



Are there two qualitatively distinct forms of dissociation? A review and some clinical implications

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Abstract

This review aims to clarify the use of the term ‘dissociation’ in theory, research and clinical practice. Current psychiatric definitions of dissociation are contrasted with recent conceptualizations that have converged on a dichotomy between two qualitatively different phenomena: ‘detachment’ and ‘compartmentalization’. We review some evidence for this distinction within the domains of phenomenology, factor analysis of self-report scales and experimental research. Available evidence supports the distinction but more controlled evaluations are needed. We conclude with recommendations for future research and clinical practice, proposing that using this dichotomy can lead to clearer case formulation and an improved choice of treatment strategy. Examples are provided within Depersonalization Disorder, Conversion Disorder and Posttraumatic Stress Disorder (PTSD).

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The term ‘dissociation’ has been used to describe a wide variety of processes and phenomena. This paper provides a review of evidence for and against a subdivision of dissociation into two qualitatively different concepts, ‘detachment’ and ‘compartmentalization’, and discusses some theoretical, empirical and therapeutic implications of such a distinction. The ultimate aim of the paper is to attempt to clarify the understanding of ‘dissociation’ in order to help integrate science and practice in this complex area. The paper begins by reviewing the definition of dissociation and dissociative disorders according to the main psychiatric classification systems. Next, we review work by several authors that converges on a dichotomy between ‘detachment’ and ‘compartmentalization’. We establish formal definitions of these concepts that emphasize their distinctiveness and evaluate evidence for these definitions. We end with suggestions for future research and examples of the clinical utility of this approach.

Dissociation is a topic that has attracted an expansive and burgeoning literature. A computerized search in January 2004 using PsychINFO indicated that 3037 publications have contained the word ‘dissociation’ or ‘dissociative’ in their title since 1872. As clinical psychologists and clinical researchers, where do we start in this literature and how can we select the publications most relevant to our needs? One thing is clear: the term ‘dissociation’ refers to different things in various contexts. Out of the hundred most recent publications, around 30 involve a methodological use of the word, as it is commonly employed in neuropsychology and cognitive science (e.g. a ‘double dissociation’ indicating that two systems or processes are independent). This use of the term is a specialized one that is well defined in its own context (Cardeña, 1994) and will not concern us further. Beyond this, approximately 70 of the papers concern dissociation in a directly clinical context. Within this domain a wide array of phenomena are described and it often appears unclear how the term ‘dissociation’ is being defined. One reason for this breadth is that the commonly cited definitions of dissociation are arguably too all-encompassing.

1. Definitions of dissociation and the diagnosis of dissociative disorders

Currently, the American Psychiatric Association defines dissociation as a “disruption of the usually integrated functions of consciousness, memory, identity or perception of the environment” (Diagnostic and Statistical Manual of Mental Disorders-IV, American Psychiatric Association, 1994; DSM-IV). The DSM-IV Dissociative Disorders category encompasses Dissociative Amnesia, Dissociative Fugue, Depersonalization Disorder, and Dissociative Identity Disorder (DID)² (see Table 1). The Standardized Clinical Interview for DSM-IV Dissociative Disorders (SCID-D; Steinberg, 1994) identifies five different components of dissociation that characterize these disorders: depersonalization, derealization, amnesia, identity confusion and identity alteration. ‘Depersonalization’ refers to a feeling of detachment or estrangement from one’s self and includes ‘a sensation of being an outside observer of one’s body’ and ‘feeling like an automaton or as if [one] is living in a dream’ (APA, 1994). ‘Derealization’ refers to ‘an alteration in the perception of one’s surroundings so that a sense of reality of the external world is lost’ (APA, 1994).

² Although we have referred to ‘Dissociative Identity Disorder’ and ‘Dissociative Fugue’ we recognize that the existence of these clinical disorders is controversial (e.g. Hacking, 1996; Lilienfeld & Lynn, 2003) and subject to further empirical confirmation.

Table 1

Dissociative disorders classifications in ICD-10 and DSM-IV

ICD-10 dissociative (conversion) disorders	DSM-IV dissociative disorders
Dissociative amnesia	Dissociative amnesia
Dissociative fugue	Dissociative fugue
Dissociative motor disorders	Dissociative identity disorder
Dissociative convulsions	Depersonalization disorder
Dissociative anaesthesia and sensory loss	Dissociative disorder not otherwise specified
Dissociative stupor	
Trance and possession disorders	
Mixed dissociative (conversion) disorders	
Other dissociative (conversion) disorders	
Dissociative (conversion) disorder, unspecified	

The other major diagnostic system, ICD-10 (WHO, 1992), endorses a rather different taxonomy. The Dissociative (conversion) disorders category in ICD-10 incorporates a range of problems characterized by pseudo-neurological symptoms (e.g. paralysis, pseudo-seizures, sensory loss, gait disturbance), historically subsumed within the concept of ‘hysteria’ (Kihlstrom, 1994). DSM-IV, in contrast, categorizes these as Conversion disorders within the broader Somatoform disorders category. This separation of the conversion and dissociative disorders in DSM-IV is more practical than conceptual, with DSM-IV categorizing unexplained neurological symptoms as somatoform to emphasize the importance of excluding organic illness when diagnosing these conditions (APA, 1994). ICD-10 also excludes depersonalization disorder from the Dissociative (conversion) disorders on the grounds that it does not involve a major loss of control over sensation, memory or movement, and is associated with only minor changes in personal identity (WHO, 1992). In addition, ICD-10 includes trance and possession disorders in the Dissociative (conversion) disorders category, which are categorized as Dissociative disorders not otherwise specified in DSM-IV. In contrast, DSM-IV includes a distinct category for Dissociative Identity Disorder, which is placed (using its former name of Multiple Personality Disorder) in the generic Other dissociative (conversion) disorders category in ICD-10, reflecting controversy about this condition. DSM-IV also requires the presence of at least three dissociative symptoms for Acute Stress Disorder (ASD), whereas dissociative symptoms are not a requirement for ASD in ICD-10. These inconsistencies between DSM-IV and ICD-10 not only illustrate the confusion that surrounds the dissociation concept, but may also serve to perpetuate it. One of the main problems is that the definition of dissociation in these systems is broader and less clearly operationalized than the definitions of many other terms used in psychopathology, such as ‘phobia’ or ‘panic attack’ (APA, 1994; WHO, 1992).

