

Depersonalization Disorder: Dissociation and Affect

Daphne Simeon, MD
Anna Riggio-Rosen, BA
Orna Guralnik, PsyD
Margaret Knutelska, MPhil
Dorothy Nelson, BSc

ABSTRACT. Dissociation and affect are intimately related constructs, but their relationship has not been subjected to extensive empirical study. This report investigates the relationship between dissociation and affect in depersonalization disorder. Fifty-six participants with DSM-IV depersonalization disorder (DPD) and 22 healthy comparison participants (HC) were administered the Dissociative Experiences Scale, the Multidimensional Anger Inventory, and the Spielberger Trait Anxiety Inventory. A subgroup of participants also completed the Affect Intensity Measure and the Boundary Questionnaire. Individuals with depersonalization disorder experienced more anxiety, anger, negative affect intensity, and thinner boundaries than healthy individuals, but did not differ in positive affect intensity. Within the DPD group, severity of pathological dissociation and of depersonalization were more strongly related to greater anxiety than to greater anger. The DPD group had higher negative than positive affect intensity, whereas in the comparison group opposite valences were of comparable intensity. In the combined

At the time of the study, Daphne Simeon, Anna Riggio-Rosen, Orna Guralnik, Margaret Knutelska, and Dorothy Nelson are affiliated with the Department of Psychiatry, Mount Sinai School of Medicine, New York.

Address correspondence to: Daphne Simeon, MD, Department of Psychiatry, Box 1230, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574 (E-mail: daphne.simeon@mssm.edu).

This study was supported in part by a NARSAD Young Investigator Award and NIH MH-55582 to Dr. Simeon.

Journal of Trauma & Dissociation, Vol. 4(4) 2003
<http://www.haworthpress.com/store/product.asp?sku=J229>
© 2003 by The Haworth Press, Inc. All rights reserved.
10.1300/J229v04n04_05

sample, anxiety was the strongest predictor of depersonalization and pathological dissociation, anxiety followed by anger predicted absorption, while anger predicted amnesia. Our overall findings suggest that, at least in depersonalization disorder, pathological dissociation is more intimately related to anxiety than to anger. The findings also suggest that chronic depersonalization is a poor regulator of affect, since it is associated with persistent chronic elevations in frequency and intensity of negative affect. More elaborate research into the relationships between affect and dissociation would be fruitful. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2003 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Dissociation, depersonalization, affect, anger, anxiety, boundaries

INTRODUCTION

Dissociation is the disruption of the normal integrative processes of consciousness, perception, memory, and identity that define selfhood. Although clinically the role of dissociation in regulating overwhelming and disorganizing affect is well-known, there is little empirical research examining the relationship between dissociation and affective variables. In the years of traditional ego psychology, Arlow (1966) postulated that depersonalization represents “a dissociation of the function of immediate experiencing from the function of self observation,” and viewed this ego split as a defensive maneuver to ward off anxiety. Van der Kolk (1996) has extensively emphasized the role of affective dysregulation in trauma-spectrum psychopathology. Anger, anxiety, and dissociation have been linked in a few empirical studies. In one study, frequency of self-harm was related to both dissociation and anger (Low, Jones, MacLeod, Power, & Duggan, 2000). Another study showed that individuals with posttraumatic stress disorder and borderline personality disorder scored highly on measures of anger, dissociation, and anxiety (Heffernan & Cloitre, 2000). A large study of adolescents exposed to violence demonstrated that trauma history was associated with elevated depression, anxiety, anger, dissociation and posttraumatic stress (Singer, Anglin, Song, & Lunghofer, 1995). However, none of these studies addressed the relationship between dissociation and the affective variables. In a study examining anger and dissociation in female

PTSD victims over a three month period after assault, anger and dissociation were strongly correlated—the two were conceptualized as “complimentary methods of emotional disengagement” (Feeny, Zoellner, & Foa, 2000). Holtgraves and Stockdale (1997) found that in non-clinical populations there is a positive relationship between dissociation, as measured by the Dissociative Experiences Scale, and the capacity to imagine threatening emotional experiences. The DES score also positively correlated with an anxiety measure.

