Pergamon

PII S0272-7358(99)00073-2

AN EXAMINATION OF THE DIAGNOSTIC VALIDITY OF DISSOCIATIVE IDENTITY DISORDER

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ABSTRACT. *We review the empirical evidence for the validity of the Dissociative Identity Disorder (DID) diagnosis, the vast majority of which has come from research conducted within the last 10 years. After reviewing three different guidelines to establish diagnostic validity, we conclude that considerable converging evidence supports the inclusion of DID in the current Diagnostic and Statistical Manual for Mental Disorders. For instance, DID appears to meet all of the guidelines for inclusion and none of the exclusion guidelines; proposed by Blashfield et al. [Comprehensive Psychiatry 31 (1990) 15–19], and it is one of the few disorders currently supported by taxometric research. However, we also discuss possible problems with the current diagnostic criteria and offer recommendations, based on recent research, for possible revisions to these criteria.* © *2001 Elsevier Science Ltd. All rights reserved.*

KEY WORDS. Dissociative identity disorder, Validity, Diagnosis.

IN THIS PAPER, we briefly discuss the diagnostic criteria for dissociative identity disorder (DID) described in the current Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994) and then concentrate on evaluating to what extent recent research supports the diagnostic validity of DID according to three influential sets of guidelines and a taxometric model. The dissociative disorders, as defined by the DSM-IV (APA, 1994), are characterized by ''a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment'' (p. 477). To be considered a manifestation of a dissociative disorder, these disruptions must not be part of a neurological condition and should not be explainable through ordinary processes such as overlearning or distraction (Cardeña, 1994). Dissociative

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alterations can occur in every major psychological process, including the sense of self and the surrounding environment, psychical sensation and sense of agency, emotions, memory, general state of consciousness, and identity (Butler, Duran, Jasiukaitis, Koopman, & Spiegel, 1996; Cardeña, 1997a,b).

An influential instrument to evaluate the dissociative disorders, the Structured Clinical Interview for DSM-Dissociative Disorders (SCID-D; Steinberg, Cicchetti, Buchanan, Hall, & Rounsaville, 1993) has focused on five primary types of dissociative symptoms. *Depersonalization* refers to the feeling of detachment from one's own body, experiencing the self as strange or unreal. *Derealization* is the experience of unfamiliarity with, or unreality of, one's physical and/or interpersonal environment. *Amnesia*, is the inability to remember either personal information and/or significant periods of time in one's life, which cannot be explained by ordinary forgetfulness or a medical condition. *Identity confusion* is the experience of confusion and conflict over personal identity. Finally, *identity alteration* refers to overt behaviors that indicate the assumption of alternate identities (Steinberg et al., 1993).

The DSM-IV (APA, 1994) describes five types of dissociative disorders, which are characterized by some combination of the symptoms described above. These disorders are Dissociative Amnesia, Dissociative Fugue, Dissociative Identity Disorder, Depersonalization Disorder, And Dissociative Disorder Not Otherwise Specified (DID), formerly known as Multiple Personality Disorder (MPD), is believed to be the most severe form of dissociative pathology (Kluft, Steinberg, & Spitzer, 1988).

DIAGNOSTIC CRITERIA

The diagnostic criteria for DID found in the current DSM-IV (APA, 1994) are:
A. The presence of two or more distinct identities or personality states (each with its own relatively enduring pattern of perceiving, relating to, and thinking about the environment).
B. At least two of these identities or personality states recurrently take control of the person's behavior.
C. Inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness.
D. The disturbance is not due to the direct physiological effects of a substance (e.g., blackouts or chaotic behavior during alcohol intoxication) or a general medical condition (e.g., complex partial seizures). Note: In children, the symptoms are not attributable to imaginary playmates or other fantasy play (p. 487).

The diagnostic criteria for DID, although clearly outlined, have been criticized as difficult to operationalize (e.g., Elzinga, van Dyck, & Spinoven, 1998). Criterion A in particular has been considered too ambiguous, with the definition of ''distinct identities'' and ''personality states'' being subjective and non-specific (e.g., Piper, 1994), although the DSM-IV provides the description that a ''personality state may be experienced as if it had a distinct personal history, self-image, and identity, including a separate name … the alternate identities frequently have different names and characteristics that contrast with the primary identity'' (APA, 1994, p. 484). Nonetheless, the terms ''personality state'' and ''distinct identities'' could be further operationalized to make the diagnostic criteria more objective. Criterion C was added in the DSM-IV, in order to improve the specificity of the diagnosis (Cardeña, Lewis-

Fernández, Bear, Pakianatham, & Spiegel, 1996). Criterion D does specify two exclusionary criteria, that the disturbance is not due to substance use or a general medical condition (APA, 1994).

It bears mentioning that there were important changes made to the diagnostic criteria of DID for the DSM-IV, including a re-conceptualization of the disorder as primarily involving a failure to develop an integrated sense of identity (Cardeña et al., 1996). These revisions were the result of a lengthy process that included consensus meetings, a comprehensive review of the relevant published literature and of unpublished yet relevant empirical, preparation of position papers based on these reviews, deliberation by the dissociative disorders task force on these papers and any proposed changes, and voting on any proposed changes. Recommendations from the task force were then sent to the DSM-IV committee, which made the final decisions. It is worth pointing out that the task force included experts, including Martin Orne and Herbert Spiegel, who share a very cautious view as to the nature and prevalence of DID.

Of the five proposed primary symptoms of dissociative pathology described earlier (Steinberg et al., 1993), the presence of three are required in order to make the diagnosis of DID. These are identity confusion, identity alteration, and amnesia. The remaining two symptoms, depersonalization and derealization, are not required to make the diagnosis. However, research indicates that all five primary dissociative symptoms are present, in a moderate to severe degree, in the great majority of individuals diagnosed with DID (Boon & Draijer, 1993a,b; Steinberg et al., 1993). Table 1 provides the reported frequency of amnesia, depersonalization, derealization, identity confusion, and identity alteration from published, large scale investigations of DID. It should be noted that not every study evaluated or reported each of these types of experiences. Furthermore, the methodologies of these studies varied, ranging from informal (Putnam, Guroff, Silberman, Barban, & Post, 1986) to quite rigorous (Boon & Draijer, 1993a,b). Despite these differences, the ''core'' dissociative symptoms were consistently reported, including amnesia, even when the diagnostic criteria for MPD (the precursor of DID) did not require it (Cardeña et al., 1996). Other than the data

TABLE 1. Frequency of Core Features of Dissociative Identity Disorder from Large-Scale Investigations

Core feature	Putnam et al., 1986 ($n=100$)	Coons et al., 1988 ($n=50$)[a]	Ross et al., 1989 ($n=236$)	Ross et al., 1990a,b ($n=102$)	Boon & Draijer, 1993a,b ($n=71$)
Amnesia	98.0	100.0	94.9	100.0	99.0
Identity alteration	–	–		81.4	100.0
Depersonalization	55.0[a]	38.0	–	–	100.0
Derealization	–	–	–	56.9	73.1
Auditory hallucinations	29.0	72.0	71.7	82.4	94.0
Childhood abuse	97.0	96.0	88.5	95.1	94.4

Note. All values are percent of persons reportedly experiencing the symptom.
[a] These figures are based on ''presenting psychiatric symptoms'' or symptoms noted or reported to clinicians during first contact with client.

from Putnam et al. (1986) presence of auditory hallucinations were also commonly reported. Although not technically a symptom, reported child abuse was very consistently reported by persons diagnosed as having DID.

Clearly, a core set of features does seem to exist that is stable across numerous studies and hundreds of patients. Persons diagnosed as having DID experience frequent depersonalization, identity disturbances, amnestic periods (for past and current behavior and experiences), and internal auditory hallucinations. Also, the vast majority report having undergone traumatic childhood events, particularly physical and sexual abuse.

Two issues regarding DID continue to be vigorously debated within the mental health field. The first concerns the etiology/reality of the phenomena. There are currently two primary positions on the etiology of DID: the traumagenic and iatrogenic theories. Proponents of the traumagenic position (Gleaves, 1996; Kluft, 1985; Putnam, 1989; Spiegel, 1984) state that DID develops in response to overwhelming trauma during childhood, primarily physical and/or sexual abuse, perhaps as a form of ''complex posttraumatic stress disorder (PTSD)'' or ''disorders of extreme stress'' (Pelcovitz et al., 1997; Van der Kolk, 1996). Some authors (e.g., Butler et al., 1996; Kluft, 1984), considering the observation that the majority of individuals who have suffered early abuse do *not* become DID, have proposed a diathesis stress model, in which a disposition to use dissociative behaviors would interact with early trauma in the development of dissociative disorders.

Proponents of the iatrogenesis position (e.g., McHugh, 1993; Merskey, 1992; Spanos, 1994) maintain that DID is not posttraumatic in nature or even a ''real'' diagnosis; rather, it is seen as an artifact of psychotherapy and/or the popular media. According to this theory, psychotherapists are usually responsible for the development of the disorder in their patients through initially suggesting the concept of multiplicity, using hypnosis to create symptoms, asking leading questions regarding symptomatology in order to meet diagnostic criteria, and then reinforcing behaviors consistent with the disorder (Spanos, 1994). Several critiques of this iatrogenesis model of DID (Cardeña, 1997b; Elzinga et al., 1998; Gleaves, 1996; Ross, Heber, Norton, & Anderson, 1989), based on the growing body of research on the dissociative disorders, have seriously challenged the iatrogenesis model. Little empirical support exists for the model, which led one of us (Gleaves, 1996) to recommend that it be abandoned as an etiological explanation for DID.

