	<b>80</b>	25	20	38**
Flawed character	<b>80</b>	-02	16	25*
Personal control	<b>78</b>	-23	-18	-19
Environmental causation	<b>73</b>	23	-38	-01
Biological causation	<b>-70</b>	39	-06	24
Psychological malfunction	-03	<b>85</b>	12	85***
Emotional distress	-13	<b>83</b>	-04	56***
Psychological conflict	45	<b>74</b>	05	63***
Impaired functioning	-11	<b>69</b>	13	54***
Discreteness	-13	13	<b>83</b>	16
Incomprehensibility	34	08	<b>67</b>	30**
Statistical abnormality	-21	28	<b>61</b>	44***
<i>Unexpected response</i>	33	35	<b>54</b>	58***
% variance	32.1	21.1	14.7	-

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

high-loading items were not negatively correlated with mental disorder ratings.

It would be inappropriate to draw generalized conclusions about lay definitions of "mental disorder" from this pilot study given that the sample is demographically rather homogeneous and not representative of the wider population. Lay definitions may vary widely as a function of culture and demographics. Nevertheless, the general pattern of powerful associations between the conceptual features and the "mental disorder" judgments across a large sample of conditions is noteworthy. It suggests that lay people ignorant of technical debates about the meaning of "mental disorder" have intuitions that closely resemble current nosological practice. Their judgments about which conditions are disorders agree with the DSM-IV, and the criteria that they tacitly employ in making these judgments resemble those that psychopathologists have proposed. Whether this convergence would hold with different groups of participants, such as those outside academic settings, is an open question.

Although it was not framed as a test of any particular theory, this study is consistent with Wakefield's (1992) harmful dysfunction analysis of "mental disorder." The features of harm and psychological malfunction empirically cohered into a unitary conceptual dimension that correlated a remarkable 0.80 with "mental disorder" judgments. Indeed, the psychological malfunction item that most closely approximates Wakefield's approach correlated even more strongly (0.85), suggesting that it almost single-handedly constitutes the shared concept of our participants. These findings strengthen support for Wakefield's analysis to the extent that it aspires to extend beyond purely technical definition to lay concepts of disorder, and buttresses previous empirical findings (Kirk et al., 1999). As technical definitions rest to some extent on widely shared judgments of "mental disorder," such that a definition that was systematically incongruent with lay judgments would be questionable, the close correspondence of lay people's

harmful dysfunction and "mental disorder" judgments reflects positively on Wakefield's analysis.<sup>1</sup>

Despite the encouraging finding of this correspondence, several caveats are in order. First, the present study did not assess lay beliefs about the specifically evolutionary aspect of Wakefield's (1992) harmful dysfunction analysis, which has been the focus of extensive criticism (e.g., Lilienfeld & Marino, 1995). Our participants judged that mental disorders involve malfunctions of normal psychological mechanisms, but may not have construed these mechanisms in terms that are consistent with the evolutionary account of malfunctions as failures of naturally selected functions. Second, our findings do not bear on Wakefield's fundamental claim that the concept of "mental disorder" is classically definable, as the features that were associated with "mental disorder" judgments might simply be elements of a prototype structure. Third, the finding that some of these features—collectively labeled "peculiarity"—were associated with "mental disorder" judgments independent of the harmful dysfunction dimension indicates that the harmful dysfunction analysis does not fully capture the lay concept of "mental disorder." Fourth, elements related to harm and dysfunction figure in some other approaches to the definition of mental disorder (e.g., DSM; Spitzer & Endicott, 1978), so the findings may not uniquely support Wakefield's analysis.

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<sup>1</sup>To state that it is desirable for lay judgments to be in broad agreement with technical definitions of "mental disorder" is not to argue that lay judgments should be the only or ultimate arbiter of the adequacy of such definitions. Because lay judgments often will be ambiguous, uninformed, and lacking in consensus, especially in regard to marginal cases, technical definitions will need to go beyond and, on occasion, depart from them. Nevertheless, given that what counts as "mental disorder" is clearly at least partly a cultural construct rather than a discoverable natural kind, definitions of "mental disorder" that depart systematically from lay judgments should be distrusted more than equally incongruent definitions of "biological species," "chemical element," or other scientific entities with a more objective grounding.

