Journal of Trauma & Dissociation, 16:7–28, 2015

ISSN: 1529-9732 print/1529-9740 online
DOI: 10.1080/15299732.2014.908806

Routledge
Taylor & Francis Group

ARTICLES

DSM–5's Posttraumatic Stress Disorder with Dissociative Symptoms: Challenges and Future Directions

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The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*, formally recognizes a dissociative subtype of posttraumatic stress disorder (PTSD; PTSD with dissociative symptoms). This nomenclative move will boost empirical and theoretical efforts to further understand the links between dissociation, trauma, and PTSD. This article examines the empirical literature showing that patients with PTSD can be divided into 2 different groups based on their neurobiology, psychological symptom profile, history of exposure to early relational trauma, and depersonalization/derealization symptoms. It then explores the conceptual and empirical challenges of conceiving 1 of these types as reflecting a "dissociative" type of PTSD. First, this classification is based on the presence of a limited subset of dissociative symptoms (i.e., depersonalization, derealization). This sets aside an array of positive and negative psychoform and somatoform dissociative symptoms that may be related to PTSD. Second, empirical evidence suggests heightened dissociation in PTSD compared to many other disorders, indicating that dissociation is relevant to PTSD more*

Received 14 December 2013; accepted 2 March 2014.

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broadly rather than simply to the so-called dissociative subtype. This article sets out important issues to be examined in the future study of dissociation in PTSD, which needs to be informed by solid conceptual understandings of dissociation.

KEYWORDS posttraumatic stress disorder, dissociative subtype of posttraumatic stress disorder, dissociation, positive and negative dissociative symptoms

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM–5*), has ratified a dissociative subtype of posttraumatic stress disorder (PTSD) referred to as "PTSD with dissociative symptoms" (American Psychiatric Association [APA], 2013). Characterized by the combination of PTSD as well as depersonalization and/or derealization symptoms, the subtype reflects clinical observation and growing empirical data that "dissociation is a highly salient facet of posttraumatic psychopathology in a subset of individuals with PTSD" (Wolf, Miller, et al., 2012, p. 698). Officially recognizing dissociation, at least in a subtype of PTSD, has considerable clinical merit. For example, the move should require clinician familiarity with and screening for dissociative symptoms, increasing assessment and intervention of trauma-related dissociation (Dalenberg & Carlson, 2012). Enthusiasm for the dissociative subtype of PTSD has generated supportive research findings, which represents a positive step in bringing the importance of trauma-related dissociation into clinical and empirical focus (Lanius, Brand, Vermetten, Frewen, & Spiegel, 2012). With the burgeoning evidence base and *DSM–5* recognition, an initial breakthrough has been made in formally acknowledging a relationship between PTSD and dissociation. Now directions for further progression require serious attention.

There is an ongoing debate regarding the nature of the relationship between PTSD and dissociation (e.g., Brett, 1996; Carlson, Dalenberg, & McDade-Montez, 2012; Chu, 1998; Dalenberg & Carlson, 2012; Simeon, 2007; Van der Hart, Nijenhuis, & Steele, 2006). We argue that major conceptual considerations with the current *DSM* formulation need further explication. For example, the dissociative subtype of PTSD as it is now described does not capture the breadth of trauma-related dissociative symptoms documented in the literature (Dalenberg & Carlson, 2012; Lanius et al., 2012; Wolf, 2013). Thus, only a restrictive subset is recognized, creating an artificial and false dichotomy between (a) different dissociative symptoms in PTSD and (b) a PTSD that is dissociative and one that apparently is not. This false dichotomy is especially curious because even individuals with so-called nondissociative PTSD have elevated dissociative symptoms compared to those with non-trauma-related psychopathology (see "Dissociation and PTSD: *Empirical* Link Not Limited to a Subset of PTSD"). The aim of this article is to explore

the conceptual and empirical challenges of a "dissociative" and "nondissociative" PTSD by first examining the empirical literature showing that patients with PTSD can be divided into two different groups based on their neurobiology, psychological symptom profile, history of exposure to early relational trauma, and depersonalization/derealization symptoms. The article then probes the conceptual constructiveness of interpreting these findings as reflecting dissociative and nondissociative types of PTSD in future PTSD iterations in the *DSM*.

We argue that dissociation is characteristic of all PTSD. However, the symptom domain of dissociation as currently prescribed for a PTSD diagnosis, and for the dissociative subtype more particularly, is highly restrictive and limited to psychological manifestations. We further argue that limiting the dissociative subtype of PTSD to depersonalization and derealization symptoms is conceptually confusing because flashbacks and amnesia are also pathological dissociative manifestations that are present in the so-called nondissociative subtype. Consequently, although two types of PTSD are evident in the empirical literature, the labeling of one (dissociative PTSD) is based on a symptom domain (i.e., dissociation) that is also present in the other.

