

The Links between the Adolescent Dissociative Experiences Scale (A-DES), Fantasy Proneness, and Anxiety Symptoms

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The purpose of this study was to further examine the psychometric properties of the Adolescent Dissociative Experiences Scale (A-DES). A sample of normal adolescents ($N = 331$) aged 12 to 18 years completed the A-DES and questionnaires measuring posttraumatic stress disorder (PTSD) symptoms, other anxiety disorder symptoms, and fantasy proneness. Factor analysis indicated that the A-DES, at least in nonreferred youths, is assessing a single dimension of dissociation. Furthermore, A-DES scores are not only significantly related to PTSD symptoms but also to other anxiety disorder symptoms (*i.e.*, generalized anxiety disorder, obsessive-compulsive disorder, and panic disorder) and fantasy proneness. Theoretical and practical implications of these findings are briefly discussed.

—*J Nerv Ment Dis* 191:18-24, 2003

Dissociation refers to a defensive coping style that is characterized by “a breakdown of the usually integrated functions of consciousness, memory, perception of self or the environment, or sensory/motor behavior” (American Psychiatric Association, 1994; p 755). Although it is generally assumed that this coping style is a response to traumatic childhood events (*e.g.*, Putnam, 1985) and may result in severe psychopathological conditions (*e.g.*, dissociative identity disorder, borderline personality disorder, and posttraumatic stress disorder [PTSD]; for a comprehensive review, see Gershuny and Thayer, 1999), it is also a well-established fact that dissociative experiences like daydreaming and lapses in attention are relatively common in the general population (Ross et al., 1991).

Armstrong et al. (1997) have suggested that during adolescence, normal and pathological dissociation may take different pathways. In their words: “Dissociative-like experiences of identity confusion and dividedness as well as periods of depersonalization and absorption in one’s imagination appear to be intrinsic to healthy adolescence. . . . On the other hand, chronic dissociative compartmentalization of affect, behavior, and memory is likely to interfere with the adolescent’s ability to construct a cohesive sense of self and to integrate intensified sexual, aggressive, and relational needs” (Armstrong et al.,

1997; pp 491–492). To assess levels of dissociation during this life period, Armstrong et al. (1997) developed the Adolescent Dissociative Experiences Scale (A-DES), which is a 30-item self-report questionnaire that intends to measure various aspects of dissociation.

So far, only a limited number of studies have examined its psychometric properties. In a first study, Smith and Carlson (1996) examined the reliability and validity of the A-DES in a sample of 12- to 17-year-old normal adolescents. Results indicated that the A-DES possesses good internal consistency (Cronbach alpha = .90) and 2-week test-retest stability (test-retest $r = .77$). Furthermore, A-DES scores correlated substantially ($r = .77$) with scores on a widely used adult measure of dissociation in a separate sample of college students aged 18 to 21 years. A study by Armstrong et al. (1997) examined the properties of the A-DES in a sample of 102 clinically referred adolescents. Again, the A-DES showed good reliability, and this was not only true for the total scale but also for the theoretically based subscales (*i.e.*, amnesia, absorption, depersonalization/derealization, passive influence; all Cronbach alphas > .70). Interestingly, A-DES scores were elevated in adolescents with self-reported trauma, and they differentiated between adolescents with dissociative disorders, adolescents with other psychiatric disorders, and normal adolescents. Brunner et al. (2000) administered the A-DES to 198 adolescent psychiatric patients aged 11 to 19 years. Results indicated that the reliability of the A-DES was satisfactory (Cronbach alpha of the total scale = .94). These authors also found higher A-DES scores in

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patients who reported aversive childhood experiences. In a follow-up study of this research group, Prohl et al. (2001) examined the links between dissociative symptomatology, severity of psychiatric illness, and memory dysfunctions in a clinical sample of adolescents suffering from various psychiatric disorders. As predicted, results showed that A-DES scores were strongly related to severity of psychiatric illness. Furthermore, high levels of dissociation were associated with poor performance on memory tasks, suggesting that dissociation interferes with memory processes. A recent study by Farrington et al. (2001) examined the factor structure of the A-DES in a sample of 768 normal adolescents. Factor analysis convincingly showed that the A-DES had one underlying factor and, hence, indicated that, at least in normal youths, A-DES items do not cluster into factors that correspond with the theoretically derived subscales of pathological (*e.g.*, amnesia) and relatively benign (*e.g.*, absorption) forms of dissociation.