A second, remaining issue regards the validity of DID as a distinct psychiatric disorder. That is, although much of mainstream psychiatry (e.g., APA, 1994) considers DID to be a valid psychiatric diagnosis, some researchers and/or clinicians regard the phenomenology as genuine (i.e., not iatrogenic), but symptomatic of other disorders, and not an independent diagnostic entity. Fahy (1988), for example, described DID as ''an intriguing symptom of a wide range of psychological disturbances'' (p. 603). Similarly, even though North, Ryall, Ricci, and Wetzel (1993) concluded that the position that DID was iatrogenic is ''untenable'' (p. 161), they proposed that the disorder does not represent a distinct valid diagnosis, but is a variant of other disorders. The purpose of this paper is to thoroughly examine this second issue of controversy, that is, the extent to which DID merits classification as a distinct and valid diagnostic entity.

THE QUESTION OF DIAGNOSTIC VALIDITY

Valid classification of psychiatric disorders has been a particularly elusive goal, partly because of the difficulty in identifying adequate criteria for comparative purposes (Garfield, 1993), partly because of the difficulty in defining what exactly is meant by the term ''diagnostic validity'' (Blashfield & Livesley, 1991). Robins and Guze (1970) attributed the problems in diagnostic classification to the practice of basing diagnostic systems on a priori principles rather than empirical research. For example, in early versions of the DSM, diagnostic classifications were based upon collective, ''expert'' clinical judgment and experience (Feighner et al., 1972), which were influenced by theoretical orientation and the presumed etiology of the disorders. This method proved unsatisfactory, and beginning with the DSM-III (APA, 1980), the basis for classification shifted toward the use of descriptive diagnostic criteria for each disorder based on empirical support and a persuasive rationale (Garfield, 1993; Widiger, Frances, Pincus, Davis, & First, 1991).

However, the existence of diagnostic criteria for a disorder does not prove that the disorder has diagnostic validity, even if many clinicians can diagnose it. As Bentall (1998) has noted ''Reliability is a necessary but insufficient criterion for validity. A diagnosis cannot be valid unless it is first reliable, whereas it can be reliable without being valid'' (p. 120). Furthermore, although many researchers and/or clinicians assume that if a disorder is in the current version DSM it must be a valid diagnosis, this is probably far from the case. As noted by Blashfield, Sprock, and Fuller (1990), even with the move toward empirically supported diagnostic criteria from the DSM-III onward, the implicit strategy behind the manuals was best summarized by the remark by Endicott (cited in Cloninger, 1989): ''Let all the flowers bloom, even if there are a few weeds''. This attitude may have changed somewhat with the DSM-IV. For example, consider that the DSM-IV committee did *not* endorse the suggestion by the dissociative disorders task force to add two diagnoses to DSM-IV: dissociative trance disorder and secondary dissociative disorder due to a nonpsychiatric medical condition. However, if there are disorders currently in the DSM-IV, including DID, that do not have diagnostic validity, how can one elucidate this question? In Endicott's terminology, is DID a flower or a weed?

THE ROBINS AND GUZE CRITERIA

In their classic 1970 report, Robins and Guze described a five-phase approach to establishing the diagnostic validity of psychiatric disorders. Their very influential method was based on the use of systematic empirical data, as opposed to the previous, subjective method based on a priori principles. A subsequent article identifying allegedly valid disorders based on their methodology (Feighner et al., 1972) became one the most frequently cited articles in the field of psychiatry. Additionally, it was Robins and Guze's general methodology that the American Psychiatric Association adopted and used to revamp the diagnostic classification system in the third revision of the DSM.

The five phases of the Robins and Guze (1970) (R&G) method are: (a) clinical description, (b) laboratory studies, (c) delimitation from other disorders, (d) follow-up study, and (e) family study. The first phase, clinical description, involves a detailed description of the clinical features of the disorder. This description can include

symptomatology, precipitating factors, age at onset, race, gender, and any other features associated with the disorder. Any descriptive information that helps to generate a precise clinical picture should be included. Phase two, laboratory studies, includes test results from established psychological tests, as well as physiological, radiological, chemical, and anatomical studies. The third phase, delimitation from other disorders, requires that the diagnostic criteria be specific enough to exclude individuals suffering from different disorders that have similar clinical features. Phase four, follow-up study, is included as a means of determining the homogeneity of the identified patients. Marked differences in outcome would allegedly suggest that the individuals were suffering from different disorders. The last phase is family studies. This phase is based on the assumption that most psychiatric illnesses run in families, resulting from either environmental factors, genetic factors, or some combination of the two. Consequently, increased prevalence of a true disorder would be expected to occur in a patient's close relatives.

In 1972, Robins, Guze, and their colleagues identified 14 psychiatric illnesses that they concluded had been *substantially* validated as psychiatric disorders to ''warrant their use in research as well as in clinical practice'' (Feighner et al., 1972, p. 57). These disorders, which *reportedly* accounted for 80% of all psychiatric patients, were depression and mania; anxiety, phobic, and obsessive−compulsive neuroses; hysteria; schizophrenia; homosexuality and transsexualism; antisocial personality disorder; anorexia; alcoholism and drug dependence; and mental retardation. The list does not include DID, but it does include the more vague concept of hysteria, which has typically covered a variety of dissociative manifestations (Kihlstrom, 1994). Cloninger (1989) added that, almost 20 years later, no new disorders had been validated by the criteria.

More recently, North et al. (1993), concluded that, based on their review of the R&G criteria, DID had *not* been sufficiently validated. There are, however, numerous problems with the conclusions reached by North et al. (1993), as well as with the use of the R&G criteria in general. These problems justify a reanalysis of the diagnostic validity of DID.

Regarding the conclusions of Gleaves (1994), North et al. (1993) described serious concerns and limitations of their work, including biased presentation of the data, focus on opinion rather than empirical data, and drawing conclusions inconsistent with the data presented. Furthermore, even if one takes a R&G approach to validation of the diagnosis, recent interest in dissociative disorders has generated a great deal of research on DID, and the additions to the body of knowledge published in the years since the book went to press have enriched the DID database and need to be considered in a study on the validity of the disorder. In a more recent application of the R&G criteria to DID, including more recent data, May (1996) concluded that DID *has* been sufficiently validated to justify its use in both research and clinical practice.

Independent of the specific problems of the analysis by North et al. (1993) there are several general problems with the use of the R&G criteria to establish diagnostic validity, with some additional problems specific to DID and related disorders. First, although the criteria themselves are reasonably clear, what is less clear are the interpretive rules for determining how much evidence is necessary to satisfy the criteria for each phase, as well as how many of the phases must be satisfied for the disorder to be considered validated. One would assume that criteria for all five phases must be met. However, in the Feighner et al. (1972) report identifying the 14 sufficiently validated disorders, none met more than *three* criteria: clinical presenta-

tion, follow-up study, and family study. Should one then assume that only three criteria need to be met to establish validity? And if so, which three? The fact that, even today, most allegedly valid psychiatric disorders do not meet *the full* R&G criteria was recently noted by psychopathology researcher Robert Carson, who wrote:

> Some years ago, Robbins [sic] and Guze (AJP, 1970, 126, 983–87) published a set of recommendations for establishing the validity of psychiatric diagnoses. I think it is fair to say that extremely few, if any, of the DSM-IV diagnoses *come close* [italics added] to meeting these requirements. (Posting on clinical psychologists internet discussion group)

It would seem, then, that fulfilling these criteria should be an ideal goal, but a standard against which most if not all psychiatric disorders fall short.

The second important point about the R&G criteria is that the process of establishing validity is not a static one. Rather, as Robins and Guze (1970) noted, ''new findings in any one of the phases may lead to modifications in one or more of the other phases. The entire process is therefore one of continuing self-rectification . . . ''. (p. 984). Once a disorder is assumed to have met minimal criteria, one should not assume that its validity is necessarily firmly established. Just as new data may support the validity of one disorder, so may they throw doubt on the validity of a disorder already assumed to be valid.

None of these points were addressed in the earlier review by North et al. (1993). In requiring DID to meet *all* of the R&G criteria before assuming it to be validated, the authors seemed to hold higher standards for DID than for other disorders. Furthermore, the authors based some of their conclusions on the assumption that other disorders had unquestionably established validity (most notably somatization disorder) and ignored the other logical possibility, namely that recent research on DID may actually call into question the validity of some of these psychiatric disorders. Specifically, because of an alleged overlap of DID and somatization disorder, the authors argued that DID may not be a valid disorder, but they failed to consider that, by the same token, this overlap might question the validity of somatization (Kihlstrom, 1994). It is quite clear that in early research on somatization disorder, dissociative disorders were not assessed, even if some participants in the research spontaneously reported having dissociative experiences (see Cloninger & Guze, 1970), and even though the relationship between psychological and somatic forms of dissociation has been documented for more than a century (Kihlstrom, 1994). Thus, new findings require us to reexamine earlier conclusions, rather than assume that they are carved in stone.

Finally, some of the R&G criteria make little sense when evaluating a disorder such as DID. Robins and Guze (1970) noted that the follow-up study phase is of particular importance when etiology is unknown. If the etiological dynamics for DID are largely known, which we will argue is largely the case, follow-up data may be less important. The fifth phase of the R&G criteria, family study is based on the assumption that most psychiatric illnesses run in families, with either a genetic or environmental link. Robins and Guze (1970) assumed that increased prevalence of the same disorder among the close relatives of identified patients would therefore be expected, and would support the validity of that disorder. However, is it necessarily the case that an infrequent disorder should also run in families when

nonshared environmental factors may play a strong etiological link? Would PTSD, for example, be expected to run in families, even though only one of the members may be exposed to extreme trauma? If the most critical factor in the etiology of DID is extensive childhood abuse, which is not likely to have been experienced by all the relatives, we would argue that what could be expected in the close relatives of DID patients are factors related to intrafamily physical, sexual, and emotional abuse, rather than DID per se.