TWO DIFFERENT TYPES OF PTSD

Empirical data clearly show that the PTSD diagnosis does not reflect a unified construct (e.g., Alarcon, Deering, Glover, Ready, & Eddleman, 1997). Rather, two different types of PTSD appear to exist that can be divided based on neurobiological and symptom profiles, severity and nature of trauma exposure, and intervention strategies (e.g., Cloitre, Petkova, Wang, & Lassell, 2012; Lanius et al., 2010, 2012; Resick, Suvak, Johnides, Mitchell, & Iverson, 2012). Previous theoretical and empirical work has suggested that pathological dissociative symptoms may differentiate these two types (Bremner, 1999; Putnam et al., 1996; Waller, Putnam, & Carlson, 1996).

General Population Research

Stein et al. (2013) surveyed a very large general population sample from 16 countries using two depersonalization symptoms and one derealization symptom to represent dissociation. PTSD could be divided into high and low depersonalization/derealization symptoms (see Table 1). Having such dissociative symptoms was associated with more dissociative flashbacks and amnesia but not with more of the other PTSD symptoms. Dissociative PTSD was associated with more prior trauma, adverse childhood events, PTSD in childhood, suicidality, functional impairment, comorbid psychiatric illness prior to PTSD onset, and being male. The authors concluded that age of

TABLE 1 Statistical Differentiation of Two Types of PTSD

Study	Sample (*N*)	Dissociation measure	Statistical method for determining dissociative PTSD	Percentage in classic PTSD group	Percentage in dissociative PTSD group	Dissociative PTSD associated with[a]
Stein et al. (2013)	General population from 16 countries (25,018)	Three items from the WHO mental health survey taken from the DES – Depersonalization – Derealization	Cross-tabulation of those with PTSD who scored "sometimes" or "often" for one or more dissociative symptoms in last month	1.9%	0.003% (14.4% of those with PTSD)	• Being male • PTSD in childhood • More prior trauma • Many forms of childhood adversity (e.g., abuse, neglect), especially parental mental illness and substance dependence, family violence, and parental divorce • Higher frequency of childhood adversity • More comorbid disorders before PTSD onset • Increased functional impairment • Increased suicidality
Wolf, Miller, et al. (2012)	Veterans and their spouses, all trauma exposed (492)	Three items from the CAPS – Reduced awareness – Depersonalization – Derealization	LPA	43%	6% (12% of those with PTSD)	• Severe PTSD symptoms • More flashbacks • More child and adult sexual abuse

Wolf, Lunney, et al. (2012)	Study 1: Male veterans with PTSD (360)	Three items from the CAPS – Reduced awareness – Depersonalization – Derealization	LPA	Moderate severity = 39% High severity = 46%	16%	• More exaggerated startle responses • More combat exposure compared to the moderate group
Wolf, Lunney, et al. (2012)	Study 2: Female veterans with PTSD (277)[b]	Four items from the TSI – Depersonalization – Derealization	LPA	Moderate severity = 42% High severity = 27%	30%	• More avoidant and borderline personality disorder • More trauma exposure compared to the moderate group • Racial minority
Steuwe et al. (2012)	Civilians with PTSD (134; 90% female)	Two items from the CAPS[c] – Depersonalization – Derealization	LPA	Moderate severity = 48% High severity = 27%	25%	• Higher DES scores • More childhood physical and sexual abuse • More childhood emotional neglect (than moderate PTSD) • More Axis I pathology, especially comorbid depression and specific anxiety
Waelde et al. (2005)	Male veterans (316)	DES	Taxometric analysis	24%	32%[d]	• Higher DES and amnesia, depersonalization, and absorption subscale scores • Increased PTSD symptom severity • Increased dysthymia

(*Continued*)

TABLE 1 Statistical Differentiation of Two Types of PTSD (*Continued*)

Study	Sample (*N*)	Dissociation measure	Statistical method for determining dissociative PTSD	Percentage in classic PTSD group	Percentage in dissociative PTSD group	Dissociative PTSD associated with[a]
Ginzburg et al. (2006)	Female child sexual abuse survivors (122)	Composite of PDEQ, SASRQ, and MDI	Receiver-operating characteristic analysis	54%	77%	• Increased hypervigilance, sleep difficulties and foreshortened sense of future • Increased (nonsexual) child abuse[e]

Notes: PTSD = posttraumatic stress disorder; WHO = World Health Organization; DES = Dissociative Experiences Scale; CAPS = Clinician-Administered PTSD Scale (Blake et al., 1995); LPA = latent profile analysis; TSI = Trauma Symptom Inventory (Briere, 1995); PDEQ = Peritraumatic Dissociative Experiences Questionnaire (Marmar, Weiss, & Metzler, 1997); SASRQ = Stanford Acute Stress Reaction Questionnaire (Cardeña, Koopman, Classen, Waelde, & Spiegel, 2000); MDI = Multiscale Dissociation Inventory (Briere, 2002).

