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Paul F. Dell PhD ^a

^a Psychotherapy Resources of Norfolk, Norfolk, Virginia, USA
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Three Dimensions of Dissociative Amnesia

PAUL F. DELL, PhD

Psychotherapy Resources of Norfolk, Norfolk, Virginia, USA

Principal axis factor analysis with promax rotation extracted 3 factors from the 42 memory and amnesia items of the Multidimensional Inventory of Dissociation (MID) database (N = 2,569): Discovering Dissociated Actions, Lapses of Recent Memory and Skills, and Gaps in Remote Memory. The 3 factors' shared variance ranged from 36% to 64%. Construed as scales, the 3 factor scales had Cronbach's alpha coefficients of .96, .94, and .93, respectively. The scales correlated strongly with mean Dissociative Experiences Scale scores, mean MID scores, and total scores on the Structured Clinical Interview for DSM–IV Dissociative Disorders–Revised (SCID-D-R). What is interesting is that the 3 amnesia factors exhibited a range of correlations with SCID-D-R Amnesia scores (.52, .63, and .70, respectively), suggesting that the SCID-D-R Amnesia score emphasizes gaps in remote memory over amnesias related to dissociative identity disorder. The 3 amnesia factor scales exhibited a clinically meaningful pattern of significant differences among dissociative identity disorder, dissociative disorder not otherwise specified–1, dissociative amnesia, depersonalization disorder, and nonclinical participants. The 3 amnesia factors may have greater clinical utility for frontline clinicians than (a) amnesia as discussed in the context of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, nosology of the dissociative disorders or (b) P. Janet's (1893/1977) 4-fold classification of dissociative amnesia. The author recommends systematic study of the phenomenological differences within specific

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Address correspondence to Paul F. Dell, PhD, Trauma Recovery Center, Psychotherapy Resources of Norfolk, 1709 Colley Avenue, Suite 312, Norfolk, VA 23517. E-mail: PFDell@aol.com

dissociative symptoms and their differential relationship to specific dissociative disorders.

KEYWORDS *amnesia, dissociative amnesia, dissociation*

Dissociative amnesia (DA) was one of the first reported psychiatric phenomena (e.g., General Assembly's Missionary Magazine, 1806). Nevertheless, two centuries later, knowledge about DA continues to be mostly clinical-descriptive. DA is (a) a characteristic feature of DA, dissociative fugue (DF), and dissociative identity disorder (DID); (b) a common symptom of two examples of dissociative disorder not otherwise specified (DDNOS-1 and DDNOS-4); and (c) a diagnostic symptom of posttraumatic stress disorder, acute stress disorder, and somatization disorder (American Psychiatric Association [APA], 2000).

The *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)* also describes DA in terms of Janet's (1893/1977) four-fold classification of amnesia (i.e., localized, systematized, generalized, and continuous). *Localized* amnesia is quite common but infrequently diagnosed: "the individual fails to recall events that occurred during a circumscribed period of time" (APA, 2000, p. 520). These circumscribed periods of time may cover minutes, hours, or days (e.g., a sexual assault or a period of intense combat) but often cover years (e.g., chronic mistreatment during childhood).

Clinicians who work with trauma are familiar with a variant of localized amnesia: *selective amnesia*, wherein "the person can recall some, but not all, of the events during a circumscribed period of time" (APA, 2000, p. 520). Thus, for example, a person may recall most of a traumatic event but have selective amnesia for a particularly disturbing aspect. Although there is no empirical research on this point, several experts consider the most common form of DA to be *systematized amnesia* (Dell, 2011; Janet, 1893/1977; R. J. Loewenstein, personal communication, October 4, 2011): a "loss of memory for certain categories of information, such as all memories relating to one's family or to a particular person" (APA, 2000, p. 520). Similarly, some patients remember their childhood but forget their childhood sexual abuse. The best known form of DA is actually quite rare: *generalized amnesia* (Loewenstein & Putnam, 2004; Spiegel et al., 2011). These patients forget their entire lives and personal identities. *Continuous dissociative amnesia* is especially rare (Spiegel et al., 2011). These patients have ongoing forgetting, within minutes, of each new event in their lives.