The findings of this study clearly require replication with a larger sample of conditions and with a more diverse and representative sample of participants. However, they offer promising preliminary evidence about the structure of lay definitions of "mental disorder."

### Appendix 1

#### *Conditions Used in the Study*

Disorders: mental retardation, delirium due to a medical condition, Alzheimer's dementia, amnesic disorder, alcohol dependence, alcohol abuse, alcohol withdrawal, nicotine dependence, opioid abuse, schizophrenia, schizoaffective disorder, delusional disorder, brief psychotic disorder, major depressive disorder, dysthymia, bipolar I disorder, cyclothymia, panic disorder without agoraphobia, specific phobia, social phobia, obsessive-compulsive disorder, generalized anxiety disorder, post-traumatic stress disorder, somatization disorder, conversion disorder, pain disorder, hypochondriasis, body dysmorphic disorder, factitious disorder, dissociative amnesia, dissociative identity disorder, hypoactive sexual desire disorder, male erectile disorder, fetishism, pedophilia, gender identity disorder, anorexia nervosa, bulimia nervosa, primary insomnia, nightmare disorder, pathological gambling, trichotillomania, kleptomania, adjustment disorder with mixed anxiety and depressed mood, antisocial personality disorder, schizoid personality disorder, and dependent personality disorder.

Nondisorders: recurrent adultery, obscene phone-calling, malingering, gluttony, chronic lying, enviousness, thievery, assaultiveness, fingernail biting, procrastination, hypothyroidism, Parkinsonism, epilepsy, migraine headache, premenstrual dysphoric disorder, postconcussional disorder, chronic fatigue syndrome, bereavement, obesity, identity problem, homosexuality.

### Appendix 2

#### *Sample Descriptions of Conditions*

Schizophrenia: "These people have a variety of disturbances in thinking, perception, language and emotion. They have delusions (often bizarre false beliefs), hallucinations (e.g., hearing voices that aren't really there), incoherent or peculiar speech, disorganized behavior (e.g., inability to maintain personal hygiene), and a lack of emotional responsiveness."

Dysthymia: "These people experience a range of difficulties that last for several years. These include poor appetite or overeating, trouble sleeping, low energy or fatigue, low self-esteem, poor concentration, and feeling of hopelessness."

Social phobia: "These people have a great and persisting fear of social situations in which they are exposed to unfamiliar people or exposed to scrutiny by others, and which interferes significantly with their everyday life. They fear that they will embarrass themselves in these situations and experience intense anxiety when they are placed in them, although they realize that their anxiety is excessive."

### Appendix 3

#### *Items Used to Assess Definition-Relevant Features of "Mental Disorder"*

Statistical abnormality: "These people are rare."

Discreteness: "People are not like this to a greater or lesser extent: They're either like this or they are not."

Psychological malfunction: "These people are experiencing a malfunction of a normal psychological capacity or mechanism."

Unexpectedable response: "What these people have is not an expected, predictable, or normal response to their circumstances."

Environmental causation: "What these people are experiencing is caused by their environment and life experiences (e.g., family life, economic circumstances, traumatic events, schooling, social influences)."



Emotional distress: "These people are more emotionally distressed than most people."

Impaired functioning: "These people have an impaired ability to cope with the demands of everyday life, such as functioning socially or at work."

Incomprehensibility: "It is difficult to understand why these people are the way they are."

Irrationality: "These people are thinking or behaving irrationally."

Psychological conflict: "These people are experiencing a psychological conflict."

Biological causation: "What these people share has a physical cause (e.g., bacterial or viral infection, brain abnormality, genetic defect)."

Conflict with society: "What these people are experiencing is due to conflicts that they have with society."

Social deviance: "Basically these people are just engaging in socially deviant behavior."

Flawed character: "These people have a character problem or flaw."

Personal control: "What these people are experiencing is under their control: They could change it."

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