

Searching for Repressed Memory

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Abstract This chapter summarizes the work of my research group on adults who report either repressed, recovered, or continuous memories of childhood sexual abuse (CSA) or who report no history of CSA. Adapting paradigms from cognitive psychology, we tested hypotheses inspired by both the “repressed memory” and “false memory” perspectives on recovered memories of CSA. We found some evidence for the false memory perspective, but no evidence for the repressed memory perspective. However, our work also suggests a third perspective on recovered memories that does not require the concept of repression. Some children do not understand their CSA when it occurs, and do not experience terror. Years later, they recall the experience, and understanding it as abuse, suffer intense distress. The memory failed to come to mind for years, partly because the child did not encode it as terrifying (i.e., traumatic), not because the person was unable to recall it.

Keywords Dissociation • False memory • Repression • CSA

The controversy concerning reports of repressed and recovered memories of childhood sexual abuse (CSA) has been among the most bitter in the history of psychology and psychiatry (Brewin, 2003; McNally, 2003a). Two polarized interpretations of these reports have dominated the controversy, both presupposing that CSA counts as a psychologically traumatic experience.

According to the *repression perspective*, the mind protects itself by banishing memories of abuse precisely because they are so traumatic. Victims become incapable of recalling their abuse until it is psychologically safe to do so, often many years later. People ordinarily remember traumatic experiences all too well (Porter & Peace, 2007), as the syndrome of posttraumatic stress disorder (PTSD) so dramatically

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illustrates (American Psychiatric Association [APA], 2000, pp. 463–468). Therefore, an apparent inability to remember trauma seemingly implies an inhibitory mechanism that blocks conscious access to memories of these events. If a person says that he or she remembered an episode of abuse after not having thought about it for years, then repression theorists suspect that the memory must have been repressed (e.g., Briere & Conte, 1993). Indeed, why else would someone forget a seemingly unforgettable experience?

These theorists sometimes use synonyms for *repression*, such as *traumatic amnesia*, *dissociative amnesia*, and *traumatic dissociative amnesia*, but the idea is the same: precisely *because* the experience was so emotionally traumatic, the person is *unable* to recall it. As Brown, Schefflin, and Hammond (1998) put it:

when emotional material reaches the point of being traumatic in intensity – something that cannot be replicated in artificial laboratories – in a certain subpopulation of individuals, material that is too intense may not be able to be consciously processed and so may become unconscious and amnesic. (p. 97)

If repressed memories of CSA were functionally inert, then they would have little clinical relevance. However, repression theorists liken these memories to an undetected malignant tumor that silently poisons the emotional life of the unwitting victim. Victims may be entirely oblivious to their history of horrific trauma, thanks to “massive repression” (Herman & Schatzow, 1987, p. 12), yet suffer its psychological consequences nevertheless. As Breuer and Freud (1893/1955) put it, a repressed memory of sexual abuse “acts like a foreign body which long after its entry must continue to be regarded as an agent that is still at work” (p. 6).

Toxic memories of which the victim is entirely unaware may cause diverse psychological symptoms, according to repression theorists. This belief provided the justification for therapists using hypnosis, guided imagery, and other methods to exhume the memories (e.g., Courtois, 1992; Olio, 1989). As Brown et al. (1998) wrote:

Because some victims of sexual abuse will repress their memories by dissociating them from consciousness, hypnosis can be very valuable in retrieving these memories. Indeed, for some victims, hypnosis may provide the only avenue to the repressed memories. (p. 647)

Once patients recover their memories, they can process them emotionally, and integrate them into the narrative of their lives.

Summarizing this perspective in his book, entitled *Repressed Memories*, Spiegel (1997) emphasized that

the nature of traumatic dissociative amnesia is such that it is not subject to the same rules of ordinary forgetting; it is more, rather than less, common after repeated episodes; involves strong affect; and is resistant to retrieval through salient cues. (p. 6)

Hence, Spiegel holds that memory for trauma obeys different laws than those governing the encoding and recollection of other experiences. Ordinarily, the more often a type of event occurs, the better able a person is to remember having experienced

that type of event, especially if it involved strong emotion. Repression theorists, however, believe otherwise.

