

CHAPTER 10

Dissociative Disorders

John F. Kihlstrom

Introduction

In current diagnostic nosology, the category of dissociative disorders includes a wide variety of syndromes whose common core is an alteration in consciousness that affects memory and identity (American Psychiatric Association [APA], 1994). In *dissociative amnesia* (formerly, psychogenic amnesia), the patient suffers a loss of autobiographical memory for certain past experiences; in *dissociative fugue* (psychogenic fugue), the amnesia is much more extensive and covers the whole of the individual's past life; and it is coupled with a loss of personal identity and, often, physical movement to another location; in *dissociative identity disorder* (multiple personality disorder), a single individual appears to manifest two or more distinct identities; each personality alternates in control over conscious experience, thought, and action and is separated by some degree of amnesia from the other(s); in *depersonalization disorder*, the person believes that he or she has changed in some way, or is somehow unreal (in *derealization* the same beliefs are held about one's surroundings).

Impairments of memory and consciousness are often observed in the organic brain syndromes, but dissociative disorders are functional: they are attributable to instigating events or processes that do not result in insult, injury, or disease to the brain, and produce more impairment than would normally occur in the absence of this instigating event or process (Kihlstrom & Schacter, 2000). Dissociative disorders are rather rare, but for more than 100 years, these and related phenomena have been objects of fascination for clinicians and experimentalists alike (for other recent reviews, see Bremner & Marmar, 1998; Kihlstrom, Tataryn, & Hoyt, 1993; Klein & Doane, 1994; Lynn & Rhue, 1994; Michaelson & Ray, 1996; Ross, 1997; Spiegel, 1991, 1994).

Once considered exotic, in the 1990s, dissociative disorders have become the syndromes of the moment. In March 1999, a search of the PsycINFO database revealed forty entries on psychogenic or dissociative amnesia; twenty-eight of them (70%) had appeared since the prior edition of this chapter was completed in 1990; there was also a total of eight entries on psychogenic or dissociative fugue, five of which (63%) had appeared in that same period. Multiple personality, or dissociative identity disorder, the crown jewel of dissociative disorders, yielded 868 entries: more than half of these (485, or 56%) appeared since 1990, and 708 (82%) had appeared since the first edition of this handbook was published in 1984. Remarkably, however, little of this literature consists of quantitative clinical studies, much less experimental research. Thus, the enormous amount of clinical and popular interest in dissociative disorders has not yet translated into a substantial body of research.

John F. Kihlstrom • Department of Psychology, University of California, Berkeley, California 94720-1650.

Comprehensive Handbook of Psychopathology (Third Edition), edited by Patricia B. Sutker and Henry E. Adams. Kluwer Academic / Plenum Publishers, New York, 2001.

The Evolution of a Concept

The term “dissociative disorder” is almost unique in the psychiatric nosology because the label also implies a specific mechanism, dissociation, to account for the disturbances observed. Other category labels, such as schizophrenia, anxiety disorders, and personality disorders carry no such surplus etiologic baggage. The origins of the idea of dissociation lie in a body of medical and scientific literature that emerged from 1775 to 1900 and represents what Ellenberger (1970) called the “First Dynamic Psychiatry.” The first dynamic psychiatrists were interested in a wide spectrum of phenomena, including hypnosis and other forms of suggestion; spiritism (automatic writing, crystal-gazing); the “magnetic diseases” of catalepsy, lethargy, and somnambulism (so named because of their resemblance to certain phenomena of animal magnetism, a precursor of hypnosis); ambulatory automatism (fugue); multiple personality; and hysterical anesthetics and paralyses. Each of these phenomena reflected the power of ideas to engender action, as well as a change in consciousness in which experience, thought, and action occurred outside of phenomenal awareness and voluntary control. The pathological forms, such as hysteria and multiple personality, were “dynamic illnesses,” caused by a suggestion or idea whose origins lay in some psychological trauma whose nature was unknown to the victim. As a result of this trauma, certain experiences, thoughts, and actions become separated from the monitoring and controlling function of a central executive ego.

The dominant figure in the First Dynamic Psychiatry was Pierre Janet (1889, 1907), who identified the elementary structures of the mental system as “psychological automatism.” Each automatism represented a complex act, finely tuned to external (environmental) and internal (intrapsychic) circumstances, preceded by an idea, and accompanied by an emotion. According to Janet, the normal person’s entire repertoire of elementary psychological automatism was bound together into a single, united stream of consciousness, accessible to introspective phenomenal awareness and voluntary control. However, under certain circumstances, one or more automatism could be split off from the rest, thus functioning outside of awareness, independent of voluntary control, or both—a condition which Janet labeled *desaggre-*

gation, translated into English as dissociation. The dissociation view of the unconscious, as distinct from the repression view elaborated by Freud and his followers, was endorsed by William James (1890/1980; Taylor, 1982, 1996), and promoted in America by Morton Prince and Boris Sidis, among others.

The dissociative conceptualization of consciousness was briefly popular, but the claims of the dissociation theorists were often overly broad, and their clinical and experimental studies often methodologically flawed. In the clinic, the Second Dynamic Psychiatry of Freud and his followers, with its emphasis on sex and aggression, dreams and repression, soon triumphed over the First. In the laboratory, the behaviorist revolution banished all reference to mental states, conscious or not, from the vocabulary of scientific discourse. After World War II, however, interest in consciousness—attention, primary memory, and imagery—was revived in the course of the cognitive revolution. The concept of dissociation and the dissociative disorders played a role in this revival, as indicated by Hilgard’s (1977; see also Kihlstrom, 1992, 1998) “neodissociation” theory of divided consciousness.

Neodissociation theory assumes that the mind is organized as a system of mental structures that monitor and control experience, thought, and action in different domains. In principle, each of the structures can process inputs and outputs independently of the others, although under ordinary circumstances each structure is in communication with the others, and several different structures might compete for a single input or output channel. At the center of the system, yet another structure exercises executive functions of monitoring and control and provides the mental basis for the experience of phenomenal awareness and voluntary control. According to Hilgard, the operations of the central executive can be constrained, and the integration and organization of the individual control structures can be disrupted, producing a state of divided consciousness. For example, the lines of communication between two subordinate structures might be cut. The operations of each would be represented in phenomenal awareness and perceived as under voluntary control, but they would not be integrated with each other. Alternatively, the links between a subordinate structure and the executive might be cut. Under these circumstances, the operations of the subordinate

would be isolated from phenomenal awareness and the experience of intentionality—a classic instance of dissociation.

Whereas both the classical dissociation theory of Janet (1889) and the neodissociation theory of Hilgard (1977; Kihlstrom, 1992) assume that the normal unity of consciousness is disrupted by an amnesia-like process, Woody and Bowers (1994) offered an alternative view that many mental and behavioral functions are performed unconsciously and automatically to begin with, by specialized cognitive modules. Thus, some degree of dissociation is the natural state. Rather than reflecting the imposition of an amnesic barrier, the phenomena of dissociation reflect the failure of these modules to be integrated at higher levels of the system (e.g., by executive control structures associated with the frontal lobes). Currently, the distinction between dissociated experience and dissociated control is debated chiefly in the literature on hypnosis (Kihlstrom, 1998; Kirsch & Lynn, 1998; Woody & Sadler, 1998), but the two competing formulations of neodissociation theory are clearly relevant to the dissociative disorders as well.

The Evolution of a Diagnosis

Dissociative disorders have a somewhat checkered history in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) periodically published by the American Psychiatric Association (Kihlstrom, 1994). In the first edition of DSM (DSM-I; APA, 1952) dissociative syndromes were classified as Psychoneurotic Disorders, in which anxiety is either “directly felt and expressed or ... unconsciously and automatically controlled” by various defense mechanisms“ (p. 32). Under this label, the dissociative syndromes included depersonalization, dissociated (multiple) personality, stupor, fugue, amnesia, dream states, and somnambulism. Precursors to DSM-I had grouped the dissociative and conversion disorders under the single rubric of “conversion hysteria,” but the two subclasses were now distinguished—dissociation by personality disorganization; conversion by isolated symptoms of anesthesia, paralysis, and dyskinesia. (DSM-I also carried a special listing of somnambulism, but this apparently referred specifically to sleepwalking.) The DSM-I conceptualization of the dissociative disorders was heavily influenced by psychoanalytic theory, as evidenced

by its reference to the discharge or deflection of repressed impulses.

In some respects, DSM-II (APA, 1968) reverted to pre-DSM practices. Here, Hysterical Neurosis, Dissociative Type, defined as an alteration in consciousness and identity, was joined by Hysterical Neurosis, Conversion Type, defined as a disorder of the special senses or the voluntary nervous system. Hysterical neurosis itself was characterized in psychoanalytic terms of the unconscious and automatic control of anxiety. However, explicit references to repression and the psychoanalytic theory of neurosis were absent from the description.

DSM-III (APA, 1980) and its revision, DSM-III-R (APA, 1987), abandoned both neurosis and hysteria as technical terms. The class of Dissociative Disorders included Psychogenic Amnesia, Psychogenic Fugue, Multiple Personality Disorder (MPD), and Depersonalization Disorder—as well as Atypical Dissociative Disorder. Conversion Disorder, by contrast, was grouped with Body Dysmorphic Disorder, Hypochondriasis, Somatization Disorder, and Somatoform Pain Disorder, under the heading of Somatoform Disorders. DSM-III-R stated that the essential feature of the dissociative disorders was “a disturbance in the normally integrative functions of identity, memory, or consciousness ...” in the absence of brain insult, injury, or disease. In the case of Psychogenic Amnesia, the essential feature is, of course, loss of memory. Psychogenic Fugue added the assumption of a new identity, as well as physical relocation away from the customary home or workplace. Somewhat surprisingly, however, the DSM-III-R criterion for Multiple Personality Disorder specified only the alternating control of behavior by at least two distinct personalities, permitted making the diagnosis on the basis of personality fragments rather than complex, integrated structures, and made no reference to interpersonality amnesia. Thus, the DSM-III-R criterion was rather liberal because it diagnosed patients who formerly might qualify only for Atypical Dissociative Disorder as instances of full-blown MPD. This liberal diagnostic criterion may account for some of the increased reporting of MPD in the 1980s and 1990s.

