10 Dissociation versus Alterations in Consciousness: Related but Different Concepts

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OUTLINE

In the 19th and early 20th centuries, mental dissociation denoted an organized *division of the personality* (Janet, 1889, 1907; Myers, 1940; Prince, 1905; Van der Hart & Dorahy, 2009). This division involves insufficient integration among two or more "systems of ideas and functions that constitute personality" (Janet, 1907, p. 332). Each of these psychobiological systems has its own unique combination of perception, cognition, affect, and behavior; each has its own sense of self, no matter how rudimentary (e.g., Mitchell, 1922; Prince, 1905). In our terms, dissociation was originally conceptualized as a *structural dissociation of the personality* (Nijenhuis, Van der Hart, & Steele, 2004; Steele, Van der Hart, & Nijenhuis, 2004, 2005, Chapter 16, this volume; Van der Hart, Nijenhuis, Steele, & Brown, 2004). Dissociative phenomena are manifestations of this temporary (e.g., as in dissociative hypnotic phenomena) or chronic (e.g., as in trauma-related disorders) division of the personality organization.

Since the 1980s, the definition of dissociation has been broadened. It has been vaguely defined as a *breakdown or disruption in usually integrated functioning* (APA,

2000). Subsequently, alterations in consciousness such as absorption, altered time sense, spaciness, daydreaming, imaginative involvement, and trance-like behavior, none of which necessarily derive from a dissociative organization of the personality, have been considered to be dissociative phenomena (e.g., Bernstein & Putnam, 1986; Bowins, 2004; Butler, 2004; Ray, 1996; Ray & Faith, 1995; Ross, Joshi, & Currie, 1991; see Van der Hart & Dorahy, Chapter 1, this volume). Consequently, there is serious conceptual confusion about dissociation (Brunet, Holowka, & Laurence, 2001; Cardeña, 1994; Dell, Chapter 15, this volume; Frankel, 1996; Holmes et al., 2005; Marshall, Spitzer, & Liebowitz, 1999; Nijenhuis, Van der Hart, & Steele, 2004; Steele, Van der Hart, & Nijenhuis, Chapter 16, this volume; Van der Hart & Dorahy, Chapter 1, this volume; Van der Hart et al., 2004). These alterations in consciousness are typically labeled as *normal dissociation* and are conceptualized as residing on a continuum with normal dissociation at one end and pathological dissociation (i.e., symptoms that typically manifest from a division of the personality; e.g., identity alteration, dissociative amnesia) at the other end. However, several authors have strongly challenged this continuum model of dissociation (Boon & Draijer, 1993; Holmes et al., 2005; Ogawa et al., 1997; Putnam, 1997; Waller, Putnam, & Carlson, 1996; Watson, 2003).

This chapter addresses two essential questions. First, can alterations in consciousness reach pathological proportions? Second, are alterations in consciousness actually dissociative? For example, does absorption in work fall within the same domain of psychological experience as one dissociative part of the personality hearing the voice of another dissociative part?

We propose that disruptions in integrative functioning involve at least two different but related phenomena: (1) structural dissociation (i.e., a division of the personality) and (2) alterations in consciousness. The manifestations of these phenomena are different, but may coexist. Below, we will focus on the similarities and differences between (1) trauma-related structural dissociation of the personality, and (2) normal and pathological alterations in consciousness. We believe that the distinction between structural dissociation of the personality and alterations in consciousness has several important implications. If they are truly different categories of phenomena, then clinicians should *not* conclude that patients with a severe alteration of consciousness have a dissociative disorder. Similarly, if these phenomena are truly different, then we must distinguish between empirical findings about alterations in consciousness and empirical findings about the manifestations of structural dissociation. Finally, research instruments should clearly distinguish between structural dissociation of the personality and alterations in consciousness.

10.1 TRAUMA-RELATED STRUCTURAL DISSOCIATION OF THE PERSONALITY

Janet (1889, 1907) believed that structural dissociation of the personality results from an inability to successfully engage in integrative mental and physical actions (due to physical illness, exhaustion, or exposure to highly stressful events). He proposed that a chronic or temporary *low integrative capacity* promotes trauma-related structural dissociation whereby some experiential memories are not integrated into the personality as a whole. According to Janet (1907), such deficits in integrative capacity could cause other psychological disruptions (e.g., pathological alterations in consciousness, greater emotivity, and reactive behaviors and beliefs). Janet distinguished these phenomena from structural dissociation.

Research (cf. Nijenhuis & Den Boer, Chapter 21, and Steele, Van der Hart, & Nijenhuis, Chapter 16, this volume) supports Janet's thesis that structural dissociation can emerge from insufficient integrative capacity to manage stressful events; thus, the likelihood of traumatization significantly depends on the individual's integrative capacity. For example, children have lower integrative capacity than adults, due in part to immaturity of integrative brain structures. This implies that children are more prone to dissociate under stress. Research supports this; age at the time of trauma is associated with structural dissociation (Boon & Draijer, 1993; Fullerton et al., 2000; Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1998; Ogawa et al., 1997).