Advocates of the *false memory perspective* hold that memories of abuse are not exempt from the principles that govern the encoding and recall of other emotional memories (e.g., Pendergrast, 1996). If sexual abuse counts as an emotionally traumatic experience, then stress hormones released during the event should ensure its memorability (McGaugh, 2003). Accordingly, if someone does report a prior inability to recall a seemingly traumatic experience, the person is likely mistaken about the event. These theorists suspect that imagery of the abuse does not correspond to a genuine event, but rather reflects an unintentional confabulation, especially if it surfaced only after the person has undergone recovered-memory therapy techniques such as hypnosis (Ceci & Loftus, 1994).

Historical Background

That a person could experience a psychologically traumatic event not involving physical insult to brain, be unable to recall the event, and later have it return to consciousness is an idea whose popularity began to flourish in 19th century Europe (Borch-Jacobsen, 2009, pp. 19–36). In fact, a comprehensive search of the worldwide medical, historical, and fictional literature failed to uncover a single recorded instance prior to the 19th century (Pope, Poliakoff, Parker, Boynes, & Hudson, 2007a). The authors of this study offered a \$1,000 prize to anyone who could locate a case of dissociative amnesia prior to 1800.

I came closest to winning the prize (Carey, 2007), nearly qualifying with my case of Madame de Tourvel in Choderlos de Laclos's 1782 novel, *Les Liaisons Dangereuses*. Unfortunately for me, the pious Madame de Tourvel repressed the memory of her adultery and betrayal by her lover for a mere half hour before recovering it (Choderlos de Laclos (1782/1961, pp. 348–349). However, massive media publicity of the repressed memory challenge eventually generated a winner. The case appeared in J. B. Marsollier's *Nina*, a 1786 French opera (Pope, Poliakoff, Parker, Boynes, & Hudson, 2007b). This 18th century case does not invalidate Pope et al.'s (2007a) conclusion that claims about one's inability to remember trauma amount to a culturally shaped idiom of distress arising in Europe in the climate of Romanticism. The case in *Nina* merely moves the threshold back a few years.

Scrutinizing the work of Jean Charcot, Pierre Janet, and Sigmund Freud, the historian of psychiatry, Borch-Jacobsen, described “the birth of a true psychiatric myth, fated to a grand future: *the patient is entirely ignorant of the trauma that caused his symptoms*” (p. 30). Prior to Charcot developing this idea via his hypnotic work, his polysymptomatic hysteria patients “remembered quite clearly the psychic or mechanical shock that had triggered their hysterical paralyzes and attacks. After, they would tend not to know the cause of their symptoms any longer; the era of ‘dissociation of consciousness’ and of ‘repression’ had begun” (p. 25). Unwittingly conveying his “completely new expectation, that of post-traumatic *amnesia*” (p. 25)

to his suggestible patients during hypnosis, Charcot found exactly what he was seeking: seemingly dissociated memories of trauma.

Janet and Freud further promoted the concepts of traumatic dissociative amnesia and repression. Formulating his seduction theory of hysteria, Freud (1962) developed a therapeutic approach that constitutes a direct precursor of the late 20th century attempts to recover presumably repressed memories of CSA (Crews, 1995, pp. 216–218; McNally, 2007a). Freud believed that sexual abuse occurring during the preschool years, if repressed from consciousness, could later erupt into hysteria if the person encounters a triggering event after puberty. He believed that helping patients recover their repressed memories of abuse, enabling them to abreact their emotions, and encouraging them to express the trauma in words would cure their hysteria. Unfortunately, Freud's therapy failed to produce the predicted cures, and he quietly abandoned his seduction theory, replacing it with classical psychoanalysis (Israëls & Schatzman, 1993; McNally, 2003a, pp. 159–169).

The Aims of this Chapter

I have three aims in this chapter, whose title echoes that of one my colleague's books (Schacter, 1996). Schacter's book, *Searching for Memory*, was wide ranging, whereas my chapter chiefly concerns the search for evidence of repressed memories of trauma.

First, I examine the evidence that repression theorists adduce to support their claim that many trauma victims are incapable of remembering their most horrific experiences (e.g., Brown et al., 1998; Brown, Schefflin, & Whitfield, 1999). The devil is in the details, and scrutiny of their evidence and arguments shows that repression theorists seemingly misunderstand the very studies they cite in support of the authenticity of the phenomenon (McNally, 2003a, pp. 186–228; McNally, 2004, 2007b; Piper, Pope, & Borowiecki, 2000). In fact, an analysis of studies concerning corroborated traumatic events uncovered no convincing evidence that victims had forgotten, let alone repressed, their trauma (Pope, Oliva, & Hudson, 1999). There are isolated cases of people who seemingly forgot traumatic experiences, only to recall them later (Schooler, Bendiksen, & Ambadar, 1997). Yet at least in some of these cases, the evidence clearly shows that the victims had actually recalled their trauma during the time when they had mistakenly believed that it had never come to mind. That is, they had forgotten their prior recollections.