Posttraumatic Stress Disorder (PTSD) is not categorized as a dissociative disorder in either ICD-10 or DSM-IV. Although symptoms of dissociation are not a necessary criterion for dissociation in PTSD, many individuals with PTSD report ‘dissociative’ experiences (Ehlers & Clark, 2000; Foa & Hearst-Ikeda, 1996a,b; Holmes, Grey, & Young, *in press*) particularly peri-traumatically (i.e. at the time of trauma). The relationship between dissociation and traumatic experiences has been a lively topic of debate. Within the literature on PTSD, we find the term ‘dissociation’ has been used as a ‘catch-all’ to cover the symptoms of depersonalization, derealization, amnesia, emotional numbing (e.g. Foa & Hearst-Ikeda, 1996a,b) and flashbacks, where patients feel as if the trauma is happening again in the here-and-now (e.g. van der Kolk & Fisler, 1995).

A recent review of the epidemiology of depersonalization and derealization symptoms (Hunter, Sierra, & David, 2004) reported that these symptoms have been described in many clinical conditions such as agoraphobia (Cassano et al., 1989), panic disorder (Marshall et al., 2000; Segui et al., 2000), obsessive-compulsive disorder (Simeon et al., 1997), eating disorders (Abraham & Beaumont, 1982), and unipolar depression (Sedman & Reed, 1963), as well as bipolar depression, the psychoses and personality disorders (Coons, 1996). Indeed, most disorders could be said to have features of ‘dissociation’ as it is traditionally conceived.

DSM-IV (1994) also asserts that dissociation should not be viewed as inherently pathological. Dissociative ‘trance’ states, for example, are described as a normal part of certain religious activities. Other forms of ‘dissociation’ have also been viewed as part of ‘normal’ experience (see e.g. Waller, Putnam, & Carlson, 1996). One common example is that of absorption, described as an episode of “...total attention that fully engage[s] one’s representational, i.e. perceptual, enactive, imaginative and ideational, resources” (Tellegen & Atkinson, 1974, p. 268). Waller et al. (1996) refer to absorption and ‘imaginative involvement’ as the experience of disconnecting oneself from ones surroundings and becoming immersed in internal events such as thoughts and imagery. A range of studies indicate that absorption is a common experience reported at a relatively high frequency in the general population (Roche & McConkey, 1990). Similarly, depersonalization and derealization have commonly been reported in non-clinical samples, with reported prevalence rates in the previous 12 months being between 46% and 74% (Hunter et al., 2004). Perhaps owing to the existence of these everyday experiences of ‘dissociation’, the phenomenon has commonly been conceptualized as a continuum, from these examples of non-pathological dissociation through relatively mild pathological forms (e.g. depersonalization/derealization), to more severe disturbances that culminate in the dissociative disorders, with DID as the most extreme case (e.g. Bernstein & Putnam, 1986).

2. Conceptualizing dissociation

On the face of it, the concept of a dissociative continuum is a useful one. By this view all dissociative phenomena are qualitatively similar, differing only by degree. However, using one term, “dissociation”, for this set of phenomena has generated considerable confusion, as noted by several authors (e.g. Allen, 2001; Cardeña, 1994; Ehlers & Clark, 2000; Frankel, 1990; Kihlstrom, 1994; van der Kolk & Fisler, 1995). For example, a trauma clinician might refer to a patient ‘dissociating in a therapy session’, meaning that the patient felt ‘unreal’ and could see themselves from the outside. In contrast, clinicians working with Conversion Disorder tend to assume that ‘dissociating’ relates to the patient displaying an unexplained symptom such as a non-epileptic attack, sensory loss, paralysis, or amnesia. Are these clinicians referring to examples of the same phenomenon, differing only in severity? A number of recent commentators suggest that this may not be the case. Cardeña (1994), for example, has identified three broad categories of dissociation:

- (1) Dissociation as non-integrated mental modules or systems.
- (2) Dissociation as an alteration in consciousness involving a disconnection from the self or the world.
- (3) Dissociation as a defense mechanism.

Cardeña identifies several non-pathological forms of dissociation within category 1, such as divided attention, and argues that these should not be considered dissociative phenomena in the clinical sense. For Cardeña, ‘true’ category 1 dissociative phenomena (such as dissociative amnesia and the conversion disorders) are characterized by an apparent dysfunction in perception, memory, or action that (i) cannot be reversed by an act of will; (ii) occurs in the presence of preserved functioning of the apparently disrupted system; and (iii) is reversible, at least in principle. In contrast, category 2 dissociation essentially encompasses depersonalization and derealization. The third category of dissociation refers more to the function of categories 1 and 2. As Cardeña notes this categorisation is derived from descriptions of how ‘workers in the field’ discuss ‘dissociation’ rather than from any clear theoretical or clinical origins.

Cardeña’s distinction between category 1 and category 2 dissociation has been paralleled by a number of other theorists. Allen (2001), for example, has described a distinction between two types of ‘dissociation’ within trauma-related disorders, labelled ‘detachment’ and ‘compartmentalization’. According to Allen (2001, p. 162), detachment is the most pervasive form of dissociative disturbance and encompasses depersonalization and derealization. It is illustrated by clients’ use of the term, ‘spacing out’. Allen (2001, p. 162) uses compartmentalization to refer to the “more dramatic and perplexing of dissociative phenomena: amnesia, fugues, and DID”.

Putnam (1997; p. 71, 87) has also distinguished between ‘dissociative-process symptoms’ (viz. depersonalization and derealization) and symptoms characterized by a lack of integration between areas of experience or knowledge, such as DID; like Allen (2001), Putnam (1997) also describes this phenomenon as ‘compartmentalization’. A similar dichotomy has been proposed by Brown (2002a), who distinguishes between ‘Type 1’ dissociation—encompassing Dissociative Amnesia, Dissociative Fugue, Dissociative Identity Disorder (DID), and the Conversion Disorders—and ‘Type 2’ dissociation, encompassing depersonalization/derealization, peri-traumatic dissociation and out-of-body experiences. This distinction again reflects a dichotomy between detachment-like experiences and those which involve the compartmentalization of mental systems. Similarly, within the domain of trauma, van der Kolk and Fisler (1995) have distinguished between depersonalization/derealization and conditions characterized by an abnormal separation of material in memory such as DID.

It is striking that all of the above authors have converged on a similar two-part taxonomy of dissociation. In the remainder of this article, we describe a summary position that aims to integrate existing approaches to the classification of dissociative phenomena, based on the common ground between these different accounts. Following Allen (2001), we draw a distinction between two qualitatively distinct, clinically relevant forms of dissociation, labeled *detachment* and *compartmentalization*.