10.1.1 Action Systems as the Foundation for Trauma-Related Structural Dissociation of the Personality

Janet's conception of dissociation involves psychobiological "systems of ideas and functions that constitute personality." An obvious question then is which systems are involved in structural dissociation? Personality involves a range of psychobiological motivational (Toates, 1986), behavioral (Cassidy, 1999), or emotional operating systems (Panksepp, 1998)—also known as *action systems* (Nijenhuis et al., 2002, 2004; Steele et al., Chapter 16, this volume). Two major categories of action systems (Carver, Sutton, & Scheier, 2000; Lang, Bradley, & Cuthbert,

1998) shape our personalities. One category guides activities of daily living (e.g., work, play, learning, maintaining relationships, energy regulation [eating and sleep], and sexual behavior/reproduction). The second category mediates physical defense under threat (e.g., attachment cry, fight, freeze, submit). Social defense against abandonment and rejection and interoreceptive defense against one's own mental contents (e.g., thoughts, feelings, beliefs, sensations, memories) can involve both categories of action systems. Such defenses range from the primitive (e.g., projection and splitting) to the relatively sophisticated (e.g., rationalization, passive-aggressiveness, obstinacy, "codependent" behaviors, etc.).

10.1.1.1 Dissociative Parts of the Personality

There are two prototypical dissociative parts of the personality, each mediated by different action systems or constellations of action systems (Nijenhuis et al., 2002, 2004; Steele et al., Chapter 16, this volume; Van der Hart et al., 2004).

We call parts that are mediated by action systems of daily life the *Apparently Normal Parts of the Personality* (ANP), and those mediated by the action systems of defense the *Emotional Parts of the Personality* (EP). These terms derive from the writings of British psychologist and psychiatrist, Charles S. Myers. Myers noted the presence of ANPs and EPs in acutely traumatized World War I combat soldiers (Myers, 1940). Dissociative parts that exert functions in daily life (ANPs) fear the retrieval or integration of traumatic memories; they prevent this via mental avoidance and escape strategies. We hypothesize that these phobic mental actions involve the natural tendency of different action systems to inhibit one another to a varying degree. For example, the action systems of (physical) defense and play tend to completely inhibit one another. This implies that dissociative parts that focus on daily life (ANP) would be impaired in their ability to play and socialize whenever they are intruded upon by dissociative parts that are rooted in defensive action systems (EP). ANPs and EPs have at least a rudimentary sense of self; each retrieves memories that other parts do not (or do not retrieve in the same manner).

Dissociative parts vary in their *degree of structural division* from one another, in their *autonomy*, and in their *sense of self* (which may or may not include secondary elaborations such as ages, gender, names, etc.). The *number* of dissociative parts also varies. The individual's *subjective experience* and the *overt manifestations* of structural dissociation vary. In all cases, however, structural dissociation is a division of the personality.

10.1.1.2 Dissociative Symptoms

Dissociative symptoms are manifestations of structural dissociation (Nijenhuis & Van der Hart, 1999; Nijenhuis, Van der Hart, & Steele, 2004; Steele, Van der Hart, & Nijenhuis, 2004; Van der Hart et al., 2004). *Negative dissociative symptoms* (e.g., dissociative amnesia) occur when a part is unable to retrieve mental contents (e.g., memories) or unable to execute normal functions (e.g., movement of an arm) that are still available to another part, at least in principle. *Positive dissociative symptoms* occur when the mental contents (e.g., a traumatic memory) or functions (e.g., movement of an arm) of one part intrude into the functioning or consciousness of another part. Negative and positive symptoms can be classified as either psychoform or somatoform. *Psychoform dissociative symptoms* are typically associated with episodic memory or other mental functions or contents that do not involve the body *per se* (e.g., hearing voices of other parts). *Somatoform dissociative symptoms* manifest in the body: anesthesia, analgesia, inability to move some part of the body, inability to inhibit particular movements, and so on.

10.2 ALTERATIONS IN THE FIELD AND LEVEL OF CONSCIOUSNESS

We use the term *consciousness* to mean conscious awareness of internal and external stimuli. Two aspects of alterations in consciousness are often considered, incorrectly in our opinion, to be manifestations of dissociation: (1) the quantity of material that is conscious and (2) the quality of consciousness. We maintain that the quantity and quality of consciousness are essentially different from the manifestations of structural dissociation.

10.2.1 Quantity: The Field of Consciousness

The quantity of internal and external stimuli held in conscious awareness at a given time is referred to as *the field of consciousness.* The field of consciousness can be very wide, extremely narrow (retracted), or anything in between (Janet, 1907). The breadth of our field of consciousness fluctuates; that is, the extent to which we perceive internal and external events varies. This is generally adaptive. Sometimes it is most adaptive to focus narrowly on specific stimuli. At other times, it is most adaptive to attend to a broad range of stimuli. We are limited, however, in the number of stimuli to which we can attend at a given time. We simply cannot perceive (and remember, i.e., encode, store, consolidate and retrieve) everything. Even if we

could, the task would rapidly become overwhelming; the demands on our energy would be just too great, and we would not be able to focus (Luria, 1968). Some changes in our field of consciousness are voluntary (e.g., intentional concentration, guided imagery, meditation); other changes are involuntary (e.g., inability to concentrate or selectively attend when we are tired or stressed).