Fugues (i.e., amnesia for travel) are accompanied by a localized or generalized amnesia. In DF, the fugue delimits an episode of localized amnesia. In generalized amnesia, the initiation of a fugue often marks the onset of the memory loss; the cessation of the fugue often coincides with these patients'

delayed conscious realization that they have forgotten who they are. Finally, in DID, a fugue delimits all or part of an episode of localized amnesia. Diagnostically speaking, the important point is that fugues are common in DID. When a patient reports a fugue, it is statistically far more likely that the patient has DID than DF or generalized amnesia (Dell, 2006b; Loewenstein & Putnam, 2004; Ross, 2009; Spiegel et al., 2011).

Aside from Janet's four-fold classification of DA and the APA's (2000) nosological "geography" of DA, relatively little is known about DA. DA has seldom been directly targeted for study. The primary exception to that generalization is the experimental literature that assesses the rigor and objectivity of DA in persons with DID, DA, and posthypnotic amnesia (e.g., Hull, 1933; Huntjens, 2003; Kritchevsky, Chang, & Squire, 2004). That literature reports that the forgotten information is still present and often influences the person's behavior (e.g., Huntjens, 2003; Kong, Allen, & Glisky, 2008). These findings are consistent with clinical accounts of these patients. Experimental researchers have concluded that DA is "a disturbance in meta-memory" (Huntjens, Peters, Woertman, van der Hart, & Postma, 2007, p. 787). *Meta-memory* refers to "knowledge, beliefs, and feelings about memory" (Huntjens et al., 2007, p. 787) rather than objective memory itself. For an analysis and partial review of the experimental literature on DA, see Dell (2011).

The important point about DA, from which the present study takes its leave, is that the current understanding of the structure of DA is still clinical-descriptive rather than truly empirical. There is Janet's 120-year-old, four-fold classification of DA but no empirical investigation of a fundamental question: What are the basic types or dimensions of DA?

The absence of such research may be due to the nature of today's dissociation instruments. With one exception (Dell, 2006a), these instruments contain only a handful of questions about memory and amnesia. This handful of questions is sufficient for clinical assessment but inadequate for basic research (such as investigating the empirical structure of DA). Basic research on DA requires a far more comprehensive set of questions.

The present study uses the Multidimensional Inventory of Dissociation (MID; Dell, 2006a). The MID was designed to be as comprehensive as possible. Forty-two of its 168 dissociation items address memory and DA. These 42 items allow, perhaps for the first time, an empirical exploratory factor analysis of the underlying dimensions of DA.

METHOD

Participants

The MID database contains data from 2,569 participants, 1,331 (51.8%) clinical and 1,238 (48.2%) nonclinical. Participants were predominantly female

($n = 1,595$; male, $n = 724$); the gender of 250 is unknown. The database consists of 17 independent samples: (1) 615 clinical adults and nonclinical adults from the United States, Canada, and Australia. Because these clinical research participants were recruited from the practices of therapists with an interest in dissociation, the sample is not random. A total of 76% ($n = 464$) of the entire sample had received either (a) a dissociative diagnosis by their therapists or (b) a mean MID score of 15 or greater. (2) 40 adults with schizophrenia from a U.S. community mental health center. (3) 142 clinical and nonclinical adults from Israel. (4) 135 clinical and nonclinical adults from Israel. (5) 100 adult psychiatric inpatients from Germany, primarily with diagnoses of substance abuse or mood disorder. (6) 172 college students from the United States. (7) 67 college students from the United States. (8) 50 male prison inmates from Canada, most of whom had committed violent offenses. (9) 10 persons with depersonalization disorder (DPD). (10) 450 psychotherapy patients, 70% with MID scores of 15 or higher, and 72 adults from the community. (11) 101 heroin detox patients and 46 general psychotherapy patients from Israel. (12) 120 clinical participants (66 severely dissociative, 54 with other psychiatric disorders); (13) 150 nonclinical adults from Italy, recruited by a psychology student from among her friends and family friends. (14) 136 nonclinical late-adolescent college students from the Philippines. (15) 22 Structured Clinical Interview for *DSM-IV* Dissociative Disorders (SCID-D)-diagnosed patients with bipolar disorder from a community mental health center. (16) 129 psychiatric inpatients from a trauma unit and a general psychiatric unit, 40% with a dissociative disorder. (17) 100 well-diagnosed patients with borderline personality disorder from a community mental health center. The details of the 17 samples are described in Dell and Lawson (2009).

Materials and Procedures

There is no single procedure by which the 2,569 participants were enrolled or their tests were administered. In all cases, however, permission for collecting the data was granted by a local institutional review board and/or by patients who were being evaluated by their therapists.