To our knowledge, there are no empirical studies studying the relationship between dissociation and affect in a primary dissociative disorder. Our purpose was to examine such relationships in individuals diagnosed with depersonalization disorder DPD (Steinberg, 1991; Coons, 1996; Simeon, Gross, Guralnik, Stein, Schmeidler, & Hollander 1997; Simeon, Guralnik, Schmeidler, Sirof, & Knutelska, 2001). We hypothesized that individuals with DPD would experience more negative affect and less positive affect than healthy comparison participants. We also hypothesized that dissociation would be inversely related to affective awareness, at least of negative affect, under the assumption that dissociation serves the “splitting off” of intolerable affect.

A concept related to affect stability is Ernest Hartmann’s idea of mental boundaries (1989). Thick and thin boundaries are defined by one’s ability to perceive emotional and cognitive categories more or less distinctly. People with thin boundaries experience less separation between different states of being; for example, they may spend more time in a reverie or drowsy state, unsure of whether they are asleep or awake (Hartmann, 1989). Because people with dissociative disorders are generally more prone to fantasy and ego state fluctuations, we hypothesized that they would experience thinner boundaries than control participants, and that thinness of boundaries would correlate with severity of dissociation.

METHOD

Participants

Fifty-six participants with DSM-IV depersonalization disorder (DPD) and twenty-two healthy comparison participants (HC) were recruited from various depersonalization research protocols, for which written informed consent was obtained. Participants were evaluated with the Structured Clinical Interview for DSM-IV Dissociative Disorders SCID-D

(Steinberg, 1994), the Structured Clinical Interview for DSM-IV Axis I Disorders SCID-P (First, Spitzer, Gibbon, & Williams, 1995), and the Structured Interview for DSM-IV Personality Disorders SIDP-IV (Pfohl, Blum, & Zimmerman, 1995). DPD participants met diagnostic criteria for the disorder by SCID-D and by semi-structured clinical interview, while HC participants were free of lifetime Axis I and Axis II disorders.

Scales

All participants completed the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986), a twenty-eight item self-report measure of dissociation. Items can be scored on a range of 0% to 100% in 10% increments. The total DES score is the mean of the 28 items, and ranges from 0 to 100. The DES has been shown to have good test-retest reliability (0.79-0.96), high internal consistency (Cronbach's α of 0.95), high interrater reliability, and strong convergent, discriminant and criterion validity (Bernstein-Carlson & Putnam, 1993). The pathological dissociation taxon score (Waller, Putnam, & Carlson, 1996) was also calculated, presumed to reflect the categorical entity of pathological, as opposed to normative, dissociation. In addition, DES subscale scores were calculated for absorption, amnesia, and depersonalization/derealization, based on a factor analysis previously conducted in depersonalization disorder participants (Simeon et al., 1998). Despite the extensive controversy in the literature as to whether the DES reflects an underlying unidimensional or multidimensional construct (Stockdale, Gridley, Balogh, & Holtgraves, 2002), we used subscale scores for their heuristic value in teasing out components of dissociative experience that clinically clearly differ amongst diagnostic groups. Typically, participants with DPD have greatly elevated scores for depersonalization/derealization, moderately elevated scores for absorption, minimally elevated scores for amnesia, and a taxon score that approaches the total DES score (Simeon et al., 1998).

Anger was measured by the Multidimensional Anger Inventory (MAI), a 38-item self-administered instrument that assesses various dimensions of anger such as frequency, duration, magnitude, mode of expression, hostile outlook, and range of anger-eliciting situations (Siegel, 1986). The MAI has been found to have adequate test-retest reliability ($r = .75$), high internal consistency (Cronbach's α of .84-.89) and good convergent validity with other measures of anger and hostility. Total anger score was used in this study.

Anxiety was measured by the Spielberger Trait Anxiety Inventory (STAI), a twenty-item self-report scale that assesses general state of calm or anxiety (Spielberger, Gorsuch, & Lushene, 1970). This is one of the best validated and widely used scales to measure anxiety.