[a]Differences in depersonalization and derealization symptoms for the dissociative group are not noted, as this is assumed by the operational definition of this subtype. [b]Seven participants were still active soldiers. [c]Amnesia item from the CAPS was omitted from the analysis. [d]Calculation based on 80% of taxon members having PTSD. [e]As all participants had childhood sexual abuse it was removed from the analysis.

trauma onset and dose are more critical to dissociative symptoms in PTSD than the type of trauma. They also noted that their findings are consistent with the correlates of complex PTSD but that future research needs to determine the amount of overlap between dissociative PTSD and complex PTSD (see also Friedman, 2013a, 2013b).

Stein et al. (2013) pointed out that dissociation is often conceptualized as a continuum involving a broad array of phenomena that operate to create different levels of distress and impairment. Yet their study, like the *DSM–5,* focused on depersonalization/derealization symptoms exclusively, capturing only a very limited set of dissociative phenomena (Wolf, 2013). Likewise, most neurobiological studies examining dissociative PTSD (Lanius et al., 2012) and most phenomenological research on the construct have focused on depersonalization/derealization only. For example, all studies using the Clinician-Administered PTSD Scale (CAPS) focus on these two symptoms (along with reduced awareness of surroundings, which some have argued is not reflective of dissociation; Janet, 1907; Steele, Dorahy, Van der Hart, & Nijenhuis, 2009).

Clinical Studies

Wolf, Miller, et al. (2012) assessed veterans and their intimate partners using a structured clinical interview for PTSD (CAPS). They identified three groups based on symptom profile: low/no PTSD symptoms (51%, $n = 253$, 6% had PTSD); high PTSD symptoms (43%, $n = 209$, 80% had PTSD); and high PTSD symptoms, high depersonalization/derealization symptoms (6%, $n = 30$, 80% had PTSD). This final group showed a higher incidence of child and adult sexual abuse than the other groups. As well as more dissociative flashbacks, this group also generally experienced severe PTSD symptoms. Depersonalization and derealization showed only a weak correlation with PTSD symptom clusters, yet these clusters were highly related to one another. Thus, Wolf, Miller, et al. (2012) noted that "the pattern of results seems inconsistent with the notion that dissociation is an essential facet of all or most individuals with the disorder since that hypothesis would predict that dissociation and PTSD symptoms would be more highly intercorrelated" (p. 703). *This conclusion should be limited to depersonalization and derealization, given the fact that these were the only aspects of dissociation assessed*. This conclusion also seems to imply that none of the *core* symptoms of PTSD (e.g., amnesia, flashbacks) are dissociative in nature, a point further addressed later in this article.

Wolf, Lunney, et al. (2012) assessed male veterans with PTSD using the same PTSD and dissociation measures as Wolf, Miller, et al. (2012) as well as measuring combat exposure and Axis II pathology. Again, a high PTSD/high depersonalization–derealization group emerged. This group had been subjected to high levels of combat exposure and experienced

more exaggerated startle responses but did not show increases in Axis II pathology. In another study, Wolf, Lunney, et al. (2012) assessed female veterans with PTSD using a four-item measure of depersonalization and derealization. The group with PTSD and depersonalization/derealization symptoms was more likely to have avoidant and borderline personality disorder and fell marginally short of having more amnesia. Sexual trauma was not related to depersonalization/derealization symptoms, but its effect may have been obscured by the fact that 93% of the sample reported it (Wolf, Lunney, et al., 2012). In addition, the trauma measure was limited to the occurrence of potentially traumatizing events rather than the frequency or severity, which may have impeded the sensitivity of the trauma measure. Relative to males (16%), females (30%) showed a higher incidence of PTSD with depersonalization/derealization. Wolf, Lunney, et al. (2012) argued that this gender difference may be potentially due to one or more of the following factors: higher rates of sexual trauma among females, increased propensity for dissociation (and general psychopathology) in females, and the use of a self-report depersonalization/derealization measure (which may heighten affirmative responding in females).

Steuwe, Lanius, and Frewen (2012) assessed primarily female civilians with PTSD and, like Wolf, Lunney, et al. (2012) and Wolf, Miller, et al. (2012), found evidence for three classes within the data, one of which had elevated depersonalization and derealization scores. This group had higher overall dissociative experiences as measured by the Dissociative Experiences Scale (DES; Carlson & Putnam, 1993) and a higher prevalence of childhood abuse. When the factor structure of the CAPS was examined, the dissociative factor correlated moderately with other PTSD factors (e.g., $r = .43$ reexperiencing; $r = .55$ hyperarousal). What is interesting is that in the study, *depersonalization and derealization were only moderately related to dissociation as assessed by the DES, suggesting that these symptoms do not account for, or adequately reflect, the psychoform dissociation construct.*