The presence among the relatives of DID patients of substance abuse, cluster B (emotional and erratic) personality disorders (especially antisocial), psychotic disorders, and possibly dissociative disorders, all of which can be associated with impaired judgment and/or acting out, would provide indirect support for an environmental association between DID and early abuse and neglect. Greater prevalence of these disorders among close relatives, as well as greater prevalence of disorders with a strong trauma-based etiology (e.g., PTSD or other dissociative disorders) among siblings, would provide strong support for the family study criteria. The few available studies suggest that the types of psychopathology mentioned are indeed common among persons with DID, or at least are commonly reported by persons with DID. Coons, Bowman, and Milstein (1988) found high rates of alcoholism in first-degree relatives, reporting it in 36% of the fathers, 10% of the mothers, and 10% of the siblings. An additional 10% of the siblings were purported to have substance abuse problems. Schizophrenia was also common among DID relatives, reported in 4% of the fathers, 10% of the mothers, and 2% of the siblings. Similarly, Putnam et al. (1986) reported alcohol abuse in 21% of the fathers, 8% of the mothers, and 10% of the siblings. Schizophrenia was again the second most frequent diagnosis, reported in 7% of the fathers, 10% of the mothers, and 5% of the siblings. Lauer, Black, and Keen (1993) found high rates of psychiatric disturbance among first degree relatives of the DID patients they studied ($n=14$). The probable diagnoses of these relatives included 71% with alcoholism, 43% with drug abuse, and 7% with psychotic disorders.

The problem with interpreting these data is that they are consistent with more than one hypothesis regarding the diagnostic validity of DID (i.e., it is a valid disorder in which trauma brought about by an antisocial caretaker has an important etiological component, or, conversely, it is not a valid disorder because of its low prevalence among relatives). If the same data are consistent with two conflicting hypotheses, then they do not support one over the other. Clearly, studies that can actually test one hypothesis against the other are called for.

Overall, whether or not DID meets the R&G criteria seems debatable. Clearly, DID has a recognizable clinical picture (phase I), there are psychological tests that accurately can identify the disorder (phase II, see below), and the disorder can be discriminated from other conditions (phase III, see below). Phases IV and V are more questionable but, as noted above, the issue of what these phases should demonstrate for a disorder such as DID is not resolved. However, the statement that DID's validity according to the R&G criteria is debatable also applies to virtually every disorder in the current DSM, including those that Feighner et al. (1972) described as being validated. The reason is that even these disorders did not meet all of the criteria and recent research has questioned the validity of some of them. Given the noted limitations of the R&G criteria, it seems most appropriate to examine other possible criteria and/or guidelines regarding the diagnostic status of DID.

THE SPITZER AND WILLIAMS CRITERIA

Spitzer and Williams (1985) addressed in great depth the issue of classification in psychiatry and improved on the work of Robins and Guze (1970). Spitzer and Williams first described six, ''assumptions necessary for a classification of mental disorders'' (p. 591) and then the evidence necessary to establish the various types of validity of any particular diagnostic system or any particular diagnostic category. The first of their six assumptions was that, ''there are individuals with relatively distinct and clinically significant behavioral or psychology syndromes or signs or symptoms''. The second assumption, which is related to the first, is that the syndromes or patterns are undesirable because they are typically associated with either stress or impairment. In the third, there is an inference that, ''there is a behavioral, psychological, or biological dysfunction of some sort … in simple language … something is wrong with the person'' (p. 291). The fourth assumption is that the syndromes are differentially related to other variables not part of the definition, such as etiology or response to treatment. The fifth assumption is that the extent of the relationships of a behavioral syndrome or pattern to various external correlates increases with the inclusion of temporal features into the definition of the category. Finally, the sixth assumption is that mental disorders vary in their symptomatic inclusiveness.

Although Spitzer and Williams (1985) noted that the literature on the validity of mental disorders rarely distinguishes between different types of validity, they described four types and the evidence required to establish each. *Face validity* refers to the extent to which the description of a particular disorder accurately describes the characteristic features of the disorder. *Descriptive validity* refers to ''the extent to which the characteristic features of a particular mental disorder are unique to that category'' (p. 593). *Predictive validity* is the extent to which knowledge that an individual has a particular mental disorder predicts some aspect of the future of the individual. Finally, but perhaps most importantly, *construct validity* (in the context of the validity of a diagnostic category), ''is the extent to which evidence supports a theory that is helpful in explaining the etiology of a disorder or the nature of the pathophysiological process'' (p. 594).

Spitzer and Williams (1985) were appropriate in pointing out that there are different kinds of validity that need to be studied in the context of any particular diagnosis. One can also see the many ways in which these criteria map onto the R&G criteria. Face validity is similar to phase I of R&G. Descriptive validity (the uniqueness of diagnostic features) is similar to phase III, delimitation from other disorders. Predictive validity is similar to R&G's follow-up study phase, although Spitzer and Williams appropriately noted that other types of data, such as differential treatment response, may demonstrate this kind of validity. Similarly, R&G's phase of family studies would fall under Spitzer and Williams' (S&W) category of construct validity, although the latter authors again note that several types of data, including a relationship to certain environmental variables, also demonstrate construct validity. The S&W criteria are thus less based on an exclusively medical model.

The S&W criteria demonstrate some advancement over those of R&G. Perhaps most importantly with regard to DID, the S&W criteria emphasize the importance of construct validity (i.e., ''the extent to which evidence supports a theory that is helpful

in explaining the etiology of a disorder'', p. 594). That is, the more empirical support there is for theory of the etiology of a disorder, the stronger is the evidence for the validity of the diagnosis. Thus, the conclusions by North et al. (1993) about etiology are misguided.

> Because the nosologic status of MPD is in such disarray at the present time, however, efforts to determine the etiology of the disorder are certainly premature. Although theories of posttraumatic stress grounded in childhood abuse, self-hypnosis, and genetic dissociative tendencies are appealing explanation, in the absence of a better nosologic understanding of MPD these ideas are only speculative. (p. 178)

This reasoning eliminates one critical way to establish the validity of a diagnosis. That is, we *should* be studying the etiology of any disorder to help establish its diagnostic validity and nosologic status, and DID is one of the few disorders with a strong body of evidence regarding its etiology. As noted by North et al., most theoretical models of DID (e.g., Friesen, 1991; Kluft, 1984) explain the disorder as being largely due to some combination of predisposing capacity to dissociate (possibly associated with hypnotizability) combined with severe overwhelming childhood trauma.

Although empirical support for a predisposing factor has not been clearly established (but see Butler et al., 1996; Jang, Paris, Zweig-Frank, & Livesley, 1998), there is a clear body of evidence linking DID or dissociative experiences in general with a history of childhood trauma (see Gershuny & Thayer, 1999; Gleaves, 1996; Spiegel, 1984, 1993 for reviews). In summarizing his review of the empirical research, Gleaves wrote:

> There does not appear to be any convincing reason to doubt the association between DID and childhood trauma. Recent research has found patients with DID to almost invariably report histories of childhood trauma, and attempts to corroborate the abuse have been successful. Dissociative symptoms (the core psychopathology of DID) also appear to be clearly associated with traumatic experiences (and PTSD), and the majority of patients with DID also appear to have diagnosable PTSD. (p. 54)

Regarding the sometimes expressed concern about the reliability of reports of abuse from DID patients, there have been additional, more recently published attempts to corroborate those reports and, as with the previous studies (e.g., Coons, 1994), these attempts continue to be successful (Lewis, Yeager, Swica, Pincus, & Lewis, 1997; Swica, Lewis, & Lewis, 1996).

Despite the advantages of the S&W criteria over those of R&G, the former also suffer from one of the same limitations as the latter when it comes to making decisions about the diagnostic validity of a particular disorder. That is, it is not clear how much evidence is necessary to establish each type of validity or if all types of validity are necessary. Thus, although it seems that there is some support for each type of validity regarding DID, and that its construct validity may be greater than other mental disorders, we are left with many unclear decisions rules. This ambiguity again leads us to consider additional guidelines for evaluating the diagnostic validity of DID.

THE BLASHFIELD ET AL. GUIDELINES

Perhaps the most explicit set of guidelines regarding diagnostic validity (or more specifically, for including or excluding categories in the DSM-IV) are those by Blashfield et al. (1990). We say explicit because, not only did the authors clearly define what types of empirical data are needed, they also offered suggestions regarding the necessary amount of data in each category. They were also explicit about how many guidelines were needed. That is, they recommended that five of five inclusion criteria be met before considering a diagnosis as valid, and that a diagnosis should be considered for exclusion if the disorder met any one of the exclusionary guidelines. Given the clarity and explicitness of these criteria, examination of their application to DID may be most helpful in determining the disorder's diagnostic validity.

Inclusion Guidelines

Literature. This criterion requires a minimum number of journal articles on the disorder, especially empirical, having been recently published. Without a doubt, DID meets this criterion. Goettman, Greaves, and Coons (1994) published a complete bibliography on multiple personality and dissociation from the years 1791–1992. In 1992 alone there were 103 publications, in 3 of the 4 preceding years there were over 100 publications, and empirical research on the dissociative disorders has skyrocketed since that time (including the establishment of a journal devoted to the dissociative disorders in 1988). In a recent update on the Goettman review, Coons (1999) reported that since 1990 alone, there have been 1,125 published journal articles on DID; he also noted that this was an underestimate because all of the publications from the two most recent years had not yet been tabulated. Thus, although we do not know the exact number of published journal articles on DID, there is no question that there have been many more than 50 in the last decade.