The MID is a 218-item self-administered, 11-point Likert format, multiscale measure of dissociation with 168 dissociation items and 50 validity items (Dell, 2006a, 2006b; Dell & Lawson, 2009). The MID contains 42 items that assess memory and amnesia. These 42 items include all 12 items of the Memory Problems Scale, all 12 items of the Discontinuities of Time Scale, all 12 items of the Disremembered Behavior Scale, 5 of the 12 Ancillary Scale items, and 1 of the 12 Self-Alteration Scale items.

Dissociative Experiences Scale (DES). The DES is a 28-item self-report questionnaire that quantifies dissociative experiences (Bernstein & Putnam,

1986). The DES-II uses an 11-point Likert scale (0–100), in increments of 10. In a meta-analysis of DES studies, Van IJzendoorn and Schuengel (1996) reported an overall Cronbach's alpha coefficient of .96. DES scores of dissociative disorder patients ($M = 47.6$) differ from those of nondissociative controls ($M = 12.0$; Van IJzendoorn & Schuengel, 1996).

Structured Clinical Interview for DSM-IV Dissociative Disorders-Revised (SCID-D-R). The SCID-D-R (Steinberg, 1994) is a 277-item semistructured interview that quantifies five dissociative symptoms: amnesia, depersonalization, derealization, identity confusion, and identity alteration. The SCID-D-R also diagnoses the five *DSM-IV* dissociative disorders.

RESULTS

Exploratory Factor Analysis

Factor analysis was conducted with SPSS 13.0 for Windows. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.982, which indicates that the MID's 168 dissociation items are highly linearly related and well suited to factor analysis. Item analyses, however, presented special problems (Gorsuch, 1997): (a) Items have lower reliabilities than scales, (b) items have a high level of confounding variance, and (c) a pool of items that measure the same construct may yield artifactual difficulty factors. Thus, in keeping with the recommendation of Gorsuch (1997), a common factor analysis was conducted.

Principal axis factor analysis extracted three factors with eigenvalues greater than 1. The corresponding scree plot tailed off after the third factor. I chose to accept this three-factor solution. The MID's 42 memory and amnesia items were designed to measure a single superordinate construct (i.e., pathological dissociation). Thus, these items were expected to correlate well with one another. In light of this, an oblique rotation was used. Promax rotation yielded three coherent factors: Discovering Dissociated Actions (30.9% of the variance), Lapses of Recent Memory and Skills (16.0% of the variance), and Gaps in Remote Memory (10.1% of the variance; see the pattern matrix in Table 1). Factors were named on the basis of the 33 items with a pattern matrix loading of .55 or higher on one of the factors. Nine items, including two that were intended to assess generalized amnesia ("Being unable to remember who you are," "Being unable to remember your name, or age, or address"), did not meet this criterion and were dropped from further analysis. The extracted factors were examined across other methods of extraction and rotation. With one exception, these analyses produced close variations of the same three factors. The pattern matrix is reported because pattern matrices typically provide a simpler structure than do structure matrices. This proved to be the case in the present factor analysis.

TABLE 1 Pattern Matrix Loadings and Reliabilities for Principal Axis Factor Analysis with Promax Rotation of the MID's 42 Memory and Amnesia Items ($N = 2,569$)

Factors and items	Amnesia factors			Amnesia scales			
	I	II	III	α	One-month test-retest r^a		
Discovering Dissociated Actions (Factor I)							
160. Suddenly finding yourself inside the closet, under a bed, curled up on the floor	.91	-.13	-.02	.96	.94		
173. Suddenly finding yourself somewhere with no memory of how you got there	.90	-.07	.00				
150. Suddenly discovering that you have cut your hair, changed clothes, etc.	.87	-.11	-.01				
179. "Coming to," finding that you have done something you don't remember doing	.86	.01	-.01				
204. "Came to," found pills, razor blade, etc., in your hand	.85	-.20	.06				
205. Finding writings at your home in handwriting that you don't recognize	.84	-.10	.08				
186. Discovering that you have attempted suicide, no memory of doing it	.76	-.13	.01				
76. Finding things in your shopping bags, which you don't remember buying	.75	.09	-.01				
187. Finding things that you wrote/drew, but with no memory of having done so	.72	.12	.04				
64. Finding yourself lying in bed or elsewhere, no memory of how you got there	.70	.14	.01				
108. Finding something done that you don't remember doing	.68	.19	-.01	.94	.93		
43. Finding things at home that you don't remember buying	.65	.18	-.01				
170. Discovering that you have significant injury, no memory of how it happened	.62	.10	.08				
217. Things in your home disappear or get moved, don't know how	.61	.14	.03				
53. Told that there were times when did not recognize friends or family members	.61	.06	-.01				
152. Told you did things that you <i>don't</i> remember and would never do	.60	.23	.01				
74. "Coming to" in the middle of doing something, no memory of initiating	.60	.26	-.01				
Lapses of Recent Memory and Skills (Factor II)							
143. Poor memory causing serious difficulty for you	-.10	.82	.09				
2. Forgetting what you did earlier in the day	-.13	.81	.03				
79. Immediately forgetting what other people tell you	-.16	.80	.16				
154. Bothered or upset by how much you forget	-.13	.80	.12				
24. Not remembering what you ate at your last meal—or even <i>whether</i> you ate	.13	.66	.01				
131. Being able to do something really well and then not being able to do it at all	.13	.62	-.03				
162. Totally forgetting a skill (how to drive, read, use the computer, etc.)	.36	.56	-.12				
189. Suddenly not knowing how to do your job	.25	.56	-.09				