Although the aforementioned studies have provided support for the usefulness of the A-DES as an index of dissociation in adolescent samples, there are a number of issues that warrant further research. To begin with, although previous work (Armstrong et al., 1997; Brunner et al., 2000) suggests that dissociation is connected to trauma-related distress in clinically referred youths, it would be interesting to replicate this in normal adolescents and to examine whether dissociation is also associated with other types of anxiety symptoms. If one finds that highly dissociative adolescents report a broad range of anxiety symptoms, this may imply that the link between dissociation and trauma-related distress is aspecific and fully accounted for by neuroticism (*i.e.*, trait anxiety; Wolfradt, 1997). Further, previous research in adult populations has shown that a trait known as fantasy proneness (*i.e.*, a profound involvement in fantasy and imagination) is an important individual difference correlate of dissociation (Merckelbach et al., 1999, 2000a, 2000b, in press; Rauschenberg and Lynn, 1995; Silva and Kirsch, 1992; Waldo and Merritt, 2000). This finding requires replication in adolescent samples. While fantasy proneness is a relatively benign trait, it is also the case that persons who score high on this trait display a positive response bias on questionnaires and memory tasks, leading to overendorsement of items and false alarms (*e.g.*, Merckelbach et al., 2000a; Merckelbach and Muris, 2001). Germane to this issue is also a recent study by Kisiel and Lyons (2001), who reported a modest correlation ($r = .28$) between A-DES scores and dissociative symptoms ratings provided by caregivers. This led the authors to

conclude that “children, particularly adolescents, are better able to describe their internal experience; adult observations of dissociation may reflect external behaviors related to dissociation” (Kisiel and Lyons, 2001; p 1038). The authors may be correct in their assumption that external observers are not in the ideal position to assess the presence of dissociative experiences in adolescents; however, another explanation for their modest association between self-reported and observer-reported dissociation is that the former, but not the latter, variable is sensitive to the inflating effects of fantasy proneness.

With these considerations in mind, the present study was undertaken. A sample of normal adolescents ($N = 331$) aged 12 to 18 years completed the A-DES and questionnaires measuring symptoms of PTSD, symptoms of other anxiety disorders (*i.e.*, generalized anxiety disorder, obsessive-compulsive disorder, panic disorder, separation anxiety disorder, social phobia, and specific phobia), and fantasy proneness. Correlations were computed between A-DES scores, anxiety symptom scores, and fantasy proneness. In addition, a series of regression analyses was carried out to assess the relative contributions of PTSD symptoms, symptoms of other anxiety disorders, and fantasy proneness to dissociation as indexed by the A-DES.

Methods

Participants and Procedure

Our sample consisted of 331 adolescents (157 boys and 174 girls) from a regular secondary school in Maastricht, The Netherlands. Mean age of the adolescents was 14.74 years ($SD = 1.85$; range, 12 to 18 years). Parents and adolescents first received information about the study, and after they had given their informed consent, adolescents completed a set of questionnaires (see below) anonymously during regular classes. More than 95% of the adolescents agreed to participate. A teacher and a research assistant were always available to ensure independent and confidential responding and to provide clarification when necessary.

Questionnaires

As mentioned earlier, the A-DES (Armstrong et al., 1997) is a 30-item questionnaire measuring dissociative experiences. For each item, respondents indicate the frequency of the pertinent experience on an 11-point scale ranging from 0, labeled as never, to 10, labeled as always. A total A-DES score can be obtained by averaging across item scores. Items can be grouped into four subscales reflecting the basic do-

mains of dissociation: dissociative amnesia (*e.g.*, “I get back tests or homework that I don’t remember doing”), absorption and imaginative involvement (*e.g.*, “I get so wrapped up in watching T.V., reading, or playing video games that I don’t have any idea what’s going on around me”), depersonalization and derealization (*e.g.*, “I have strong feelings that don’t seem like they are mine”), and passive influence (*e.g.*, “I can do something really well one time and then I can’t do it at all another time”).