This situation was corrected, to some degree, in DSM-IV (APA, 1994), which returned an explicit criterion of amnesia to the diagnostic criteria for Multiple Personality Disorder, which was also re-

named Dissociative Identity Disorder (DID). Thus, it is not enough simply to find evidence of two or more "ego states" in the same person—a likely factor in the recent proliferation of the diagnosis. Some evidence of amnesia is also required, although the criterion does not specify interpersonal amnesia. Cases resembling DID, but without amnesia, are removed to the new category of "Dissociative Disorder Not Otherwise Specified" (DDNOS)—a category that also covers derealization in the absence of depersonalization and trance states such as *amok* and *latah*. DSM-IV also strengthens the emphasis, in diagnosing psychogenic fugue, on changes in personal identity, whether the loss of an old one or the assumption of a new one.

Dissociative (Psychogenic) Amnesia

Dissociative amnesia, also known as limited functional amnesia (Schacter & Kihlstrom, 1999), entails a loss of personal memory that cannot be accounted for by ordinary forgetting or by brain insult, injury, or disease (for other reviews, see Arrigo & Pezdek, 1997; Kopelman, 1995, 1997; Loewenstein, 1996; Pratt, 1977; Kihlstrom & Schacter, 2000; Stengel, 1966). The amnesia is typically retrograde, in that it covers a period of time before the precipitating event, although Janet (1893) did describe an unusual case of *anterograde* psychogenic amnesia, in which memory before the trauma remained intact, but the patient showed an inability, reminiscent of that observed in the organic amnesic syndrome, to remember events that transpired *since* the traumatic event. Nemiah (1979) distinguished three forms of psychogenic amnesia, depending on its extent: localized, covering hours or weeks; systematized, covering only specific events and related material; and generalized, involving a transitory loss of memory for one's entire life—a condition that shades into psychogenic fugue.

Although dissociative amnesia, by definition, is not caused by brain insult, injury, or disease, the relationship between the syndrome and brain injury is better characterized as one of independence. Brain injury can occur without amnesia as one of its sequelae, and functional amnesia can occur in association with head injury (Treadwell, Cohen, & McCloskey, 1988). Although psycho-

genic amnesia has been the frequent subject of popular treatments, there has been very little research on the nature of the memory loss, its eliciting conditions, and the circumstances that lead to recovery of the lost memories (Kihlstrom & Schacter, 2000). Even Janet (1907) barely mentioned psychogenic amnesia outside of the context of somnambulism, fugue, and multiple personality. One important question for future research, especially in a forensic context, concerns the symptoms that differentiate organic and functional amnesias (Kopelman, 1995). Such information, in turn, would permit conclusions about the extent to which functional, psychogenic amnesias are misdiagnosed as organic amnesias, simply because they occur in temporal association with head injury.

Dissociative (Psychogenic) Fugue

Somewhat more is known about psychogenic fugue, also called functional retrograde amnesia (for reviews see Kopelman, 1997; Loewenstein, 1996; Pratt, 1977; Kihlstrom & Schacter, 2000; Stengel, 1966). Fugue adds a loss of identity to the loss of personal memory observed in psychogenic amnesia and sometimes physical relocation (hence the name), to boot. Fugue is often associated with physical or mental trauma, depression, problems with the legal system, or some other personal difficulty (Eisen, 1989; Kaszniak, Nussbaum, Beren, & Santiago, 1988).

Fisher (1945; Fisher & Joseph, 1949) distinguished three types of fugues. In the classic instance, there is amnesia for personal history, accompanied by a change in identity and relocation to another domicile. Fugue may also entail amnesia accompanied by the simple loss, but no change, in personal identity. Finally, a reversion to an earlier period in one's own life may occur, with an amnesia for the interval between that earlier period and the present, but no change in identity. Clearly, the distinction between psychogenic fugue and psychogenic amnesia is difficult to make. One might say that fugues are simply very generalized amnesias, but the loss of identity that is pathognomic of fugue may be a qualitative difference.

The process of recovery from fugue is not well understood. Patients typically come to clinical attention when they become spontaneously aware of

the situation or when they fail to respond appropriately to specific questions about their background when questioned by the police, potential employers, or others. Some patients experience a sudden awakening to their original identity; others experience a sudden awareness that they do not know who they are. Nevertheless, when the situation is resolved, the patient is typically left with an island of amnesia that covers the period of the fugue state itself.

Although many clinical reports of psychogenic fugue exist, apparently only a single case has been subjected to controlled, experimental analysis. Schacter, Wang, Tulving, and Friedman (1982) performed such an analysis on a case, P.N., whose condition was apparently precipitated by the death of his grandfather. The boundaries of the amnesia were explored by the "Crovitz-Robinson" technique (Crovitz & Shiffman, 1974; Robinson, 1976), in which common words are presented as cues for retrieving conceptually related autobiographical memories. When tested during the fugue state, 86% of the patient's memories were drawn from the period covered by the fugue—a stronger recency bias than is normally observed in such situations. Two weeks later, after the amnesia had remitted, fully 92% of the memories predated the amnesia (the lack of recency bias thus reflected an amnesia for the fugue itself). By contrast, when asked to identify pictures of famous people, the patient performed equally well during and after the amnesia. Such findings were interpreted by Schacter et al. (1982) as reflecting a selective impairment in episodic memory which spares semantic memory. However, it should be noted that semantic memory includes aspects of personal identity—one's name, birthdate, physical and psychosocial characteristics, the names of family members, etc., as well as impersonal world knowledge (Kihlstrom & Klein, 1994, 1997). Fugue impairs semantic memory for personal information, as well as episodic memory for personal experiences.

Dissociative Identity (Multiple Personality) Disorder

Dissociative identity disorder (DID) takes the disruption of memory and identity observed in dissociative fugue one step further because there is an alternation of both memory and identity (for

recent reviews see Bliss, 1986; Putnam, 1989; Ross, 1997). When one ego state is in control of thought and action and is monitoring environmental events, memory is continuous within that ego state. However, when monitoring and control shift to another ego state, the new personality may have no access to memories of the activities and experiences of the other(s). However, some degree of cooperation is possible among ego states, when one has information or resources that the other one needs.

On the basis of their review of seventy-six named (mostly classic) cases, Taylor and Martin (1944) listed a number of features that distinguish the various ego states:

1. the "general quality" of the personality, as a whole;
2. propriety of behavior;
3. gender identity or erotosexual orientation;
4. age, handedness, or language differences; and
5. anesthesia in one or more sensory modalities, or paralysis in one or more limbs.

About two-thirds of the cases studied by Taylor and Martin were dual personalities, and about half of them showed a pattern of mutual or symmetrical amnesia. Of the remainder, most displayed only three personalities and a more complex pattern of asymmetrical amnesia. Ellenberger (1970) classified DID into three major categories: (1) successive multiple personalities, the usual case, with either symmetrical or asymmetrical amnesias (Ellenberger thought that "mutually cognizant" alter egos were infrequent); (2) simultaneous multiple personalities, very rare; and (3) personality clusters.

However, it is by no means a straightforward matter to discern which ego state, if any, is "primary." Following the example of Eve (Thigpen & Cleckley, 1954) and perhaps influenced by the psychoanalytic concept of the repression of conflict-laden ideas, drives, affects, and impulses, there is some tendency to identify the primary personality with the ego-state that displays the most conventional, socially desirable qualities. However, Taylor and Martin (1944) argued that there was no clear pattern of "normality" or "pathology" that distinguishes the primary personality from the alter egos; sometimes, a normally subconscious personality is better adjusted than a normally conscious one. In most cases, it may be convenient to

assign the label "primary" to the ego state that is most frequently encountered or has the longest running identity. In the case of I.C. (Schacter, Kihlstrom, Canter Kihlstrom, & Berren, 1989), the pattern of memory deficit observed strongly suggested that the "primary" personality, defined in terms of frequency of encounter and degree of familiarity to other people, was actually an alter ego who first appeared when the patient was about 10 years old.*

The History of DID

The formal history of DID reaches back more than 200 years to the very beginnings of modern medical literature (Carlson, 1981, 1989).† What might be called a "classic period" for the study of DID extended from about 1880 to 1920, as reflected in the well-known reports of Azam, Janet, Prince, Sidis, and others. Of the seventy-six named cases covered by Taylor and Martin (1944) in their exhaustive review of the published literature, fifty-one (67%) were first reported during this period, and the vast majority of the rest shortly before or after it. Almost two decades later, Sutcliffe and Jones (1962) added only a single acceptable case, the "Three Faces of Eve" (Thigpen & Cleckley, 1954).

Case reports of DID fell off rapidly in the half-

century following 1920, a trend that may be attributable in part to the triumph of Freud over Janet, and in part to increased diagnosis of schizophrenia. Then, they took a sharp upward turn beginning around 1970—a trend that may be attributable in large part to the publication of *Sybil* in the popular press (Schreiber, 1973).‡ A literal avalanche of case reports followed that appeared in both the popular and professional press (Boor, 1982; Greaves, 1980; Kihlstrom et al., 1993). For example, a mail survey of selected clinicians identified 100 cases currently or recently in treatment as of 1982 (Putnam, Guroff, Silberman, Barban, & Post, 1986).