Diagnostic criteria. Considering that DID has existed as a separate category in the DSM since its third edition (APA, 1980), it is a given that it has diagnostic criteria. Its consideration as a diagnostic entity, however, has a longer history. Besides descriptions of probable DID going back to the 16th century (Van der Hart, Lierens, & Goodwin, 1996), the first edition of the DSM (APA, 1952) specifically mentioned ''dissociative personality'' as a form of dissociative reaction (Kihlstrom, 1994).

As noted by Blashfield et al. (1990), the purpose of explicit diagnostic criteria is to ensure that the meaning of a category of pathology is clear and that it can be measured. There must also be assessment devices for determining whether or not the criteria are met. Over the past 10 years, several psychological tests have been developed specifically to assess dissociative symptomatology and dissociative disorders. Two structured interviews and two self-report measures have received the most attention in the literature.

Structured Interviews

Structured clinical interview for DSM-IV dissociative disorders (SCID-D). The SCID-D was developed by Steinberg, Rounsaville, and Cicchetti (1990) to assess the presence and severity of amnesia, depersonalization, derealization, identity confusion, and identity alteration symptoms. General, open-ended screening questions are followed by more

detailed questions. Diagnostic reliability was assessed for presence/absence of a dissociative disorder, type of dissociative disorder, and severity of specific dissociative symptoms. Inter-rater reliability was in the good to excellent range. Agreement (Kappa) on presence or absence of a dissociative disorder was 0.92; for the diagnosis of DID the kappa was 0.90 (Steinberg et al., 1990). The SCID-D has been updated for the DSM-IV criteria (Steinberg, 1993), and this version is sometimes referred to as SCID-D-R. Follow-up investigations (see Steinberg, 1995) have reported good to excellent inter-rater and test–retest reliability and very good discriminant validity of the SCID-D for the assessment of dissociative symptom severity and for the dissociative disorders in a variety of populations. These results have been replicated by the Dutch researchers Boon and Draijer (1991), who obtained 97.7% agreement on presence/absence of a dissociative disorder, and 100% agreement of diagnoses of DID. Other investigations (Boon & Draijer, 1993b; Steinberg, Cicchetti, Buchanan, Rakfeldt, & Rounsaville, 1994) have reported that the SCID-D is effective in distinguishing between patients with clinically diagnosed dissociative disorders and other psychiatric disorders, as well as accurately distinguishing between patients with seizures and pseudoseizures (Bowman & Markand, 1996).

Dissociative disorder interview schedule (DDIS).   The DDIS (Ross, Norton, & Fraser, 1989, Ross, Norton, & Wozney, 1989) is a structured symptom checklist designed to identify four dissociative disorders (psychogenic amnesia, psychogenic fugue, depersonalization disorder, and DID), and three disorders with related symptomatology (borderline personality disorder [BPD], somatization disorder, and major depressive disorder). An update of the DDIS for the DSM-IV can be obtained through the web site for the Colin A. Ross Institute http://rossinst.com).

The DDIS appears to generate fairly reliable and valid data. The initial study (Ross et al., 1989) reported acceptable inter-rater reliability, with an overall Kappa coefficient of 0.68; for the diagnosis of DID specifically, kappa was 0.78, with sensitivity of 90% and specificity of 100%. In the only study of which we are aware that examined the concurrent validity of the DDIS and SCID-D, Ross, Duffy, and Ellason (1999) reported a kappa of .74 for diagnoses from the two instruments with masked raters.

Overall, these data support the reliability of both instruments. The reliability data reported for the SCID-D and the DDIS compare favorably with instruments for other psychiatric diagnoses. For example, in a study of the Structured Clinical Interview for DSM-III-R (SCID), Williams et al. (1992) reported an overall weighted inter-rater agreement for 21 separate diagnoses of 0.61, with a range of 0.40 to 0.86. Thus, the reliability estimates reported by Steinberg et al. (1990) for the SCID-D were actually higher than for any mental disorder studied by Williams and colleagues Although these reliability estimates are not directly comparable (the data reported by Williams et al., 1992, were estimates of both interrater and test–retest reliability), they clearly suggest that the SCID-D can be used to reliably diagnose dissociative disorders and, specifically, DID.

Self-report Measures

The dissociative experiences scale (des).   The DES (Bernstein & Putnam, 1986) has become the most commonly used screening instrument for dissociative symptomatology in clinical populations (Draijer & Boon, 1993). It was designed to screen for

dissociative disorders, and to identify the role that amnesia, depersonalization, derealization, and absorption may play in various other psychiatric disorders (Carlson & Putnam, 1993). Numerous recent studies indicate that the DES is psychometrically sound (see van Ijzendoorn & Schuengel, 1996 for a recent review). In van Ijzendoorn and Schuengel's meta-analysis, the reported mean alpha was 0.93 across 16 studies. Test–retest reliability among dissociative disorder patients was strong, with two studies reporting correlations of 0.93 over 2- and 4–8-week intervals (Dubester & Braun, 1995; Frischholz et al., 1990).

Several studies have provided support for the construct validity of the DES, reporting strong convergent validity coefficients between the DES and other measures of dissociation. van Ijzendoorn and Schuengel's (1996) meta-analysis reported a combined correlation across different measures of 0.67; mean convergent validity coefficients between the DES and the Questionnaire of Experiences of Dissociation, the dissociation scale of the Trauma Symptom Checklist-40, the SCID-D, and the DDIS were 0.80, 0.73, 0.76, and 0.73, respectively. The DES has been found to correlate only modestly with tests that measure other constructs, thus also providing evidence of discriminant validity (Gleaves & Eberenz, 1995; Gleaves, May, & Eberenz, 1996). Additionally, van Ijzendoorn and Schuengel reported strong predictive validity for the DES, primarily in the area of dissociative disorders and traumatic disorders, with effect sizes (Cohen's *d*) for these groups ranging from 0.58 to 1.05, which are generally characterized as medium to large (e.g., Cohen, 1992)

Recent validation studies indicate that the DES is capable of accurately distinguishing dissociative disordered from nondissociative disordered patients. Gleaves, Eberenz, Warner, and Fine (1995) used a discriminant classification analysis and reported 98.9% accuracy in distinguishing between DID patients and students (Kappa = 0.93), and 100% accuracy in distinguishing between DID and eating-disordered patients (Kappa = 1.0). Steinberg, Rounsaville, and Cicchetti (1991) found that the DES yielded high sensitivity (90–95%) and specificity (93%) when used as a screening measure for dissociative disorders in an outpatient population. Draijer and Boon (1993) used receiver operating characteristic analysis to identify the optimal cut score for discriminating dissociative disorder patients in a clinical sample. Their results yielded an optimal sensitivity of 93% and specificity of 86%. In a very large validation study, Carlson et al. (1993) used the DES to classify a sample of psychiatric patients with one of nine diagnoses. A cutoff score of 30 yielded sensitivity and specificity of 80% for detecting DID; most misclassifications involved persons diagnosed with either PTSD or dissociative disorders other than DID.

In their recent taxometric study (see below), Waller, Putnam, and Carlson (1996) also presented scores on each of nine items of the DES proposed to differentially evaluate pathological dissociation, the DES-T. Their large sample contained normal adult controls (*n* = 415), late adolescents (*n* = 108), and nine psychiatric or neurological diagnoses (*n* = 1,051). The authors noted that, ''A striking feature of [these data] is that for eight diagnostic groups the typical item score is 0.00. In other words, most respondents in these groups never experience pathological dissociative states'' (Waller et al., 1996, p. 315). That is, on six of eight items, only the PTSD, DIS, and MPD groups reported experiencing these symptoms.

Questionnaire of experiences of dissociation (QED). The QED (Riley, 1988) consists of 26 true/false items; it has little content overlap with the DES. The initial study reported acceptable reliability, with an internal consistency of 0.77. A subsequent

TABLE 2. Comparison of Reliability and Validity Data of Self-report Measures for Various Psychiatric Disorders

	DES	BDI	EAT	BSI
Reliability				
Internal consistency	0.83−0.98	0.73−0.95	0.74−0.94	0.90−0.92
Test−retest reliability	0.79−0.96	0.48−0.86	0.84	−
Validity				
Convergent validity coefficient	0.73−0.78	0.41−0.86	0.72−0.79	0.26−0.63
Sensitivity	0.80−0.95	0.67	0.75−1.0	0.54−0.60
Specificity	0.80−0.93	0.58	0.38−0.88	0.75−0.80

Note. DES = Dissociative Experiences Scale; BDI = Beck Depression Inventory; EAT = Eating Attitudes Test; BSI = Borderline Syndrome Index. Interpretation of sensitivity and specificity data depends on the nature of the comparison group. For the EAT, the comparison group was nonclinical; for the BDI, all were clinical; for the DES and BSI, data are included from both clinical and nonclinical comparison groups.

validation study reported slightly better reliability for the scale, with a KR-20 value of 0.84 (Gleaves et al., 1995). This same study reported a convergent validity coefficient of 0.76 for the DES within a clinical population, providing moderate support for the construct validity of this screening measure.

Dunn, Ryan, Paolo, and Miller (1993) found that the QED was successful at distinguishing individuals with DID from a mixed clinical sample. Optimal sensitivity was reported to be 100%, and specificity to be 86.3%. Similarly, Gleaves et al. (1995) found that the QED accurately classified 91.9% of a mixed DID and student sample ($\kappa = 0.60$), and 90% of a mixed DID and eating disorder sample ($\kappa = 0.80$), based on a discriminant classification analysis.