The revised version of the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997; Muris et al., 1999) is a questionnaire measuring symptoms of PTSD and other DSM-defined anxiety disorders, namely generalized anxiety disorder (9 items; *e.g.*, “I worry about things working out for me”), obsessive-compulsive disorder (9 items; *e.g.*, “I have thoughts that frighten me”), panic disorder (13 items; *e.g.*, “I am afraid of having panic attacks”), separation anxiety disorder (12 items; *e.g.*, “I don’t like being away from my family”), social phobia (4 items; *e.g.*, “I don’t like to be with unfamiliar people”), and specific phobias (15 items; *e.g.*, “I am afraid of heights”). Items have to be answered on a 3-point scale with 1 = never, 2 = sometimes, and 3 = often. Scores of the PTSD and other anxiety disorders scales can be calculated by summing across relevant items. Research has shown that the SCARED is a reliable and valid measure of anxiety symptoms in children and adolescents (*e.g.*, Muris and Steerneman, 2001).

The PTSD scale of the SCARED consists of four items: a) “I have frightening dreams about a very aversive event I once experienced;” b) “I try not to think about a very aversive event I once experienced;” c) “I get scared when I think back of a very aversive event I once experienced;” and d) “I have unbidden thoughts about a very aversive event I once experienced.” The scale can best be considered as a brief, noninvasive measure of trauma-related distress. Previous work by Muris et al. (2000) supports its validity. That is, children who score high on this scale more frequently report life experiences that independent judges consider to be “potentially traumatic” than do children who score low on the scale. Furthermore, SCARED PTSD scores are strongly associated with other PTSD-related self-report measures, such as the Impact of Event Scale (Horowitz et al., 1979) and the PTSD Reaction Index (Shannon et al., 1994).

The Creative Experiences Questionnaire (CEQ; Merckelbach et al., 2001a; in press) is a 25-item measure that is based on Wilson and Barber’s (1983) listing of fantasy proneness characteristics. Respondents have to indicate yes or no to statements such as, “As a child, I could very easily identify with the

main character of a story or movie;” “When I recall my childhood, I have very vivid and lively memories;” and “I can recall many occurrences before the age of three.” Some CEQ items allude to the developmental antecedents of fantasy proneness. Other items have to do with intense elaboration of and profound involvement in fantasy and daydreaming. Still others pertain to the concomitants and consequences of fantasizing. Affirmative answers are summed to obtain a total score (range, 0 to 25), with higher scores indicating higher levels of fantasy proneness. Psychometric research (for a review, see Merckelbach et al., 2001a) shows that the CEQ possesses adequate reliability in terms of internal consistency and test-retest stability. Furthermore, the CEQ has predictive validity in the sense that certain categories of persons who are known to exhibit fantasy-prone characteristics (*e.g.*, people with paranormal experiences, amateur actors) display higher scores on this scale than do control subjects. Finally, the CEQ demonstrates concurrent validity in that it correlates with another index of fantasy proneness, the Inventory of Childhood Memories and Imaginings (Merckelbach et al., 2001b). Thus, taken together, there is evidence indicating that the CEQ is a psychometrically sound instrument for assessing fantasy proneness.

Results

Factor Analysis of the A-DES

Factor analysis of the A-DES yielded five factors with an eigenvalue exceeding 1.00 (*i.e.*, 10.91, 2.51, 1.51, 1.29, and 1.14). Together, these factors accounted for 57.89% of the variance. The to-be-expected, 4-factor structure was examined in detail, but this analysis yielded mixed factors that each contained items of all four theoretically defined dissociation domains. On the basis of this result and the scree plot, a single-factor solution, which accounted for 36.36% of the variance, was considered to be the most appropriate solution. In support of this, all A-DES items had a corrected item-to-total correlation of .30 or higher.

Mean A-DES score in our sample was 1.27 (SD = 1.18; range, 0 to 10), which comes close to that found in previous samples of nonclinical youths (Smith and Carlson, 1996). Twelve children (3.63%) had total A-DES scores exceeding the clinical cutoff of 4 (Kisiel and Lyons, 2001). Mean scores for the theoretically derived A-DES subscales of amnesia, absorption, depersonalization/derealization, and passive influence were 1.36 (SD = 1.37), 1.79 (SD = 1.46), .82 (SD = 1.16), and 1.58 (SD = 1.50), respectively. A repeated-

TABLE 1

Basic Statistics (Means, Standard Deviations, Gender Differences, Reliability Coefficients) for A-DES^a, SCARED^b Scales, and CEQ^c, and Correlations between A-DES and Other Measures