211. Not remembering where you were the day before	.29	.55	.00	
19. Told of things that you recently did, no memory of having done those things	.31	.51	.05	
31. "Losing" a chunk of time and having a total blank for it	.29	.48	.13	
Gaps in Remote Memory (Factor III)			.93	.94
67. Not remembering large parts of your childhood after age 5	.00	-.08	.90	
122. Being able to remember very little of your past	.05	.00	.83	
78. Feeling that pieces of your past are missing	.03	.08	.80	
102. Feeling that there are large gaps in your memory	-.03	.24	.74	
90. Feeling that important things happened to you, but cannot remember them	.07	.07	.73	
Percentage of variance	30.9	16.0	10.1	

Notes: These pattern matrix loadings are based on a second factor analysis; after 9 items were dropped that did not have a factor loading of at least .55 on one of the factors in the initial factor analysis. Two more items (19 and 31) did not attain a pattern loading of .55 or greater on the second factor analysis. MID = Multidimensional Inventory of Dissociation.

Bolding = all patterns loadings of .55 or greater.

^aTest-retest $N = 34$.

Internal Consistency and Temporal Stability of the Amnesia Factor Scales

The Cronbach's alpha coefficients and 1-month temporal stability coefficients ($N = 34$), respectively, were as follows: Discovering Dissociated Actions (.96 and .94), Lapses of Recent Memory and Skills (.94 and .93), and Gaps in Remote Memory (.93 and .94).

Convergent Validity of the Amnesia Factor Scales

The amnesia factor scales correlated moderately with SCID-D-R total scores and strongly with DES and MID mean scores (see Table 2). The correlations between the SCID-D-R Amnesia scores and the three amnesia factor scales showed some interesting differences; notably, the SCID-D-R Amnesia scores shared sizably different amounts of variance with Discovering Dissociated Actions scores (27%), Lapses of Recent Memory and Skills scores (40%), and Gaps in Remote Memory scores (49%). It is curious that the mean DES and mean MID scores generally had higher correlations with the three amnesia factor scales than did the SCID-D-R Amnesia scores.

Interrelationships of the Three Amnesia Factors

The pattern of correlations among the three amnesia factors (see Table 2) suggests that they can be arranged along a dimension of severity that stretches from Gaps in Remote Memory, to Lapses of Recent Memory and Skills, to Discovering Dissociated Actions. This putative dimension is consistent with the factors' shared variance, ranging from 36% (Gaps in Remote Memory \times Discovering Dissociated Actions), to 55% (Gaps in Remote

TABLE 2 Correlations of the Three Amnesia Factors, SCID-D-R, DES, and MID

Instrument	Dissociated Actions	Lapses of Recent Memory and Skills	Gaps in Remote Memory
SCID-D-R ($n = 152$)			
Amnesia	.52	.63	.70
Depersonalization	.45	.54	.55
Derealization	.55	.62	.55
Identity Confusion	.49	.58	.50
Identity Alteration	.54	.64	.55
Total score	.60	.70	.66
DES ($n = 588$)	.79	.86	.66
MID ($n = 2,569$)	.86	.90	.76
Dissociated Actions		.80	.60
Lapses of Recent Memory and Skills			.74

Notes: SCID-D-R = Structured Clinical Interview for *DSM-IV* Dissociative Disorders-Revised; DES = Dissociative Experiences Scale; MID = Multidimensional Inventory of Dissociation.