2.1. Definition of detachment

The concept of detachment encompasses category 2 dissociation in Cardeña’s (1994) scheme, Putnam’s (1997) dissociative-process symptoms, and Brown’s (2002a) type 2 dissociation. This category of dissociation incorporates depersonalization, derealization and similar phenomena such as out-of-body experiences. In each case, the subject experiences an altered state of consciousness characterized by a sense of separation (or ‘detachment’) from certain aspects of everyday experience, be it their body (as in out-of-body experiences), their sense of self (as in depersonalization), or the external world (as in derealization). These forms of dissociation often occur in combination (Steinberg,

1993; Allen, Console, & Lewis, 1999), probably reflecting the operation of common neurobiological mechanisms (Sierra & Berrios, 1998). Subjects experiencing detachment often report feeling ‘spaced out’, ‘unreal’ or that they are ‘in a dream’. Other descriptions emphasize an absence or alteration of emotional experience during detached states (Sierra & Berrios, 1998). Patients may describe experiencing events without really ‘feeling’ as though they are happening, and that the external world appears lifeless and two-dimensional (for a more detailed description of phenomenology, see Allen et al., 1999).

There is considerable overlap between the concept of detachment and many of the phenomena associated with trauma and PTSD that have attracted the dissociative label. The term peri-traumatic dissociation, for example, typically refers to detachment experienced during the course of a traumatic event (e.g. Dalgleish & Power, 2004), as illustrated by the items on The Peritraumatic Dissociative Experiences Questionnaire (Marmar, Weiss, & Metzler, 1997). The emotional numbing often found in PTSD is also regarded as a form of depersonalization/derealization (Spiegel & Cardeña, 1991), and other detachment phenomena are commonly reported by patients with this condition (Spiegel & Cardeña, 1991). Certain symptoms of PTSD, such as intrusive images and flashbacks, may also be the products of peri-traumatic detachment. It has been suggested, for example, that the psychological and physiological changes associated with the process of detachment (occurring peri-traumatically) interfere with the encoding of traumatic information, leading to poorly integrated representations of the traumatic event in the autobiographical memory base. It is thought that such inadequately processed memory play an important role in the development of later intrusive images and flashbacks (Brewin, Dalgleish, & Joseph, 1996; Brewin & Holmes, 2003; Conway & Pleydell-Pearce, 2000; Ehlers & Clark, 2000). This may help explain why peri-traumatic dissociation was the strongest predictor of subsequent PTSD symptoms in a recent meta-analysis (Ozer, Best, Lipsey, & Weiss, 2003).

As symptoms, intrusions and flashbacks in PTSD can also have features of detachment themselves. For example, in a case series of PTSD patients, Holmes et al. (in press) found that ‘feelings of dissociation’ were among the most commonly reported cognitive/emotional components of intrusive trauma memories. It may be that peri-traumatically encoded feelings of detachment are part of the intrusive memory that is re-experienced, or perhaps the process of re-experiencing itself generates feelings of detachment. ‘Full-blown’ flashback experiences, in which the individual reports becoming totally immersed in the traumatic memory to the point of believing that the event is happening again and losing touch with their current surroundings, are relatively rare. They could even be conceived as an extreme form of detachment in their own right, in the sense that they involve an altered state of consciousness characterised by a sense of separation from reality. Several possible mechanisms have been suggested including a lack of time code in memory (Ehlers & Clark, 2000; see also Brewin et al., 1996), and the hijacking of attention by direct—rather than intentional—retrieval (Conway & Pleydell-Pearce, 2000; Conway & Holmes, in press).

States of detachment can be acute, temporary experiences, or develop into chronic conditions, such as depersonalization disorder. As such, it is possible that detachment phenomena can be organized on a continuum defined by severity and associated functional impairment. At one extreme would be transient states of detachment that cause little or no distress, such as those associated with fatigue or mild intoxication. At the other extreme would be persistent and highly unpleasant states of detachment, such as those involving experiences of almost complete mental ‘blankness’ (see Allen et al., 1999). Less unpleasant, but often still pathological, states would occupy the middle ground between these two extremes.

2.2. Definition of compartmentalization

The concept of compartmentalization incorporates Cardeña's (1994) category 1 and Brown's (2002a) type 1 dissociation, and is consistent with Putnam's (1997) use of the same term. This category of dissociation incorporates dissociative amnesia and the 'unexplained' neurological symptoms characteristic of the conversion disorders, such as conversion paralysis, sensory loss, seizures, gait disturbance and pseudo-hallucinations, as well as other instances of so-called 'somatoform dissociation' (Nijenhuis, Spinhoven, Van Dyck, Van der Hart, & Vanderlinden, 1996). In principle, other syndromes that have dissociative amnesia as a central feature, such as fugue and DID, could also be included here, although the nosological status of these conditions remains controversial and requires further investigation.

We suggest that all compartmentalization phenomena are characterized by a deficit in the ability to deliberately control processes or actions that would normally be amenable to such control (Brown 2002a, 2004; Cardeña, 1994); this definition incorporates conditions characterized by an inability to bring normally accessible information into conscious awareness (e.g. dissociative amnesia), which can also be regarded as a control problem (Brown 2002a, 2004). Deficits of this kind cannot be overcome by a simple act of will, but are reversible in principle (Cardeña, 1994). In each case, the functions that are no longer amenable to deliberate control, and the information associated with them, are said to be 'compartmentalized'. One of the defining features of this phenomenon is that the compartmentalized processes continue to operate normally (apart from their inaccessibility to volitional control), and are able to influence ongoing emotion, cognition and action (Brown, 2002a,b, 2004; Cardeña, 1994; Kihlstrom, 1992). This preservation of apparently disrupted functions is one of the principle differences between compartmentalization and detachment phenomena. Amnesia due to compartmentalization (as in DSM-IV dissociative amnesia), for example, is due to a retrieval deficit that prevents the intentional recollection of stored information that would normally be sufficient for conscious recall. In contrast, amnesia for events occurring during a period of profound detachment normally reflects a lack of useful information about those events in the cognitive system due to an encoding deficit at the time (Allen et al., 1999).

The above definition of compartmentalization closely follows Janet's (1907) original proposal that 'hysterical' symptoms (i.e. conversion disorders) arise from the separation or 'dissociation' of traumatic material from consciousness. According to this approach, the mechanisms responsible for conversion symptoms are the same as those involved in the creation of analogous phenomena by hypnotic suggestion. Contemporary variations of Janet's approach have been offered by Hilgard (1977), Kihlstrom (1992), Oakley (1999), and Brown (2002a, 2004). Evidence supporting the link between hypnosis and conversion disorder has been obtained from both neuroimaging (Halligan et al., 2000; Oakley, Ward, Halligan, & Frackowiak, 2003; Ward, Oakley, Frackowiak, & Halligan, 2003) and clinical studies (Oakley, 2001; Roelofs et al., 2002). For example, Halligan et al. (2000) demonstrated that the induction of paralysis of the left leg in a non-clinical hypnotized participant was associated with the same pattern of brain function as observed in a conversion disorder patient with the same symptoms. The existence of such non-pathological counterparts to the conversion disorders suggests that compartmentalization phenomena (like detachment phenomena) can also be organized on a continuum defined by severity and functional impairment. At the opposite end of this continuum might be conditions such as Dissociative Identity Disorder, or those in which multiple unexplained neurological symptoms often occur, such as Somatization Disorder.