	Range of Scores	Total Sample (N = 331)	Boys (n = 157)	Girls (n = 174)	α	r with A-DES ^d
A-DES						
Dissociation	0–10	1.27 (1.18)	1.31 (1.34)	1.23 (1.02)	0.93	
SCARED						
PTSD ^e	4–12	5.28 (1.63)	4.89 (1.28)	5.63 (1.83)*	0.75	0.42
SCARED						
Generalized anxiety disorder	9–27	12.69 (3.22)	11.91 (2.81)	13.40 (3.41)*	0.82	0.49
Obsessive-compulsive disorder	9–27	12.60 (2.64)	12.54 (2.59)	12.67 (2.70)	0.68	0.47
Panic disorder	13–39	15.43 (2.59)	15.17 (2.55)	15.66 (2.62)	0.77	0.53
Separation anxiety disorder	12–36	14.89 (2.59)	14.62 (2.54)	15.14 (2.62)	0.69	0.46
Social phobia	4–12	6.08 (1.87)	5.80 (1.73)	6.34 (1.96)*	0.80	0.21
Specific phobias	15–45	19.28 (4.12)	18.15 (3.77)	20.30 (4.16)*	0.79	0.36
CEQ						
Fantasy proneness	0–25	5.69 (4.30)	5.06 (4.56)	6.26 (3.97)*	0.82	0.65

^a Adolescent Dissociative Experiences Scale.

^b Screen for Child Anxiety Related Emotional Disorders.

^c Creative Experiences Questionnaire.

^d Correlations were corrected for gender. All correlations were significant at $p < 0.001$.

^e Post-Traumatic Stress Disorder.

*Significant gender difference at $p < 0.05$.

measure analysis of variance (ANOVA) with follow-up tests showed that mean subscale scores differed significantly from each other [$F(3,328) = 125.18, p < .001$], with the absorption subscale having the highest and the depersonalization/derealization scale having the lowest mean score.

Reliability of the A-DES was good, with a Cronbach alpha of .93. Furthermore, A-DES scores were not related to age ($r = .04$), and no difference was found between boys and girls, means being 1.31 (SD = 1.34) and 1.23 (SD = 1.02), respectively [$t(329) < 1.00$].

Correlations between A-DES and Other Measures

Before turning to the relationships between A-DES and the other questionnaires, four remarks are in order. First, SCARED scales and CEQ were reliable in terms of internal consistency, with Cronbach alphas of .68 or higher (Table 1). Second, significant gender differences were found for SCARED PTSD [$t(329) = 4.27, p < .001$], generalized anxiety disorder [$t(329) = 4.30, p < .001$], social phobia [$t(329) = 2.69, p < .01$], specific phobias [$t(329) = 4.91, p < .001$], and the CEQ [$t(329) = 2.56, p < .05$]. As can be seen in Table 1, girls had higher scores on these scales than boys. Third, SCARED PTSD and anxiety disorder scores were comparable with those reported in earlier studies of normal youths (Muris et al., 2000). Finally, the intercorrelations between various SCARED subscales were between .21, $p < .001$ (PTSD and social phobia) and .62, $p < .001$ (generalized anxiety disorder and obsessive-compulsive disorder), indicating that the SCARED measures

symptoms of separate but related anxiety problems (Spence, 1997).

Correlations (corrected for gender) between A-DES and other questionnaires are shown in the right column of Table 1. As predicted, A-DES scores correlated positively with symptoms of PTSD ($r = .42, p < .001$). Furthermore, A-DES scores were significantly associated with symptoms of anxiety disorders other than PTSD (r s between .21 and .53, all $ps < .001$). Finally, replicating earlier work that found a considerable overlap between dissociation and fantasy proneness, a robust correlation emerged between A-DES and CEQ ($r = .65, p < .05$).

Relative Contributions of PTSD Symptoms, Other Anxiety Symptoms, and Fantasy Proneness to A-DES Scores

A series of regression analyses was carried out to examine the unique contribution of PTSD symptoms, other anxiety disorder symptoms, and fantasy proneness to A-DES scores (Table 2). In these analyses, we controlled for gender by forcing this variable into the equation on step 1. In the first analysis, the relative contribution of PTSD symptoms and fantasy proneness was evaluated. PTSD symptoms (beta = .20, $p < .001$) and fantasy proneness (beta = .57, $p < .001$) were significant and independent predictors of A-DES scores, together explaining 45% of the variance. In the second analysis, the predictive value of PTSD and anxiety disorder symptoms, as indexed by the SCARED total score, to A-DES scores was examined. Results showed that PTSD