TABLE 3 Kinds of Amnesia in Five SCID-D-R Diagnosed Groups

Diagnostic group	Dissociated Actions			Lapses of Recent Memory and Skills		Gaps in Remote Memory	
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Dissociative identity disorder	76	38.1	25.6	55.5	21.3	68.6	27.2
Dissociative disorder NOS-1	40	22.7 ^c	25.0	43.2	24.7	65.1	32.5
Dissociative amnesia	3	6.0	7.5	30.3	10.5	34.7	40.1
Depersonalization disorder	17	6.2 ^d	10.1	24.3 ^{a,d}	18.2	31.3 ^{b,d}	30.1
Nondissociative	26	0.8 ^{b,d}	2.6	10.5 ^{b,d}	12.4	13.8 ^{b,d}	21.7

Notes: SCID-D-R = Structured Clinical interview for *DSM-IV* Dissociative Disorders–Revised; NOS = not otherwise specified.

^aDiffers from dissociative disorder NOS-1 ($p < .05$). ^bDiffers from dissociative disorder NOS-1 ($p < .01$). ^cDiffers from dissociative identity disorder ($p < .03$). ^dDiffers from dissociative identity disorder ($p < .001$).

Memory × Lapses of Recent Memory and Skills), to 64% (Discovering Dissociated Actions × Lapses of Recent Memory and Skills).

Criterion-Related Validity of the Amnesia Factor Scales

The five diagnostic groups manifested distinct patterns of amnesia across the three amnesia scales (see Table 3). Specifically, patients with a complex dissociative disorder (i.e., DID or DDNOS-1) had much higher scores for Discovering Dissociated Actions and Lapses of Recent Memory and Skills than did patients with DA or DPD. Moreover, patients with DA and DPD had especially low scores for Discovering Dissociated Actions. The diagnostic groups with a complex dissociative disorder had very elevated scores for all three amnesia factors; they differed from one another on only one factor—Discovering Dissociated Actions. The nondissociative group had low scores for all three kinds of amnesia.

DISCUSSION

A three-factor solution of the factor analysis of the MID's 42 memory and amnesia items was accepted. This is the first empirical study to characterize DA in greater detail than its presence or absence and its frequency.¹ Extracting three meaningful amnesia factors was made possible by the broad coverage of the MID. Unlike other measures of dissociation, whose intents are pragmatic and clinical, the MID was constructed to facilitate basic research on pathological dissociation, not just clinical assessment. Thus, the MID's 168 dissociation items far exceed what

is needed for clinical purposes. The ability of these 168 dissociation items to contribute to basic research is evident in the MID's cross-validated 12 factors of pathological dissociation: Self-Confusion, Discovering Dissociated Actions, Subjective Awareness of Alters, Body Symptoms, Gaps in Remote Memory, Trance, Derealization/Depersonalization, Flashbacks, Dissociative Disorientation, Persecutory Intrusions, Angry Intrusions, and Lapses of Recent Memory and Skills (Dell & Lawson, 2009).

The utility of the MID's breadth of coverage is highlighted by comparing the DES's single amnesia factor to the present study's three factors. Factor analyses of the DES's 28 dissociation items typically extract three factors: Absorption, Depersonalization/Derealization, and Amnesia (for a brief review of that literature, see Dell & Lawson, 2009). Perhaps the most conceptually insightful understanding of the DES's Amnesia factor is that of Ross, Ellason, and Anderson (1995) who named that factor "Activities of Dissociated States." Their conceptualization of the DES amnesia items is quite similar to one of the factors from the present study: Discovering Dissociated Actions. Said differently, the amnesia items of the DES tap (only) dissociated actions.² Ray's DES factor, *In Situ* Amnesia (Ray & Faith, 1995), seems to be the closest phenomenological precursor to Discovering Dissociated Actions. *In situ* amnesia involves suddenly "coming to" and discovering that one has done things one does not remember doing. The present study's identification of two additional amnesia factors is a direct benefit of the MID's depth and breadth of coverage.

The present study's three amnesia factors offer a third way to organize the phenomena of DA (in addition to Janet's, 1893/1977, clinical-descriptive classification and the *DSM-IV* nosology of the dissociative disorders). Whereas Janet provides a *clinical-descriptive framework* and the *DSM* provides a *system of diagnostic classification*, the present study identifies three *empirically-derived dimensions* of amnesia.