It is crucial to evaluate whether these instruments generate data that are reliable and valid enough to conclude that Blashfield's 2nd guideline is met. Given the lack of a well-defined standard of validation, comparison to accepted self-report measures of disorders that are supposedly validated and widely accepted may help answer this question (see Table 2). For example, according to Feighner et al. (1972), depression is a [sufficiently] validated disorder. The Beck Depression Inventory (BDI; Beck, Steer, & Garbin, 1988) is a widely used self-report questionnaire for assessing depression. A meta-analysis of the BDI's internal consistency indicated that, across all samples, alpha values ranged from 0.73 to 0.95; the mean alpha for psychiatric samples was 0.86, and the mean alpha for nonpsychiatric samples was 0.81. Temporal stability coefficients ranged from 0.48 to 0.86 for psychiatric patients, and from 0.60 to 0.83 for nonpsychiatric subjects, across testing intervals ranging from 1 hour to 4 months (Beck et al., 1988).

Concurrent validity has been evaluated in numerous studies of the BDI, which indicate that the measure correlates moderately well with other indices of depression. The Beck et al. (1988) meta-analysis of studies using psychiatric samples reported correlation coefficients between the BDI and the following measures: with the Hamilton Psychiatric Rating Scale for Depression (HRSD; Hamilton, 1960) of 0.73; with the Minnesota Multiphasic Personality Inventory Depression Scale (MMPI-D; Hathaway & McKinley, 1983) of 0.76; and with the Symptom Checklist 90-Revised (SCL-90R; Derogatis, 1977) of 0.55,. A recent study of the predictive validity of the

BDI indicated sensitivity of 0.67 and specificity of 0.58, indicating fair discriminative ability between depressive and clinical control participants (Rudd & Rajab, 1995).

Anorexia nervosa is another disorder considered valid by Feighner et al. (1972), and it also has the highest level of inter-rater reliability of all psychiatric diagnoses classified by the SCID (Williams et al., 1992). One frequently used self-report assessment measure for anorexia nervosa is the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979). The initial validation article for the EAT reported good internal consistency, with Cronbach's alpha coefficients of 0.79 for a sample of anorexic subjects, and 0.94 for a mixed anorexic and control sample. The EAT correlates fairly well with other measures of eating disorders, providing evidence of concurrent validity. Correlation coefficients between the EAT and the Drive for Thinness scale of the Eating Disorders Inventory range from 0.72 (Gleaves & Eberenz, 1995) to 0.79 (Raciti & Norcross, 1987). Sensitivity and specificity for the EAT range from 0.75 to 1.0 and 0.38 to 0.88, respectively, when discriminating between eating disordered and non-clinical control participants (Williams, Hand, & Tarnopolsky, 1982).

As a final comparison we consider borderline personality disorder (BPD), a disorder that shares a moderate amount of symptom overlap with DID. Although the validity of BPD remains debatable, the concept appears to be well accepted in the psychiatric community, as it is one of the most commonly diagnosed personality disorders (APA, 1994). The Borderline Syndrome Index (BSI; Conte, Plutchik, Karasu, & Jerrett, 1980) is a self-report questionnaire used to assess BPD. The initial report on the BSI indicated good internal consistency, with a KR-20 value of 0.92. Sensitivity and specificity were reported at 0.60 and 0.75, respectively, indicating moderate discriminant capability. A subsequent validation study reported poorer results, with sensitivity of 0.54 and specificity of 0.80 in an inpatient sample, and very similar results for an outpatient sample (Mann, Wise, Segall, Goldberg, & Goldstein, 1988). Validity data on the measure is sparse. A recent study found convergent validity coefficients of only .26 between the BSI and the borderline scale from the MMPI-2 (one of the personality disorder scales developed by Morey, Blashfield, Webb, & Jewell, 1988) calling into question not only the validity of the borderline scale, but of the BPD construct as well (Gleaves et al., 1996).

The psychometric properties of the dissociation measures compare favorably with the self-report questionnaires mentioned above (see Table 2). The DES appears to be as psychometrically sound as both the BDI and the EAT, and more sound than the BSI. The QED, although it does not perform as well as the BDI, EAT, or DES, appears to generate data that are more reliable and valid than the BSI. These comparisons provide evidence that the self-report measures for DID, and the DES in particular, compare well with widely used measures for allegedly valid disorders. Nonetheless, one limitation of dissociation measures, along with most psychological measures, is that they do not have scales to detect malingering, impression management, and similar variables that may invalidate a response.

When interest in dissociative disorders reemerged in the early 1980s, no psychological tests existed specifically designed to identify DID or other forms of pathological dissociation. Personality measures such as the MMPI, Millon Clinical Multiaxial Inventory (MCMI; Millon, 1987), and Rorschach were being used to assess DID, with mixed results. This situation led one researcher to conclude that psychological testing was not generally beneficial in diagnosing DID (Coons, 1980). Since that time, several diagnostic and screening instruments have been designed to assess dissociative symptomatology. The diagnostic instruments in particular have demon-

strated that they are valid measures, with inter-rater reliability equal to or better than that found for most psychiatric disorders diagnosed using the SCID. The self-report screening measures compare favorably to widely used tests of well-validated disorders. It is evident that earlier lamentations regarding the usefulness of testing are no longer accurate. A more current conclusion, based on a study using a variety of psychological tests, a group of DID patients and psychiatric controls, was that of Scroppo, Drob, Weinberger, and Eagle (1998), who wrote, ''The DID participants reported a common set of clinical features that distinguished them from nondissociative psychiatric patients ... Although DID is a controversial diagnosis, there is reason to believe that genuine, distinctive, and theoretically consonant psychological processes underlie this disorder'' (p. 282). Thus, psychological tests do exist that are capable of accurately identifying DID and the disorder clearly meets Blashfield et al.'s second guideline.

Reliability

The reliability criterion refers to the reliability of the diagnoses generated by the diagnostic instruments described above. The specific standard is that at least two empirical studies by independent research groups have found inter-rater reliability of at least .70 for a diagnosis. The research groups led by Steinberg and Ross are clearly independent and they have used different structured interviews in their research (the SCID-D and DDIS, respectively). However, one needs to look no further than the first published study for each instrument to see that DID meets this third criterion.

Syndrome

This criterion requires that the disorder represent a syndrome, or group of co-occurring symptoms. The standard proposed by Blashfield et al. (1990) requires that the presence of at least one criterion be accompanied by at least a 50% chance that a person would meet another criterion. In our review of the DID literature, we did not find where this type of data was ever reported and, based on the criteria, believe that it is impossible to calculate such probabilities in any meaningful way. That is, the second DSM-IV diagnostic criterion (how often a personality state takes control) is dependent on the existence of the first, the fourth criterion is simply a rule out, and the third criterion, ''amnesia'', by itself is a different dissociative disorder for which DID is a rule out (i.e., to meet the diagnostic criteria for dissociative amnesia, it cannot occur solely in the context of DID). The fact that the diagnostic criteria do not allow research to be conducted to determine if they constitute a syndrome is another reason to improve the diagnostic criteria for DID. However, it is still possible to examine whether or not there seems to be a syndrome associated with DID. A conditional probability analysis based on the items of the DES-T would address Blashfield's ''syndrome'' criterion. Unfortunately, we did not find any published research in which this question was addressed. However, Green, Gleaves, and Dell (1999) recently analyzed their data in this fashion, and we examined a second dataset from an earlier investigation (Gleaves et al., 1996) using the same approach.

Green et al. (1999), who studied a sample of DID patients ($n = 62$), non-DID dissociative patients ($n = 22$) and nonclinical controls ($n = 84$), found that when they performed conditional probability analyses with each individual item from the DES-T,

conditional probabilities for items 3, 5, 7, 8, 12, 13, 22, and 27 were 0.97, 0.98, 0.99, 1.0, 0.98. 1.0, 0.94, and 0.99, respectively. Thus, if participants endorsed one item from the DES-T there was almost a 100% chance that they would endorse at least one other. Because some of the items overlapped in content, these probabilities may be inflated. Thus, we aggregated items as best we could into the core symptoms of DID. Based on this approach, the conditional probabilities associated with amnesia, depersonalization, derealization, identity confusion/alteration, and hearing voices were 0.92, 0.99, 0.98, 0.94, and 0.99, respectively.

In the analysis of the archival dataset from Gleaves et al. (1996), there was a total of 200 female participants, consisting of 15 DID patients, 15 eating-disordered patients, and 170 nonclinical controls. Conditional probability analyses suggested that given the endorsement of each of the eight DES-T items, the probability of having endorsed another item was 1.0. When we grouped the items as described above, the conditional probabilities for amnesia, depersonalization, derealization, identity alteration/confusion, and hearing voices were 0.92, 0.92, 0.93, 0.76 and 0.94, respectively. It is noteworthy that these conditional probabilities were consistently high regardless of the base rate in the sample (which was much higher in Green et al., 1999 than in Gleaves et al., 1996). Thus, these two studies suggest that DID clearly meets the syndrome guideline recommended by Blashfield et al. (1990).

Differentiation

This fourth criterion serves the purpose of making sure that a category is not redundant with an existing one. It is probably the aspect of DID that is most frequently made (other than the iatrogenesis argument). That is, many skeptics of DID argue that persons who receive the diagnosis are, for example, really just schizophrenic (Gardner, 1994), borderline (Lauer et al., 1993), or ''hysteric'' (Fahy, 1988). The literature indicates that the greatest amount of *alleged* symptom overlap, and therefore differential diagnosis problems, has typically occurred between DID patients and individuals with schizophrenia, seizure disorders, BPD, somatization disorder or PTSD (Coons, 1984; Gleaves, 1996).