Using taxometric analysis, which limits the partitioning of data to one separate type or group, Waelde, Silvern, and Fairbank (2005) examined membership in the DES taxon among male veterans. The taxon captures those with qualitatively distinct pathological dissociative symptoms (e.g., amnesia, identity confusion). Those in the taxon, 80% of whom had PTSD, had higher dissociative and posttraumatic symptom severities and more comorbid dysthymia. Ginzburg and colleagues (2006) used a receiver-operating characteristic analysis to determine the degree to which female victims of child sexual abuse with PTSD reached the optimal cut-off score for high dissociation. This analysis examines the cutoff point in an independent variable (e.g., dissociation) that can effectively divide a

dependent variable (e.g., PTSD) in two. Its procedure and statistical underpinnings are markedly different from those of latent profile analysis and taxometric analysis, which have been used in other studies, and therefore it is unwise to directly compare the results of the different types of analyses (i.e., in Table 1). Nonetheless, Ginzburg et al. (2006) found evidence for a high dissociative PTSD group that differed from a low dissociative group. Consistent with other studies, the high dissociative PTSD group had more reports of childhood abuse and neglect. This group also showed evidence of particular elevations in hypervigilance. Collectively, empirical research investigating the dissociative subtype of PTSD has generally found more severe psychopathology and trauma in those who fall into this category.

Lanius's corpus of neuroimaging studies in PTSD suggests that upon exposure to specific and detailed reminders of their trauma, approximately 70% of participants with PTSD respond with physiological, psychological, and neural activation that characterize reexperiencing of the event (Lanius, Bluhm, Lanius, & Pain, 2006; Lanius et al., 2001). The remaining 30% respond by closing down reactivity (e.g., subjective distancing from the emotional experience). These latter participants report heightened scores on tools such as the Clinician-Administered Dissociative States Scale (Bremner et al., 1998) that have a preponderance of depersonalization and derealization items (Lanius et al., 2002, 2006). Among other differences (see Lanius et al., 2005, 2006), the reactivation group shows reductions in anterior cingulate and medial prefrontal arousal, whereas the deactivation group shows heightened activity in these areas. Lanius et al. (2010) suggested that the subgroup that experiences detachment, subjective distancing, depersonalization, and derealization to autobiographical trauma memories is characterized by frequent *overmodulation* of affect. This response is mediated by decreased amygdala and right anterior insula activation as well as increased medial prefrontal and rostral anterior cingulate activation. Conversely, the PTSD subgroup that responds to trauma cues with reexperiencing and arousal displays *undermodulation* of affect, mediated by increased amygdala and right anterior insula activity and decreased medial prefrontal and rostral anterior cingulate activity (Lanius et al., 2010). These neurobiological studies, coupled with phenomenological work, clearly delineate a PTSD group that has heightened depersonalization/derealization experiences from a PTSD group that does not. The former group appears to have a different neurobiological response to trauma cues and a more severe symptom profile and trauma history. However, the question remains whether this group is most accurately characterized and most effectively conceptually defined as PTSD with dissociative symptoms (APA, 2013), as this incorrectly implies that the other type of PTSD is not associated with dissociative symptoms.

DISSOCIATION AND PTSD: *CONCEPTUAL* LINK NOT LIMITED TO A SUBSET OF PTSD

Currently, research has largely delimited the dissociative subtype of PTSD to manifestations of depersonalization and derealization. As noted previously, research evidence can clearly distinguish a group of individuals with PTSD who have elevations of these symptoms. Research used to support this framework has typically adopted only these symptoms (e.g., Stein et al., 2013; Steuwe et al., 2012; Wolf, Miller, et al., 2012) rather than a broader array of dissociative manifestations (Lanius et al., 2012). Consequently, interpretations based on these limited expressions of dissociation may obscure the actual presence and relevance of dissociation in PTSD. Dissociation appears to be related to all PTSD, not just to the dissociative subtype. In their review of the research linking dissociation and PTSD, Carlson et al. (2012) concluded that "dissociation is clearly, consistently, and very strongly related to the *presence* and severity of PTSD symptoms" (p. 487, italics added). Other researchers have noted the importance and centrality of dissociation in PTSD (see Bremner & Vermetten, 2007; Carlson et al., 2012; Dalenberg & Carlson, 2012; Simeon, 2007; Twaite & Rodriguez-Srednicki, 2004).