2.3. *Detachment, compartmentalization and post-traumatic stress disorder*

Although we draw a clear distinction between detachment and compartmentalization and believe that the two typically occur in isolation, there are certain conditions where these phenomena may co-occur, and where distinguishing them could be difficult. This possibility is well illustrated in the case of PTSD.

One of the avoidance symptoms of PTSD in DSM-IV is the “inability to recall an important aspect of the trauma”. According to one recent model, patients with this condition “. . . often have a difficulty in intentionally retrieving a complete memory of the traumatic event. Their intentional recall is fragmented and poorly organized, details may be missing and they have difficulty recalling the exact temporal order of events” (Ehlers & Clark, 2000, p. 324). We have suggested that many, if not most, memory deficits of this sort are the products of peri-traumatic detachment that causes inadequate encoding of trauma-related information (cf. Brewin, 2003; Brewin et al., 1996; Ehlers & Clark, 2000). It is also possible, however, that some instances of so-called ‘traumatic amnesia’ reflect a retrieval deficit—and hence compartmentalization—that prevents fully processed memories from accessing consciousness (Foa, Molnar, & Cashman, 1995). This is consistent with the conclusions of both the British and American working parties on recovered memories (APA, 1996; Morton et al., 1995), which agreed that some memories of abuse can be reported as partially or totally forgotten for a long time until remembered later. However, distinguishing between these two types of traumatic memory deficit may not be feasible in clinical practice. In theory, reversal of such a retrieval deficit might allow the compartmentalized parts of the memories to be accessed by conscious awareness. However, this should not be taken as implying that efforts should be made to reverse any apparent memory losses during therapy. As the false memory controversy has shown, this practice carries significant risks, which we shall return to. The need for caution in interpreting the implications of this approach is expanded on later.

3. Empirical evidence

In the following section, we discuss evidence pertaining to the proposed distinction between detachment and compartmentalization, and the question of whether it provides a more useful account of the available data than the concept of a dissociative continuum. Due to the extensive volume of work on “dissociation” our review is not exhaustive, but to our knowledge covers the pertinent literature for the current purpose.

3.1. *Separability*

The proposal that detachment and compartmentalization are distinct phenomena would be confirmed by any demonstration that they can occur in isolation of one another. In support of this prediction, Brown, Schrag and Trimble (in press) found that a group of patients with somatization disorder rarely reported depersonalization and derealization on the Structured Clinical Interview for DSM-IV Dissociative Disorders (Steinberg, 1994), despite describing multiple unexplained neurological symptoms and high levels of dissociative amnesia. Moreover, patients with somatoform disorders rarely score highly on measures of dissociation (such as the Dissociative Experiences Scale; DES; Bernstein & Putnam, 1986) that do not include items pertaining to unexplained illness (Brown, in press). In contrast, a recent study found that patients with depersonalization disorder did not report reversible

amnesia or other compartmentalization symptoms (Baker et al., 2003). In further support of this view, a study of 100 patients with depersonalization disorder found that they scored within the normal range on a measure of dissociative symptoms relating to amnesia (Simeon, Knutelska, Nelson, Guralnik, & Schmeidler, 2003). This study also used the DES to assess dissociative symptoms; this scale is considered further below.

3.2. *Factor analytic studies of self-report scales*

The DES is the most commonly used and widely cited measurement instrument for dissociation. The results of factor analytic studies of this questionnaire are frequently taken to indicate that the DES comprises three factors: depersonalization/derealization (detachment), amnesia (an example of compartmentalization) and absorption. These three factors have been identified in several large general population and student population samples (Frischolz et al., 1991; Goldberg, 1999; Ross, Joshi, & Currie, 1991; Sanders & Green, 1994; Stockdale, Gridley, Balogh, & Holtgraves, 2002), in a mixed clinical population (Carlson et al., 1991) and in clinical samples including rape victims (Darves-Bornoz, Degiovanni, & Gaillard, 1999) and DID patients (Ross, Ellason, & Anderson, 1995). In particular, Stockdale et al. (2002) carried out a confirmatory factor analysis, which indicated that the three-factor solution has a superior goodness-of-fit to alternative solutions, and subsequently replicated this finding in a separate non-clinical population. However, other studies have produced four-factor solutions, for example in combat veterans with PTSD (Amdur & Liberzon, 1996), substance abuse patients (Dunn, Ryan, & Paolo, 1994) and one large non-clinical sample (Ray & Faith, 1995). Furthermore, one study of a student population produced a seven-factor solution (Ray, June, Turaj, & Lundy, 1992). Despite some variation in the number of factors identified in these different studies, each of them has consistently separated factors of derealization/depersonalization and amnesia. This evidence is therefore consistent with the dichotomy proposed here.

In contrast, some studies using non-clinical populations have generated one-factor solutions that are more consistent with a continuum model of dissociation (e.g. Fischer & Elnitsky, 1990; Holtgraves & Stockdale, 1997). Moreover, a paper by Bernstein, Ellason, Ross, and Vanderlinden (2001) has pointed to the high correlations between the three factors and proposed that multifactorial solutions of the DES (e.g. Ross et al., 1991, 1995) are an artifact of different rates of endorsement of the items from each of the three factors. The evidence from Bernstein et al. (2001) does indeed suggest that absorption items are more highly endorsed than the remaining clinical (amnesia and depersonalization/derealization) items. This may support the notion that absorption is a common process that is not usually linked to psychopathology (although certain evidence of an association between absorption and psychotic symptoms contradicts this view; Allen, Coyne, & Console, 1997). A second possibility is that each of the subscales has a limited range, i.e. there is little opportunity on the DES for people to endorse brief, non-interfering experiences of detachment or amnesia. However, regardless of the distinction between absorption and the other two factors, there was no evidence from the general population sample of Bernstein et al. (2001) that the amnesia items and the depersonalization/derealization items actually differed in their frequency of endorsement. It is therefore difficult to use this argument to account for the multi-factorial solutions found in the general population samples described above. In the DID population of Bernstein et al. (2001), the amnesia items were more frequently endorsed than the items relating to depersonalization/derealization, but this may be telling us something specific about the high levels of amnesia in DID. We would suggest that the relative frequency of endorsement of amnesia versus

depersonalization/derealization items is likely to vary depending upon the clinical population that one selects.