10.2.2 Quality: The Level of Consciousness

The quality of our mental functioning is largely dependent on the *level of consciousness*. With a few exceptions such as sleep and deep relaxation, a lowering of consciousness impairs mental functioning. Common forms of lowered consciousness include temporary mental relaxation, inattentiveness, daydreaming, and concentration problems due to fatigue, anxiety, stress, or illness. Less common forms of lowered consciousness include depersonalization and derealization (e.g., feeling unreal, staring down a tunnel, feeling foggy or detached, pathological trance states, time distortion, degrees of unresponsiveness, Allen, Consolo, & Lewis, 1999; Van der Hart & Steele, 1997). Low levels of conscious awareness can cause disorganization, forgetfulness, spaciness, and undue drowsiness. Extreme forms of lowered consciousness include the loss of consciousness in pseudoseizures (Bowman, 1998; Kuyk, 1999), stupor, and coma. These phenomena, however, do not exclude engagement in some inner experiences. The latter two phenomena may have an organic basis.

Field and level are inherent features of consciousness; they coexist in numerous combinations and may fluctuate voluntarily or involuntarily. Low levels of consciousness can coincide with either a wide or narrow field of consciousness.

10.3 NORMAL VERSUS PATHOLOGICAL ALTERATIONS IN CONSCIOUSNESS

Not all alterations in consciousness are normal. Alterations in field and level of consciousness can be described in terms of intensity, frequency, duration, appropriateness (to a given situation), and degree to which they can be controlled voluntarily.

In healthy individuals, field and level of consciousness wax and wane in moderated oscillations throughout the day. Periods of alertness and concentration are interspersed with periods of drowsiness, fatigue, or distraction. *Alterations in consciousness are pathological when they are excessive, frequent, inflexible, and cannot be consciously controlled*. For example, some people need to "stare at the wall" for a few minutes before they can get going in the morning. It is normal to have a rather low level of consciousness and a retracted field of consciousness just before and after sleep. But, if "staring at the wall" continues for hours, recurs frequently, or cannot be voluntarily interrupted, then it is pathological. Similarly, daydreaming is not healthy or normal if the person is lost in fantasy for hours at a time when he/she should be dealing with daily life (Janet, 1903; Somer, 2002). It is not unusual for a person who is preoccupied to miss an exit while driving or to be unaware of a brief passage of time. It is pathological, however, if the person is regularly and intensely absorbed in daydreams, constantly misses exits, gets lost, and drives dangerously.

Lowering of the level of consciousness is adaptive when we relax or sleep. On the other hand, our field of consciousness is maladaptive if we fail to perceive and remember significant facts and experiences. Even high levels of consciousness can be maladaptive if a person invests too much mental effort in matters that should be of little concern. For example, a patient tried to avoid flashbacks by cleaning obsessively—to the extent that she was chronically late to therapy and work: "If only I could be aware of needing to get someplace on time, but I can only think of what I must clean in the moment!"

A particular field and level of consciousness can be appropriate for one situation, but not for another. A high level of conscious awareness and a retracted field of consciousness to threat cues are adaptive when one is in danger. On the other hand, it is maladaptive and exhausting to maintain this high level and small field during daily life; it would foster intense fear and chronic hypervigilance. It is adaptive to enter trance states intentionally for healthy relaxation (low level), whereas spaciness (low level) and lack of focus (unduly wide field and low level) in therapy sessions or at work are maladaptive.

Maladaptive fields and levels of consciousness occur in both traumatized and nontraumatized populations. For example, preoccupation with trauma-related issues may cause poor concentration and severe inattentiveness while driving (e.g., resulting in 19 car accidents over a 10-year period for one patient); it may even contribute to revictimization ("After he beats me and I heal, somehow I am only able to think of the good times; the bad stuff is very fuzzy in my mind.").

Etty, a patient with dissociative identity disorder (DID), dealt with dissociative intrusions by intentionally retracting her field of consciousness to an extreme degree. When plagued by persecutory voices, she tried to ignore them or drown them out by turning on the TV, radio, and CD player at the same time; she then focused

on the sounds of one instrument on the CD recording. Sally, a patient with DID, often felt spacey and had tunnel vision; this low level and retracted field of consciousness usually preceded intrusions from a dissociative part (in the form of a flashback). Andy, a patient with PTSD, often felt like he was a player on a stage, merely acting out a script in a state of derealization. Andy also had symptoms of structural dissociation, such as watching himself from a distance and feeling sorry for "that man who seems so empty."

In short, *we disagree with the idea that normal and pathological dissociation lie on a single dimension, with alterations in consciousness representing the "normal" end of that dissociative continuum*. Alterations in field and level of consciousness can be quite pathological in and of themselves.

10.4 ALTERATIONS IN CONSCIOUSNESS VERSUS STRUCTURAL DISSOCIATION

Alterations in consciousness are distinct from but related to manifestations of structural dissociation. In the following, we will articulate three similarities and differences between alterations in consciousness and structural dissociation.