Schizophrenia. In purely clinical settings, distinguishing between DID and schizophrenia has been problematic, as indicated by the high percentages of DID patients with previous diagnoses of schizophrenia. The diagnostic confusion seems to revolve around the presence of Schneiderian symptoms, which were once considered pathognomic for schizophrenia. Schneiderian, or first-rank, symptoms, were first described by Kurt Schneider, and refer to forms of hallucination (e.g., hearing voices), delusions (e.g., a delusion of reference), and passivity experiences (e.g., experiencing that one's sensations are controlled by others). However, research indicates that Schneiderian symptoms are common in DID patients (Kluft, 1987; Ross et al., 1990b) and may actually be more indicative of DID than schizophrenia.

Several studies have directly compared DID and schizophrenia. Fink and Golinkoff (1990) administered the DDIS and DES to groups of DID, schizophrenic, and BPD patients, and found that DID patients could be differentiated from schizophrenics on a number of measures. The SCID correctly identified all the schizophrenic patients, and only diagnosed 2 of 16 DID patients as schizophrenic. The DDIS correctly identified all DID patients, and ruled out DID in the schizophrenic group. The two

groups also differed on the DES, with a mean score of 48.6 for the DID group and 12.6 for the schizophrenic group. Other differences included significantly greater experience of childhood physical (75% vs. 18%) and sexual (94% vs. 9%) abuse, and endorsement of more somatic symptoms among the DID patients. The researchers also reported clear differentiation between the two groups on the MMPI and MCMI. The DID group showed a greater overall MMPI profile elevation, with higher scores on all scales except L, K, 3, 4, and 5. Similarly, results of the MCMI indicated a more severe, polysymptomatic profile for the DID patients.

Steinberg et al. (1994) used the SCID-D to distinguish between patients with DID, schizophrenia, and schizoaffective disorder. The diagnoses were made by the referring clinician, based on clinical observation, past records, and psychological testing. The SCID-D was administered by interviewers blind to the volunteer's referring diagnosis. The SCID-D correctly identified all 17 DID patients, and identified 1 schizophrenic and 2 schizoaffective patients as DID. The authors reported that two of these three newly identified DID individuals were subsequently confirmed by the referring clinician as having dissociative rather than psychotic disorders. The DID participants differed from the schizophrenic/schizoaffective ones on all scales of the SCID-D as well as in the total SCID-D score.

Ross et al. (1989) administered the DDIS to 20 DID and 20 schizophrenic patients. The interview correctly diagnosed 18 of the DID volunteers, and none of the schizophrenic ones were given false-positive diagnoses of DID. It is unclear, however, if the interviewers were blind to the patients' diagnosis. In addition to being distinguished on the basis of DID criteria, the two groups also differed significantly on such variables as the presence of additional dissociative symptomatology, somatic complaints, secondary features of DID (e.g., apparent strangers knowing the respondent), and greater likelihood of having had physical and/or sexual abuse.

A subsequent study by Ross et al. (1999) used both the DDIS and the DES to compare large samples of DID ($n=166$) and schizophrenic ($n=83$) volunteers. The DID group could be distinguished by higher DES scores (39.7 vs. 14.2), greater experience of additional dissociative symptomatology, greater severity of childhood trauma, and increased reporting of somatic complaints, secondary DID features, and Schneiderian symptoms (6.5 vs. 4.6). The DDIS identified 94.6% of the DID group and 25.3% of the schizophrenic group as positive for DID. Inclusion of individuals either misdiagnosed or comorbid for DID in the schizophrenic group would likely make between group differences more difficult to detect. It is unknown if any of the Schizophrenic subjects also met the criteria for DID; if so, this too would limit the detection of between group differences.

Persons with schizophrenia were also included in the Waller et al. (1996) study of the DES. As noted above, items on the DES-T were able to clearly discriminate individuals with DID from those with schizophrenia. On seven of nine items from the DES-T, schizophrenics had an average score of 0.0, whereas the DID group had an average score of more than 20 on eight out of nine items, and greater than 40 on five items. Collectively, these data suggest that schizophrenia can be discriminated from DID. More generally, schizophrenic patients differ from DID ones in that the former report significantly fewer dissociative experiences, if they have delusions they are more likely to refer to external agents than to alternate personalities, and they may present some type of symptoms (e.g., chronic ''negative'' symptoms such as apathy) that are rarely seen among DID patients.

Complex partial seizures or other neurological condition. Several studies in the early and mid 1980s suggested a link between DID and temporal lobe epilepsy, based on findings that dissociative symptoms commonly occur in seizure disorder patients, and that pseudoseizures have been observed among DID patients (e.g., Cardeña et al., 1996; Loewenstein & Putnam, 1988). However, researchers studying this possible association have been able to discriminate between the two groups on the basis of psychological testing. Loewenstein and Putnam (1988) found that DID patients scored significantly higher on the DES than patients with complex partial seizures (CPS), both on the overall score (47.5 vs. 6.8, respectively) as well as on each of the three DES subscales, clearly distinguishing the two groups. Ross et al. (1989) administered the DDIS and the DES to 20 volunteers with DID, 20 with CPS, and 28 neurologic controls. The DID patients differed significantly from the other two groups on all dissociative diagnoses and 16 secondary features evaluated by the DDIS and on the overall DES score. For example, average DES scores for the DID and CPS groups were 38.8 and 5.2, respectively; DID patients endorsed an average of 6.5 Schneiderian symptoms, while the CPS group averaged 0.3. A subsequent study by Devinsky, Putnam, Grafman, Bromfeld, and Theodore (1989) using the DES supported the findings of Lowenstein and Putnam (1988), and Ross et al. (1990b). Finally, in the Waller et al. (1996) study of the DES-T, neurological patients had an average score of 0.0 on every item of that scale. The results of these studies indicate that DID and complex partial seizures can be reliably differentiated.

Borderline personality disorder. Various studies have identified a substantial amount of overlap between the secondary features of DID and the diagnostic criteria for BPD (Horevitz & Braun, 1984; Kemp, Gilbertson, & Torem, 1988; Lauer et al., 1993). Not surprisingly, this overlap is associated with a reasonably high degree of comorbidity between the two disorders (e.g., Coons & Sterne, 1986; Ellason, Ross, & Fuchs, 1996; Horevitz & Braun, 1984). North et al. (1993) concluded that DID may act as a severity marker in BPD, based on reports that DID patients are the most disturbed of all the diagnostic groups. If their reasoning were correct, DID patients would show the symptoms of BPD, only in a more severe and/or chronic form. We would also expect, following this line of reasoning, that DID patients would not exhibit any core symptoms that were not present in some form among BPD patients. As we will see, the evidence runs counter to North et al.'s proposal.

Five studies published to date have attempted to distinguish BPD from DID. Horevitz and Braun (1984) examined the charts of ''confirmed'' DID patients to determine whether they also met DSM-III criteria for BPD. Of 93 possible cases, 33 contained sufficient data to determine diagnoses. Of these cases, 23 met at least five BPD criteria. The remaining 10 met from one to four criteria. Although there was significant comorbidity, the occurrence of DID independent of BPD led the authors to conclude that DID and BPD were separate diagnostic entities.

Kemp et al. (1988) compared 10 DID and 10 BPD patients on many variables, including personality and cognitive functioning, psychosocial history, clinical symptomatology, and global functioning. The authors found no significant differences between the two groups on any of the demographic or clinical variables. However, large differences in terms of the experiences of amnesia and abuse were noted. Amnestic episodes were reported by 80% of the DID group and 0% of the BPD group, and sexual abuse in the home was reported by 60% of the DID group compared to 20% of the BPD group. Two significant methodological problems with

this study should be noted. First, although the authors noted that none of the volunteers officially carried both diagnoses, they went on to state that approximately 70% of their DID sample met the criteria for BPD. Therefore, any true differences between the groups were perhaps masked. Additionally, it is very likely that small or moderate true differences between the two groups could not be detected due to the very small sample size and low statistical power.

Fink and Golinkoff (1990) compared the clinical features of DID ($n = 16$) and BPD ($n = 11$) patients in an attempt to distinguish between the two groups. No BPD patients met criteria for DID, although two DID patients also met diagnostic criteria for BPD. The most common additional diagnosis generated by the SCID for DID and BPD patients were mood disorders, with the majority of DID patients also being diagnosed with anxiety disorders. The DID patients scored significantly higher than the BPD patients on the DES, with mean scores of 48.6 and 23.5, respectively. On the DDIS, none of the BPD patients were given false positive diagnoses of DID, whereas all DID patients were correctly identified. DID patients also significantly differed from BPD patients in endorsing a greater number of somatic complaints and Schneiderian symptoms. There was no difference between the two groups in reports of physical or sexual abuse. However, the abuse was more severe in the DID group, with abusive episodes beginning at an earlier age and occurring more frequently. Very similar MMPI and MCMI profiles were generated by the DID and BPD groups. The authors concluded that the two groups can be differentiated, with a greater degree of dissociative symptoms and more severe child abuse reported by DID individuals (Fink & Golinkoff, 1990).

In one of the more methodologically sound studies, Boon and Draijer (1993a,c) used the SCID-D to attempt to differentiate DID and DDNOS patients from patients with cluster B personality disorders. They reported being able to distinguish between the two groups on several indices. The DID/DDNOS group had a higher overall SCID-D score; greater severity of amnesia, identity confusion, and identify fragmentation symptoms; greater severity of physical and sexual abuse, and more frequent endorsement of some Schneiderian symptoms. The researchers concluded that despite symptom overlap between DID/DDNOS and BPD patients, the two groups can be differentiated.