Second, the concept of repression has nevertheless inspired laboratory research. My colleagues and I have tested hypotheses about processes potentially relevant to encoding, remembering, and forgetting of sexual abuse. I describe these experiments, our results, and the strengths and limitations of the laboratory approach.

Third, ambiguities in the concept of trauma itself have contributed to the recovered memory controversy. Some of these are difficult to resolve, yet there are good reasons to believe that there is a third perspective on recovered memories in addition to the repression and false memory perspectives that can illuminate at least some cases of CSA. I close my chapter by elaborating on these issues.

What Does the Science Say About Repression of Trauma?

Brown, Schefflin, and Whitfield wrote “the burden of proof is on them [skeptics of repressed memories of trauma] to show that repressed memories do not exist” (1999, p. 125). This is an elementary error. Brown et al. have it exactly backwards: the burden of proof lies on those making the claim that people do repress their memories of trauma. It is logically impossible for anyone to prove the null hypothesis that something never occurs. Indeed, even if overwhelming evidence indicates that traumatic experiences are remembered all too well, this does not rule out the possibility that evidence for repressed memories of trauma may subsequently emerge.

In any event, repression theorists have cited many studies that they believe bolster the case for repressed memories of trauma. In the following sections, I examine their arguments and evidence. Unfortunately, their arguments often betray confusions about memory and trauma.

Confusing Posttraumatic Forgetfulness with an Inability to Remember the Trauma Itself

People exposed to traumatic events, especially those who develop PTSD, often report memory and concentration problems in everyday life. In fact, this problem was a formal diagnostic criterion for PTSD in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; APA, 1980, p. 238). Unfortunately, repression theorists cite it as relevant to repression (e.g., Brown et al., 1999).

For example, Wilkinson (1983) interviewed survivors of the collapse of the skywalks in the lobby of Kansas City’s Hyatt Regency Hotel. Using DSM-III criteria, he found that 88% of them reported “repeated recollections” of the horrific trauma, and 27% reported “memory difficulties.”

These findings, however, have nothing to do with an inability to remember the trauma. Obviously, someone who has repeated recollections of a traumatic event is not someone who cannot remember the traumatic event. One must not confuse everyday forgetfulness that develops after exposure to trauma with an inability to remember the trauma itself.

Confusing Impaired Encoding with Amnesia for the Trauma

Among several changes occurring in the diagnostic criteria for PTSD between DSM-III and its revision (DSM-III-R; APA, 1987) was the replacement of memory and concentration problems with the very different symptom of inability to recall an important aspect of the trauma (Criterion C3). Inability to recall an important aspect of the trauma remained in the criteria set in DSM-IV (APA, 1994), including its text revision (DSM-IV-TR; APA, 2000).

Although repression theorists have argued that this symptom signifies amnesia for aspects of the trauma, it is, at best, deeply ambiguous. The claim that someone is unable to recall something presupposes that the person encoded it in the first place. Yet people do not encode every aspect of an experience into memory; their minds do not operate like videotape machines. This is especially true of rapidly unfolding traumatic events, such as an automobile accident or drive-by shooting.

Consider the phenomenon of weapon focus. During emotionally arousing events, the central aspects of the experience tend to capture the person's attention, often at the expense of the peripheral aspects. Hence, a person robbed at gunpoint may recall the details of the weapon, yet be unable to describe the face of the assailant. However, failure to recall the appearance of the robber need not signify amnesia for his face; it likely means that attention was riveted on the gun while the robbery was unfolding. Indeed, it makes no sense to say someone has "amnesia" for something if it never made it into memory in the first place.

Hence, we must not confuse a failure to encode with an inability to remember. The concept of repression presupposes that the person has encoded the experience, yet remains unable to recall it because defensive mechanisms of the mind block its recollection.

Interestingly, trauma survivors with PTSD seldom endorse this symptom anyway (Breslau, Reboussin, Anthony, & Storr, 2005; Rubin, Berntsen, & Bohni, 2008). Accordingly, the DSM-V committee should delete it from the revised criteria for PTSD (McNally, 2009a).