10.4.1 Failures of Perception and Memory

A retracted field and low level of consciousness that is accompanied by failure to perceive and remember experiences has been called "dissociation of context" (Butler, Duran, Jasiukaitis, Koopman, & Spiegel, 1996), "dissociative detachment" (Allen, Console, & Lewis, 1999), or simply, "detachment" (Holmes et al., 2005). During this so-called dissociation, the individual is too overwhelmed, preoccupied, or spacey to perceive and remember. Clearly, such alterations in consciousness can occur in the absence of a division of the personality. In fact, such alterations of consciousness are ubiquitous in both normal and clinical populations (Giesbrecht, Merckelbach, Geraerts, & Smeets, 2004; Hunter, Sierra, & David, 2004). They occur in traumatized individuals (Darves-Bornoz, Degiovanni, & Gaillard, 1999), but are not limited to them. In a word, structural dissociation does not need to exist for failures of perception and memory to occur.

Low levels and retracted fields of consciousness can impair the creation of episodic and semantic memories (Janet, 1889, 1907; Myers, 1940; Van der Hart, Van Dijke, Van Son, & Steele, 2000). When we are very tired or spacey we may remember our experiences poorly, if at all. When we are absorbed in a particular experience, our field of consciousness is retracted and we only remember the absorbing experience. Such limitations of episodic memory do not require the existence of dissociative parts of the personality.

Ted, a business executive, left stressful meetings with little conscious awareness of what had been discussed. Ted had no dissociative parts of his personality, but during these stressful meetings he was unable to concentrate and had recurring experiences of daydreaming and absentmindedness (i.e., "blank mind"). Mary, a woman with a history of child abuse and neglect, had very large gaps in her memory of childhood. She had dissociative parts, but continued to have many memory gaps after she had completely integrated her parts. When she described the unrelenting stress of her daily life as a child, it was clear that none of her parts perceived and remembered much of her childhood:

> People thought I was a space cadet. I kept my nose in a book. I tried not to pay attention, but just to stay focused on what was in front of me. I could never remember the details of things. Sometimes I can remember when I watched TV or read a book, I could almost feel this wall coming between me and the rest of the world. I didn't have to know about certain things that way.

Structural dissociation is *not* characterized by this failure to encode that occurs in many alterations in consciousness. Instead, some of the experience is always perceived and remembered by at least one part of the personality.

More than a century of clinical observations (e.g., Culpin, 1931; Janet, 1889, 1907; Kardiner, 1941; Myers, 1940; Putnam, 1989) and research (e.g., Lanius, et al., 2002; Van der Kolk, Burbridge, & Suzuki, 1997) have confirmed that patients with dissociative disorders retrieve memory differently. Dissociative parts may (1) share episodic and semantic memories (Elzinga, Phaf, Ardon, & Van Dyck, 2003; Huntjens, Postma, Peters, Woertman, & Van der Hart, 2003), (2) retrieve particular memories that are not retrieved by other dissociative parts (Dorahy, 2001), or (3) have different patterns of psychobiologic reaction to descriptions of traumatizing events (e.g., Reinders et al., 2003; see Nijenhuis & Den Boer, 2008).

10.4.2 Sense of Self

The sense of self of mentally healthy individuals alternates within relatively fixed limits. We are parents with our children, children in relation to our parents, professionals at work, and lovers of sports, books, arts,

collecting, gardening, and writing. We are not always exactly the same, but our sense of self is *consistent*.

When nondissociative individuals experience alterations in consciousness, their sense of self remains relatively stable and consistent over time and experience. On the other hand, the sense of self in dissociative individuals *alternates* and is *inconsistent* across time and experience (cf., Braude, 2004). Laura had DDNOS; one part of her personality felt that she did not exist. That part said, "I'm not real. I don't feel anything. I'm not a person. I'm nothing." This outlook was related to a fixed idea: "If I'm not real, then those traumatic experiences didn't happen to me." This is a structurally dissociated person with a part that manifests a pathologically low level of consciousness regarding sense of self—a part that has a very different sense of self from Laura. Laura experienced herself as existing and being in the present; she experienced the other part as "not me."

10.4.3 Alterations in Consciousness in Dissociative Parts of the Personality

Because fluctuating fields and levels of consciousness are inherent features of consciousness, they are necessarily features of the consciousness of dissociative parts of the personality as well. It should be noted, however, that the field of consciousness of dissociative parts is usually much more retracted than that of healthy individuals. The attentional focus of dissociative parts is typically restricted by the limited range of the action systems on which they are based. For example, ANPs generally focus exclusively on daily life activities; they avoid traumatic reminders. EPs, on the other hand, focus almost exclusively on physical defense against perceived threat to life—and are unable to deal appropriately with normal life.

Different dissociative parts of the personality often have different fields and levels of consciousness in the same moment in time. While one part has a very low level of consciousness, a second part may be completely deactivated, a third part may be alert and responsive, and a fourth part may be narrowly focused on threat cues. Similarly, while one part's entire consciousness is focused on a traumatic memory, feeling, or sensation, another part may be focused on a wide variety of activities of daily life. Finally, although dissociative parts may share some conscious awareness, they may assiduously retract their fields of consciousness in order to avoid any reminders of each other.