In the 1970s alone, at least by a liberal count, more cases of DID were reported than in all of the time since Mary Reynolds. Ross (1997) wrote that between 1979 and 1991 he saw "about 80" (p. 256) cases of DID in his practice in Winnipeg, Manitoba, and that between 1991 and 1997 more than 500 cases had been admitted to a single dissociative disorder treatment unit in Dallas, Texas. As if that were not enough, there has been a dramatic increase in the number of alter egos manifested in the individual case. The vast majority of cases listed by Taylor and Martin (1944)—forty-eight, or 63%—presented dual personalities, and only one case presented as many as twelve alter egos. By contrast, the majority of new cases listed by Greaves (1980) and Boor (1982) had three or more personalities, and the cases registered by Putnam et al. (1986) presented 13.3. Ross (1997) reported an average of 15.7 alter egos in a series of 236 patients.

The degree to which some of these cases are iatrogenic, or simply misdiagnosed, remains to be seen (Fahy, 1988). It is worth remembering that even in the heyday of multiple personality, around the turn of the century, when clinicians were very alert to the possibility of new cases, very few were actually diagnosed: even Janet and Prince described only four cases each (Taylor & Martin, 1944). And despite hundreds of referrals, Thigpen and Cleckley (1984) saw only one other case after Eve.

*Although DID is usually considered a syndrome of adult psychopathology, the fact that alter egos may begin to appear in childhood suggests that it can be diagnosed and treated in children as well (Main & Morgan, 1996; Putnam, 1997).

†The best known of the earliest cases is Mary Reynolds, reported by Mitchill (1816; see Carlson, 1984). Ellenberger (1970) cited this case on the basis of secondary reports by S. W. Mitchell (1888) and others. However, he was unable to locate the primary reference, attributed to the *Medical Repository* of 1815. A diligent search of the library shelves by Dr. Malcolm Macmillan, now of Deakin University, Australia, turned up the primary reference in the 1816 volume (Mitchill, 1816), as correspondence dated that year. The 1816 and 1817 volumes were bound together, which may explain why Taylor and Martin (1944) provided the correct volume and page number, but dated the article 1817. Ellenberger also misspells Samuel Latham Mitchill's last name, and incorrectly identifies him with John Kearsley Mitchell, father of Silas Weir Mitchell (1888), who knew the Reynolds family and brought the case to the attention of William James (1890, pp. 359–363). I thank Dr. Macmillan for his kindness in sharing his detective work and refer readers to his important historical work on the relationship between Freud and Janet (e.g., Macmillan, 1996). For a further history of the Mary Reynolds case, see also Carlson (1981, 1984, 1989). For a history of another famous case, Miss Beauchamp, see Rosenzweig (1987, 1988).

‡This claim has been made by Putnam (1989), Borch-Jacobson (1997), and Acocella (1998), among others. (For a description of the impact of this case on a DID patient, see Atwood, 1978). Interestingly, Herbert Spiegel, a Columbia University psychiatrist and distinguished hypnosis researcher who examined Sybil and also occasionally served as her surrogate therapist, has expressed doubts that she was a genuine case of multiple personality (Borch-Jacobson, 1997).

Laboratory Studies

In view of the virtual avalanche of cases reported in both the professional and popular press since 1973, it is especially surprising that so few cases have been subject to controlled experimental analysis employing laboratory procedures. During the classic period, Prince and Sidis reported a number of studies of perception, reasoning, free association, and psychophysiology (for a review, see Kihlstrom et al., 1993). Later, Osgood and Luria (1954) and Osgood, Luria, Jeans, and Smith (1976; see also Kroonenberg, 1985) reported on blind analyses of semantic differential protocols collected from various personalities. The recent revival of interest in DID has yielded a number of psychometric studies that employed both projective and objective instruments (for a review, see Kihlstrom et al., 1993), but experimental studies have been somewhat rarer.

A salient exception to this rule is the case of Jonah, a man with three (perhaps four) alter egos, studied by Ludwig and his associates (Brandsma & Ludwig, 1974; Ludwig, Brandsma, Wilbur, Bendfeldt, & Jameson, 1972). Each of the four principal alter egos was administered a battery of personality and intelligence tests (including the MMPI and the Gough Adjective Check List, and the WAIS), a number of learning and memory tasks (including paired-associate learning and prose memory), conditioning, and psychophysiological recordings (including electrodermal responses, EEG, and event-related potentials). Another study employed experiential time sampling to document state changes in a woman vulnerable to extremely rapid alterations of personality (Lowenstein, Hamilton, Alagna, Reid, & deVries, 1987). Schacter et al. (1989) used the "Crowitz-Robinson" technique to study I.C., a case of DID with a very extensive childhood amnesia, compared to a carefully matched control group. Unfortunately, these investigators were not able to study autobiographical memory in any of the alter egos, although such an experimental case study was recently reported by Bryant (1995).

Further experimental study of DID is warranted because, although this syndrome is defined in DSM-IV as a disorder of identity and the integration of self, it is also fundamentally a disorder of memory. In every dissociative disorder, patients are unable to recollect some or all of their past actions and experiences, and in DID, an interper-

sonality amnesia reflects the inability of one alter ego to consciously recall the activities and experiences of others. However, there is more to memory than what the individual can bring to awareness, and there is evidence that memory of these forgotten events may influence the patient's ongoing experience, thought, and action outside of conscious awareness. In fact, as indicated earlier, clinical observation of such influences were the reason for the notion of "dissociation" in the first place.

In modern terminology, dissociative disorders may involve a dissociation between two expressions of memory, explicit and implicit (Schacter, 1987). Explicit memory refers to the person's conscious, intentional recollection of some previous episode, most commonly reflected in recall and recognition. Implicit memory, or memory without awareness, is reflected in any change in the person's experience, thought, or action which is attributable to some prior episode of experience, but which cannot be accounted for by explicit memory for that event. Dissociations between explicit and implicit memory are a common feature of the "organic" amnesias associated with brain insult, injury, or disease (Shimamura, 1989) and are found in the "functional" amnesias associated with dissociative disorders as well (Kihlstrom & Schacter, 2000).

Although hints of implicit memory are found in some of the earliest cases of DID, the first formal demonstration along these lines was reported in the case of Jonah (Ludwig et al., 1972), who was completely unaware of his three other alter egos. To document the pattern of interpersonality amnesia apparent on clinical examination and history, Ludwig et al. conducted various studies of verbal learning, classical conditioning, transfer of training, and learning-to-learn. For example, Jonah could not recall paired associates learned by the other personalities; and although the others could recall items learned by Jonah, they could not recall items learned by each other. However, when one alter ego was asked to learn (rather than remember) a list of paired associates initially mastered by another, each showed considerable savings. Thus, there was transfer of information between personalities on the paired-associate learning test, but not on the paired-associate recall test.

The dissociation between explicit and implicit memory observed by Ludwig et al. (1972) was further explored by Nissen, Ross, Willingham, Mackenzie, and Schacter (1988), who performed a

careful comparison between explicit and implicit memory in a single DID patient who had twenty-two different alter egos. On each test, items were presented to one alter ego, and memory for these items was tested in another; a total of eight personalities, each separated from the others by an amnesic boundary, were tested in the experiment. On two tests of explicit memory, cued recall and yes-no recognition, each ego state showed a dense amnesia for items presented to the others—in other words, there was no interpersonality transfer of explicit memory. The corresponding tests of implicit memory, however, yielded complex results: five tasks yielded some evidence of interpersonality transfer, but four others gave no evidence that implicit memory transferred between alter egos. Moreover, on some tasks there was less implicit memory between alter egos than within a single personality, indicating that even implicit memory sometimes failed to cross the amnesic barrier.

Recently, Eich and his colleagues reported a nomothetic comparison of explicit and implicit memory in nine DID patients (Eich, Macaulay, Loewenstein, & Dihle, 1997). As in Nissen et al.'s (1988) case study, free recall and cued recall tests of explicit memory yielded strong evidence of interpersonality amnesia that confirmed the clinical picture. However, a test of picture-fragment completion indicated that implicit memory was spared, but a test of word-stem completion did not. On the latter task, implicit memory was displayed only within, not between, alter egos. Eich et al. concluded that although tests of implicit memory could reveal transfer of information from one alter ego to another, "how much leakage occurs across personality states depends on the extent to which encoding and retrieval processes are susceptible to personality-specific factors" (p. 421). It would be tempting to conclude that implicit memory transfers across ego-state boundaries in DID, and explicit memory does not, but the actual pattern of results is somewhat more complex than this and remains to be clarified by further research.

A more recent development, reflecting the increased interest in biological processes in psychopathology generally, has been the use of brain-imaging techniques such as EEG frequency analysis and event-related potentials (for a review, see Kihlstrom et al., 1993). Putnam (1984) presented a preliminary report of a study of eleven DID patients and ten simulating controls that successfully

distinguished the two groups on the basis of event-related potentials. Within subjects, genuine alter egos showed greater differences in amplitude and latency than simulated ones. Mathew, Jack, & West (1985) reported a shift in regional cerebral blood flow (toward the right temporal lobe) in one patient, but there have been no similar studies employing PET or fMRI technologies. Given the enormous amount of interest in dissociative identity disorder, it is remarkable that these intriguing findings have not been followed up by studies using more rigorous methodologies that might reveal the biological substrates of amnesia, fugue, and multiple personality.

Sociocultural Influences

Some of the most difficult aspects of the current DID "epidemic" are the loosening of diagnostic criteria, the influence of popular culture (in the late nineteenth century, Stevenson's *Dr. Jekyll and Mr. Hyde*; in the late twentieth century, the cases of Eve and Sybil themselves) on patient and therapist alike, the investment that some clinicians seem to have in the syndrome, and the recent proliferation of cases with extremely large numbers of alter egos. Another troublesome aspect is the apparently common practice of eliciting alter egos through hypnosis, instead of observing them emerge spontaneously. Because the hypnotic interaction itself is highly suggestive, hypnosis affords an especially good opportunity to create alter egos out of whole cloth and for their nature to be shaped by the hypnotist's suggestions and other cues and demands contained in the hypnotic situation (Bowers & Farvolden, 1996; Frankel, 1994).