Cardeña and Carlson (2011, pp. 251–252) organized the phenomena of dissociation under three groupings: "(a) loss of continuity in subjective experience with accompanying involuntary and unwanted intrusions into awareness and behavior" (i.e., positive dissociative symptoms), "(b) an inability to access information or control mental functions or behaviors, manifested as symptoms such as gaps in awareness, memory, or self-identification, that are normally amenable to such access/control" (i.e., negative dissociative symptoms), and "(c) a sense of experiential disconnectedness that may include perceptual distortions about the self or the environment." Dissociative phenomena falling under (a), involuntary intrusions, are captured in *DSM–5*'s presumed nondissociative PTSD, or what Lanius and colleagues (2010) referred to as undermodulated PTSD. Phenomena in (b), gaps in awareness/memory, also characterize nondissociative PTSD (e.g., amnesia). *DSM–5*'s PTSD with dissociative symptoms is primarily captured by the phenomena in (c), disconnection and distortion. Thus, PTSD is generally marked by several dissociative symptoms. If individuals have depersonalization and/or derealization symptoms (regardless of other dissociative symptoms), however, the *DSM–5* states that they have the dissociative type of PTSD. In other words, some symptoms in this system are elevated to reflect dissociation more than others. This selective elevation of some dissociative symptoms creates considerable conceptual confusion regarding the link between dissociation and PTSD, and this requires theoretical and empirical attention. *In addition to the conceptual issues created by differentiating a dissociative subtype of PTSD, data are consistent with the*

notion that nondissociative PTSD may actually be characterized by elevated levels of dissociation.

DISSOCIATION AND PTSD: *EMPIRICAL* LINK NOT LIMITED TO A SUBSET OF PTSD

Carlson et al. (2012) indicated that dissociative symptoms in PTSD are typically mild to moderate in severity and have a disruptive impact. Typically they are understood to include a range of positive and negative dissociative symptoms. These include sensory, somatic, affective, behavioral, and cognitive reexperiencing; amnesia or other gaps in awareness and memory; depersonalization/derealization (Carlson et al., 2012); and emotional numbing (Halligan, Michael, Clark, & Ehlers, 2003). Considerable empirical evidence supports general elevations of dissociative symptoms in PTSD, suggesting that the relevance of dissociation for PTSD is not limited to the dissociative subtype (Carlson & Putnam, 1993; Putnam et al., 1996; Waller et al., 1996). Halligan et al. (2003) found that individuals with current PTSD had higher dissociation scores on the Trait Dissociation Questionnaire (Murray, Ehlers, & Mayou, 2002) than those who either had recovered from PTSD or had never had PTSD (Study 1). In veterans who had experienced captivity by enemy forces, Zerach, Greene, Ginzburg, and Solomon (2014) found higher levels of dissociation (using the DES) in those with PTSD than in those without. Heightened dissociation scores in current PTSD samples may be created by a small number of participants having elevated dissociation. Calculation of the *Z* scores from both the Halligan et al. and Zerach et al. studies showed positively skewed distributions for dissociation scores in the current PTSD samples (consistent with heightened dissociation in a smaller number). Yet a positively skewed distribution was also found for the recovered and non-PTSD comparison samples. Thus, the smaller number of elevated dissociation scores in the comparison groups would have elevated their mean, and still the current PTSD groups had higher scores, *suggesting that dissociation is heightened in PTSD generally.*

In their review of 13 studies assessing dissociation in PTSD and trauma-exposed non-PTSD samples, Carlson et al. (2012, Table 4) found that 11 demonstrated higher rates of dissociation in the PTSD group (primarily assessed with the DES). The two studies that failed to produce this result were impacted by small sample sizes. They also found moderate to strong correlations between dissociation and PTSD symptom severity, even after recognized dissociative symptoms (flashbacks, amnesia) of PTSD were removed. These correlations were evident for both retrospective and prospective assessments of PTSD and dissociation symptoms. It is important to note that scatterplots suggested a more uniform, linear pattern of data rather than the relationship being created by a smaller percentage

of the PTSD sample having high dissociation. Carlson et al. (2012) also noted that dissociative symptoms and PTSD covary in therapy, such that one reduces with the other. When looking at the relationship between the three *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM–IV*) PTSD symptoms, and dissociative symptoms (assessed by the DES or the Traumatic Dissociation Scale; Carlson et al., 2011), they concluded that "dissociative symptoms do have the same strength of relationship to the three PTSD symptoms clusters as they have for one another" (Carlson et al., 2012, p. 487).

Presence and severity of dissociation is also higher in PTSD compared to non-trauma-related conditions (Putnam et al., 1996). In examining trauma survivors 12 months after an index event, Bryant, O'Donnell, Creamer, McFarlane, and Silove (2011) found that of the 17 PTSD symptoms, only the dissociative symptoms of flashbacks and amnesia differentiated those with PTSD from those with other psychiatric disorders. This suggests that dissociation symptoms are relevant for all PTSD, even if a subgroup has elevated depersonalization and derealization symptoms.