Lowering of the level of consciousness often, but by no means always, accompanies a switch. The patient may become unfocused, drowsy, not present, and even close his or her eyes as if going to sleep. Janet (1907) described this lowering of the level of consciousness that can precede a switch:

> When the change is sudden, there is, as it seems, a loss of consciousness, a half faint. When the change is slow, one may easily observe the abasement of mental activity; the patient pays no more attention to exterior events; he understands less and less what you tell him, and he answers with difficulty, is absent-minded, works more slowly, or interrupts his work. (p. 32)

10.4.4 Complexities of Distinguishing Between Structural Dissociation and Alterations in Consciousness

In theory, it is simple to distinguish between the symptoms of structural dissociation and pathological fields and levels of conscious awareness: the former involves a division of the personality and the latter does not. In reality, these phenomena are easily confused because they tend to occur simultaneously in dissociative individuals. A person with DID often experiences alterations in consciousness (e.g., spaciness, absorption) and dissociative phenomena (e.g., intruding images or voices) at the same time.

In addition, some pathological forms of conscious awareness are phenomenologically similar to dissociative symptoms. When patients become completely unresponsive in therapy, there are at least two possible explanations: (1) they do not perceive the current situation because they are experiencing a very low level of consciousness (i.e., a pathological alteration in consciousness) or (2) their personality is, indeed, divided and a defensive part is engaged in total submission (collapse). In the latter case, another part may be listening to the therapist, but be unable to respond directly.

It often takes time, careful clinical observation, and open-ended questioning to discern the difference between an alteration of consciousness and the manifestations of structural dissociation. Nevertheless, it is imperative to discern whether these phenomena are alterations in consciousness, structural dissociation, or both. Correct treatment depends upon this distinction (e.g., Allen et al., 1999; Butler et al., 1996).

10.5 PERITRAUMATIC ALTERATIONS IN CONSCIOUSNESS VERSUS STRUCTURAL DISSOCIATION

Diverse symptoms can occur during and immediately after a traumatic event. We contend that some of these

symptoms of "peritraumatic dissociation" are alterations in consciousness; other symptoms are manifestations of structural dissociation. Severe, involuntary alterations in consciousness usually occur during a traumatic experience. These phenomena may or may not be related to the development of structural dissociation.

During threat, it is adaptive to retract one's field of consciousness to focus solely on what really matters; this requires a high level of consciousness. There is also a place for low levels of consciousness during threat: total submission is adaptive when escape is impossible and physical resistance would only evoke (further) violence. The submission action system is characterized by a very low level of awareness, which inhibits movement and protects against pain and suffering. Still, retraction and lowering of consciousness during threat can be maladaptive; if a previously raped individual becomes submissive whenever she feels sexually threatened, she will severely compromise her ability to cope, resist, or escape.

Hyperalertness and hyperarousal during a traumatic experience may exhaust the individual and bring about a significant drop in the level of consciousness. This was frequently observed in "shell-shocked" soldiers during World War I (e.g., Culpin, 1931; Léri, 1918). Myers (1940) described this phenomenon in soldiers who were structurally dissociated. Immediately after the traumatizing event, there is

> a certain loss of consciousness. But this may vary from a very slight, momentary, almost imperceptible dizziness or "clouding" to profound and lasting unconsciousness. (p. 66)

Even an extremely low level of consciousness (i.e., to the point of unconsciousness) may be actually an extreme retraction of the field of consciousness—so that it includes nothing but the traumatic experience (Culpin, 1931; Léri, 1918): "the mimicry of unconsciousness was complete, but more often the man was still in contact with his environment and capable of being roused" (Culpin, 1931, p. 26). When roused, he seemed to be reliving the trauma. In the words of Léri (1918), his "whole field of attention is occupied by the haunting memory of the traumatic event itself" (p. 78; cf. Culpin, 1931; Myers, 1940). In short, the retraction of the field of consciousness was so extreme that the soldier was perceived to be unconscious.

Similarly, many survivors of chronic child abuse report that they experienced a severe drop of consciousness in the immediate wake of abuse episodes. They report hiding in closets, under blankets, or other "safe places"; there, they described themselves as "zoning out," being "unable to think," unable to concentrate, getting "lost in my head," "sinking into darkness," "closing off from my body," and feeling spacey. These experiences can occur with or without structural dissociation.

We believe that current measures of peritraumatic dissociation assess an indiscriminate mixture of alterations of consciousness and manifestations of structural dissociation. For example, Item 3 of the Peritraumatic Dissociative Experiences Questionnaire (PDEQ; Marmar, Weiss, & Metzler, 1997) states, "My sense of time changed—things seemed to be happening in slow motion." Time sense can be altered in the absence of structural dissociation.

Other measures of dissociation also assess a mixture of alterations in consciousness and manifestations of structural dissociation. For example, the Dissociative Experiences Scale (DES; Bernstein and Putnam, 1986) assesses absorption: "Some people find that when they are watching television or a movie they become so absorbed in the story that they are unaware of other events happening around them." In the absence of structural dissociation, an individual likely retains a consistent sense of self during such an experience; she simply does not perceive and remember what was happening: "I just lay there (during a rape) and focused on a song in my head. I don't remember what the man said to me." This survivor experienced *herself* as being raped, but did not recall much about the rape because her attentional focus was turned inward in an attempt to avoid a terrible experience. A patient such as this will never remember much about the event because she did not perceive the entire event in the first place.