Drawing on his social-psychological analysis of hypnotic phenomena, Spanos (1986, 1994, 1996; but see Gleaves, 1996) offered an interpretation of dissociative identity disorder (and, by extension, the other dissociative disorders as well; see Spanos & Gottlieb, 1979) as a strategic social enactment in which an individual disavows responsibility for certain actions by attributing them to some "indwelling entity," "part," or "personality" other than the self (p. 36). Just as people learn the hypnotic role and then enact it under appropriate conditions, so people can learn to enact the role of multiple personalities—to create a social impression that is congruent with the diagnosis and that fulfills certain interpersonal goals. Just as the hypnotist abets this process by giving

suggestions as to how the subject should behave, so clinicians explicitly and implicitly shape the behavior of their patients by encouraging them to adopt the role in the first place, providing them information about how to do so convincingly (for example, by displaying interpersonality amnesia), and then validating the performance by conferring a psychiatric diagnosis, and offering a particular form of therapy. Thus, the multiple personality is not so much a discovery as a creation—a creation on the part of both patient and therapist. Even so, the benefits for achieving the diagnosis—relief from interpersonal distress, mitigation of criminal responsibility, control of others, permission for untoward behavior—may be so powerful as to lead patients to “become convinced by their own enactments and come to believe that they possess multiple selves” (p. 47).

The influence of interpersonal, cultural, and historical factors on dissociative identity disorder can hardly be denied, but it is also something of a puzzle. The fact that the diagnosis experienced a golden age, waned after 1920, and showed a resurgence in the 1970s makes one wonder about the social conditions in which dissociative behaviors are expressed and corresponding diagnoses are made. This point has been made most forcefully by Kenny (1986), who provided an ethnographic analysis of dissociative identity disorder and related conditions. Analyzing the classic cases of Mary Reynolds, Ansel Bourne, Miss Beauchamp, B.C.A., Eve, and Sybil, Kenny (1986) argues that DID is a response to changing conditions in American culture. For example, Mary Reynolds' alter ego seems not so much an alternate to her normal state as a contradiction of it, a rebellion against her old self. Similarly, Ansel Bourne's fugue state may be interpreted as a symbolic representation of his self-perceived status as a “changed man” following his religious conversion. Miss Beauchamp rebelled against the limitations imposed on women in turn-of-the-century America and was used as a vehicle for Morton Prince's campaign against Freudian psychoanalysis. Kenney does not argue that most, or even many, cases of DID are fraudulent. He closes his book with an image of an intense and preoccupied Ansel Bourne, “trying—and failing—to remember something important” (1986, p. 188). Rather, his purpose is to understand how the definition and experience of self is shaped by the surrounding culture. There is no contradiction between excepting certain cases of dissocia-

tive disorder as genuine and understanding the sociocultural context in which they occur.

Depersonalization and Derealization

In addition to the gross disruptions of autobiographical memory self-integration seen in psychogenic amnesia, fugue, and dissociative identity disorder, dissociative disorders include the experiences of depersonalization and derealization (Coons, 1996; Reed, 1979, 1988). As originally defined, it was thought that depersonalization and derealization co-occur. People experience themselves as totally different, and the world as strange and new. Later, they were construed as independent entities. Nemiah (1989) suggested that derealization is the more general case and depersonalization is a limited form in which only the experience of self is changed. Both depersonalization and derealization are frequently seen as symptoms of other syndromes, such as anxiety, depression, and obsession—for example, the phobic anxiety-depersonalization syndrome (Roth & Argyle, 1988). Depersonalization and derealization are nonspecific symptoms independent of other diagnoses (Brauer, Harrow, & Tucker, 1970; Fleiss, Gurland, & Goldberg, 1975), and are salient components in the “near-death experience” reported by those who have been rescued at the last moment from drownings, falls, and other kinds of accidents. However, depersonalization and derealization also constitute psychopathological syndromes in their own right.

As a primary diagnosis, the central feature of depersonalization disorder is a subjective awareness or feeling of change in oneself (depersonalization) or the world (derealization). This often occurs suddenly after awakening from sleep or after a frightening incident. The feeling puzzles the experiencers. The changed condition is perceived as unreal and as discontinuous with their previous ego states. The object of the experience, self (in depersonalization) or world (in derealization), is commonly described as isolated, lifeless, strange, and unfamiliar; oneself and others are perceived as “automatons,” behaving mechanically without initiative or self-control. Although the feeling of depersonalization and derealization may be pleasant when self-induced by psychedelic drugs, in clinical cases it is unpleasant, even aversive: the victims often feel as if they were going

insane, or dying. Throughout, however, the persons retain insight into what is happening: they remain aware of the contradictions between subjective experience and objective reality—it is only “as if” things were not real. Occasionally, the person will develop a delusional explanation about the experience (Kihlstrom & Hoyt, 1988), in which case both the puzzlement and the “as if” quality will disappear. Finally, depersonalization and derealization usually involve diminished emotional responsivity—a loss of interest in the outside world, of feelings for other people, and of anxiety or depression.

Mayer-Gross (1935) noted that depersonalization and derealization may occur with a host of other symptoms, including *deja vu* (in which the sense of having been in a place before coexists with the knowledge that this is not the case) and *jamais vu* (in which a situation is experienced as unfamiliar, despite the person’s knowledge that it has been experienced many times before). In its totality, then, the experience of depersonalization is one of strangeness in oneself, in others, and of one’s relationship to them. Viewed from the perspective of cognitive psychology, these syndromes represent failures of recognition—an inability to match current experience with past memories, something like what happens when one enters a familiar room whose furniture or paint scheme has been changed (Reed, 1979, 1988). Especially important here is the disruption of self-reference, which seems so crucial to the experience of recognition (Kihlstrom, 1997).

Diagnosis and Assessment of Dissociation

The actual incidence and prevalence of dissociative disorders is hard to estimate. Dissociative disorders were excluded from the massive Epidemiological Catchment Area survey (Regier, Myers, Kramer, et al., 1984), presumably because appropriate diagnostic criteria were not provided by the standardized assessment instruments available at the time. This situation has now been corrected. Steinberg and her colleagues produced a version of the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D), which diagnoses these syndromes according to the rules of DSM-IV (Steinberg, 1996).

Several investigators have also developed questionnaire surveys of dissociative experiences that can be conveniently administered to large samples. The most popular of these is the Dissociative Experiences Scale (DES) of Bernstein and Putnam (1986; Carlson & Putnam, 1993) that holds promise as a diagnostic screening tool, locating high-scoring subjects who might be at risk for dissociative disorder (Carlson, Putnam, Ross, et al., 1993). For example, a doctoral dissertation by Angiulo (1994) found that college students who achieved extremely high scores on the DES were significantly more likely to qualify for a formal diagnosis of dissociative disorder (usually DDNOS) when subsequently administered the SCID-D. Of course, the DES and similar instruments can also be employed for research on normal personality structure and processes. For example, although the DES assesses levels of dissociation on a trait-like continuum from low to high, Waller and his colleagues (Waller, Putnam, & Carlson, 1996; Waller & Ross, 1997) employed taxometric techniques to argue that individuals who score high on the DES constitute a fairly discrete personality type.

Although instruments such as the SCID-D and the DES are intended to measure relatively stable trait-like dispositions toward dissociation, the Clinician-Administered Dissociative States Scale (CADSS; Bremner, Krystal, Putnam, Southwick, Marmar, Charney, & Mazure, 1998) was developed to measure episodic dissociative states and is suitable for measuring changes in symptoms. Examination of item content, however, indicates that the CADSS focuses on symptoms of depersonalization and derealization, not on the disruptions of memory and identity that lie at the heart of dissociative amnesia and fugue and dissociative identity disorder.

Forensic Aspects of Dissociative Disorder

In addition to being a puzzle for clinicians and experimentalists, dissociative disorders have created substantial difficulties for the legal system. A victim who cannot remember the circumstances of a crime cannot offer valuable testimony that might lead to a conviction, and amnesic defendants cannot assist in their own defense. Moreover, the presence of amnesia for a criminal act may suggest that the crime was committed in an altered state of

consciousness in which normal processes of monitoring and control were inoperative—thus potentially qualifying the defendant for the insanity defense. Unfortunately, the diagnosis of dissociative disorder is difficult to substantiate—even the structured clinical interview is susceptible to faking—and there is no way to tell for sure whether a particular suspect's claim of amnesia is genuine or simulated (Kopelman, 1995; Schacter, 1986a,b).

The legal problems associated with DID are especially severe, as illustrated by the case of Kenneth Bianchi, the "Hillside Strangler" (State v. Bianchi, No. 79-10116, Washington Superior Court, October 19, 1979).^{*} Bianchi was charged, along with his cousin, in ten rape-murders in Los Angeles, and alone in two similar cases in Bellingham, Washington (Allison, 1984; Orne, Dinges, & Orne, 1984; Watkins, 1984). According to his defense, the crimes were perpetrated by an alter ego, "Steve Walker," a claim that was supported by evidence of high hypnotizability (a characteristic commonly associated with DID). However, the claim was undercut by other evidence suggesting that Bianchi had simulated hypnosis, and especially by inconsistencies in the self-presentation of the alter egos, psychological test evidence, and the lack of independent corroboration of the alter egos by people who knew him before he was arrested. Bianchi also had a great deal of background psychological knowledge, had practiced psychotherapy under a false name, and faked credentials (at one point in the proceedings he claimed that this was the work of a third alter ego, named "Billy"). Bianchi was convicted of eight counts of murder in the Hillside Strangler cases. Subsequently, he offered to testify against his cousin, who was also convicted.