It is interesting that PTSD intrusions, which are believed to characterize the undermodulated or nondissociative type of PTSD, have been related to dissociation scores and symptoms (e.g., on the DES) in both experimental and survey-based studies of trauma survivors (e.g., Holmes, Brewin, & Hennessy, 2004; Lyttle, Dorahy, Hanna, & Huntjens, 2010). For example, in Zerach et al.'s (2014) study of ex–prisoners of war, PTSD intrusions remained a significant predictor of persistent dissociation as measured by the DES once sociodemographic and captivity-related variables were accounted for. Different studies have reported various relationships between specific PTSD dissociation symptoms and the dissociative subtype of PTSD. Some studies have found the subtype to have a higher prevalence of dissociative flashbacks (Stein et al., 2013; Wolf, Miller, et al., 2012), dissociative amnesia (Stein et al., 2013), and exaggerated startle responses (Wolf, Lunney, et al., 2012, Study 1), but other studies have not (Steuwe et al., 2012). As the dissociative subtype has been empirically investigated, calls for future research to take the whole range of dissociative symptoms into account have been made (Lanius et al., 2012; Steuwe et al., 2012). So what symptoms does this range include?

MANIFESTATIONS OF DISSOCIATION

The *DSM–5* (APA, 2013) defines *pathological dissociation* as "a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior" (p. 291). This characterization, reflecting the fact that dissociative symptoms manifest psychologically *and* physically, is an advancement on

previous *DSM* definitions of dissociation, in which the body was excluded (e.g., *DSM–IV;* APA, 1994). Yet it does not go as far as the International Classification of Diseases–10 (World Health Organization, 1992) in integrating the psyche and soma, with the International Classification of Diseases–10 classifying dissociative (conversion) disorders of movement and sensation. Van der Hart et al. (2006) proposed that phenomenologically speaking, dissociative symptoms can have mental and physical manifestations. Mental, or *psychoform,* symptoms include hearing voices and feeling as though ego-alien thoughts or emotions are intruding into consciousness out of the blue. Physical manifestations, or *somatoform* symptoms, involve sensorimotor experiences, such as anesthesia or tics, or somatic sensations related to trauma, such as vaginal pain from a past rape (Nijenhuis & Van der Hart, 2011). Van der Hart et al. (2006) further delineated dissociative symptoms into *positive* manifestations (intrusions such as flashbacks, jarring trauma-related physical pain, or the passive influence of other dissociative parts) and *negative* manifestations (functional losses such as amnesia and paralysis). The assessment of dissociative symptoms in PTSD has largely been limited to some psychoform manifestations (e.g., those assessed by the DES, which in fact has limitations, including having only a single, broad item assessing phenomena akin to dissociative flashbacks). More recently, as noted previously, the assessment of dissociative symptoms in PTSD has been further restricted to depersonalization and derealization.

The isolation of depersonalization and derealization to differentiate the dissociative subtype of PTSD is conceptually interesting. Unlike flashbacks, amnesia, and emotional numbing, which are typically understood as undeniably dissociative in nature (Carlson et al., 2012; Ginzburg et al., 2006; Lanius et al., 2012), some theories argue that derealization and some manifestations of depersonalization are unreflective of dissociation. For example, the theory of structural dissociation of the personality offers a framework in which traumatic stress involves failed integration (dissociation) at the level of personality. This dissociative personality organization then produces psychoform and somatoform dissociative symptoms in positive and negative manifestations (Dorahy & Van der Hart, 2007; Steele et al., 2009; Van der Hart et al., 2006). Thus, dissociative symptoms are limited to the manifestations and dynamic interplay between the trauma-related dissociative parts of the personality. For example, amnesia reflects memories and associated psychobiological content being dissociatively confined to another part of the personality. Flashbacks reflect the reactivation of a dissociative part of the personality containing trauma memories. Ego-observing and passive influence (behavioral engagement without willful intention) depersonalization are manifestations of an underlying dissociative structure of mind and are therefore dissociative symptoms. However, derealization and depersonalization in the form of distorted perceptions, for instance, along with narrowing of consciousness, absorption, and imaginative involvement, are not dissociative

symptoms. These symptoms are not specific to traumatized, dissociative individuals; do not originate from an underlying dissociative organization of mind per se; and arguably therefore reflect *alterations in consciousness rather than dissociation* (Dell, 2009; Steele et al., 2009; Van der Hart et al., 2004, 2006).

Using conceptual models like the theory of structural dissociation to guide research directions and data interpretation may offer a deeper, more specific, and more detailed examination of dissociation in future studies of PTSD. For example, in terms of research directions, the theory of structural dissociation suggests the importance of empirically examining different symptoms of depersonalization and derealization. This will allow for a determination of the degree to which each relates to PTSD and of how unique each is to PTSD in comparison to other disorders. Moreover, the theory encourages the examination of positive and negative dissociative symptoms that manifest as psychoform and somatoform experiences. With regard to data interpretation, the theory of structural dissociation would suggest that Lanius et al.'s overmodulated PTSD reflects a predominance of negative dissociative symptoms (e.g., numbing, ego-observing depersonalization). The undermodulated type reflects the activation of positive dissociative symptoms (e.g., flashbacks).