Taking the studies of the DES as a whole, we find a complicated picture. Overall, the results of factor analyses broadly support that view that depersonalization/derealization (detachment) represents a statistically separable factor from amnesia (compartmentalization), although in practice they are often highly correlated. We regard this as consistent with the view that the two processes are conceptually distinct from one another. Variations in factor structure do occur between studies and these may reflect variations in symptom prevalence and sampling procedures between populations and clinical presentations. Part of the complexity of this picture may stem from the limitations of factor analysis. First, the choice of questionnaire items is critical. The DES does not include conversion symptoms, which means studies using the DES are missing important examples of compartmentalization. This could account for why patients with unexplained symptoms rarely show elevated scores on the DES (for a review, see [Brown, in press](#)). Indeed, [Nijenhuis et al. \(1996\)](#) developed the Somatoform Dissociation Questionnaire (SDQ-20) to address this omission in the DES. Second, the DES tends to assess the number of dissociative experiences rather than the severity of a single symptom. For example, a person may only endorse one or two items relating to a debilitating symptom (e.g. chronic depersonalization), and obtain a relatively low score on the scale. We have cited examples of psychological disorders in which detachment and compartmentalization do co-occur (PTSD, DID) and those in which they tend not to (somatoform disorders, depersonalization disorder). Evidence that these processes can be separated under any circumstances at all is strong support for the view that the two concepts are distinct, regardless of statistical associations within one population or another. Taking an everyday example, detachment and compartmentalization may be analogous to the variables of height and weight in a population. Most tall people are heavy and most short people are light, leading to a high correlation between height and weight in the general population. However, they are clearly different variables, and we know of cases in which they are separable (e.g. tall, thin people). Finally, it must be stressed that factor analysis is based on whole group correlations and cannot tell us anything about mechanisms. One is reminded of the controversies concerning the factor analysis of intelligence tests and the debate about whether ‘intelligence’ or ‘g’ lies on a single continuum. Neither the debate on the nature of intelligence nor the debate on the nature of dissociation can be settled by factor analysis alone; it is crucial to obtain other sources of evidence such as experimental studies that identify the mental processes involved.

3.3. Experimental research

Laboratory-based studies provide a more robust method than self-report scales to test predictions about the distinction between detachment and compartmentalization. One prediction that follows from the present account is that detachment constitutes a mental state with a core neurophysiological profile, unlike compartmentalization, which can exist in many forms. Research and theory suggests that anxiety is a key component of the neurophysiology of detachment. According to [Sierra and Berrios \(1998\)](#), for example, states of detachment reflect the operation of a vestigial biological defense mechanism that evolved as a means of minimizing anxiety (and debilitating affect more generally) in the face of extreme threat. Several sources of evidence support this view. Depersonalization and derealization are common symptoms of anxiety disturbance ([Cassano et al., 1989](#); [Marshall et al., 2000](#); [Segui et al., 2000](#); [Simeon et al., 1997](#)), for example, and are often acute experiences during

traumatic events (van der Kolk & Fisler, 1995; Ozer et al., 2003). A recent clinical model of depersonalization disorder, described later, also emphasizes the role of anxiety in the onset and maintenance of this condition (Hunter, Phillips, Chalder, Sierra, & David, 2003). A study of novice skydivers who reported their symptoms on their first skydive indicated that symptoms of peritraumatic dissociation were associated with hyperarousal and to a lesser extent, anxiety (Sterlini & Bryant, 2002). The authors suggested that peritraumatic dissociation may be related to anxiety through the mediating role of hyperarousal. This explanation is consistent with the suggestion of a core neurophysiological profile. Also consistent with this view is the finding that certain psychoactive drugs, such as minocycline, are known to trigger symptoms of detachment (e.g. Cohen, 2004).

Several studies have found evidence for the inhibitory mechanism of detachment in the face of high emotion and arousal. A neuroimaging study indicated that patients with depersonalization disorder (compared to psychiatric and healthy controls) show reduced activation in brain areas associated with emotional experience and increased activation in regions associated with emotional regulation (Phillips et al., 2001a). Patients with depersonalization disorder were also found to show a reduced magnitude and increased latency of skin conductance response to unpleasant stimuli, in comparison to healthy controls and patients with an anxiety disorder (Sierra et al., 2002). Furthermore, patients with depersonalization disorder were shown to have a marked decline in noradrenaline levels with increasing symptoms of depersonalization (Simeon, Guralnik, Knutselska, Yehuda, & Schmeidler, 2003).

The above evidence is consistent with the view that detachment experiences have a core neurophysiological profile characterized by the top-down (frontal) inhibition of limbic emotional systems, accompanied by a corresponding activation of right prefrontal cortex (Sierra & Berrios, 1998). This can produce a state characterized by vigilant alertness, a widened focus of attention and the absence of emotion (see also Noyes & Kletti, 1977), which may be ideal for maintaining behavioral control in extremely threatening circumstances (see also Nijenhuis, Vanderlinden, & Spinhoven, 1998). However, such a state could be highly distressing and debilitating if triggered in the absence of objective threat (e.g. during a panic attack) or sustained long after the removal of objective threat.

Controlled experimental studies indicate the occurrence of compartmentalization in clinical populations. Kuyk, Spinhoven, and van Dyck (1999), for example, compared a group of patients who reported amnesia following generalized epileptic seizures (ES) with a group who reported amnesia following generalized pseudo-epileptic seizures (PES). Following a hypnotic induction, all participants were given suggestions designed to promote remembering their experience of events at the time of their seizure, followed by a free recall test. Following the hypnotic procedure, virtually all of the PES patients accurately recalled information about events occurring during the ictus, while none of the ES patients were able to do this. Importantly, the information recalled by the PES patients was corroborated by independent observers. This study demonstrates that the information for which the PES patients were amnesic was clearly available in the cognitive system; they were simply unable to control the retrieval process required to access it. This is in contrast to the ES patients, whose amnesia reflected the absence of information in memory to retrieve, probably due to an encoding deficit associated with the ictus (for further discussion, see Brown, 2002b).

Case studies of patients with other unexplained neurological symptoms also provide evidence for the definition of compartmentalization described above. Bryant and McConkey (1989), for example, were able to demonstrate that the behavior of a patient with conversion blindness was influenced by complex visual information, despite the fact that she reported a complete lack of visual experience. This suggests that the visual system is functioning normally in conversion blindness but that the products of visual

processing are prevented from entering conscious awareness. Comparable effects have been found in patients with unexplained deafness, paresis and anesthesia (for a summary see [Kihlstrom, 1992](#)). Although there is a need for more controlled research in this area, these case studies are clearly consistent with the concept of compartmentalization as it is described here.

4. Summary of empirical evidence

There is emerging evidence from laboratory-based studies supporting the definitions of detachment and compartmentalization. Furthermore, convergent evidence from phenomenological assessments and self-report studies supports the view that they are separable concepts. However, further research would be required to confirm this distinction using experimental methods.