Etiology of Dissociative Disorders

Stress, whether acute or chronic, is an extremely prominent feature in dissociative disorders—so much so that they are sometimes considered forms of posttraumatic stress disorder (PTSD; e.g., Putnam, 1985; Spiegel, 1984). The occurrence of depersonalization in response to life-threatening

danger and of psychogenic amnesia and fugue in victims of crime and disaster has already been noted, as has the apparent frequency with which amnesia and fugue are seen in cases of "war neurosis."[†] In particular, many authorities have noted an apparently strong relationship between DID and a history of childhood physical and sexual abuse. For example, Putnam et al. (1986) noted that fully 86% of their 100 recent cases presented a self-reported history of sexual abuse, 75% reported repeated physical abuse (68% reported both kinds of abuse), and 45% reported witnessing a violent death during childhood; only 3% of these cases had no history of significant childhood trauma. Reflecting a broad consensus among clinicians and researchers, Horevitz and Loewenstein (1994) characterized DID as "a traumatically induced developmental disorder of childhood" (p. 290).

At the same time, it must be underscored that this consensus is largely based on retrospective surveys of a sample of patients (and clinicians) whose representativeness of the population of DID is unknown. The definition of childhood trauma in these surveys is often very broad, includes extreme neglect and poverty as well as sexual and physical abuse, and there is rarely any quantification of the number of traumatic episodes, their severity, or their duration. The extent to which reports of childhood sexual abuse and other trauma may be biased by the patients' or clinicians' own intuitive theories of DID is unknown, but it is fairly certain that those who seek evidence of abuse and other trauma in childhood will be able to find it. Self-reported histories of childhood trauma, abuse, and neglect are rarely subject to independent verification, perhaps because since the earliest days of psychoanalysis, the

^{*}The Bianchi case was extensively documented in a two-hour *Frontline* documentary, "The Mind of a Murderer," broadcast on PBS in 1984.

[†]Even this evidence is ambiguous with respect to the traumatic etiology of dissociative disorder. For example, because depersonalization occurs in association with anxiety, the mere fact that disaster victims report increased levels of depersonalization (Cardena & Spiegel, 1993) cannot be taken as evidence that trauma causes any form of dissociative disorder. Similarly, biological factors such as concussive head injury and sleep deprivation cannot be ruled out in cases of war-related amnesia, and amnesia for crime may reflect intoxication (Piper, 1998; Pope, Hudson, Bodkin, & Oliva, 1998; Pope, Oliva, & Hudson, 1999). For a debate concerning the status of repressed or dissociated memories of trauma, see Schefflin and Brown (1996) and Piper (1997). For a critical analysis of the argument that traumatic memories are "special," see Shobe & Kihlstrom (1997).

causal link between trauma and dissociation is so intuitively appealing.

Even with independent corroboration of abuse histories, most studies in this area are retrospective and necessarily overestimate the strength of the relationship, if indeed any relationship exists at all between childhood trauma and adult dissociative disorder (Dawes, 1993; Kihllstrom, Eich, Sandbrand, & Tobias, 1997; Pope & Hudson, 1995). For this purpose, the gold standard is provided by prospective studies that condition subjects on the antecedents—e.g., taking representative groups of abused and nonabused children and following them into adulthood to determine who among them develops dissociative disorder.

In fact, authoritative reviews of prospective research failed to find evidence of any specific impact of child sexual abuse on adult personality and psychopathology (Kendall-Tackett, Williams, & Finkelhor, 1993; Nash, Mulsey, Sexton, et al., 1993). This is not to say that child sexual abuse is benign—it is only to say that there are currently no empirical grounds to accept the proposition that childhood sexual abuse causes or even increases the risk for later dissociative disorder. Prospective analyses of other kinds of trauma yield similar findings. For example, Holocaust survivors may show signs of PTSD, but dissociative amnesia is not a prominent feature of their profiles (Wagenaar & Groeneweg, 1990). At this point, the traumatic etiology for dissociative identity disorder and other dissociative disorders must be considered a hypothesis—not an established empirical fact that can inform prevention and treatment.

Treatment of Dissociative Disorders

Other than dissociative identity disorder, little has been written about the treatment of dissociative disorders (Reid, 1989). Apparently, most cases of psychogenic amnesia and fugue resolve themselves spontaneously. Sometimes, patients recover their memories and identities unaided. In other cases, this process is prompted by contact with family and friends or by hints generated through free associations or dream reports. Many cases report that recovery was stimulated by the induction of hypnosis or sedation by intravenous barbiturates such as thiopental. However, these reports should be viewed against a background of

experimental literature indicating that hypnosis has no special efficacy for the recovery of forgotten, repressed, or dissociated memories (Kihllstrom & Barnhardt, 1992; Kihllstrom & Eich, 1994). Moreover, no clinical or experimental study of barbiturate hypnosis has attempted independent corroboration of the ostensibly recovered memories (Piper, 1993).

Depersonalization symptoms are typically intermittent. But because episodes are often associated with acute mood disorder, drug treatment for anxiety and/or depression is often recommended. Presumably, benzodiazepines and other psychoactive drugs act on the anxiety and depression in which depersonalization and derealization occur, rather than directly on the feelings of unreality.

With respect to dissociative identity disorder, the traditional approach to the treatment of DID, initially popularized by Thigpen and Cleckley (1957), involves psychodynamic uncovering, abreaction, and working through of the trauma and other conflictual issues presumed to underlie the disorder, followed by an attempt at integrating the personalities into a single identity (Braun, 1986). The cooperation of each personality is required, entailing considerable effort directed toward developing therapeutic alliances. Hypnosis is often used, both for communicating with the personalities and for the integration, which is sometimes performed almost as a ceremony. Of course, psychotherapy does not necessarily stop with fusion. Additional time may be required to work through the insights achieved earlier in therapy, support the new fusion among the alter egos, and cope with the changes produced by integration.

Even though the modal therapy for DID is insight-oriented, there have been occasional attempts at cognitive-behavioral treatments (e.g., Kirsch & Barton, 1988). Regardless of treatment approach, there is a general consensus that the syndrome presents a number of specific challenges to treatment (Reid, 1989), including secondary gain (for the patient and for the therapist); countertransference reactions of anger, exasperation, aggression (as well as sexual attraction); suggestibility (especially where the evidence for DID is elicited by hypnosis, without independent corroboration), and the integration of confabulations and other distortions into memory.

As with the other dissociative disorders, there is little in the literature by way of systematic outcome studies (Reid, 1989; Ross, 1997). One excep-

tion is a report by Coons (1986) on twenty cases; another is the periodic updates by Kluft (e.g., 1988) on a large series of cases. Ross (1997) reported a two-year follow-up of fifty-four patients (from an original sample of 103); only twelve of these patients had achieved a therapeutic goal of stable integration, although the group as a whole reported diminished levels of dissociative experiences. Still, as Ross (1997) notes, "strictly speaking, there are no treatment outcome data for dissociative identity disorder in the literature" (p. 247). Given all the attention that DID has received since 1980, the fact that whole units, if not entire hospitals, have been developed for treating it, and the ensuing claims for out-of-pocket and third-party payment, this situation is remarkable and deplorable.

Most current treatments of DID are predicated on the notion that the syndrome is caused by childhood trauma such as sexual and physical abuse (Horevitz & Loewenstein, 1994; Ross, 1997). Thus, after the patient has been stabilized, Kluft (1993) recommends a focus on uncovering and resolving trauma and abandoning dissociative defenses. This recommendation would make no sense if there were not memories of trauma to be uncovered and dissociative defenses against such memories to be eliminated. However, as noted earlier, it is not at all clear that the origins of dissociative identity disorder lie in sexual abuse or any other form of childhood trauma. In the absence of convincing prospective evidence that DID has its origins in childhood trauma, such a postcentered focus seems premature at best and at worst raises the possibility that false memories of childhood sexual abuse may be constructed during the course of treatment.

The Dissociative Spectrum

Dissociative disorders constitute only a portion of what was formerly described as "hysteria" (Kihlstrom, 1994). In his pioneering classificatory work, Janet was quite clear that the functional anesthetics, paralyses, and amnesias, including the amnesias of fugue and multiple personality, belonged together in a single class, distinct from phobias, obsessions and compulsions, and other subtypes of neurosis. Early diagnostic usage through DSM-II essentially honored Janet's principles. However, DSM-III and its revision, DSM-III-R,

abandoned hysteria and separated dissociative disorders from conversion disorders. Conversion disorders, in turn, were removed to the category of "Somatoform Disorders" along with somatization disorder (Briquet's syndrome), hypochondriasis, somatoform (psychogenic) pain disorder, body dysmorphic disorder (formerly known as dysmorphophobia), and the like (for reviews of the somatoform disorders, see Cloninger, 1996; Kihlstrom & Canter Kihlstrom, 1999). This separation persists in DSM-IV.

Put bluntly, this reclassification was, and remains, a mistake. It has long been known that conversion disorder, reflecting monosymptomatic disorders of the sensory-motor system, has nothing in common with Briquet's syndrome, hysterical personality, hypochondriasis, and the other somatoform disorders (Kihlstrom, 1992, 1994). They have much more in common with dissociative disorders. In both cases, events (in the current or past environment) have been registered and influence the patient's experience, thought, and action, even though the patient is not consciously aware of them.

The proper classification of conversion disorders, as essentially dissociative, is suggested by the pseudoneurological nature of their presenting symptoms and is further supported by closer psychological analysis of the paradoxes and contradictions in behavior observed in the classic cases described by Janet (1907). The functionally blind patient complains of being unable to see but correctly guesses how many fingers the examiner holds up before his eyes. Functionally deaf patients claim to be unable to hear but orient when their names are called from outside their fields of vision. In both cases, the patient's problem is in gaining conscious access to something that has been processed and registered in the sensory-perceptual system. But in the absence of conscious access, the percepts in question nevertheless influence the patient's experience, thought, and action outside of phenomenal awareness. The parallel to functional amnesia, where the patient complains of being unable to recollect past episodes but is nevertheless influenced by the unremembered events, is clear—at least to us. Just as functionally amnesic patients are not conscious of what they remember, functionally blind or deaf patients are not conscious of what they see or hear. This disruption of conscious awareness is the essence of dissociation.