Confusing Psychogenic Amnesia with Repression of Trauma

Although the term "psychogenic amnesia" appears parenthetically as a clarifying phrase for the PTSD C3 criterion, it also refers to a rare syndrome whereby a person reports complete loss of his or her autobiographical memory (Kihlstrom & Schacter, 2000). People receiving this diagnosis report sudden, massive retrograde memory loss, including loss of one's personal identity. Calling it "psychogenic" amnesia merely denotes that no obvious "organic" cause occurred. There appears to be no obvious physical insult to the brain precipitating the syndrome. In fact, although stressful events do sometimes precede the emergence of psychogenic amnesia, many are not especially traumatic (e.g., death of a grandparent, job difficulties, and romantic disappointments). Memory usually returns spontaneously within a few weeks, often suddenly.

Although sometimes cited as relevant to recovered memories of CSA (e.g., Arrigo & Pezdek, 1997), the syndrome of psychogenic amnesia differs from the concept of traumatic dissociative amnesia in three important ways. First, autobiographical memory loss is global, and not specific to stressful events. Second, and most strikingly, the person loses, or claims to have lost, his or her personal identity. Third, antecedents to memory loss are not necessarily traumatic, and it is unclear whether they truly precipitate the emergence of the syndrome.

Confusing Organic Amnesia for Repression of Trauma

Some clinical theorists occasionally confuse cases of organic amnesia for psychic repression of trauma. For example, Brown et al. (1998) claimed that “Dollinger (1985) found that two of the 38 children studied after watching lightning strike and kill a playmate had no memory of the event” (pp. 609–610). These elementary school children had been playing soccer when the fatal thunderstorm abruptly began.

Brown et al., however, forgot to mention that side flashes from the main lightning bolt had struck both children, knocking them unconscious, and nearly killing them (Dollinger, 1985). Their amnesia for the lightning strike was due to a nearly fatal insult to the brain. Being struck by lightning would surely count as psychically as well as physically traumatizing, if one encoded the experience, which neither child did. Yet the psychic aspects of the disaster were insufficient to trigger amnesia for the event. Indeed, the children who were not struck by lightning remembered the disaster very well, and many suffered from posttraumatic symptoms (Dollinger, 1985).

Confusing Nondisclosure with Repression of Trauma

When questioned by survey interviewers, some adult survivors of childhood abuse fail to mention their abuse when explicitly asked about it (e.g., Widom & Morris, 1997). Despite the research team having consulted official records corroborating the abuse, the survey respondents did not disclose their experiences when the interviewers asked about a history of abuse. However, we must not equate a failure to disclose with an inability to remember. Although it is possible that the person has forgotten his or her childhood abuse, there are other reasons why a survey respondent might choose to deny it to a survey interviewer. Reluctance to discuss potentially embarrassing or upsetting experiences with a stranger might account for denial of abuse, as Femina, Yeager, and Lewis (1990) discovered when they re-interviewed nondisclosing abuse victims.

Confusing Childhood Amnesia with Repression of Trauma

People can recall few of their experiences occurring before the age of 4 or 5. Neurocognitive changes in brain maturation that support language and memory make it very difficult for older children and adults to recall events from their preschool years. Accordingly, if someone fails to recall an episode of molestation from these years, then we need not attribute this failure to memory repression. Because of normal childhood amnesia, nearly all events from these years will be lost forever. For example, in one survey of 129 women who had been medically assessed for sexual abuse during childhood, 16 denied ever having been sexually abused

(Williams, 1994). However, several of these women experienced molestation before the age of five. Hence, their denial of abuse is likely attributable to childhood amnesia rather than repression or an unwillingness to acknowledge their abuse to a survey interviewer.

Confusing Not Thinking About Abuse with Repression of Trauma

A common mistake is to confuse not thinking about something with an inability to remember it. In one influential questionnaire study, Briere and Conte (1993) found that 59% of adults in treatment for the effects of CSA answered affirmatively when questioned whether there had ever been “a time when you could not remember” (p. 24) the abuse. The authors interpreted this result as evidence for “sexual abuse-related repression” (p. 26). However, an affirmative reply to this question implies that the person had spent time trying unsuccessfully to remember his or her abuse. But if these patients had repressed all memories of their abuse, why would they try to recall it in the first place? I suspect that most patients interpreted this question as meaning, “Has there ever been a time when you did not think about your abuse?” Yet *not thinking about* one’s abuse is not the same thing as being *unable* to recall it, and evidence for repression requires an *inability* to recall the abuse. It is entirely possible that these memories would have come to mind during the period of presumptive repression had the person encountered reminders of the abuse.