Ideally, measures of peritraumatic dissociation should distinguish between manifestations of structural dissociation and alterations in consciousness. Still, it can be quite difficult to determine whether certain items tap structural dissociation or an alteration in consciousness.

Despite these psychometric problems, measures of peritraumatic dissociation have shown clinical and empirical value. Numerous retrospective and prospective studies indicate that peritraumatic dissociation—however imperfectly it may be measured—is experienced by a substantial number of individuals who are exposed to severe stressors (e.g., Goenjian et al., 2000; Koopman, Classen, & Spiegel, 1994; Marmar et al., 1994; Morgan et al., 2001; Nijenhuis, Van Engen, Kusters, & Van der Hart, 2001; Olde et al., 2005; Shalev, Peri, Canetti, & Schreiber, 1996; Tichenor, Marmar, Weiss, Metzler, & Ronfeldt, 1996). Moreover, many studies have shown that peritraumatic dissociation predicts the development of PTSD (e.g., Benotsch et al., 2000; Dunsmore, Clark, & Ehlers, 1998; Epstein, Fullerton, & Ursano,

1998; Griffin, Resick, & Mechanic, 1997; Roemer, Orsillo, Borkovec, & Litz, 1998). These findings show a strong association between alterations in consciousness and manifestations of structural dissociation in trauma survivors.

10.6 SYMPTOMS OF DEPERSONALIZATION AND DEREALIZATION AS ALTERATIONS IN CONSCIOUSNESS AND STRUCTURAL DISSOCIATION

Although depersonalization and derealization have long been held to be dissociative symptoms, we believe that many (but not all) manifestations of depersonalization and derealization are alterations in consciousness.

Depersonalization has been described as (1) the existence of an observing and experiencing ego or part of the personality (Fromm, 1965); (2) detachment of consciousness from the self or body (i.e., feelings of strangeness or unfamiliarity with self, out-of-body experiences); (3) detachment from affect (i.e., numbness); (4) a sense of unreality such as being in a dream; and (5) perceptual alterations or hallucinations regarding the body (Noyes & Kletti, 1977). *Derealization* involves a sense of unreality or unfamiliarity with one's environment, and distortions of space and time (Steinberg, 1995). The primary difficulty in depersonalization may be a disruption in the focus of attention (i.e., alterations in consciousness; Guralnik, Schmeidler, & Simeon, 2000).

Both depersonalization and derealization occur with intact reality testing (Steinberg, 1993). Although neither necessarily involves a division of the personality, we believe that the presence of an "observing ego," observing part of the personality, or out-of-body experience is a hallmark of structural dissociation. Most other symptoms of depersonalization, however, reflect alterations in consciousness. According to Steinberg (1995), "pathological" depersonalization is distinguished by a dissociation between an observing ego and an experiencing ego; this is a structural dissociation of the personality. In a similar vein, Putnam (1997) has proposed that dissociation between an observing and an experiencing ego or part is different from other symptoms of depersonalization (i.e., hose that are characterized by alterations in consciousness). Such divisions between an observing part and an experiencing part have been described by victims of childhood sexual abuse (Gelinas, 1983; Putnam, 1997), victims of motor vehicle accidents (Noyes & Kletti, 1977), and soldiers in combat (Cloet, 1972). Schwartz (2000) illustrates structural dissociation in describing an observing part of the personality in a survivor of chronic, organized sexual abuse:

> When they made me dance … in front of all those men I just took three steps backwards, and then there was some girl there and she was dancing for them, and I watched her do it from far away … she was not me, but I could see her. I didn't like her and I didn't like what she was doing. Even though I know she is me, she is not really me. (p. 40)

When a person exhibits depersonalization, it is often difficult to determine whether structural dissociation is present (Van der Hart & Steele, 1997). In part, this difficulty is often due to the joint presence of structural dissociation and alterations in consciousness. This interpretation is consistent with the finding that high scores on the DES-Taxon are obtained by only a subset of persons with depersonalization disorder (Simeon et al., 1998). In fact, it seems likely that many individuals who have symptoms of depersonalization and derealization do *not* have structural dissociation. Why? Because these symptoms are reported by a substantial proportion of the general population (Aderibigbe, Bloch, & Walker, 2001), while symptoms of structural dissociation are not.

Symptoms of depersonalization and derealization are so prevalent that Cattell and Cattell (1974) found them to be the third most common complaint in psychiatric patients (following anxiety and depression). Mild to severe forms of depersonalization and derealization are found in anxiety disorders, depression, schizophrenia, substance abuse disorders, borderline personality disorder (BPD), seizure disorders, and dissociative disorders (Boon & Draijer, 1993; Dell, 2002; Steinberg, 1995). In normal individuals, these symptoms may be related to stress, hypnagogic states, fatigue, illness, medication, or intoxication. Note that these latter instances of depersonalization typically reflect only an alteration in consciousness. We still know too little, however, about which symptoms of depersonalization occur under which conditions.

Symptoms of depersonalization and derealization are commonly reported in trauma victims (e.g., Cardeña & Spiegel, 1993; Carrion & Steiner, 2000; Darves-Bornoz, Degiovanni, & Gaillard, 1999; Harvey & Bryant, 1998) and persons with trauma-related disorders such as acute stress disorder (ASD; Harvey & Bryant, 1998, 1999), PTSD (Bremner et al., 1993), BPD (Şar et al., 2003; Zanarini, Ruser, Frankenburg, & Hennen, 2000), and complex dissociative disorders (Boon & Draijer, 1993; Dell, 2002; Steinberg, 1995).