Gaps in Remote Memory are a familiar clinical phenomenon. Of the three amnesia factors, only Gaps in Remote Memory readily and *usefully* fits within Janet's fourfold classification (i.e., localized amnesia).

Discovering Dissociated Actions, a classic phenomenon of DID, is an example of systematized amnesia. Why? Because dissociated actions are amnesias for a particular category of behavior (i.e., the behavior of alters). Still, knowing that the dissociated actions of alters are systematized—correct though that conceptualization may be—is not especially useful to frontline clinicians. In contrast, the *name* "Discovering Dissociated Actions" provides a phenomenon-close description of this set of amnesias that seems to have more immediate clinical utility for clinicians.

Lapses of Recent Memory and Skills are closely akin to conversion symptoms (see Dell, 2011). Like conversion symptoms, these amnesias are *negative* dissociative symptoms. For example, a person attempts to carry out a well-learned skill but *cannot* (just as a person with a hysterical paralysis

tries to walk—a well-learned skill—but cannot). Similarly, for example, a person tries to remember what he or she did yesterday or where the last 5 hr went but cannot (just as a person with a hysterical blindness tries to see but cannot).

The three dimensions of DA are phenomenologically distinct from one another. First, Discovering Dissociated Actions is preceded by the amnesic individual being unaware of having done something. Then, *all of a sudden, these individuals are confronted with evidence that they did something that they do not remember having done*. This is a distinctly unsettling moment. Second, in Lapses of Recent Memory and Skills, amnesic individuals are blithely progressing through their day when, *all of a sudden, they are unable to do something they usually can do easily*. They can't remember where the last 5 hr went, or they can't remember what they did yesterday, or they don't know how to operate their computer, or they can't read, and so on. This, too, has its own distinctive phenomenological quality: Heidegger's (1927/1962) "unreadiness to hand." Third, during Gaps in Remote Memory, the person is initially unaware that the gap in memory exists. As time passes, the person may (or may not) become aware of the gap. Said differently, persons with a gap in remote memory are generally unaware of the gap *until* some event (e.g., a conversation with a friend, an interviewer's questions) reveals that they cannot recall an important portion of their life. As most clinicians know, these individuals are usually hesitant to retrieve their missing memory. Thus, Gaps in Remote Memory not only have their own distinctive phenomenological quality; they evoke their own characteristic emotional response from the amnesic individual.

These three amnesia factors may constitute a dimension of increasing severity (that begins with Gaps in Remote Memory, extends to Lapses of Recent Memory and Skills, and ends with Discovering Dissociated Actions). This dimension of increasing severity closely tracks the clinical severity of different dissociative disorders. For example, patients with DID or DDNOS-1 had vastly higher scores for Discovering Dissociated Actions than did patients with "simpler" dissociative disorders (i.e., DA and DPD). Similarly, DID patients had higher scores for Discovering Dissociated Actions (i.e., more frequent alter-related amnesias) than did DDNOS-1 patients (who, in turn, had more frequent alter-related amnesias than did DA patients, DPD patients, and nonclinical participants).

DID and DDNOS-1 patients also had significantly higher scores on Lapses of Recent Memory and Skills than did DPD patients (who, in turn, had more frequent memory lapses than did nonclinical participants). Finally, the incidence of Gaps in Remote Memory was very high in patients with DID or DDNOS-1, was high in patients with DA or DPD, and was even present in some nonclinical participants.

What is interesting is that patients with DID and patients with DDNOS-1 did not differ in the frequency of Gaps in Remote Memory or Lapses of

Recent Memory and Skills. These two kinds of amnesia were highly frequent in both diagnostic groups. Taken as a whole, these results indicate, not surprisingly, that both DID and DDNOS-1 patients have a high level of all three kinds of amnesia but that the two diagnostic groups are distinguished by the DID patients' significantly higher level of Discovering Dissociated Actions (i.e., alter-related amnesias). In summary, the three factors of DA display a differential pattern of presence and frequency across different dissociative disorders.

Gaps in Remote Memory can occur in non-DID individuals. Lapses of Recent Memory and Skills can occur in DID individuals and non-DID dissociative individuals; these lapses do *not* require that an alter or self-state assume full executive control. Finally, Discovering Dissociated Actions occurs *only* when a self-state or alter has seized full executive control for a period of time.