A subgroup of the total sample completed the following two self-report scales. Twenty-nine DPD and 15 HC participants completed the forty-item self-report Affect Intensity Measure (AIM), scored on a 6-point scale from 1–“never” to 6–“always,” which measures individual differences in intensity of emotion in response to emotion-provoking stimuli (Larsen, Diener, & Emmons, 1986). The AIM has been reported to have excellent internal consistency (Cronbach’s α coefficient of at least .90) and good test-retest reliability (0.81), and has been well-validated against informant ratings and against participants’ reactions to real-life events (Larsen, Diener, & Emmons, 1986; Larsen & Diener, 1985). Total AIM score was calculated. In addition, we extracted two subscales from the AIM. The positive affect intensity subscale consisted of 26 items relating to intensity of happiness, joy, contentment, euphoria, and enthusiasm. The negative affect intensity subscale consisted of 13 items relating to intensity of sadness, anxiety, distress, shame, guilt, anger, and tension. Two AIM items (#6 and #19) were omitted from both subscales because they did not carry an obvious positive or negative affective valence. In our combined sample, internal consistency for both subscales, as measured by Cronbach’s α coefficient, was adequate (0.76 for the positive scale and 0.60 for the negative scale). Mean affect valence for positive and negative affect were calculated by dividing the sum positive and negative score by the corresponding number of items.

Finally, 28 DPD and 15 HC participants were administered the Boundary Questionnaire, a 145-item report that measures “thick” and “thin” boundaries, which refers to ego boundaries, interpersonal boundaries, group boundaries, and boundaries between sleep and wakefulness (Hartmann, 1989). Items are scored on a 5-point scale from 0–“not at all true of me” to 4–“definitely true of me.” The questionnaire was reported to have high internal consistency (Cronbach’s α of .93). Convergent validity was found with frequency of dream recall ($r = .40$), schizotypy, and hypnotizability. Convergent and discriminant validity were also supported by relationship to the various MMPI scales. Psychometric exploration and overall use of the scale has been rather limited in the research literature. We used a single score that reflects the total sum score for the scale: a higher score reflects thinner boundaries. In our com-

bined sample, the scale had high internal consistency (Cronbach's alpha of .91).

Statistical Analyses

Between-group comparisons of demographics, dissociation scores, and affect variables were performed using Student's independent sample t-tests. Paired t-tests were used to compare positive and negative affect intensity within each participant group. Within each group, Pearson's correlations and partial correlations were computed between dissociation scores and affective variables. Finally, stepwise linear regression analyses were used in the combined sample, in order to examine the prediction of the various dissociative scores by the two affects of anger and anxiety.

RESULTS

Demographics and Dissociation

Participants with depersonalization disorder and healthy comparison participants did not differ significantly in age (DPD mean = 34.0 years, $SD = 10.2$; HC mean = 29.8 years, $SD = 7.1$; $t = 1.75$, $df = 76$, $p = .08$) or gender (DPD: 27 women and 29 men; HC: 13 women and 9 men; $\chi^2 = 0.75$, $df = 1$, $p = .39$). They also did not differ in marital status ($\chi^2 = 3.08$, $df = 3$, $p = .38$), education ($\chi^2 = 6.45$, $df = 5$, $p = .27$), or ethnicity ($\chi^2 = 5.65$, $df = 4$, $p = .23$). The total sample was largely Caucasian (82%), with 5% African-American, 8% Hispanic, and 5% Asian. The two groups differed significantly in occupation: there were more students and fewer unemployed in the healthy comparison group ($\chi^2 = 13.62$, $df = 4$, $p = .009$).

All DES scores, total and subscores, were higher in the DPD group (Table 1). As expected, the DPD group had taxon scores approximating total DES scores, high depersonalization scores, moderate absorption scores and low amnesia scores. It is also notable that the HC group had very low DES scores with limited variance, probably reflecting that this was a highly screened group free of all Axis I and II pathology.

Between-Group Comparisons

Comparison of the two groups on all affect variables is presented in Table 2. Participants with depersonalization disorder experienced significantly greater anxiety, anger, and negative affect intensity than healthy comparison participants. The DPD group also had significantly thinner boundaries than the comparison group. However, there was no significant difference in positive affect intensity and total affect intensity between the two groups.

Of note, positive and negative mean affect intensity were similar in the HC group (positive = 3.42, negative = 3.28, paired $t = 0.96$, $df = 13$, $p = .36$), while the DPD group showed significantly higher mean nega-

TABLE 1. Dissociation Scores, as Measured by the Dissociative Experiences Scale DES, in the Depersonalization Disorder and Healthy Comparison Groups

	DPD Mean	DPD SD	HC Mean	HC SD	t^*	df^*	p
DES total score	22.0	13.1	3.9	3.2	9.69	68.85	< .001
Taxon score	23.6	12.3	1.0	2.0	6.52	65.11	< .001
Absorption	21.8	17.8	5.5	3.6	4.93	65.88	< .001
Amnesia	9.1	10.7	1.6	2.3	14.79	61.45	< .001
Depersonalization	44.4	20.5	1.0	2.0	13.31	62.00	< .001