Although persons with depersonalization disorder (DPD) have a high rate of childhood traumatization, especially of emotional maltreatment (Simeon et al., 2001), Simeon (2004) contends that DPD does not involve the disturbances of memory or identity that would be consistent with structural dissociation. Persons with DPD and persons with structural dissociation share some neurobiological correlates: HPA axis dysregulation and disturbances of serotonergic, endogenous opioid, and glutamatergic NMDA pathways (e.g., Nijenhuis, Van der Hart, & Steele, 2002; Simeon et al., 2000). But there are differences as well. We believe that these facts support our clinical observation: *structural dissociation and alterations in consciousness are closely related, but they are, nevertheless, different concepts.*

10.7 ALTERATIONS IN CONSCIOUSNESS AND DISSOCIATIVE SYMPTOMS: RESEARCH FINDINGS

Research supports the idea that retraction and lowering of consciousness may accompany, but are different from, structural dissociation. The absorption factor of the Dissociation Questionnaire (DIS-Q; Vanderlinden, Van Dyck, Vandereycken, Vertommen, & Verkes, 1993) only correlates modestly with the DIS-Q's other three factors; conversely, the amnesia factor, identity fragmentation factor, and loss of control factor—which indicate structural dissociation—correlate highly with one another. Similarly, scores on the Somatoform Dissociation Questionnaire (SDQ-20; Nijenhuis et al., 1996)—a strong measure of structural dissociation (Nijenhuis et al., 1997, 1998)—correlate more weakly with the DIS-Q absorption factor than they do with the DIS-Q's other three factors (Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1996). Finally, we believe that the DES's "nonpathological" items (see Waller, Putnam, & Carlson, 1996) do not tap structural dissociation; conversely, at least five of the DES-T's eight "pathological" items (see Waller, Putnam, & Carlson, 1996) *do* suggest structural dissociation (e.g., being commanded by voices, observing one's body from a distance, and the experience of being two or more different "people").

Research suggests two interesting facts: (1) most persons who experience alterations in consciousness do not have structural dissociation, and (2) most persons with structural dissociation do have alterations in consciousness. Leavitt (2001) found that alterations in consciousness were prominent among patients with all kinds of mental disorders, not just trauma-related disorders. He reported that the severity of alterations in consciousness was associated with general psychopathology (in both dissociative and nondissociative patients). These findings reiterate two points: (1) alterations in consciousness are not unique to dissociative individuals and (2) some alterations of consciousness fall outside the normal range (cf. Carlson, 1994).

These findings show that alterations in consciousness are *sensitive but not specific* indicators of structural dissociation. That is, structurally dissociated persons typically display alterations in consciousness, but few persons with alterations in consciousness are structurally dissociated. Irwin (1999) reported that "pathological" dissociation (i.e., structural dissociation) is associated with exposure to highly stressful events, but that "nonpathological" dissociation (i.e., alterations in consciousness) is not.

In a recent important paper, Holmes and colleagues (2005) marshaled evidence that "detachment" (a form of altered consciousness) and "compartmentalization" (structural dissociation) are qualitatively distinct phenomena. They asserted that the evidence of a qualitative distinction between detachment and compartmentalization "directly contrasts with the common notion that these experiences lie on the same continuum … somewhere between 'daydreaming' and 'Dissociative Identity Disorder'" (p. 12). They contend that detachment and compartmentalizaton are different in kind, rather than degree. Although we disagree with Holmes and colleagues' proposal to abandon the term *dissociation*, as it has a clear historical definition that reflects the symptoms of traumatized individuals, we fully agree with their assessment of the differences between compartmentalization (their substitute for *dissociation*) and detachment, which they do not regard as dissociative in nature. We prefer to call compartmentalization *structural dissociation* and detachment *alterations in consciousness.*

10.8 THE RELEGATION OF STRUCTURAL DISSOCIATION TO COMPLEX DISSOCIATIVE DISORDERS

The confusion between alterations in consciousness and dissociation seems to derive from two related diagnostic problems. First, an overly vague notion of a breakdown or disruption in usually integrated functioning (APA, 2000) has been used to define dissociation. In the absence of a detailed specification of the effects or symptoms of a *breakdown of integrated functioning*, the symptoms of breakdown have been defined overinclusively to include alterations in level and field of consciousness. Second, structural dissociation has been relegated to the severe dissociative disorders (i.e., DID and some forms

of Dissociative Disorders Not Otherwise Specified; DDNOS) while its role in other trauma-related disorders has been neglected.

There is general agreement in the literature that (1) DID is the most extreme form of PTSD (e.g., Chu, 1998; Dell, 1998; Spiegel, 1993) and (2) the core pathology of DID is dissociation (e.g., Boon & Draijer, 1993; Kluft, 1996; Putnam, 1989; Ross, 1989). At the same time, however, the traumatic stress field seems to have avoided thinking of PTSD as a dissociative disorder (that might be conceptually linked to DID).