The future study of dissociation in PTSD would benefit from examining the degree to which the full range of dissociative symptoms are evident in PTSD. This would allow for a greater and more sensitive explication of the current findings that *dissociation is generally heightened in PTSD* and not simply relevant to the dissociative subtype of PTSD. It would also integrate somatic manifestations of dissociation into the PTSD literature, an important step given the frequency and array of somatic complaints associated with PTSD (e.g., Gupta, 2013). This future work being guided by specific theories on dissociation would ensure that conceptual frameworks and empirical data remain interwoven in studying dissociation in PTSD.

DISCUSSION

The creation of a dissociative subtype of PTSD reflects an initial and important step in formally recognizing the clinical, empirical, and conceptual link between dissociation and PTSD. Progressive steps now need to examine the degrees to which positive and negative psychoform and somatoform dissociative symptoms may vary among patients with PTSD and be related to the severity of their traumatization and psychopathology. As is evident from Table 1, data are pointing to the idea that those with higher degrees of child and adult trauma, especially of a relational nature, have more severe PTSD, including symptoms such as depersonalization and derealization. Data

also show that dissociative (and related) symptoms, as measured by tools like the DES, are elevated in PTSD.

Three pressing questions require attention. The first question is why intrusion symptoms and hyperarousal are often overlooked as positive dissociative symptoms in PTSD, even though they are explicitly mentioned as such in the *DSM*. The second question is how, then, should experts conceptually understand the empirical and phenomenological data supporting two subgroups of PTSD. The third question pertains to the clinical relevance of distinguishing different types of PTSD.

Why Have Intrusions and Hyperarousal Often Been Overlooked as Positive Dissociative Symptoms in PTSD?

The answer is probably that many authors regard trauma-related dissociation primarily as a *defense*. This contrasts with the conceptualization of dissociation as an integrative failure at the level of personality that has defense as a byproduct (Janet, 1889, 1907; Myers, 1940; Van der Hart et al., 2006). The position of dissociation as primarily defensive argues that some traumatized individuals may chronically "use the defense of dissociation to ward off conscious awareness of the experience or other aversive trauma sequelae" (Ginzburg et al., 2006, p. 22). Depersonalization, derealization, amnesia, and hypoarousal are all regarded as symptoms that survivors call upon in an automatic fashion to maintain distance from feared mental experiences. The alternative view argues that trauma-related dissociation basically *involves* a division of the personality that first and foremost is the result of an integrative failure induced by highly aversive experiences (Janet, 1907; Nijenhuis & Van der Hart, 2011; Van der Hart et al., 2006). Symptoms manifesting from this dissociation appear to have defensive capabilities (e.g., negative symptoms like amnesia), but they may also represent the opposite of defense in (failed) attempts at integration (e.g., positive dissociative symptoms like intrusions). In other words, the dissociative division of the personality can support adaptation (i.e., has survival value) to some degree but commonly also implies adaptive limitations (Nijenhuis & Van der Hart, 2011).

How Should Experts Conceptually Understand the Empirical and Phenomenological Data Supporting Two Subgroups of PTSD?

The empirical and phenomenological literature supports a differentiation of two types of PTSD (Bremner, 1999; Ginzburg, Butler, Saltzman, & Koopman, 2009; Ginzburg et al., 2006; Lanius et al., 2010, 2012; Stein et al., 2013; Steuwe et al., 2012; Wolf, Lunney, et al., 2012; Wolf, Miller, et al., 2012). Lanius et al. (2010) pertinently pointed out that "grouping all PTSD patients, regardless

of their different symptom patterns, in the same diagnostic category will hinder our understanding of posttraumatic psychopathology" (p. 645). As is evident in Table 1, recent studies have shown that the dissociative subtype of PTSD is associated with more childhood maltreatment and greater symptom complexity (Steuwe et al., 2012; Wolf, Lunney, et al., 2012; Wolf, Miller, et al., 2012). This is consistent with other data showing that individuals with a more severe trauma history report more complex symptoms, including more complex dissociative symptoms (e.g., Carlson et al., 2012; Ginzburg et al., 2006, 2009; Herman, 1992a; Lanius et al., 2010; Stein et al., 2013). As it became apparent that the diagnostic category of PTSD was insufficient to do justice to the wide range of symptoms that characterize survivors of complex trauma with interpersonal stressors (childhood sexual abuse, domestic violence, being taken hostage, incarceration as a prisoner of war, torture), complex PTSD (Herman, 1992a) or disorders of extreme stress not otherwise specified (DESNOS; Pelcovitz et al., 1997) were proposed.