* t and df values adjusted for unequal variances by Levene's test

TABLE 2. Anger, Anxiety, Affect Intensity, and Boundaries in the Depersonalization Disorder and Healthy Comparison Groups

	DPD Mean	DPD SD	HC Mean	HC SD	t	df	p
Anxiety	52.6	9.6	33.5	8.9	8.07	76	< .001
Anger total	115.2	21.5	95.2	16.4	3.93	76	< .001
Affect intensity total	135.9	16.3	134.3	10.2	0.35	42	.732
Positive affect	85.3	11.9	88.9	8.8	1.03	42	.308
Negative affect	46.7	6.4	42.7	5.6	2.06	42	.046
Boundaries	282.6	37.7	228.4	34.1	4.64	41	< .001

tive than positive affect intensity (positive = 3.28, negative = 3.59, paired $t = 3.07$, $df = 28$, $p = .005$).

Within-Group Comparisons

DPD Group

Within the DPD group, anger and anxiety were strongly correlated ($r = .54$, $df = 54$, $p < .001$). Anxiety significantly correlated with negative affect intensity ($r = .67$, $df = 27$, $p < .001$), but not with total and positive affect intensity. Anger significantly correlated with negative and with total affect intensity ($r = .62$, $df = 27$, $p < .001$; $r = .46$, $df = 27$, $p < .05$, respectively), but not with positive affect intensity. Positive and negative affect intensity tended to be intercorrelated ($r = .35$, $df = 27$, $p < .07$).

Table 3 presents the relationships between dissociation and affect scores in the DPD group. It can be seen that anger correlated most strongly with absorption, whereas its correlations with pathological dissociation did not reach statistical significance. The same pattern was found for affective intensity, both positive and negative. On the other hand, anxiety correlated similarly and significantly with both absorp-

TABLE 3. Relationship Between Dissociation and Affect Scores in the Depersonalization Disorder Group*

	DES total	Taxon	Absorption	Amnesia	Depersonalization
Anxiety ($df = 54$)	.29 (< .05)	.27 (< .05)	.28 (< .05)	.01 (NS)	.23 (.09)
Anger ($df = 54$)	.37 (< .01)	.21 (NS)	.35 (< .01)	.21 (NS)	.18 (NS)
Affect intensity ($df = 27$)	.41 (< .05)	.26 (NS)	.51 (< .01)	.18 (NS)	.10 (NS)
Positive intensity ($df = 27$)	.31 (NS)	.19 (NS)	.41 (< .05)	.15 (NS)	.03 (NS)
Negative intensity ($df = 27$)	.39 (< .05)	.23 (NS)	.44 (< .05)	.15 (NS)	.17 (NS)
Boundaries ($df = 26$)	.50 (< .01)	.45 (< .05)	.60 (< .001)	.20 (NS)	.13 (NS)

* Cell values represent Pearson's correlation coefficients, with probability values in parentheses

tion and pathological dissociation, as well as marginally with depersonalization.

HC Group

As in the DPD group, anger and anxiety were strongly correlated in the HC group ($r = .55$, $df = 20$, $p < .01$). Neither anxiety nor anger significantly correlated with affect intensity. Positive and negative affect were not intercorrelated ($r = -.04$, $df = 13$, NS).

Table 4 presents the relationships between dissociation and affect scores in the HC group. It can be seen that, similar to the DPD group, anger correlated most strongly with absorption, whereas its correlations with pathological dissociation did not reach statistical significance. Anxiety and affect intensity did not significantly correlate with any dissociation scores.