The psychometric relations among the measures used in this study are revealing. The three amnesia scale scores correlated strongly with SCID-D-R scores, mean DES scores, and mean MID scores. What is interesting, however, is that there appear to be some clinically meaningful differences among those correlations (see Table 3). First, the SCID-D-R's Amnesia score correlated more strongly with Gaps in Remote Memory (49% shared variance) than it did with the classic, alter-related phenomena of Discovering Dissociated Actions (27% shared variance). This suggests that the SCID-D-R Amnesia score is more strongly influenced by amnesias that are less severe (i.e., localized amnesias) and, correspondingly, less influenced by amnesias that are more severe (i.e., classic, alter-related amnesias). Second, mean DES scores and mean MID scores may be better predictors of classic, alter-related amnesias (i.e., shared variances of 62% and 74%, respectively) than the SCID-D-R total score (i.e., shared variance of 36%). Third, mean DES scores and mean MID scores may be better predictors of Lapses of Recent Memory and Skills (shared variances of 74% and 81%, respectively) than the SCID-D-R Amnesia score (shared variance of 40%). Fourth, mean MID scores may be a better predictor of Gaps in Remote Memory (shared variance of 58%) than either SCID-D-R Amnesia scores (shared variance of 49%) or mean DES scores (shared variance of 44%). In short, different measures of amnesia tap different aspects of amnesia. All measures of dissociation are not the same.

The primary limitation of dissociation research is the quality of the instrument(s) used. The MID's depth and breadth of coverage exceeds that of other instruments. Nevertheless, all current measures of dissociation (including the MID) are limited by their overinclusiveness. All current instruments tap a variety of "dissociation-like" phenomena that derive from different mechanisms (see Laddis & Dell, 2012; Steele, Dorahy, van der Hart, & Nijenhuis, 2009). For example, current measures of amnesia cannot discriminate between reversible DA (an inability to retrieve stored information) and the irreversible amnesias that typically stem from a failure to store

information in the first place. Apropos of this latter measurement problem, Allen, Console, and Lewis (1999) posited the existence of a profound dissociative detachment that leaves irreversible gaps in memory. According to Allen and colleagues, these irreversible gaps in memory include complex actions that are carried out while the person is absorbed in the “dissociative void.” Finally, the MID’s coverage of generalized amnesia (i.e., two items) is inadequate. The factor analysis did not extract a factor of generalized amnesia. It is unclear whether this outcome is due to the MID’s sparse generalized amnesia items, the weakness of the two items in question, the rarity of generalized amnesia itself, or a mixture of all three.

In conclusion, the findings of this study contribute to a new kind of empirical foundation for DA and each of the dissociative disorders. Namely, detailed empirical findings that, I think, contribute to the necessary next step of research for dissociation and the dissociative disorders. Specifically, I believe that dissociation researchers need to identify crucial phenomenological differences that lie *within* each dissociative symptom (e.g., amnesia, depersonalization, derealization, voices) and *across* different disorders. For example, there are probably some important differences between (a) the depersonalization and derealization symptoms of DID and those of DPD (e.g., Dell, 2009); (b) the dissociative symptoms of *complex* dissociative disorders and those of *simple* dissociative disorders (Rodewald, Dell, Wilhelm-Gößling, & Gast, 2011); (c) the voices of DID and those that occur in schizophrenia (Laddis & Dell, 2012); and (d) the depersonalization, derealization, and amnesia of DID as opposed to those of borderline personality disorder (Korzekwa, Dell, Links, Thabane, & Fougere, 2009). The present study advances this necessary next research step by identifying some meaningful differences among the DAs of different dissociative disorders.

In toto, these findings suggest that it may no longer be sufficient to characterize symptoms such as depersonalization, derealization, and amnesia solely in terms of their presence and frequency. Perhaps the time has come for rigorous examination of the phenomenological differences within specific dissociative symptoms and across different dissociative and nondissociative disorders.

NOTES

1. Strictly speaking, this is the second empirical study to characterize the components of DA. Dell and Lawson (2009) conducted exploratory and confirmatory factor analyses of the MID’s 168 dissociation items. Those analyses extracted 12 stable first-order factors, 3 of which were amnesia factors highly comparable to those reported in the present study.

2. DES Items 9 and 23 do tap gaps in remote memory and lapses in skills, respectively, but their status as solitary items does not allow for a factor analysis of DES items to extract a factor that embodies gaps in remote memory or lapses in recent memory and skills.

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