Distinguishing between not thinking about something for a long time versus being unable to remember it has profound clinical implications. It is not a mere semantic quibble. If patients have not thought about their abuse for many years, then questions during a clinical intake interview will likely prompt recollection. On the other hand, if clinicians believe that patients often repress their memories of abuse, they may be inclined to engage in so-called recovered memory techniques to unlock the presumably repressed memories even when patients deny a history of abuse.

Research on People Reporting Recovered Memories

My colleagues, students, and I have been conducting research on trauma survivors since 1985 (e.g., McNally et al., 1987; Trandel & McNally, 1987). Most of these studies have concerned veterans, especially those from the Vietnam War. We have tackled the problem of trauma from the perspectives of psychometrics (Macklin et al., 1998; McNally & Shin, 1995), epidemiology (Engelhard et al., 2007; McNally, 2007c; McTeague, McNally, & Litz, 2004), and neuroimaging (Shin, Kosslyn, et al., 1997; Shin, McNally, et al., 1999). However, many of our experiments have concerned the application of cognitive paradigms to elucidate information-processing biases and abnormalities associated with PTSD (McNally, 1998, 2006). Using these

methods, we have been investigating the cognitive psychology of people reporting recovered memories of CSA (McNally, 2003b).

Our migration into the recovered-memory controversy began after I had interviewed women who had responded to our newspaper advertisement that requested volunteers for a study on adult survivors of childhood sexual abuse. My Ph.D. student, Lisa Shin, was conducting a positron emission tomography (PET) study regarding the functional neuroanatomy of traumatic memory in women who had suffered sexual abuse as children and who either had or did not have PTSD (Shin et al., 1999). I was one of the clinicians conducting psychiatric diagnostic interviews to determine whether potential subjects qualified for the study. During the course of about 10 days, I assessed several women who had responded to our advertisement, but who remembered nothing about their abuse. Puzzled, I asked them why they responded to an ad that requested survivors of sexual abuse when they had no memories of sexual abuse. Each explained that she had been experiencing various symptoms (e.g., depressed mood, problems with men, drinking too much), and assumed that these otherwise inexplicable difficulties resulted from memories of sexual abuse which they could not remember. These women did not qualify for our PET study, which required autobiographical memories of abuse. However, they inspired our new program of research on recovered memories of CSA.

Shortly thereafter, I discussed my experiences with these interviewees with my colleague, Daniel Schacter. Curious what might happen if we were to advertise for subjects who believe they harbor inaccessible memories of abuse, we decided to embark upon a research program designed to elucidate cognitive functioning in these individuals. The Memory Wars were raging still, and yet cognitive scientists had yet to study the very people at the heart of the controversy. As it turned out, we had no shortage of subjects.

Our research program on recovered memories of sexual abuse involved successive waves of subjects. We recruited four groups of subjects (McNally, Clancy, Schacter, & Pitman, 2000a). The *repressed memory group* included women who suspected that they had been sexual abuse victims as a child despite their having no autobiographical memories of abuse. They inferred the presence of buried memories of abuse based on a diversity of psychological problems. These subjects were similar to those I excluded from the PET study. We used the *repressed memory* label because it captures their phenomenology, not because we believe they harbor repressed memories.

The *recovered memory group* included women who reported childhood sexual abuse, reported not having thought about their abuse for years, and reported having recalled it later in life. Unlike members of the repressed memory group, these subjects described at least one autobiographical memory of molestation. In our first wave of research, we did not endeavor to corroborate the memories reported by any of our subjects, and hence we did not know whether the memories reported by the recovered memory group, for example, were genuine memories or false memories.

The continuous memory group included women who said that they had never forgotten their sexual abuse. The control group included women who reported no history of sexual abuse.

In one of our early projects, we administered a battery of questionnaires to our subjects to characterize them in terms of personality and psychiatric symptoms (McNally et al., 2000a). We found that continuous memory subjects were indistinguishable from nonabused control subjects on measures of depression, stress, dissociation, negative affectivity, and positive affectivity. This was a bit surprising, and perhaps attributable to the fact that many continuous memory subjects had participated in counseling sessions and likely benefited from treatment, thereby experiencing symptom reduction.