By analogy with implicit memory, the paradoxes and contradictions in the behavior of conversion disorder patients may be labeled as expressions of "implicit perception" (Kihlstrom, 1996, 1999; Kihlstrom, Barnhardt, & Tataryn, 1992): they show the influence of events in the current environment without consciously perceiving these events.

Fundamentally, then, both dissociative and conversion disorders reflect a disruption of the normal functions of consciousness (Hilgard, 1977; Kihlstrom, 1984, 1992, 1994). These functions include (1) monitoring ourselves and our environment, permitting us to be aware of current events and to recollect the past, such that the world is accurately represented in phenomenal awareness; and (2) controlling ourselves, so that we have the experience of voluntarily initiating and terminating mental activities, at will, to achieve our personal goals and meet environmental demands. Accordingly, their essential unity should be reflected in our diagnostic nosology (for a similar suggestion, see Nemiah, 1989). Therefore, we suggest that henceforth the term "conversion disorder" be dropped from the diagnostic nosology as an inappropriate holdover from the days when psychoanalysis dominated our conception of the neuroses. Furthermore, the erstwhile conversion disorders should be removed from the somatoform category and regrouped with other dissociative disorders, forming three subcategories: (1) dissociative anesthesia, including psychogenic blindness, deafness, analgesia, and other functional disorders of sensation and perception; (2) dissociative paralysis, including psychogenic aphonia and other functional disorders of motor function; and (3) dissociative amnesia, including dissociative amnesia and fugue, dissociative identity, depersonalization and dissociation, and other functional disorders of memory and awareness.

ACKNOWLEDGMENT. Preparation of this chapter and the research that contributed to the point of view represented herein was supported in part by Grant #MH-35856 from the National Institute of Mental Health. I thank Douglas J. Tataryn and Irene P. Tobis (nee Hoyt) for the contributions to the version of this chapter published in the 2nd edition of this book (Kihlstrom et al., 1993). Some material from that chapter has been retained in the present edition, but a great deal of material had to be excluded for reasons of space. The interested

reader is referred there for more comprehensive treatment of the literature before 1990.

References

- Accolla, J. (1998, April 6). The politics of hysteria. *The New Yorker*, 64–79.
- Allison, R. B. (1984). Difficulties diagnosing the multiple personality syndrome in a death penalty case. *International Journal of Clinical and Experimental Hypnosis*, 32, 102–117.
- American Psychiatric Association. (1952). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.
- American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders* (2nd ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Angiulo, M. J. (1994). Screening instruments for dissociative disorders: Their evaluation in a college population. Doctoral dissertation, University of Arizona. *Dissertation Abstracts International: Section A: The Humanities and Social Sciences*, 55, 507.
- Arrigo, J. M., & Pezdek, K. (1997). Lessons from the study of psychogenic amnesia. *Current Directions in Psychological Science*, 6, 148–152.
- Atwood, G. E. (1978). The impact of Sybil on a patient with multiple personality. *American Journal of Psychoanalysis*, 38, 277–279.
- 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. (1986). *Multiple personality, allied disorders, and hypnosis*. New York: Oxford.
- 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.
- Borch-Jacobson, M. (1997, April 24). Sybil—The making of a disease: An interview with Dr. Herbert Spiegel. *New York Review of Books*, 60–64.
- Bowers, K. S., & Farvolden, P. (1996). Revisiting a century-old Freudian slip—from suggestion disavowed to the truth repressed. *Psychological Bulletin*, 119, 355–380.
- Brandsma, J. M., & Ludwig, A. M. (1974). A case of multiple personality: Diagnosis and therapy. *International Journal of Clinical and Experimental Hypnosis*, 22, 216–233.
- Brauer, R., Harrow, M., & Tucker, G. J. (1970). Depersonalization phenomena in psychiatric patients. *British Journal of Psychiatry*, 117, 509–515.
- Braun, B. G. (1986). *Treatment of multiple personality disorder*. Washington, DC: American Psychiatric Press.
- Bremner, J. D., Krystal, J. H., Putnam, F. W., Sothwick, S. M., Marmar, C., Charney, D. S., & Mazure, C. M. (1998). Mea-

- surement of dissociative states with the Clinician-Administered Dissociative States Scale (CADSS). *Journal of Traumatic Stress, 11*, 125-136.
- Bremner, J. D., & Marmar, C. R. (Eds.). (1998). *Trauma, memory, and dissociation*. Washington, DC: American Psychiatric Press.
- Bryant, R. A. (1995). Autobiographical memory across personalities in dissociative identity disorder: A case report. *Journal of Abnormal Psychology, 104*, 625-631.
- Cardena, E., & Spiegel, D. (1993). Dissociative reactions to the Bay Area Earthquake. *American Journal of Psychiatry, 150*, 474-478.
- Carlson, E. T. (1981). The history of multiple personality in the United States: 1. The beginnings. *American Journal of Psychiatry, 138*, 666-668.
- Carlson, E. T. (1984). The history of multiple personality in the United States: Mary Reynolds and her subsequent reputation. *Bulletin of the History of Medicine, 58*, 72-78.
- Carlson, E. T. (1989). Multiple personality and hypnosis: The first one hundred years. *Journal of the History of the Behavioral Sciences, 25*, 315-322.
- Carlson, E. B., & Putnam, F. W. (1993). An update on the Dissociative Experiences Scale. *Dissociation, 6*, 16-27.
- Carlson, E. B., Putnam, F. W., Ross, C. A., Toem, M., Coons, P., Bowman, E. S., Chu, J., Dill, D. L., Loewenstein, R. J., & Braun, B. G. (1993). Predictive validity of the Dissociative Experiences Scale. *American Journal of Psychiatry, 150*, 1030-1036.
- Cloninger, C. R. (1996). Somatization disorder. In T. A. Widiger, A. J. Frances, H. A. Pincus, R. Ross, M. B. First, and W. W. Davis (Eds.), *DSM-IV sourcebook* (Vol. 2, pp. 885-892). Washington, DC: American Psychiatric Association.
- Coons, P. M. (1986). Treatment progress in 20 patients with multiple personality disorder. *Journal of Nervous and Mental Disease, 174*, 715-721.
- Coons, P. M. (1996). Depersonalization and derealization. In L. K. Michaelson & W. J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 291-306). New York: Plenum.
- Coons, P. M., Milstein, V., & Marley, C. (1982). EEG studies of two multiple personalities and a control. *Archives of General Psychiatry, 39*, 823-825.
- Crovitz, H. F., & Schiffman, H. (1974). Frequency of episodic memories as a function of their age. *Bulletin of the Psychonomic Society, 4*, 517-518.
- Dawes, R. M. (1993). Prediction of the future versus an understanding of the past: A basic asymmetry. *American Journal of Psychology, 106*, 1-24.
- Eich, E., Macaulay, D., Loewenstein, R. J., & Dihle, P. H. (1997). Memory, amnesia, and dissociative identity disorder. *Psychological Science, 8*, 417-422.
- Eisen, M. R. (1989). Return of the repressed: Hypnoanalysis of a case of total amnesia. *International Journal of Clinical and Experimental Hypnosis, 37*, 107-119.
- Ellenberger, H. F. (1970). *The discovery of the unconscious: The history and evolution of dynamic psychiatry*. New York: Basic Books.
- Fahy, T. A. (1988). The diagnosis of multiple personality disorder: A critical review. *British Journal of Psychiatry, 153*, 597-606.
- Fisher, C. (1945). Amnesic states in war neuroses: The psychogenesis of fugues. *Psychoanalytic Quarterly, 14*, 437-468.
- Fisher, C., & Joseph, E. (1949). Fugue with loss of personal identity. *Psychoanalytic Quarterly, 18*, 480-493.
- Fleiss, J. L., Gurland, B. J., & Goldberg, K. (1975). Independence of depersonalization-derealization. *Journal of Consulting and Clinical Psychology, 43*, 110-111.
- Frankel, F. H. (1994). Dissociation in hysteria and hypnosis: A concept aggrandized. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Clinical and theoretical perspectives* (pp. 80-93). New York: Guilford.
- Gershberg, F. B., & Shimamura, A. P. (1998). The neuropsychology of human learning and memory. In J. L. Martinez & R. P. Kesner (Eds.), *Neurobiology of learning and memory* (pp. 333-359). New York: Academic Press.
- Gleaves, D. H. (1996). The sociocognitive model of multiple personality disorder: A reexamination of the evidence. *Psychological Bulletin, 120*, 42-59.
- Greaves, G. B. (1980). Multiple personality 165 years after Mary Reynolds. *Journal of Nervous and Mental Disease, 168*, 577-596.
- Hilgard, E. R. (1977). *Divided consciousness: Multiple controls in human thought and action*. New York: Wiley-Interscience.
- Horevitz, R., & Loewenstein, R. J. (1994). The rational treatment of multiple personality disorder. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Clinical and theoretical perspectives* (pp. 289-316). New York: Guilford.
- James, W. (1980). *Principles of psychology*. Cambridge, MA: Harvard University Press. (Originally published 1890).
- Janet, P. (1889). *[Psychological automatism.]* Paris: Alcan.
- Janet, P. (1907). *The major symptoms of hysteria*. New York: Macmillan.
- Kaszniak, A. W., Nussbaum, P. D., Berren, M. R., & Santiago, J. (1988). Amnesia as a consequence of male rape: A case report. *Journal of Abnormal Psychology, 97*, 100-104.
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113*, 164-180.
- Kenny, M. G. (1986). *The passion of Ansel Bourne: Multiple personality in American culture*. Washington, DC: Smithsonian Institution Press.
- Kihlstrom, J. F. (1984). Conscious, subconscious, unconscious: A cognitive perspective. In K. S. Bowers & D. Meichenbaum (Eds.), *The unconscious reconsidered* (pp. 149-211). New York: Wiley.
- Kihlstrom, J. F. (1992). Dissociation and dissociations: A comment on consciousness and cognition. *Consciousness and Cognition, 1*, 47-53.
- Kihlstrom, J. F. (1992). Dissociative and conversion disorders. In D. J. Stein & J. Young (Eds.), *Cognitive science and clinical disorders* (pp. 247-270). San Diego, CA: Academic Press.
- Kihlstrom, J. F. (1994). One hundred years of hysteria. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Theoretical, clinical, and research perspectives* (pp. 365-394). New York: Guilford.
- Kihlstrom, J. F. (1996). Perception without awareness of what is perceived, learning without awareness of what is learned. In M. Velmans (Ed.), *The science of consciousness: Psychological, neuropsychological, and clinical reviews* (pp. 23-46). London: Routledge.
- Kihlstrom, J. F. (1997). Consciousness and me-ness. In J. Cohen & J. Schooler (Eds.), *Scientific approaches to the*