A comparative study was conducted by Lauer et al. (1993). They assessed 14 DID patients and 14 BPD patients with a variety of measures, including the SCID, DDIS, and DES. Results indicated few differences between the groups on socio-demographic variables or the majority of clinical variables. However, there were significant differences between the DID and BPD groups on the DES, with mean scores of 46.6 and 17.7, respectively. The DID group endorsed a significantly greater number of secondary features of DID, and 100% of DID patients experienced amnesia, as opposed to only 56% of the BPD group. Both groups met criteria for comorbid personality disorders, with the BPD group meeting criteria for 3.6 personality disorders, and the DID group meeting criteria for 2.4 personality disorders.

Lauer et al. (1993) concluded that DID is a variant of BPD, a syndrome that occurs during the course of the disorder. However, this study suffers from several problems that significantly weaken the authors' conclusion. First, the DID and BPD groups were not ''PURE''. Sixty-four percent of the DID patients had comorbid BPD diagnoses. Again, any true differences between the two disorders would be substantially masked by the comorbidity in the DID group. An additional flaw occurs in the logic of the

conclusion. Concluding that DID is a variant of BPD requires that BPD be a valid diagnostic entity. However, at least using the Robins and Guze criteria, the validity of BPD has not been established. The authors misquoted one source (Pope, Jonas, Hudson, Cohen, & Gunderson, 1983) as supporting the validity of BPD; that study in fact reported being *unable* to distinguish BPD from other personality disorders, namely antisocial and histrionic personality disorders, and concluded that its validity has yet to be established.

Taking a different approach to studying the relationship between DID and BPD, Gleaves et al. (1996) examined the relationship between dissociative and borderline *symptomatology,* as measured by objective assessment instruments. In a clinical eating disorder sample, two measures of dissociative experiences (the DES and QED) were found to be highly correlated ($r = 0.70$). However, neither was highly correlated with either of two measures of borderline symptomatology (the BSI and borderline scale from the MMPI-2). The results of a confirmatory factor analysis suggested that dissociative experiences were a separate construct, and failed to establish the existence of a borderline construct.

In sum, it appears that DID and BPD can be differentiated, particularly through psychological tests designed to identify dissociative pathology, including amnesia. Greater frequency and severity of childhood abuse also seems to distinguish the two disorders. However, the fact that the disorders can be partly differentiated based on severity of certain symptoms does not conclusively suggest they are different disorders. Is it possible that DID is a severity marker for BPD, as was suggested by North et al. (1993)? Available data do not seem to support this suggestion. As mentioned, if DID were a severity marker for BPD (i.e., all persons with DID are severe borderlines), then all persons with DID would necessarily have to also meet the criteria for BPD. The fact that some persons with DID meet none of the diagnostic criteria for BPD and may be extremely high functioning (e.g., Kluft, 1986) disconfirms the hypothesis that persons with DID simply represent the most severe cases of BPD. Also, the presence of significant amnesia among DID but not BPD individuals militates against the North et al. (1993) position.

Although available data support a distinction between DID and BPD, clearly additional research is needed in this area. When examining similarities and differences between these two diagnostic constructs, it is imperative that ''pure'' DID and BPD groups be used to avoid the methodological flaws that exist in the available literature.

Posttraumatic stress disorder.   Despite the fact that DID is generally regarded as traumagenic in origin, and that it shares some features of PTSD, very little research has investigated the nature of the association between these two disorders. There is some evidence of substantial comorbidity between the two disorders. Boon and Draijer (1993c) determined that 89% of their group of 49 DID patients met the full criteria for PTSD, and Ellason et al. (1996) found that 79.2% of 107 DID patients met the criteria for PTSD. Of those who did not meet full criteria, all met some criteria (J. W. Ellason, personal communication, October 7, 1994). Attempts to distinguish PTSD and DID patients have met mixed success. Loewenstein and Putnam (1988) compared patients with DID and PTSD on the basis of the total and three DES subscale scores. The DID group had higher scores on all four indices. However, the groups differed significantly only on the dissociation/psychogenic amnesia subscale. The total score difference approached significance (47.5 vs. 28.8), while the deper-

sonalization/derealization and absorption/imaginative involvement scales did not differentiate between the groups. In a large multi-center study, Carlson et al. (1993) found a lesser degree of difference on total DES scores between DID and PTSD groups. The mean score for the DID group was 42.8, while the mean score for the PTSD group was approximately 30. The researchers used receiver operating characteristics analyses to identify an optimal cut score to differentiate DID patients from a mixed psychiatric group. Using a cut score of 30, 30% of PTSD patients were given false-positive DID diagnoses. As noted above, Waller et al. (1996) found that persons with PTSD frequently endorsed items from the DES-T, although not to the degree as did those with DID.

Is it possible that DID is a severity marker for PTSD (which is the same question asked by North et al., 1993 about BPD)? We know of no data that disconfirm this hypothesis, especially when considering what has been called complex PTSD or disorder of extreme stress (this type of PTSD seems to exhibit more pervasive deficits in character structure and self-regulation than other forms of PTSD; see Van der Kolk, 1996). That is, although the studies above suggest that not all persons diagnosed with DID meet all of the criteria for PTSD, they apparently do meet some, and we know of no reported cases in which persons diagnosed as having DID did not also meet some of the criteria for PTSD. Thus, this hypothesis is still tenable. Clearly, the research published to date provides evidence of a strong positive association between DID and PTSD, which has led some researchers to suggest that DID may best be conceptualized as a variant of PTSD that might be traced to early, chronic abuse (e.g., Gleaves, 1996). On the other hand, most individuals with PTSD do *not* present the pervasive identity disintegration found in DID. Also, after severe trauma, such as rape, some individuals may exhibit only transient PTSD symptoms and dissociation, as compared with the typical chronicity of DID. It is clear that further research is needed on the nature and degree of the relationship between these two trauma based disorders.

Somatization disorder.   Prior to the DSM-III (APA, 1980), DID was listed as form of hysterical neurosis (APA, 1968). The association between ''hysteria'' and dissociation dates at least as far back as the early work of Janet, Freud, and other clinical pioneers at the end of the 19th century (Breuer & Freud, 1955; see also Spiegel & Cardeña, 1991). As reported earlier in this paper, somatic complaints are frequently reported by DID patients, and persons diagnosed as having somatization disorder frequently report dissociative experiences. In an early study of women diagnosed with hysteria and/or antisocial personality disorder, the authors reported that 7.5% of the subjects spontaneously reported having split or multiple personalities (Cloninger & Guze, 1970). Despite the long-alleged association between the two diagnostic categories, we found little relevant research on their connection. Ellason et al. (1996) administered the SCID to a sample of 107 patients with DID and found that 41.1% met the diagnostic criteria for somatization disorder. Ross et al. (1990a) administered the DDIS (which contains a section on somatization disorder) to a sample of 102 DID patients and found that 60.8% met somatization criteria. Similar results were found by Saxe et al. (1994) in a smaller sample of dissociative disorder patients ($n = 14$, only 4 of whom had DID).

Approaching the question from another angle, Pribor, Yutzy, Dean, and Wetzel (1993) examined dissociative symptomatology (as measured by the DES) among a sample of female ($N = 99$) psychiatric outpatients with a history of somatic com-

plaints. The authors broke the sample down based on whether or not the patients reported a history of abuse and whether or not the person met the diagnostic criteria for somatization disorder (Briquet's syndrome). Over 90% of those diagnosed with Briquet's syndrome reported abuse. The mean DES score for participants without an abuse history was 10.18 ($SD=6.97$). Persons with a history of abuse but without a diagnosis of Briquet's syndrome had a mean DES of 24.56 ($SD=19.98$) while those with an abuse history and Briquet's syndrome had a mean of 25.95 ($SD=19.16$). Thus, elevated DES scores associated with somatization may have been due to abuse history. Although the mean DES scores for the somatization disorder group were well below those typical of persons with DID, the fairly large standard deviations suggest that some members in this group score in the range typical of DID, and that there may be different types of somaticizers, one of which also manifests other forms of dissociation. This last type would approximate the earlier label of hysteria (Kihlstrom, 1994).

The studies reviewed do not clearly answer the question of the connection between DID and somatization disorder. This link seems to involve a history of trauma, but we found no research that directly addressed the possible discrimination of the two disorders on that variable. This is clearly an area in which empirical investigation in needed. However, overall, the evidence reviewed strongly suggests that DID can be distinguished from other psychiatric disturbances with which it has been associated, and thus meets Blashfield et al.,'s fifth guideline for diagnostic validity.

DOES DID MEET NECESSARY DIAGNOSTIC CRITERIA?

Exclusion Guidelines

As noted above, in addition to guidelines for including categories in the DSM, Blashfield et al. (1990) also recommended guidelines for excluding a category. As noted above, the authors recommended that if any one of the exclusionary guidelines is met, this category should be considered for exclusion. However, additional research should be carried out before a final determination is made.

Literature

This guideline is simply the converse of that for inclusion. That is, if there is no recent research on the disorder, it should be considered for deletion. Although one might think that very few disorders would ever meet this criterion, Blashfield et al. (1990) gave as an example and correctly predicted that ''Passive aggressive personality disorder'' might be deleted from the DSM-IV because there was virtually no research on it.

Coverage

Blashfield et al. (1990) gave the example of ''schizoid personality disorder'', which has consistently been found to be diagnosed in only about 1% of persons with personality disorders. Although one might argue that very rare disorders could still be valid, the logic behind this guideline is that categories with very little clinical relevance could be deleted.