Perhaps more strikingly, the group that had no memories of sexual abuse, but whose members believed they harbored repressed memories of abuse, scored higher on measures of depression, stress, dissociation, and negative affectivity, but not positive affectivity, than did members in the continuous memory group. The recovered memory group tended to score midway between the continuous memory and repressed memory groups on these measures.

There are at least two possible explanations for the significantly more distressed profile in the repressed memory group than in the continuous memory group. One possibility is that subjects in the repressed memory group were experiencing the psychological toll of having buried their memories of abuse, as Freud would have suspected. Another possibility is that their symptoms arose from diverse sources, and their inference that they harbored repressed memories reflected an “effort after meaning” – an attempt to make sense of distressing, otherwise inexplicable symptoms. We suspect that the second interpretation is the correct one.

Our group subsequently published a psychometric and clinical study on another wave of subjects (McNally, Perlman, Ristuccia & Clancy, 2006b). Although our primary focus in this research program has been memory phenomenology and its correlates, not psychiatric illness, we did conduct formal clinical interviews in this study.

This project involved men as well as women who reported sexual abuse during childhood. There were 42 repressed memory subjects, 38 recovered memory subjects, 92 continuous memory subjects, and 36 nonabused control subjects. In contrast to results in our previous study, all three groups reporting CSA scored similarly on measures of depression, anxiety, and dissociation, and higher than did the nonabused control group. The difference between the results of the two studies seemed attributable to a slightly less distressed repressed memory group and a substantially more distressed continuous memory group. For example, the mean Beck Depression Inventory (BDI; Beck & Steer, 1987) scores in the continuous memory group in the first and second studies were 5.0 and 14.5, respectively, whereas the corresponding scores in the repressed memory group were 21.1 and 16.5, respectively.

Using Foa and Tolin’s (2000) interview, we found that 45% of the continuous memory subjects met current symptomatic criteria for PTSD, whereas 38% of the recovered memory subjects, 14% of the repressed memory subjects, and 3% of the nonabused control subjects did so. The referent trauma in the first two groups was CSA, whereas it was another trauma (e.g., automobile accident) for the groups without abuse memories.

We also conducted structured interviews for current major depressive disorder (MDD) as well as for the anxiety disorders. MDD was present in 15% of the continuous

memory subjects, 8% of the recovered memory subjects, 13% of the repressed memory subjects, and 0% of the control subjects.

We also tested a hypothesis inspired by Freyd's betrayal trauma theory (Freyd, 1996; Freyd, DePrince, & Gleaves, 2007; DePrince et al., 2012, this volume; for a critique, see McNally, 2007d). According to this theory, children abused by a caretaker are more likely to develop amnesia for their abuse than are children abused by someone on whom they do not rely for food, shelter, and clothing. Children whose caretakers betray them by molesting them encounter a psychologically senseless situation. The very person who provides for their vital survival needs is violating them sexually. Freyd suggests that children resolve this conflict by developing amnesia for their abuse, thereby ensuring maintenance of the caretaking bond essential for physical survival. This theory implies that more subjects in the recovered memory group than in the continuous memory group would cite a primary caretaker as their abuser (e.g., parent, stepparent, foster parent). However, the proportion of subjects in each group reporting caretaker abuse was nearly identical: 20% in the continuous memory group and 21% in the recovered memory group.

Laboratory Research Relevant to False Memories

My students, colleagues, and I have conducted experiments designed to test hypotheses arising from both the false memory perspective and the repression perspective. In our first experiment, we tested whether women reporting recovered memories of CSA were more prone than were control subjects to experience memory distortion following guided imagery of possible childhood events (Clancy, McNally, & Schacter, 1999). We used the imagination-inflation paradigm of Garry, Manning, Loftus, and Sherman (1996). Subjects first rated their confidence regarding whether they had experienced certain events during childhood (e.g., finding a \$10 bill in a parking lot). No event concerned abuse. At a later session, the experimenter conducted a guided imagery session whereby she had the subject close her eyes and vividly imagine what it would have been like to experience certain events in childhood.