Combined Sample

We conducted stepwise linear regression analyses for the combined sample, using anger and anxiety as the predictor variables, under the assumption that similar processes may dictate the relation between affects

TABLE 4. Relationship Between Dissociation and Affect Scores in the Healthy Comparison Group*

	DES total	Taxon	Absorption	Amnesia	Depersonalization
Anxiety ($df = 20$)	.09 (NS)	-.09 (NS)	.25 (NS)	-.04 (NS)	-.05 (NS)
Anger ($df = 20$)	.43 (< .05)	.27 (NS)	.49 (< .05)	.25 (NS)	.37 (.09)
Affect intensity ($df = 13$)	.06 (NS)	-.10 (NS)	.15 (NS)	.01 (NS)	-.22 (NS)
Positive intensity ($df = 13$)	.06 (NS)	-.07 (NS)	.05 (NS)	.06 (NS)	-.18 (NS)
Negative intensity ($df = 13$)	-.05 (NS)	-.12 (NS)	.16 (NS)	-.15 (NS)	-.18 (NS)
Boundaries ($df = 13$)	-.09 (NS)	.12 (NS)	-.16 (NS)	.12 (NS)	-.06 (NS)

* Cell values represent Pearson's correlation coefficients, with probability values in parentheses

and components of the dissociative experience in the two samples. DES total, taxon, absorption, amnesia, and depersonalization scores were examined by separate regression analyses. For all dissociative measures, anger and anxiety combined accounted for a significant proportion of the variance: 10% for amnesia, 26% for absorption, 35% for total and taxon dissociation, and 36% for depersonalization. The stepwise analyses revealed that anxiety was the single best predictor of all dissociation scores except for amnesia (DES total: $R^2 = .31$, $F = 33.77$, $df = 1, 76$, $p < .001$); taxon: $R^2 = .35$, $F = 41.24$, $df = 1, 76$, $p < .001$; absorption: $R^2 = .22$, $F = 21.19$, $df = 1, 76$, $p < .001$; depersonalization: $R^2 = .35$, $F = 42.06$, $df = 1, 67$, $p < .001$). Anger made a significant additional contribution to the prediction of total dissociation and absorption, accounting for an additional 4% of the variance, but did not additionally contribute to the prediction of taxon or depersonalization scores. Amnesia was best predicted by anger ($R^2 = .10$, $F = 8.32$, $df = 1, 76$, $p < .05$), and anxiety did not additionally contribute to the prediction.

DISCUSSION

The main findings of the study are summarized as follows. Individuals with depersonalization disorder experienced more anxiety, anger, negative affect intensity, and thinner boundaries than healthy individuals, but did not differ in positive affect intensity. Within the DPD group, severity of pathological dissociation and of depersonalization were more strongly related to greater anxiety than to greater anger. The DPD group had higher negative than positive affect intensity, whereas in the comparison group opposite valences were of comparable intensity. In the combined sample, anxiety was the strongest predictor of depersonalization and pathological dissociation, anxiety followed by anger predicted absorption, while anger predicted amnesia.

There is some evidence to support the idea that there are two basic underlying dimensions of affect, frequency and intensity, which vary independently of each other (Diener, Larsen, Levine, & Emmons, 1985). In community populations, positive and negative affect intensity are positively correlated, whereas positive and negative affect frequency tend to be inversely related. In the current study, positive and negative affect intensity were tended to correlate only in the DPD group, suggesting that the dissociative participants did not experience a "dissociation" of positive and negative affective valence. However, dissociative participants demonstrated elevated negative versus posi-

tive affect intensity as compared to normal participants, presumably in accord with their more negative life experience and symptomatic clinical status.

Our overall findings also show that, at least in depersonalization disorder, pathological dissociation is more intimately related to anxiety than to anger. This finding is very much in accord with the subjective experiences reported by DPD participants, who tend to report more anxiety than anger, such as anxiety related to early traumatic stress, later life stress, adverse drug experiences, as well as anxiety secondary to the depersonalization itself such as fear of not being in control, going crazy, or having irreparable brain damage. Indeed, almost half a century ago Martin Roth (1959) had described the “phobic anxiety-depersonalization syndrome” in an attempt to highlight this component of depersonalization. This scenario need not be the same as that in other dissociative disorders. Our data may indeed suggest this, as amnesia was more strongly predicted by anger in the combined sample, despite the minimal memory disturbance present in these groups. It is conceivable, for example, that in the more severe dissociative disorders, such as DID-spectrum disorders, overwhelming anger may be more intimately related to dissociative processes, and this possibility merits empirical research.