- question of consciousness (pp. 451–468). Mahwah, NJ: Erlbaum.
- Kihlstrom, J. F. (1998). Exhumed memory. In S. J. Lynn & K. M. McConkey (Eds.), *Truth in memory* (pp. 3–31). New York: Guilford.
- Kihlstrom, J. F. (1999). Conscious and unconscious cognition. In R. J. Sternberg (Ed.), *The nature of cognition* (pp. 173–204). Cambridge, MA: MIT Press.
- Kihlstrom, J. F., & Barnhardt, T. R. (1992). The self-regulation of memory, for better or worse, with hypnosis and without. In D. Wegner & J. Pennebaker (Eds.), *Handbook of mental control* (pp. 17–54). Englewood Cliffs, NJ: Prentice-Hall.
- Kihlstrom, J. F., & Canter Kihlstrom, L. (1999). Self, sickness, somatization, and systems of care. In R. J. Contrada & R. D. Ashmore (Eds.), *Self, social identity, and physical health: Interdisciplinary explorations* (pp. 23–42). New York: Oxford University Press.
- Kihlstrom, J. F., & Eich, E. (1994). Altering states of consciousness. In D. Druckman & R. A. Bjork (Eds.), *Learning, remembering, and believing: Enhancing performance* (pp. 207–248). Washington, DC: National Academy Press.
- Kihlstrom, J. F. & Hoyt, I. P. (1988). Hypnosis and the psychology of delusions. In T. F. Oltmanns & B. A. Maher (Eds.), *Delusional beliefs: Interdisciplinary perspectives* (pp. 66–109). New York: Wiley.
- Kihlstrom, J. F., & Klein, S. B. (1994). The self as a knowledge structure. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (Vol. 1, 2nd ed., pp. 153–208). Hillsdale, NJ: Erlbaum.
- Kihlstrom, J. F., & Klein, S. B. (1997). Self-knowledge and self-awareness. In J. G. Snodgrass & R. L. Thompson (Eds.), *The self across psychology: Self-recognition, self-awareness, and the self-concept. Annals of the New York Academy of Sciences*, 818, 5–17.
- Kihlstrom, J. F., & Schacter, D. L. (2000). Functional amnesia. In F. Boller & J. Grafman (Eds.), *Handbook of neuropsychology* (2nd ed., pp. 409–427). Amsterdam: Elsevier Science.
- Kihlstrom, J. F., Barnhardt, T. M., & Tataryn, D. J. (1992). Implicit perception. In R. F. Bornstein & T. S. Pittman (Eds.), *Perception without awareness: Cognitive, clinical, and social perspectives* (pp. 17–54). New York: Guilford.
- Kihlstrom, J. F., Tataryn, D. J., & Hoyt, I. P. (1993). Dissociative disorders. In P. J. Sutker & H. E. Adams (Eds.), *Comprehensive handbook of psychopathology* (2nd ed.). (pp. 203–234). New York: Plenum Press.
- Kihlstrom, J. F., Eich, E., Sandbrand, D., & Tobias, B. A. (1997). Emotion and memory: Implications for self-report (with a critique of retrospective analyses). In A. Stone & J. Turkkan (Eds.), *The science of self-report: Implications for research and practice* (pp. 81–99). Mahwah, NJ: Erlbaum.
- Kirsch, I., & Barton, R. D. (1988). Hypnosis in the treatment of multiple personality: A cognitive-behavioural approach. *British Journal of Experimental and Clinical Hypnosis*, 5, 131–137.
- Kirsch, I., & Lynn, S. J. (1998). Dissociation theories of hypnosis. *Psychological Bulletin*, 123, 100–115.
- Klein, R. M., & Doane, B. K. (1994). *Psychological concepts and dissociative disorders*. Hillsdale, NJ: Erlbaum.
- Kluft, R. P. (1988). The postunification treatment of multiple personality disorder: First findings. *American Journal of Psychotherapy*, 42, 212–228.
- Kluft, R. P. (1993). Basic principles in conducting the treatment of multiple personality disorder. In R. P. Kluft & C. G. Fine (Eds.), *Clinical perspectives on multiple personality disorder* (pp. 53–73). Washington, DC: American Psychiatric Press.
- Kopelman, M. D. (1995). The assessment of psychogenic amnesia. In A. D. Baddeley, B. A. Wilson, & F. N. Watts (Eds.), *Handbook of memory disorders* (pp. 427–448). Chichester, England: Wiley.
- Kopelman, M. D. (1997). Anomalies of autobiographical memory: Retrograde amnesia, confabulation, delusional memory, psychogenic amnesia, and false memories. In J. D. Read & D. S. Lindsay (Eds.), *Recollections of trauma: Scientific evidence and clinical practice* (pp. 273–303). New York: Plenum Press.
- Kroonenberg, P. M. (1985). Three-mode principal components: Analysis of semantic differential data: The case of a triple personality. *Applied Psychological Measurement*, 9, 83–94.
- Loewenstein, R. J. (1996). Dissociative amnesia and dissociative fugue. In L. K. Michelson & W. J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 307–336). New York: Plenum Press.
- Lowenstein, R. J., Hamilton, J., Alagna, S., Reid, N., & deVries, M. (1987). Experiential sampling in the study of multiple personality disorder. *American Journal of Psychiatry*, 144, 19–24.
- Ludwig, A. M., Brandsma, J. M., Wilbur, C. B., Bendfeldt, 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., & Rhue, J. W. (Eds.). (1994). *Dissociation: Clinical and theoretical perspectives*. New York: Guilford.
- Macmillan, M. (1996). *Freud evaluated: The completed arc*. Cambridge, MA: MIT Press.
- Main, M., & Morgan, H. (1996). Disorganization and disorientation in infant strange situation behavior: Phenotypic resemblance to dissociative states. In L. K. Michaelson & W. J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 107–138). New York: Plenum.
- Mathew, R. J., Jack, R. A., & West, W. S. (1985). Regional cerebral blood flow in a patient with multiple personality. *American Journal of Psychiatry*, 142, 504–505.
- Mayer-Gross, W. (1935). On depersonalization. *British Journal of Medical Psychology*, 15, 103–121.
- Michaelson, L. J., & Ray, W. J. (Eds.). (1996). *Handbook of dissociation*. New York: Plenum Press.
- Mitchell, S. L. (1816). A double consciousness, or a duality of person in the same individual [dated January 16, 1816]. *Medical Repository*, 3, 185–186.
- Mitchell, S. W. (1888). Mary Reynolds: A case of double consciousness. *Transactions of the College of Physicians of Philadelphia*, 10, 366–389.
- Nash, M. R., Hulsey, T. L., Sexton, M. C., Harralson, T. L., & Lambert, W. (1993). Long-term sequelae of childhood sexual abuse: Perceived family environment, psychopathology, and dissociation. *Journal of Consulting and Clinical Psychology*, 61, 276–283.
- Nemiah, J. C. (1979). Dissociative amnesia: A clinical and theoretical reconsideration. In J. F. Kihlstrom & F. J. Evans (Eds.), *Functional disorders of memory* (pp. 303–324). Hillsdale, NJ: Erlbaum.
- Nemiah, J. C. (1989). Dissociative disorders (hysterical neuroses, dissociative type). In H. I. Kaplan & B. J. Sadock