We then readministered the original list of events, asking subjects to rate their confidence that the events had occurred to them during childhood. The false memory perspective implies that the recovered memory subjects would be especially vulnerable to the imagination inflation effect. That is, they should exhibit an increase in confidence that childhood events that they envisioned during the guided imagery session occurred relative to control events that they did not envision. However, the control subjects exhibited an imagination effect more than twice as great as that exhibited by the recovered memory subjects. Interestingly, several subjects in the recovered memory group asked us whether the purpose of the study was to see whether they would develop false memories about childhood in the laboratory. Their questions imply that the paradigm is too transparent, at least to subjects reporting recovered memories of abuse.

Subsequent studies provided data consistent with the false memory perspective. We found that women who report recovered memories of CSA exhibit false memory propensity in the laboratory relative to women who say they had never forgotten their abuse. In the Deese/Roediger/McDermott paradigm (Deese, 1959; Roediger & McDermott, 1995; for a review, see Gallo, 2010), recovered memory subjects are especially likely to “remember” having encountered critical lure words (e.g., sweet) that embody the gist of emotionally neutral word lists they did encounter (e.g., sugar, candy; Clancy, Schacter, McNally, & Pitman, 2000). These data do not mean that the recovered CSA memories of these subjects are false; they are merely *consistent* with this possibility.

Yet, using the DRM paradigm, we have also found that subjects whose recovered memories are almost certainly false likewise exhibit false memory propensity in the DRM paradigm. In these experiments, we tested subjects who reported recovered memories of space alien abduction (Clancy, McNally, Schacter, Lenzenweger, & Pitman, 2002) and past lives (Meyersburg, Gallo, Bogdan, & McNally, 2009). However, a British team failed to find heightened false memory propensity in the DRM paradigm in a group of subjects reporting contact with aliens (French, Santomauro, Hamilton, Fox, & Thalbourne, 2008). However, as Gallo (2010) observed, these subjects exhibited a strong trend for false recognition (but not false recall) and not all members of the group reported actual abduction by space aliens.

Finally, adults who report recovered memories of CSA tend to exhibit reality monitoring deficits on tasks requiring them to discriminate whether they had seen a word or merely having imagined having seen it (McNally, Clancy, Barrett, & Parker, 2005). This finding is consistent with the possibility that recovered memory subjects may have difficulty discriminating memories of images (“fantasy”) from memories of perceptions (“reality”).

Despite performance similarities on the DRM false memory task among people who report recovered memories of CSA, space alien abduction, and past lives, the differences among these groups are at least as pronounced as any similarities (Clancy, 2005). For example, our abductees routinely mention encounters with aliens that appear to be episodes of isolated sleep paralysis accompanied by hypnopompic (“upon awakening”) hallucinations of intruders in their bedroom (McNally & Clancy, 2005a; McNally, Lasko, Clancy, Macklin, Pitman, & Orr, 2004). Although adults reporting histories of CSA do experience sleep paralysis more often than do control subjects (McNally & Clancy, 2005b, 2006), they seldom connect the experience with abuse. Perhaps more importantly, people who report recovered memories of CSA tend to score higher than do alien abductees on measures of psychological distress (e.g., depression; McNally, Clancy, et al., 2000a; McNally, Perlman, et al., 2006b; McNally et al., 2004).

Laboratory Research Relevant to Recovered Memories

The child psychiatrist Lenore Terr (1991) suggested that sexually abused children sometimes cope by acquiring a dissociative, avoidant encoding style enabling them to disengage attention during abusive episodes and direct it elsewhere. Unable to escape physically from their abuser, they escape psychologically. The ability to

attend to benign features of the environment, such as wallpaper patterns, and to pretend that one is somewhere else, may attenuate an otherwise emotionally overwhelming experience. Terr implies that dissociative encoding during abuse episodes may partly explain apparent amnesia for the abuse later in life. Although this encoding style may be adaptive if it helps the child cope emotionally with a very difficult, physically inescapable situation, it may have psychiatric consequences later in life.

To investigate these issues in the laboratory, we administered an item-cuing directed-forgetting task to three groups of women: CSA victims with PTSD, CSA victims without PTSD, and nonabused control subjects (McNally, Metzger, Lasko, Clancy, & Pitman, 1998). Subjects saw a series of words on a computer screen. There were three categories of words, varying in emotional valence. The trauma category included words such as *incest* and *molested*, the positive category included words such as *carefree* and *confident*, and the neutral category included household words, such as *banister* and *mailbox*. Each word appeared for 2 s, replaced by a cue either to remember (RRRR) or to forget (FFFF) the previous word. Half of the words in each category were followed by remember cues and the others were followed by forget cues. We told subjects that we would test their memory for the RRRR word. However, after the encoding phase, we asked subjects to write down all the words they remembered having seen, regardless of whether a remember cue or a forget cue had followed the word.