Applying this guideline to evaluate DID is quite straightforward. In prevalence studies, what percentage of persons diagnosed as having dissociative disorders receive the diagnosis of DID? Gleaves (1996) summarized the results of nine prevalence studies (all of which used structured interviews to make diagnoses) that reported prevalence rates for dissociative disorders in general and DID specifically. In only one of these studies did DID comprise less than 5% of the dissociative disorder diagnoses, and this was a small study ($N=100$) of persons with obsessive–compulsive disorder where there were no diagnosed cases of DID. In the remainder of the studies, the percentage of dissociative-disordered individuals who met the criteria for DID ranged from 11% to 77%. Thus, DID appears to clearly *not* meet this guideline for exclusion from the DSM.

Diagnostic Bias

This criterion refers to the existence of five studies demonstrating a diagnostic bias with regard to gender or race. Considering gender and DID, the answer is clearly yes in that, across numerous studies, there is a 5:1 to 9:1 ratio of diagnosed women to men (Kluft, 1996; Putnam & Loewenstein, 1999). However, Blashfield et al. (1990) noted that diagnostic bias is not a problem if it can be demonstrated, with data, why gender should influence the prevalence of the disorder. Although ethical limitations make it impossible to prove with certainty why DID is differentially associated with gender, it is believed that it is due to the higher rate of sexual abuse, especially incest, among girls (Briere, 1992; Finkel-hor, Hotaling, Lewis, & Smith, 1989; Kluft, 1996). It has also been proposed that the true gender difference is not as great as previous research has suggested. Several researchers (e.g., Putnam & Loewenstein, 1999) have argued that men with DID may more likely end up incarcerated, whereas women end up in the mental health system.

There is really no research to address the question of a racial bias. Unfortunately, race is too infrequently reported, and there are not five studies demonstrating a bias. Although some researchers (e.g., Spanos, 1994) have claimed that DID is only found in a specific sociocultural group, there is no empirical evidence to support this assertion (Cardeña, 1997; Gleaves, 1996). DID has been observed frequently in diverse countries for at least several decades (Coons, Bowman, Kluft, & Milstein, 1991). When prevalence of DID has been studied in countries other than North America, it has been found to be very similar to that found in North America (e.g., Tutkun et al., 1998). Thus, at this point in time, there is not one empirical study, let alone five, suggesting cultural bias (see Gleaves, 1996, for a more detailed examination of the position that DID is a culture-bound phenomenon).

Disease

This last of the exclusionary guidelines is really a rule out with regard to excluding a category. That is, even if a category has met one of the above three criteria, Blashfield et al. (1990) recommended that the category not be excluded if there is a clear understanding of the pathophysiology and etiological basis of the disorder. Given that DID met none of the exclusionary criteria, this last consideration is irrelevant.

ESTABLISHING DIAGNOSTIC VALIDITY THROUGH TAXOMETRIC RESEARCH

We will now consider an alternative approach to evaluate diagnostic validity. In his 1995 article, Meehl referred to taxometric procedures as being capable of "solving the classification problem in psychopathology"; thus, they are a different, and possibly better approach to determine the validity of DID. Taxometric procedures (see Meehl, 1995; Waller & Meehl, 1997) are used to distinguish psychological types (i.e., qualitative differences) from mere variations in a continuum (i.e., just quantitative differences) and, if a construct is typological, to determine a set of indicators for that taxon. Waller et al. (1996) performed a taxometric study of dissociative experiences by applying three taxometric procedures to data from the DES from 228 persons diagnosed as having DID and 228 normal controls. The results supported the existence of a pathological dissociation These [original] eight items, collectively labeled the "DES-T" (Waller et al., 1996), match up fairly well with the proposed core symptomatology of DID (i.e., amnesia, depersonalization, derealization, identity confusion, and identity alteration) with the addition of auditory hallucinations from inside one's head.

The findings with the DES were replicated by Waller and Ross (1997), who also estimated the prevalence of pathological dissociation in the general population. Taxometric analyses suggested that approximately 3.3% of the general population belonged to the pathological dissociation taxon. Green et al. (1999) also replicated the findings of the two previous studies using both the DES and the QED. The results again suggested a taxonic structure of pathological dissociation. All of the original items from the DES-T, as well as three other items from the DES and six items from the QED, appeared indicative of the pathological taxon, Again, new items seemed to map onto the five core symptoms of dissociative disorders, with the addition of an item from the QED related to hypnotizability.

These taxometric studies seem to strongly support the validity of a pathological dissociative disorder whose features are consistent with that of DID. However, as an overall method for determining whether or not a diagnostic category is valid, taxometrics have their limitations. Basically, their purpose is to distinguish continua from types. They are useful for determining which disorders are taxonic and which are purely dimensional, but the simple fact that a disorder is dimensional does not necessarily mean that it is not valid. In fact, some researchers have recently argued that virtually all disorders are dimensional in nature (e.g., Widiger, 1997). It would probably be an overly restrictive assumption to require all diagnoses to be supported by taxometric research. Nevertheless, the fact that DID is one of the few disorders (in addition to bulimia nervosa; Gleaves, Lowe, Snow, Green, & Murphy-Eberenz, 2000, schizotypal personality disorder; Korfine & Lenzenweger, 1995, and antisocial personality disorder; Harris, Rice, & Quinsey, 1994) for which there is support from taxometric research, should be interpreted as substantial evidence for its validity.

DISCUSSION

There is no absolute standard or set of criteria or guidelines for determining whether or not a diagnostic category is "valid", and it is overly simplistic to think of validity as a unitary construct. In this paper, we have considered four ways of examining the

validity of DID, with the greatest emphasis on the guidelines presented by Blashfield et al. (1990) because they were the most explicit. None of these methods of establishing validity are without their problems. However, across numerous methods, the various forms of validity of DID show substantial support.

Regarding Blashfield's guidelines, it appears that DID meets all of the criteria for inclusion in the DSM-IV and none of the criteria for exclusion. Taxometric research suggests the existence of a pathological dissociation taxon that is consistent with the features of DID. By the Spitzer and Williams (1985) criteria, there appears to be evidence for face, descriptive, predictive, and construct validity, with perhaps the least evidence for predictive validity and the most for construct validity. Based on the research on the etiology of DID, the evidence for its construct validity is perhaps greater than that for most mental disorders. Finally, although the Robins and Guze (1970) criteria are ambiguous, there is evidence that DID meets these criteria to at least the same degree as most well-established disorders, including those originally determined to be valid by Feighner et al. (1972). Thus, based on these numerous ways of examining diagnostic validity, that of DID seems supported and its inclusion in the DSM clearly warranted.

Although we conclude that DID is sufficiently validated for inclusion in the current and future versions of the DSM, much more research is needed in several areas. First, although the criticisms regarding diagnostic criteria may have been overstated, further refinement and operationalization of the DSM criterion A may be needed. The addition of the amnesia criterion seems to have been a useful and empirically supported decision. However, based on research with the SCID-D and the taxometric work described above, auditory hallucinations (perceived as coming from inside one's head) and experiences of depersonalization and/or derealization should be considered as additional diagnostic criteria for DID.

Regarding the etiology of DID, much more research needs to be conducted to determine why only a minority of individuals subjected to severe child abuse go on to develop DID. That is, regarding the diathesis stress model described above, much more research is needed on the proposed predisposition, often conceptualized as some form of inherited ''dissociative ability''. Also, although the ''stress'' part of the diathesis stress model seems well-established to be severe childhood trauma, further research on the nature and characteristics of the trauma and/or the family environmental context in which the abuse occurs is needed.

Concerning ''differentiation'' (from Blashfield et al.'s, 1990 criteria), which is similar to phase III of the R&G criteria of descriptive validity as described by Spitzer and Williams (1985), we see that the greatest need for future research to be in the areas of other trauma-related conditions such as PTSD, somatization disorder, and disorders of extreme stress not otherwise specified. Also, although DID and BPD seem to be established as distinct disorders, they also seem to be related and the exact nature of the relationship is unclear. As with DID, BPD appears to be linked to childhood trauma and PTSD (Gunderson & Chu, 1993; Gunderson & Sabo, 1993; Murray, 1993), but these complex relationships, involving biological predispositions, traumatic events, and family environment, require further study.

Perhaps most important is the need for more research on predictive validity, specifically the degree to which the diagnosis is predictive of response to various forms of treatment. As reviewed by Gleaves (1996) and Putnam and Loewenstein (1999), DID appears responsive to active treatment that directly addresses the dissociative and posttraumatic symptomatology, with a sizeable proportion of persons

with DID being able to achieve full recovery and leave the mental health system. Conversely, there does not appear to be support for the treatment known as benign neglect (Ross & Dua, 1993), whereby the clinician ignores the dissociative symptomatology in hopes of not reinforcing it. However, neither of these conclusions are based on controlled outcome studies. Uncontrolled studies, with follow-up, supporting the more direct approach to treatment exist (e.g., Ellason & Ross, 1997), but controlled outcome studies are clearly needed. These are ethically difficult to conduct with individuals who often experience intense symptomatology, including suicidality, who cannot be assigned to a no-treatment control group. However, studies comparing specialized trauma and dissociative symptom-focused treatment to ''treatment as usual'' can be conducted. Treatment outcome studies using methodologies similar to those used with borderline personality disorder (Linehan, Heard, & Armstrong, 1993) may be appropriate for studying the treatment validity (i.e., predictive validity) of DID.

In conclusion, despite its long and controversial past, there has been a wealth of research accumulate over the past 10 to 15 years on the DID diagnosis. This research seems to establish the validity of the DID diagnosis. There is, however, room for improvement in the specifics of the diagnostic criteria, including an empirically based, more precise description of the symptoms associated with DID.

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