The evidence for a qualitative distinction between these two types of dissociation directly contrasts with the common notion that these experiences lie on the same continuum (e.g. [Beahrs, 1983](#); [Berstein & Putnam, 1986](#); [Hilgard, 1977](#); [Kennerley, 1996](#)), somewhere between ‘daydreaming’ and ‘Dissociative Identity Disorder’. In the proposed system, delineating between detachment and compartmentalization, we are dealing with differences of kind rather than degree. It is, of course, possible to place both detachment and compartmentalization phenomena on a single continuum defined by associated functional impairment, as suggested in the traditional approach. However, if the current view is correct, such a continuum would have no more validity or clinical utility than one that organized depression, anxiety and psychosis in a similar fashion.

5. Directions for future research

The dichotomy identified in this paper makes two key predictions. First, it should be possible to identify compartmentalization in the absence of concurrent detachment. Second, it should be possible to identify detachment in the absence of evidence of compartmentalization. We have reviewed some evidence that is consistent with these predictions based on self-reported symptoms in clinical and non-clinical populations. A more thorough test would require the use of more objective methods (in addition to self-report) to identify detachment and compartmentalization. We would predict that detachment can be identified by a characteristic physiological and neuroanatomical profile highlighted by earlier researchers (e.g. [Noyes & Kletti, 1977](#); [Sierra & Berrios, 1998](#)). Compartmentalization would be evidenced by a clear deficit in functioning alongside evidence demonstrating the preservation of the apparently disturbed function (see e.g. [Bryant & McConkey, 1989](#)). These predictions could be tested in two ways. First, one could select a population that is characterized by one of the processes (e.g. detachment in depersonalization disorder) and assess the levels of the second process (in this case, compartmentalization) relative to a non-clinical population. Second, one could induce one process (e.g. compartmentalization) and assess for the second process (in this case, detachment).

Besides the key predictions of the proposed dichotomy, several further recommendations for research follow. First, we have already highlighted the limitations of the DES as a comprehensive measure of ‘dissociation’ and recommended improvements such as increasing the range of items and assessing severity of symptoms rather than their frequency. Second, while it may be possible to distinguish between detachment and compartmentalization using laboratory-based methods or neuro-imaging,

clinicians will rarely have access to these tools. Therefore, future research needs to assess the most reliable methods for therapists to identify and distinguish between these processes. Third, and finally, further controlled evaluation of treatment studies using the techniques based on this dichotomy is required. Currently, much of the evidence remains at the level of a ‘promising intervention’ (Chambless & Ollendick, 2001), rather than for example being validated by randomized control trials. Nevertheless, unlike large controlled treatment trials, the kinds of laboratory based research and case series designs we have highlighted here can test theoretical models and identify specific mechanisms of change in therapy (Salkovskis, 2002). Therefore, it would be desirable for future research on this dichotomy to develop within the domains of experimental research, case designs and controlled treatment evaluations. The latter should be detailed enough to examine changes in detachment and compartmentalization phenomena within a wider treatment package for a given disorder.

6. Treatment implications

Making a distinction between different types of dissociative phenomenon is not merely an academic exercise. In the first instance, a clearer exposition of definitions allows for better communication between professionals working with dissociative psychopathology. Secondly, clinicians may misinterpret the implications of a continuum, and assume that one strategy can be applied to all dissociative phenomena. Instead, the clinical formulation and specific therapeutic techniques used may be quite different in each case. We have suggested that compartmentalization refers to a lack of integration of information within the cognitive system, while detachment refers to an experienced state of disconnection from the self or environment. Broadly speaking, therefore, it follows that treatments for compartmentalization may need to be aimed at reactivation and reintegration of compartmentalized elements (when appropriate), while treatments for detachment need to be aimed at preventing the state of detachment from being triggered, and terminating it once triggered. We also later review and highlight the need for caution in some potential applications of the model we are presenting. We now summarize the psychological treatments within three selected disorders that illustrate this approach.

6.1. *Depersonalization disorder—a prototypic example of detachment*

Depersonalization Disorder (DSM-IV, 1994) provides an example of a chronic condition of detachment. The primary focus of recently developed cognitive behavioral treatments involves identifying the patient’s core cognitions, affect and behaviors that perpetuate normally transient experiences into a condition of chronic detachment (Hunter et al., 2003; Phillips et al., 2001b; Senior et al., 2001). These are likely to include catastrophic misinterpretations of normal experiences associated with situational demands such as fatigue, stress, substance intoxication or fear reactions as evidence of an abnormal process. These catastrophic misinterpretations are likely to generate considerable anxiety, which may in turn contribute to a cycle of increasing detachment. During therapy these misinterpretations are elicited and challenged through the use of negative automatic thought diaries and behavioral experiments. Avoidance may develop for situations where the person feels their detachment interferes with their functioning such as in social situations or when driving. Thus, the therapist supports the patient in graded exposure to these feared situations. Furthermore, specific techniques that are likely to increase the person’s attentional focus on the external environment are proposed to be beneficial such

as Attention Training (Wells, 1990; Wells, White, & Carter, 1997) or Task Concentration Training (Bögels, Mullens, & de Jong, 1997). These help the individual to develop better control over their attention by decreasing the degree of internal, symptom-focused attention through a series of exercises that help the patient shift to an external focus of attention that improves their perceived connection to the outside world. These differ from the techniques employed in PTSD such as ‘grounding strategies’ (see later section) where the detachment phenomena tend to be intermittent, since the chronic nature of the detachment in Depersonalization Disorder necessitates a longer-term attentional strategy. Nevertheless, the principles underlying these approaches are the same—the redirection of attention to the external environment. An open study of CBT for depersonalization disorder in 22 patients has been conducted using these techniques and significant improvements in patient-defined measures of depersonalization/derealization severity, as well as general functioning, were found at post-treatment and 6-month follow up (Hunter, Baker, Phillips, Sierra, & David, 2002). To the authors’ knowledge, no large scale randomized controlled trial of the psychological treatment of depersonalization disorder has been published and further empirical studies are needed to ascertain the efficacy of CBT for this disorder.