Since elevated negative affect may be expected in a variety of Axis I and Axis II psychiatric diagnoses, the association between degree of dissociation and affect is of particular interest. In contrast to our prediction, greater dissociation severity was associated with greater negative affect. In this regard, chronic dissociation appears to be a poor regulator of affect, leaving individuals who experience chronically high dissociation also laden with more negative affect. This finding is in accordance with the formulation that emotional dissociation prevents the processing and working through of traumatic experience (Foa & Hearst-Ikeda, 1996). In the acute reaction to stress, greater distress, anxiety and arousal have been associated with greater dissociation (Brunet, Weiss, Metzler, Best, Neylan, Rogers, Fagan, & Marmar, 2001; Sterlini & Bryant, 2002). It may be that the high dissociation initially triggered by high negative affect during acute trauma subsequently persists chronically in a proportion of individuals, only to further prevent the processing of negative affect.

It is also of interest that positive affect intensity was not significantly blunted in the dissociative group compared to the control group. This finding refuted our expectation that, since negative affect is more prevalent in traumatized groups, dissociation as an indiscriminate mechanism would blunt experiences of pleasure yet be less effective in

blocking pain. DPD participants had intact positive affect intensity in the face of elevated negative affect intensity. It appears that more pervasive emotional numbing is not a prevalent characteristic of depersonalization, unlike PTSD, for example.

There are several limitations to this study: use of a relatively small number of only self-report instruments; small sample size; absence of a comparison psychiatric group; emphasis on just two negative affects, anger and anxiety; measurement of positive affect intensity but not frequency; and limited sample ethnic diversity. In addition, a cross-sectional study cannot tease out the longitudinal relationships between affective disturbances and dissociation. Further inquiry into the nature of the relationships between affects and dissociation is warranted.

REFERENCES

- Arlow, J.A. (1966). Depersonalization and derealization. In R.M. Lowenstein, L.M. Newman, M. Schur, & A.J. Solnit (Eds.), *Psychoanalysis—A general psychology* (pp. 456-478). New York: International Universities Press.
- Berstein, E.M., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-735.
- Bernstein-Carlson, E., & Putnam, F.W. (1993). An update on the Dissociative Experiences Scale. *Dissociation*, 6, 16-27.
- Brunet, A., Weiss, D.S., Metzler, T.J., Best, S.R., Neylan, T.C., Rogers, C., Fagan, J., & Marmar, C.R. (2001). The Peritraumatic Distress Inventory: A proposed measure of PTSD criterion A2. *American Journal of Psychiatry*, 158, 1480-1485.
- Coons, P.M. (1996). Depersonalization and derealization. In L.K. Michelson, & W.J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 291-306). New York: Plenum Press.
- Diener, E., Larsen, R.J., Levine, S., & Robert, A. (1985). Intensity and frequency: dimensions underlying positive and negative affect. *Journal of Personality and Social Psychology*, 48, 1253-1265.
- Feeny, N.C., Zoellner, L.A., & Foa, E.B. (2000). Anger, dissociation, and post-traumatic stress disorder among female assault victims. *Journal of Traumatic Stress*, 13, 89-100.
- First, M.B., Spitzer, R.L., Gibbon, W., & Williams, J.B.W. (1995). *Structured clinical interview for DSM-IV Axis I Disorders, patient version (SCID-P), version 2*. New York: New York State Psychiatric Institute, Biometrics Research.
- Foa, E.B., & Hearst-Ikeda, D. (1996). Emotional dissociation in response to trauma: An information-processing approach. In L.K. Michelson, & W.J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 207-224). New York: Plenum Press.
- Hartmann, E. (1989). Boundaries of dreams, boundaries of dreamers: Thin and thick boundaries as a new personality measure. *Psychiatric Journal of the University of Ottawa*, 14, 557-560.