TABLE 2
Results of Stepwise Regression Analyses^a Predicting
A-DES^b Scores

A-DES	Beta ^c	<i>t</i>	<i>p</i> ^d
$R^2 = 0.45$			
$F(2,327) = 133.78, P < 0.001$			
Predictor variables			
PTSD ^e	0.20	4.40	<0.001
Fantasy proneness	0.57	12.66	<0.001
$R^2 = 0.34$			
$F(2,327) = 83.24, P < 0.001$			
Predictor variables			
PTSD	0.18	3.2	<0.001
Anxiety disorder symptoms	0.48	8.8	<0.001
$R^2 = 0.37$			
$F(7,322) = 27.38, P < 0.001$			
Predictor variables			
PTSD	0.13	2.39	<0.05
Generalized anxiety disorder	0.15	2.22	<0.05
Obsessive-compulsive disorder	0.13	2.20	<0.05
Panic disorder	0.27	4.29	<0.001
Separation anxiety disorder	0.07	1.12	ns
Social phobia	-0.08	-1.46	ns
Specific phobias	0.07	1.18	ns
$R^2 = 0.49$			
$F(3,326) = 106.34, P < 0.001$			
Predictor variables			
PTSD	0.09	1.9	ns
Fantasy proneness	0.47	10.1	<0.001
Anxiety disorder symptoms	0.28	5.4	<0.001
$R^2 = 0.51$			
$F(8,321) = 41.92, P < 0.001$			
Predictor variables			
PTSD	0.07	1.37	ns
Fantasy proneness	0.46	9.51	<0.001
Generalized anxiety disorder	0.14	2.52	<0.05
Obsessive-compulsive disorder	0.06	1.03	ns
Panic disorder	0.14	2.52	<0.05
Separation anxiety disorder	0.08	1.33	ns
Social phobia	-0.04	-0.96	ns
Specific phobias	-0.01	-0.16	ns

^a In all regression analyses, gender was forced into the equation on step 1. R^2 and F statistics pertain to the step on which the shown predictor variables were entered (i.e., change statistics).

^b Adolescent Dissociative Experiences Scale.

^c Standardized regression coefficient.

^d ns = non-significant.

^e Post-Traumatic Stress Disorder.

(beta = .18, $p < .001$) and anxiety disorder symptoms (beta = .48, $p < .001$) were significant predictors of adolescents' dissociation levels. In the third analysis, the contribution of PTSD symptoms and symptoms of separate anxiety disorders to A-DES scores was examined. This yielded a model that accounted for 37% of the variance and that included not only PTSD symptoms (beta = .13, $p < .05$) but also symptoms of generalized anxiety disorder (beta = .15, $p < .05$), obsessive-compulsive disorder (beta = .13, $p < .05$), and panic disorder (beta = .27, $p < .001$) as significant predictors (Table 2). The fourth analysis investigated the predictive value of

PTSD symptoms, anxiety disorder symptoms (i.e., SCARED total score), and fantasy proneness to A-DES scores. Results indicated significant contributions of anxiety disorder symptoms (beta = .28, $p < .001$) and fantasy proneness (beta = .49, $p < .001$) but not of PTSD symptoms. In the final analysis, PTSD symptoms, symptoms of separate anxiety disorders, and fantasy proneness were all entered in the regression equation. The resulting model accounted for 51% of the variance. Only fantasy proneness (beta = .46, $p < .001$) and symptoms of generalized anxiety disorder (beta = .14, $p < .05$) and panic disorder (beta = .14, $p < .05$) explained a significant proportion of the variance in this model (Table 2).

Discussion

The present study was a further psychometric evaluation of the A-DES. A sample of normal adolescents ($N = 331$) aged 12 to 18 years completed the A-DES and a number of other questionnaires. Its main findings can be catalogued as follows. To begin with, factor analysis of the A-DES clearly pointed in the direction of a single-factor solution. In line with this, internal consistency of the total scale was excellent, and all item-total correlations were satisfactory. Second, as anticipated, A-DES scores were significantly associated with symptoms of PTSD. However, it is noteworthy that A-DES scores were also related to symptoms of other anxiety disorders, notably generalized anxiety disorder, obsessive-compulsive disorder, and panic disorder. Finally, a substantial correlation emerged between the A-DES and a measure of fantasy proneness.