6.2. Conversion disorder—a prototypic example of compartmentalization

Compartmentalization, as we are construing it here, is perhaps most clearly illustrated in the symptoms of Conversion Disorder. A recent review of controlled clinical trials for medically unexplained symptoms (of which conversion disorders are one form) suggests that these conditions can be successfully treated with Cognitive Behavior Therapy (CBT) (Kroenke & Swindle, 2000). This treatment includes the modification of catastrophic cognitions and inappropriate behaviors (e.g. avoidance) thought to maintain symptoms. In this case, however, the rationale given to patients may be different to that in depersonalization disorder (Brown, 2004), and the cognitions and behaviors that are the target of therapy are also likely to differ. For example, in Conversion Disorders a common belief is that the symptoms are a sign of a physical illness, whereas in Depersonalization Disorder the belief may be that the symptoms are a sign of impending psychological catastrophe (e.g. madness). Illness behaviors (e.g. reassurance seeking, doctor shopping) are also a common target of treatment in cases of Conversion Disorder. Recent innovations in cognitive therapy for these conditions are discussed in Chalder (2001) and Brown (2004).

There may also be even more significant differences in therapies for Depersonalization Disorder and the Conversion Disorders. For example, it has been suggested that dynamic psychotherapy can be used in cases where it is assumed that conversion symptoms are a means of expressing psychological distress without acknowledging the conflict giving rise to it (Temple, 2001). In a review of 12 single-case studies and a case series, Oakley (2001) has indicated that hypnosis may represent a useful adjunct to the treatment of Conversion Disorder, based on the theoretical and empirical link between hypnotic and conversion phenomena outlined above (see also Halligan et al., 2000; Oakley, 1999; Oakley et al., 2003; Ward et al., 2003). Consistent with this, there is some evidence that Conversion Disorder symptoms, such as aphonia (functional voice loss), may remit in response to specific suggestions following a hypnotic induction. Typical suggestions in the case of aphonia are of a return to normal speech function (e.g. Neeleman & Mann, 1993) or the reliving (as in CBT reliving) of a time prior to the onset of the condition (e.g. Pelletier, 1977). Though direct conversion symptom removal within hypnosis may be possible, and may lead to other therapeutic gains, such as increased insight through discovering the functional nature of the problem, the symptoms commonly return, partially or completely, once the

hypnosis procedure has been terminated (Oakley, 2001). Nevertheless, some successful long-term outcomes have been reported using hypnosis and suggestion as adjuncts to therapy. For example, as part of a cognitive behavioral approach in a case of motor gait disturbance (Davies & Wagstaff, 1991), with psychodynamic therapy for aphonia (e.g. Pelletier, 1977) and in a case series incorporating individual and group psychotherapy with physiotherapy for a variety of motor conversion symptoms such as paralysis, gait disorder, contractures, tremor and no-epileptic seizures (Moene, Hoogduin, & Van Dyck, 1998). According to Brown (2002a, 2004), the amelioration of symptoms by direct or indirect suggestions (e.g. of a return to normal function) or the use of reliving procedures designed to access procedural representations about pre-morbid functioning, can foster the deactivation of the maladaptive representations underlying conversion symptoms and activate representations of healthy behavior.

As indicated, some of the supporting evidence in this area comes from randomized controlled trials. However, the single case studies and case series reported are also useful as they may allow the more detailed consideration of compartmentalization symptoms not otherwise covered within the overall “treatment package” for a disorder reported in larger trials.

6.3. Posttraumatic stress disorder—potential examples of several forms of ‘dissociation’ in one patient

Kennerley (1996) has written one of the few papers outlining cognitive behavioral treatment strategies for dissociative symptoms associated with trauma. She writes “survivors of trauma can experience dissociation as a severe, distressing and demoralizing phenomenon involving amnesia, ‘spacing out’, ‘flashbacks’, or out of body experiences”. The strategies presented, ranging from ‘grounding’, cognitive restructuring and schema work, can be extremely useful clinically. However, it can be challenging for clinicians working with clients with PTSD to select the appropriate strategy for a given case, which can be complicated by the variety of ways in which a given client has been found to ‘dissociate’. Thus, a client with PTSD might report having experienced feelings of detachment during the initial trauma (peri-traumatically), in the context of posttraumatic intrusions or flashbacks, and/or a general sense of feeling ‘spacey’ in the absence of conscious intrusions. In addition, they may report not being able to retrieve parts of their trauma memory. The scheme advanced in this paper suggests a framework by which these different phenomena can be understood, facilitating the selection of the most appropriate intervention techniques in each case.

At the outset, it is helpful to consider whether the various ‘dissociative’ phenomena exhibited by a given patient with PTSD should be regarded as examples of detachment or compartmentalization. It is also important to consider at what stage in their condition the detachment or compartmentalization occurs. It is helpful to assess the patient’s experience of peri-traumatic detachment to index the encoding of the trauma (Grey, Holmes & Brewin, 2001; Grey, Young & Holmes, 2002). A high level of peri-traumatic detachment is likely to be associated with poorly consolidated trauma memory and intrusive symptoms. It can be useful to provide psychoeducation to normalize the experiences of detachment as a reaction to extreme threat, for example, with patients who describe feelings of shame and guilt about their dissociative behavior such as ‘freezing’ during the trauma rather than fighting back.

Intrusive memories and flashbacks experienced with feelings of detachment might indicate a poorly elaborated and volatile trauma memory (as in Brewin et al., 1996; Ehlers & Clark, 2000). This could lead to a cognitive behavioral treatment strategy that focused on detailed recollection of the existing trauma memory through some form of exposure/reliving therapy. This form of therapy had been validated in several randomized control trials for PTSD over the past decades (see Foa, Keane, & Friedman, 2000).

Such techniques are thought to reduce detachment-related intrusions by elaborating the associated memories and integrating them more fully with the autobiographical memory base.

The same client may also describe ‘spacing out’ at reminders of the trauma, without re-experiencing in the form of intrusions or flashbacks. This could also be formulated as an intermittent form of detachment and lead to a treatment strategy for the patient to use ‘grounding’ techniques at such times, for example when starting to ‘space out’. Kennerley (1996) recommends the use of a sensory grounding object (e.g. molding clay) or grounding image. This might be particularly useful to use within the context of a PTSD therapy session where there are strong reminders of the trauma. The use of grounding strategies for detachment phenomena are also incorporated in a form of CBT for patients diagnosed with borderline personality disorder known as ‘dialectic behavior therapy’ (DBT; Linehan, 1993), which has been shown to be more effective than treatment as usual for this patient group (Verheul et al., 2003) although the effects of the grounding component alone have not been investigated. It is thought that such grounding strategies may help to redirect and focus attention, albeit via an alternative attentional technique to those described above for Depersonalization Disorder (see above). A related view is that these strategies may draw on visuospatial processing which may interfere with the encoding of distressing intrusive memories (Brewin & Holmes, 2003). In support of this view, a recent series of non-clinical experimental studies found that concurrent visuo-spatial processing while watching a stressful film reduced the number of subsequent intrusions (Holmes, Brewin, & Hennessy, 2004). Controlled research is required that unpicks the different ways in which ‘dissociation’ may present and be treated in the context of posttraumatic reactions.