There is agreement that peritraumatic dissociation is a common precursor to PTSD, and that ongoing "dissociation" (which in most publications includes abnormal shifts in field and level of consciousness) occurs in ASD, PTSD, and trauma-related BPD. Typically, however, dissociation is only listed as one of many symptoms; it is not considered to be an underlying psychobiological organization or structure (e.g., Bremner, 2003; Brodsky, Cloitre, & Dulit, 1995; Davidson, Kudler, Saunders, & Smith, 1989; Feeny, Zoellner, Fitzgibbons, & Foa, 2000; Harvey & Bryant, 1999; see Gershuny & Thayer, 1999, for a review). Even when the dissociative nature of trauma-related disorders is noted, as in ASD (e.g., Spiegel, Koopman, Cardeña, & Classen, 1996), it is not acknowledged that dissociation is *an underlying structure* (that manifests itself in the form of dissociative symptoms).

The theory of structural dissociation of the personality proposes that all trauma-related disorders are linked by a common psychobiological division of the personality. The nature and severity of dissociative symptoms are related to the extent of that psychobiological division—the number of divisions and their degree of mutual impermeability. Some authors have noted the dissociative underpinnings of PTSD (e.g., Braun, 1993; Chu, 1998; Nijenhuis et al., 2004; Van der Hart et al., 2004); there has even been a debate about whether to classify PTSD as a dissociative disorder (Brett, 1996). Brett cited the vagueness of the definition of dissociation as a primary reason for continuing to classify PTSD as an anxiety disorder. Others have noted that trauma-related cases of BPD and complex PTSD are fundamentally dissociative (Blizard, 2003; Golynkina & Ryle, 1999; Howell, 2002; Van der Hart, Nijenhuis, & Steele, 2005).

The reluctance of the trauma field to recognize structural dissociation as an underlying psychobiological organization has contributed to clinicians' tendency to dismiss dissociation as "irrelevant" to clinical conceptualization and treatment. By limiting their acknowledgment of dissociation to the status of "a few irrelevant symptoms," clinicians too easily fail to recognize that structural dissociation may underlie complex behaviors and symptoms such as recurrent substance use, affect dysregulation, or chronic difficulties in relationships. Remember, a hallmark of structural dissociation is that many symptoms are not immediately obvious; they may even be intentionally hidden by a frightened or ashamed individual (Kluft, 1987, 1996; Loewenstein, 1991; Steinberg, 1995). Dissociative parts of the personality seldom present as clear-cut "dissociative identities"; rather, they tend to present as symptom-complexes that seem unrelated to dissociation.

10.9 DISCUSSION

There is major conceptual confusion regarding the term *dissociation*. We believe that this confusion has at least four sources: (1) alterations in consciousness have been incorrectly added to the concept of dissociation (which originally meant a division of the personality); (2) structural dissociation and alterations in consciousness typically co-occur in traumatized persons; (3) some alterations in consciousness and most forms of structural dissociation involve a temporary or chronic integrative deficit; and (4) structural dissociation has been relegated solely to psychiatric conditions where it is clearly observable (e.g., DID), rather than to all trauma-related disorders.

These factors have produced a lack of consensus about what is and what is not *dissociative*. Some suggest that the term *dissociation* should be abandoned (e.g., Holmes et al., 2005). Others have proposed that dissociation is a multidimensional concept that involves such diverse experiences as disengagement, depersonalization, emotional constriction, multiplicity, amnestic experiences, gaps in awareness, absorption, and imaginative involvement (e.g., Bernstein & Putnam, 1986; Briere, 2002). We think that such a multidimensional concept of dissociation is too vague and too broad.

The distinction between structural dissociation and alterations in consciousness has major implications for identifying truly discriminating indicators of dissociative pathology. This is critical because dissociative disorders are so often misdiagnosed. Because the clinical distinction between dissociation and alterations in consciousness is often difficult to discern, we need to identify additional distinctions between structural dissociation and alterations in consciousness.

Even though retraction of the field and lowering of the level of consciousness can occur in the absence of structural dissociation, they may typically accompany it in trauma survivors. Consequently, the presence of these alterations, especially in chronic pathological forms,

should alert the clinician to the possibility of structural dissociation.

Peritraumatic dissociation and depersonalization disorder are two logical targets for further study of the differences between alterations in consciousness and structural dissociation. We should also compare dissociative and nondissociative individuals who experience pathological states of absorption and fantasy proneness. Somer (2002) noted that when pathological daydreamers do not have a dissociative disorder, their DES scores were much lower than those of daydreamers with a dissociative disorder. Moreover, unlike the dissociative group, the nondissociative maladaptive daydreamers reported no history of childhood physical, sexual, or emotional abuse, despite having other adverse childhood experiences.

Much research remains to be done. We must study (1) the extent to which structural dissociation can exist in normal individuals; (2) the neurobiological and psychological underpinnings of pathological alterations in consciousness; and (3) the differential correlates (e.g., trauma history, other psychopathology, cognition, brain activity, etc.) of structural dissociation and alterations of consciousness.

In summary, we have delineated a theoretical framework that differentiates alterations in consciousness from trauma-related dissociative manifestations of a division of the personality. Future research will assess the clinical utility and empirical accuracy of our theory.

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