In line with a recent study of Farrington et al. (2001), factor analysis of the A-DES did not produce the four hypothesized factors of amnesia, depersonalization and derealization, absorption and imaginative involvement, and passive influence, but it clearly pointed in the direction of a single-factor solution. While it should be borne in mind that aberrant factor solutions might be partly due to the subjective decision rules employed during exploratory factor analysis, sample differences seem to play a role here. Note that the current study and the study by Farrington et al. (2001) relied on samples of normal adolescents. Thus, it cannot be ruled out that the intended factors do emerge when factor analyzing A-DES data of clinically referred youths, in particular those suffering from PTSD or dissociative disorders. This point is reminiscent of factor analytic findings on the adult counterpart of the A-DES, the Dissociative Experiences Scale (DES; Bernstein and Putnam, 1986). While clinical studies have found

some support for the existence of various DES factors (*e.g.*, Amdur and Liberzon, 1996; Dunn et al., 1994; Ross et al., 1995), researchers have also frequently failed to demonstrate the multidimensionality of this scale, especially in nonclinical participants (Fischer and Elnitsky, 1990; Holtgraves and Stockdale, 1997).

Meanwhile, some indirect evidence for the validity of the theoretically derived subscales was found. Many authors (*e.g.*, Ross et al., 1991) have emphasized that one should differentiate between benign forms of dissociation and more pathological manifestations of dissociation. If this line of reasoning were correct, one would expect in nonreferred adolescents relatively high scores on absorption items and relatively low scores on items that are thought to tap the more pathological forms of dissociation (*i.e.*, amnesia, depersonalization/derealization), an expectation that was indeed borne out by our data.

Several important limitations of the present study should be acknowledged. First, we relied on a sample of normal adolescents, in whom the prevalence of severe traumatic experiences can be expected to be relatively low. Second, clinical screens rather than diagnostic instruments were employed for measuring dissociation, trauma, and anxiety disorder symptoms. Despite these shortcomings, a significant link between A-DES scores and symptoms of PTSD was observed. Interestingly, A-DES scores were also significantly connected to symptoms of a variety of other anxiety disorders *viz.* generalized anxiety disorder, obsessive-compulsive disorder, and panic disorder. Inspection of the DSM-IV criteria clarifies that each of these anxiety disorders shares features with a number of dissociative experiences as portrayed by the A-DES. For example, the anxiety and worrying typical for generalized anxiety disorder is associated with "difficulty concentrating or mind going blank" (APA, 1994; p 436), which in turn resembles derealization experiences. The doubting and checking features seen in obsessive-compulsive disorder may be a consequence of mistrusting one's memory abilities and, hence, show some parallels with amnesic experiences (Merckelbach and Wessel, 2000). Finally, feelings of derealization and depersonalization are concomitants of panic attacks, which form, of course, the key feature of panic disorder.

In line with adult studies (Merckelbach et al., 1999, 2000a, 2000b; Rauschenberg and Lynn, 1995; Silva and Kirsch, 1992), our results replicate the robust connection between fantasy proneness and dissociation. As we have argued elsewhere (Merckelbach and Muris, 2001), high levels of self-reported dissociation may not only point in the direction of a history of childhood trauma but may also indicate the strong presence of fantasy proneness. As said before, fantasy

proneness is a relatively benign trait, but when given self-report scales or memory tasks, fantasy-prone persons will often display a response pattern that is characterized by overendorsement, exaggeration, and false alarms (Merckelbach et al., 2000a; Merckelbach and Muris, 2001). Accordingly, the question arises how self-reports of trauma-related distress provided by adolescents scoring high on dissociation should be interpreted. Do they reflect a genuine history of aversive childhood events (*e.g.*, Gershuny and Thayer, 1999)? Or, do they reflect the positive response bias that is thought to be typical for fantasy-prone persons (*e.g.*, Merckelbach and Muris, 2001)? Our regression analyses showed that in the final equation, not only fantasy proneness but also generalized anxiety and panic disorder symptoms served as independent and significant predictors of A-DES scores. What this suggests, then, is that at least in nonreferred adolescents, the A-DES heavily overlaps with two fundamental traits: fantasy proneness and neurotic or trait anxiety. Thus, it may be worthwhile to consider paradigms for measuring dissociation that are less dependent on self-report and that are free of the potentially corrupting influence of fantasy proneness. Macfie et al.'s (2001) narrative story-stem completion paradigm may provide a fruitful starting point for this endeavor. On the other hand, the overlap between dissociation, fantasy proneness, and neurotic symptoms may be fairly typical for nonclinical samples. The issue of whether this overlap also occurs in clinical samples warrants further study.

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