6.4. The recovered memory debate—a clinical caution with respect to mis-applying the notion of compartmentalization

In the context of trauma we have so far focused on the forgetting of parts of an already-recalled traumatic event. While ‘recovered memory’ is not a main focus of the current paper, it could be argued that the phenomena of recovered memories of trauma (where the record of an entire traumatic event appears to have been lost and seems to be recalled at a later date) provide another example of compartmentalization.³ We do not suggest that all failures to recall trauma are evidence of compartmentalization. One obvious reason for a failure to recall an assumed traumatic incident is that it never took place. A major problem is that without independent corroboration neither the clinician nor the patient can distinguish a genuinely recovered ‘compartmentalized’ memory and a ‘false’ memory. In light of this, it is important to consider some related issues and underline the need for caution.

Over the last two decades there has been an increase in the numbers of adults who have reported sexual abuse in childhood (e.g. Lamb, 1994). Some empirical evidence suggests that a substantial minority of individuals report a period of partial or complete forgetting of these experiences (see Brown, Scheflin, & Whitfield, 1999 for a review). However, the authenticity of these recovered memories has generated considerable controversy (e.g. Lindsay & Briere, 1997; Loftus, 1993; McNally, 2003). There are two main areas of concern. The first is the degree of inaccessibility of these memories during the period of ‘forgetting’. Some authors have argued that forgetting in these cases may mean that the person chose not to disclose or think about these experiences although they could remember them if they so

³ We are grateful to an anonymous reviewer for highlighting the need to further point to the controversy surrounding the false memory debate and the idea of compartmentalization. We highlight that we are not advocating the use of ‘memory recovery’ techniques as counter-indicated in the recovered memory literature.

wished (Loftus, Garry, & Feldman, 1994). Others have suggested that these memories appear to have been inaccessible to conscious awareness (Williams, 1994a,b). This and related issues need to be addressed in future research, for example by using improved methodologies to assess the degree of memory inaccessibility during periods of apparent forgetting (Hunter & Andrews, 2002).

A second serious concern relates to the inappropriate use of repeated suggestion and/or ‘memory recovery techniques’ in therapy, which may promote the production of false memories that wrongly lead clients to believe that child abuse occurred (Lindsay & Read, 1994, 1995). Working parties founded by the American Psychological Association (1996) and the British Psychological Society (Morton et al., 1995) categorically denounced the use of suggestion-based techniques (particularly so-called hypnotic ‘regression’), guided imagery or ‘truth drugs’ in therapy where the explicit aim was to recover memories of childhood abuse. We concur that the use of such methods to actively pursue the possibility of trauma memories, especially where the individual has no current recollection of such events, is not clinically ethical and would constitute an incorrect interpretation of the wider treatment notion of ‘a reactivation and reintegration of compartmentalized elements’. In failed clinical attempts to recover a compartmentalized memory, a pseudomemory may be created through the well-documented processes of suggestion, post-event misinformation, etc. (see Schachter, 1999 for a review). Also, it is important to bear in mind that there is a considerable body of evidence that hypnosis is capable of facilitating the normal psychological processes underlying the creation of false memories, especially in highly hypnotizable individuals. Further, high hypnotizability itself may be a risk factor for memory distortion even in non-hypnotic settings (Lynn & Nash, 1994; McConkey, Barnier & Sheehan, 1998).

The reports of the American Psychological Association (1996) and the British Psychological Society (Morton et al., 1995) working parties are invaluable in providing guidelines for good practice for clinicians who may have patients who report recovered memories. For example, they suggest that clinicians are careful to phrase questions in a non-leading and open-ended manner to avoid suggestion. Therapists are advised to remain neutral with regards to the authenticity of the memories to avoid treating the recovered memories as either completely true or totally confabulated. If recovered memories are intrusive, stabilization and containment should be utilized, as with PTSD intrusions. We endorse these guidelines and suggest that the aim of therapy should be the recovery of mental health and functioning rather than the recovery of memories per se.

The recovered/false memory debate has been valuable in highlighting the potential clinical risks involved. However, amongst the controversy, it is important not to lose sight of where there is virtually no disagreement, such as in the essential authenticity of memories of childhood abuse that have always been remembered, and of those that are reported as spontaneously remembered outside the context of therapy. Both American and British working parties concluded that it is both possible to forget memories of abuse for a long time until remembered later and that it is possible for false memories to be constructed.

7. Discussion and summary

We have highlighted confusions with the meaning of the term ‘dissociation’ in the literature and, following a brief review of current conceptualizations, proposed that a distinction should be made between two separate processes: ‘detachment’ and ‘compartmentalization’. We define detachment as an altered state of consciousness characterized by a sense of separation from the self (as in

depersonalization) or the world (as in derealization). Some authors have suggested that it may have a distinct biological/physiological basis. It appears to arise from intense fear, and in some circumstances it may develop into a chronic or recurrent condition, perhaps with environmental or intra-personal triggers. Compartmentalization, on the other hand, is characterized by an inability to deliberately control actions or cognitive processes that would normally be amenable to such control. In this phenomenon, the affected processes or information remain intact within the cognitive system despite being inaccessible; in this sense, they may be regarded as being ‘compartmentalized’. In this approach, detachment and compartmentalization differ in kind rather than degree, an approach that contrasts markedly with the traditional concept of the dissociative continuum.

Several lines of convergent evidence are consistent with the two-part distinction. For example, there appear to be distinct clinical conditions characterized by only detachment (depersonalization disorder) or only compartmentalization (conversion disorders). Further, factor analyses of the most commonly used scale of dissociation (DES), typically differentiate between items relating to these separate processes. However, we note the major limitations of relying on purely correlational data. The next step in research and clinical work should be to move towards a greater understanding of the specific psychological processes underlying the symptoms of both detachment and compartmentalization across different psychological disorders. It may be that this will lead to further, ideally theory-driven, subdivisions among these important clinical phenomena. The treatment of ‘dissociation’ is notoriously complex, and hindered by the absence of clear definitions of the term and the various phenomena that it encompasses. We have given examples of the treatment of detachment in depersonalization disorder and PTSD, and of treatments for compartmentalization in conversion disorders. We have discussed an area—recovered memories of trauma—where it is important to be aware of inappropriately applying the notion of compartmentalization or using unsanctioned treatment procedures.

Overall, by replacing the word ‘dissociation’ with the terms ‘detachment’ and ‘compartmentalization’ clinicians and researchers from wide-ranging backgrounds may begin to use a common language. We hope that this approach will start to provide clinicians with a clearer understanding of different ‘dissociative’ phenomena and their management, and will foster the development of more fruitful treatments for conditions characterized by detachment and compartmentalization.

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