- Heffernan, K., & Cloitre, M. (2000). A comparison of posttraumatic stress disorder with and without borderline personality disorder among women with a history of childhood sexual abuse: Etiological and clinical characteristics. *Journal of Nervous and Mental Disease*, 188, 589-595.
- Holtgraves, T., & Stockdale, G. (1997). The assessment of dissociative-experiences in a non-clinical population: Reliability, validity, and factor structure of the Dissociative Experiences Scale. *Personality and Individual Differences*, 22, 699-706.
- Larsen, R., & Diener, E. (1985). A multitrait-multimethod examination of affect structure: Hedonic level and emotional intensity. *Personality and Individual Differences*, 6, 631-636.
- Larsen, R., Diener, E., & Emmons, R. (1986). Affect intensity and reactions to daily life events. *Journal of Personality and Social Psychology*, 51, 803-14.
- Low, G., Jones, D., MacLeod, A., Power, M., & Duggan, C. (2000). Childhood trauma, dissociation, and self-harming behavior: A pilot study. *British Journal of Medical Psychology*, 73, 269-278.
- Pfohl, B., Blum, N., & Zimmerman, M. (1995). *Structured interview for DSM-IV personality disorders SIDP-IV*. Iowa City, IA: Department of Psychiatry, University of Iowa.
- Roth, M. (1959). The phobic-anxiety depersonalization syndrome. *Proceedings of the Royal Academy of Medicine*, 52, 587-595.
- Siegel, J. (1986). The multidimensional anger inventory. *Journal of Personality and Social Psychology*, 51, 191-200.
- Simeon, D., Gross, S., Guralnik, O., Stein, D.J., Schmeidler, J., & Hollander, E. (1997). Feeling unreal: 30 cases of DSM-III-R depersonalization disorder. *American Journal of Psychiatry*, 154, 1107-1113.
- Simeon, D., Guralnik, O., Gross, S., Stein, D.J., Schmeidler, J., & Hollander, E. (1998). The detection and measurement of depersonalization disorder. *Journal of Nervous and Mental Disease*, 186, 536-542.
- Simeon, D., Guralnik, O., Schmeidler, J., Sirof, B., & Knutelska, M. (2001). The role of childhood interpersonal trauma in depersonalization disorder. *American Journal of Psychiatry*, 158, 1027-1033.
- Singer, M.I., Anglin, T.M., Song, L.Y., & Lunghofer, L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *Journal of the American Medical Association*, 273, 477-482.
- Spielberger, C.D., Gorsuch, R.L., & Lushene, R.E. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Steinberg, M. (1991). The spectrum of depersonalization: Assessment and treatment. In A. Tasman, & S.M. Goldfinger (Eds.), *American Psychiatric Press review of psychiatry* (Vol. 10, pp. 223-247). Washington, DC: American Psychiatric Press.
- Steinberg, M. (1994). *Structured clinical interview for DSM-IV dissociative disorders (SCID-D), revised*. Washington, DC: American Psychiatric Press.
- Sterlini, G.L., & Bryant, R.A. (2002). Hyperarousal and dissociation: A study of novice skydivers. *Behaviour Research & Therapy*, 40, 431-437.
- Stockdale, G.D., Gridley, B.E., Balogh, D.W., & Holtgraves, T. (2002). Confirmatory factor analysis of single- and multiple-factor competing models of the Dissociative Experiences Scale in a nonclinical sample. *Assessment*, 9, 94-106.

- Van der Kolk, B. (1996). Dissociation, affect dysregulation and somatization: The complex nature of adaptation to trauma. *American Journal of Psychiatry*, 153 (Suppl.), 83-93.
- Waller, N.G., Putnam, F.W., & Carlson, E.B. (1996). Types of dissociation and dissociative types: A taxometric analysis of dissociative experiences. *Psychological Methods*, 1, 300-321.

RECEIVED: 08/01/02

REVISED: 02/06/03

ACCEPTED: 02/07/03



For FACULTY/PROFESSIONALS with journal subscription recommendation authority for their institutional library . . .

If you have read a reprint or photocopy of this article, would you like to make sure that your library also subscribes to this journal? If you have the authority to recommend subscriptions to your library, we will send you a free complete (print edition) sample copy for review with your librarian.

1. Fill out the form below and make sure that you type or write out clearly both the name of the journal and your own name and address. Or send your request via e-mail to dcdelivery@haworthpress.com including in the subject line "Sample Copy Request" and the title of this journal.
2. Make sure to include your name and complete postal mailing address as well as your institutional/agency library name in the text of your e-mail.

[Please note: we cannot mail specific journal samples, such as the issue in which a specific article appears. Sample issues are provided with the hope that you might review a possible subscription/e-subscription with your institution's librarian. There is no charge for an institution/campus-wide electronic subscription concurrent with the archival print edition subscription.]

☐ **YES!** Please send me a complimentary sample of this journal:

(please write complete journal title here—do not leave blank)

I will show this journal to our institutional or agency library for a possible subscription.

Institution/Agency Library: _____

Name: _____

Institution: _____

Address: _____

City: _____ State: _____ Zip: _____

Return to: Sample Copy Department, The Haworth Press, Inc.,
10 Alice Street, Binghamton, NY 13904-1580