- (Eds.), *Comprehensive textbook of psychiatry* (Vol. 1, 5th ed., pp. 1028–1044). Baltimore: Williams & Wilkins.
- Nissen, M. J., Ross, J. L., Willingham, D. B., Mackenzie, T. B., & Schacter, D. L. (1988). Memory and awareness in a patient with multiple personality disorder. *Brain and Cognition*, 8, 117–134.
- 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, 119–169.
- Osgood, C. E., & Luria, Z. (1954). A blind analysis of a case of multiple personality using the semantic differential. *Journal of Abnormal and Social Psychology*, 49, 579–591.
- Osgood, C. E., Luria, Z., Jeans, R. F., & Smith, S. W. (1976). The three faces of Evelyn: A case report. I. An independently validated case of multiple personality [by R. F. Jeans]. II. A blind analysis of another case of multiple personality using the semantic differential technique [by C. E. Osgood, Z. Luria, & S. W. Smith]. III. Reactions to the blind analysis [by R. F. Jeans]. IV. A postscript to "The three faces of Evelyn" [by Z. Luria & C. E. Osgood]. *Journal of Abnormal Psychology*, 85, 247–286.
- 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). What the science says—and doesn't say—about repressed memories: A critique of Schefflin and Brown. *Journal of Psychiatry and Law*, 25, 614–639.
- Piper, A. (1998). Repressed memories from World War II: Nothing to forget. Examining Daron and Widener's (1997) claim to have discovered evidence for repression. *Professional Psychology: Research and Practice*, 29, 476–478.
- Pope, H. G., & Hudson, J. I. (1995). Can individuals "repress" memories of childhood sexual abuse? An examination of the evidence. *Psychiatric Annals*, 25, 715–719.
- Pope, H. G., Hudson, J. I., Bodkin, J. A., & Oliva, P. (1998). Questionable validity of "dissociative amnesia" in trauma victims: Evidence from prospective studies. *British Journal of Psychiatry*, 172, 210–215.
- Pope, H. G., Oliva, P., & Hudson, J. I. (1999). The scientific status of repressed memories. In D. L. Faigman, D. H. Kaye, M. J. Saks, & J. Sanders (Eds.), *Modern scientific evidence: The law and science of expert testimony*, Vol. 1, Pocket part (pp. 115–155). St. Paul, MN: West.
- Pratt, R. T. C. (1977). Psychogenic loss of memory. In C. W. M. Whitty & O. L. Zangwill (Eds.), *Amnesia* (2nd ed., pp. 224–232). London: Butterworth.
- Putnam, F. W. (1984). The psychophysiologic investigation of multiple personality disorder: A review. *Psychiatric Clinics of North America*, 7, 31–39.
- Putnam, F. W. (1985). Dissociation as a response to extreme trauma. In R. P. Kluff (Ed.), *Childhood antecedents of multiple personality* (pp. 65–97). Washington, DC: American Psychiatric Press.
- Putnam, F. W. (1989). *Diagnosis and treatment of multiple personality disorder*. New York: Guilford.
- Putnam, F. W. (1997). *Dissociation in children and adolescents: A developmental perspective*. New York: Guilford.
- 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.
- Reed, G. (1979). Anomalies of recall and recognition. In J. F. Kihlstrom & F. J. Evans (Eds.), *Functional disorders of memory* (pp. 1–28). Hillsdale, NJ: Erlbaum.
- Reed, G. (1988). *The psychology of anomalous experience* (rev. ed.). Buffalo, NY: Prometheus.
- Regier, D. A., Myers, J. K., Kramer, M., Robins, L. N., Blazer, D. G., Hough, R. L., Eaton, W. W., & Locke, B. Z. (1984). The NIMH Epidemiologic Catchment Area Program: Historical context, major objectives, and study population characteristics. *Archives of General Psychiatry*, 41, 934–941.
- Reid, W. H. (1989). Dissociative disorders (Hysterical neuroses, dissociative type). In W. H. Reid (Ed.), *The treatment of psychiatric disorders: Revised for the DSM-III-R* (pp. 266–272). New York: Brunner/Mazel.
- Robinson, J. A. (1976). Sampling autobiographical memory. *Cognitive Psychology*, 8, 578–595.
- Rosenzweig, S. (1987). Sally Beauchamp's career: A psychoarcheological key to Morton Prince's classic case of multiple personality. *Genetic, Social, and General Psychology Monographs*, 113, 5–60.
- Rosenzweig, S. (1988). The identity and idiodynamics of the multiple personality "Sally Beauchamp": A confirmatory supplement. *American Psychologist*, 43, 45–48.
- Ross, C. A. (1997). *Dissociative identity disorder: Diagnosis, clinical features, and treatment of multiple personality*. New York: Wiley.
- Roth, M., & Argyle, N. (1988). Anxiety, panic, and phobic disorders: An overview. *Journal of Psychiatric Research*, 22(Suppl. 1), 33–54.
- Schacter, D. L. (1986a). Amnesia and crime: How much do we really know? *American Psychologist*, 41, 286–295.
- Schacter, D. L. (1986b). On the relation between genuine and simulated amnesia. *Behavioral Sciences and the Law*, 4, 47–64.
- Schacter, D. L. (1987). Implicit memory: History and current status. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13, 501–518.
- Schacter, D. L., & Kihlstrom, J. F. (1999). Functional amnesia. In F. Boller & J. Grafman (Eds.), *Handbook of neuropsychology* (2nd ed., pp. 407–427). Amsterdam: Elsevier Science.
- Schacter, D. L., Kihlstrom, J. F., Canter Kihlstrom, L., & Beren, M. (1989). Autobiographical memory in a case of multiple personality disorder. *Journal of Abnormal Psychology*, 98, 508–514.
- Schacter, D. L., Wang, P. L., Tulving, E., & Friedman, M. (1982). Functional retrograde amnesia: A quantitative case study. *Neuropsychologia*, 20, 523–532.
- Schefflin, A. W., & Brown, D. (1996). Repressed memory or dissociative amnesia: What the science says. *Journal of Psychiatry and Law*, 24, 143–188.
- Schreiber, F. L. (1973). *Sybil*. Chicago: Regnery.
- Shimamura, A. P. (1993). Neuropsychological analyses of implicit memory: History, methodology, and theoretical interpretations. In P. Graf & M. E. J. Masson (Eds.), *Implicit memory: New directions in cognition, development, and neuropsychology* (pp. 265–285). Hillsdale, NJ: Erlbaum.
- Shobe, K. K., & Kihlstrom, J. F. (1997). Is traumatic memory special? *Current Directions in Psychological Science*, 6, 70–74.
- Silberman, E. K., Putnam, F. W., Weingartner, H., Braun, B. G., & Post, R. M. (1985). Dissociative states in multiple personality disorder: A quantitative study. *Psychiatry Research*, 15, 253–260.

- Spanos, N. P. (1986). Hypnosis, nonvolitional responding and multiple personality. In B. Maher & W. Maher (Eds.), *Progress in experimental personality research*, Vol. 14 (pp. 1-62). New York: Academic Press.
- 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., & Gottlieb, J. (1979). Demonic possession, mesmerism, and hysteria: A social psychological perspective on their historical interrelations. *Journal of Abnormal Psychology*, 88, 527-546.
- Spiegel, D. (1984). Multiple personality as a post-traumatic stress disorder. *Psychiatric Clinics of North America*, 7, 101-110.
- Spiegel, D. (Ed.). (1991). Dissociative disorders. In A. Tasman & S. M. Goldfinger (Eds.), *American Psychiatric Press Review of Psychiatry*, Vol. 10 (pp. 143-280). Washington, DC: American Psychiatric Press.
- Spiegel, D. (Ed.). (1994). *Dissociation: Culture, mind, and body*. Washington, DC: American Psychiatric Press.
- Steinberg, M. J. (1996). The psychological assessment of dissociation. In L. K. Michaelson & W. J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 251-268). New York: Plenum Press.
- Stengel, E. (1966). Psychogenic loss of memory. In C. W. M. Whitty & O. L. Zangwill (Eds.), *Amnesia* (pp. 181-191). London: Butterworth.
- Sutcliffe, J. P., & Jones, J. (1962). Personal identity, multiple personality, and hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 10, 231-269.
- Taylor, E. (1982). *William James on exceptional mental states: The 1896 Lowell Lectures*. New York: Scribner's.
- Taylor, E. (1996). *William James on consciousness beyond the margin*. Princeton, NJ: Princeton University Press.
- Taylor, W. S., & Martin, M. F. (1944). Multiple personality. *Journal of Abnormal and Social Psychology*, 39, 281-300.
- Thigpen, C. H., & Cleckley, H. M. (1954). A case of multiple personality. *Journal of Abnormal and Social Psychology*, 49, 135-151.
- Thigpen, C. H., & Cleckley, H. M. (1957). *The three faces of Eve*. New York: Popular Library.
- Thigpen, C. H., & Cleckley, H. M. (1984). On the incidence of multiple personality disorder. *International Journal of Clinical and Experimental Hypnosis*, 32, 63-66.
- Treadwell, M., McCloskey, M., Gordon, B., & Cohen, N. J. (1992). Landmark life events and the organization of memory: Evidence from functional retrograde amnesia. In S.-A. Christianson (Ed.), *Handbook of emotion and memory* (pp. 389-410). Hillsdale, NJ: Erlbaum.
- Wagenaar, W. A., & Groeneweg, J. (1990). The memory of concentration camp survivors. *Applied Cognitive Psychology*, 4, 77-87.
- Waller, N. G., Putnam, F. W., & Carlson, E. B. (1996). Types of dissociation and dissociative types: A taxometric analysis of dissociative experiences. *Psychological Methods*, 1, 300-321.
- Waller, N. G., & Ross, C. (1997). The prevalence and biometric structure of pathological dissociation in the general population: Taxometric and behavior genetic findings. *Journal of Abnormal Psychology*, 106, 49-510.
- Watkins, J. G. (1984). The Bianchi (L.A. hillside strangler) case: Sociopath or multiple personality? *International Journal of Clinical and Experimental Hypnosis*, 32, 67-101.
- Woody, E. Z., & Sadler, P. (1998). On reintegrating dissociated theories: Commentary on Kirsch & Lynn (1998). *Psychological Bulletin*, 123, 192-197.
- Woody, E. Z., & Bowers, K. S. (1994). A frontal assault on dissociated control. In S. J. Lynn & J. W. Rhue (Eds.), *Dissociation: Clinical and theoretical perspectives* (pp. 52-79). New York: Guilford.

Comprehensive Handbook of Psychopathology

THIRD EDITION

Edited by

Patricia B. Sutker

*Department of Veterans Affairs Medical Center and
Tulane University School of Medicine
New Orleans, Louisiana*

and

Henry E. Adams

*University of Georgia
Athens, Georgia*

Kluwer Academic / Plenum Publishers
New York · Boston · Dordrecht · London · Moscow

Library of Congress Cataloging-in-Publication Data

Comprehensive handbook of psychopathology/edited by Henry E. Adams and Patricia B. Sutker.—3rd ed.

p. cm

Includes bibliographical references and index.

ISBN 0-306-46490-X

1. Psychology, Pathological—Handbooks, manuals, etc. I. Adams, Henry E., 1931– II. Sutker, Patricia B.

RC454 .C636 2000

616.89—dc21

00-046622

ISBN: 0-306-46490-X

©2001 Kluwer Academic / Plenum Publishers, New York
233 Spring Street, New York, New York 10013

<http://www.wkap.nl/>

10 9 8 7 6 5 4 3 2 1

A C.I.P. record for this book is available from the Library of Congress

All rights reserved

No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording, or otherwise, without written permission from the Publisher

Printed in the United States of America