Empirical findings motivated Ginzburg et al. (2006) to hypothesize that the dissociative subtype of PTSD may be equivalent to complex PTSD/DESNOS. Van der Hart, Nijenhuis, and Steele (2005) suggested that dissociation (of the personality), with its positive and negative manifestations, is a major feature of complex PTSD and underpins the majority of its symptoms. There is considerable evidence that those with complex PTSD have a more diffuse and complicated symptom profile than those with PTSD (e.g., Ford, 1999), along with symptoms already explicitly labeled as dissociative in nature (Dorahy et al., 2013; Zucker, Spinazzola, Blaustein, & Van der Kolk, 2006). They also require a different approach to treatment, consistent with Lanius et al.'s (2010) overmodulated or dissociative PTSD (see below). Yet there are complexities equating the two terms (Stein et al., 2013). First, dissociative PTSD does not capture the confluence of symptoms evident in complex PTSD, even though the addition of core PTSD symptoms in *DSM–5* captures some features of complex PTSD (Friedman, 2013a). Second, there remains opposition to complex PTSD as a *DSM* diagnosis, even among traumatologists (Resick, Bovin, et al., 2012).

The dissociative subtype of PTSD, or PTSD with dissociative symptoms, is to a certain extent consistent with complex PTSD but without acknowledging the broad array of phenomenological features associated with the latter. At the same time, dissociation appears characteristic of all PTSD, even though differences may exist in depersonalization and derealization symptoms or dissociative symptom severity. Consequently, complex PTSD may be a more accurate conceptualization than PTSD with dissociative symptoms to address the fact that two PTSD types can be differentiated. However, there may be some debate over the most appropriate nomenclature to reflect the more severe form of PTSD, and further research is required (Friedman, 2013b).

What Is the Clinical Relevance of Distinguishing Different Types of PTSD?

The empirically supported treatment for PTSD consists of *exposure-based interventions* (cf. Foa, Keane, Friedman, & Cohen, 2009). Yet the standard of care when the disorder is more complicated, such as with complex PTSD, trauma-related borderline personality disorder, and complex dissociative disorders, is *phase-oriented treatment* (e.g., Brown, Scheflin, & Hammond, 1998; Courtois & Ford, 2009; Herman, 1992b; International Society for the Study of Trauma and Dissociation, 2011; Lanius et al., 2010, 2012; Van der Hart et al., 2006). The treatment phases are (a) safety, stabilization, symptom reduction, and skills training; (b) treatment of traumatic memories; and (c) personality (re)integration and (re)habilitation. Their application often takes the form of a spiral, in which different phases can be alternated according to the client's needs. Phase-oriented treatment models have developed based on consistent clinical observations that the majority of patients with complex trauma-related disorders need to develop specific skills prior to meeting the challenges of integrating traumatic memories and their personality. Empirical support is developing for this clinical standard of care (e.g., Cloitre et al., 2012; Courtois & Ford, 2009).

The distinct approaches to treatment further underline the importance of distinguishing between two types of PTSD (Carlson et al., 2012; Cloitre et al., 2012; Dalenberg & Carlson, 2012; Lanius et al., 2010; Resick, Suvak, et al., 2012). For this reason, the inclusion of a dissociative subtype of PTSD in the *DSM–5* is laudable. It allows official acknowledgment of a more complicated form of PTSD that requires a different form of intervention for a successful treatment outcome. However, *it does not acknowledge the dissociative features of PTSD more broadly, incorrectly limits dissociative symptoms to a restrictive number of psychoform manifestations, and incorrectly implies the existence of a nondissociative type of PTSD.*

CONCLUSION

Even though there are indeed differences between the two subtypes of PTSD that are denoted nondissociative and dissociative, this differential labeling seems to be problematic. PTSD generally involves dissociation. Depersonalization and derealization, which characterize *DSM*'s dissociative subtype of PTSD are a restricted and non-representative reflection of dissociative symptoms in general, and dissociative symptoms in PTSD in particular. Bringing the psychoform and somatoform positive (e.g., flashbacks, voice hearing, jarring genital pain) and negative (e.g., amnesia, anesthesia) symptoms of dissociation into empirical research on PTSD will allow a greater elucidation of dissociation in PTSD. This will ensure dissociation is

not consigned to a subtype of restricted and disputed features. Old observations (Janet, 1909) and modern research (Van der Kolk et al., 1996) indicate that the earlier the age of onset and the more severe the traumatization in terms of intensity, duration, and repetition, the more complex the dissociation and related problems. In such cases phase-oriented treatment is indicated. Future research requires conceptually sound understandings of dissociation to safeguard against it being misconstrued or limited in the study of PTSD. Now that dissociation has been formally recognized as central to a subset of PTSD, the next empirical steps are to determine its importance for all PTSD.

ACKNOWLEDGMENTS

We would like to thank Anne DePrince, PhD, and Jolanda Treffers for their helpful comments on this article.

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