A standard directed forgetting effect would entail better recall for RRRR words than for FFFF words. This effect results from subjects endeavoring to memorize a word, but then ceasing to do so when an FFFF cue follows it. Hence, superior recollection of RRRR words relative to FFFF words is attributable to better encoding of the former than the latter (Golding, 2005; Johnson, 1994). To the extent that subjects can disengage their attention from FFFF words, their memory for these items should be impaired.

Inspired by Terr's (1991) ideas about dissociating attention from threat cues, we predicted that CSA subjects, especially those suffering from PTSD, would exhibit superior ability to abort encoding of trauma words relative to other words and relative to nonabused control subjects. That is, their motivation to avoid thinking about abuse-related material and their acquired skill in dissociating their attention from such material would result in relatively poor memory for trauma words. (Incidentally, our interpretation of Terr implies that psychiatrically suffering CSA subjects should not only exhibit very poor recall of trauma words followed by forget instructions; they should also not exhibit enhanced remembering of trauma words followed by remember instructions. That is, their propensity to avoid processing cues related to trauma should tend to attenuate any heightened encoding that might otherwise occur for trauma words followed by remember instructions. Hence, although these subjects should recall trauma-forget words much less often than positive and neutral-forget words, they should not exhibit superior recall for trauma-remember words relative to positive and neutral-remember words).

The results, however, ran counter to prediction. Abuse victims with PTSD exhibited poor memory for positive and neutral words that they were supposed to remember, and they recalled trauma words quite well, including those they were supposed to forget. If anything, the trauma words seemed intrusive and all too memorable for the PTSD group.

Upon reflection, perhaps these results were not that surprising, Terr's ideas notwithstanding. After all, to qualify for a current diagnosis of PTSD, subjects had to have been recalling their abuse on a regular basis in the form of intrusive recollections, nightmares, psychophysiological reactions to reminders, and flashbacks. That is, hallmark symptoms of PTSD would have overridden any skill these subjects would have acquired with regard to dissociating their attention from abuse cues.

Terr's (1991) hypothesis might be most relevant to subjects who report having forgotten their abuse or who report still being incapable of recalling it. Hence, we replicated our directed-forgetting procedure, testing subjects who reported repressed memories, recovered memories, or no history of sexual abuse (McNally, Clancy, & Schacter, 2001). The results revealed normal memory functioning in the repressed and recovered memory groups. Contrary to expectation, they did not exhibit impaired memory for trauma words relative to positive and neutral words. They exhibited a directed forgetting effect by recalling more RRRR words than FFFF words, but word valence did not affect this pattern.

Inspired by Terr's (1991) work, these directed forgetting experiments concerned the capacity of subjects to abort encoding of words followed by an FFFFF cue, thereby impairing subsequent recall of these words. However, there is a paradox embedded in Terr's theory. If children thoroughly dissociate their attention during an abuse episode, then they will have encoded nothing about the event in the first place and thus will have nothing to recall later in life. Accordingly, Terr's dissociation hypothesis might explain why a victim might fail to remember an abuse episode, but it cannot also explain why someone would remember it vividly later in life. People cannot recall experiences that they failed to encode into memory (Roediger & Bergman, 1998). The recovered memory controversy concerns the recollection of forgotten abuse, not merely the forgetting of abuse.

Accordingly, retrieval inhibition (Bjork, 1989), not dissociative encoding, may be the relevant process in the forgetting of CSA. Perhaps victims encode CSA, but then some inhibition mechanism blocks access to these encoded memories. In fact, this hypothesis would seem to fit a repression account especially well. Indeed, amnesia for abuse presupposes that the victim has encoded the experience, but is *unable* to retrieve it because defensive mechanisms of the mind block its retrieval.

To investigate heightened retrieval inhibition of trauma-related words in repressed and recovered memory subjects, we used the list method for our next directed forgetting experiment (Golding, 2005; Johnson, 1994). In our experiment (McNally, Clancy, Barrett, & Parker, 2004), we tested four groups of subjects, both men as well as women. The groups comprised adults who reported either repressed memories, recovered memories, or continuous memories of CSA, or who reported no history of CSA. Adapting the procedure of Myers, Brewin, and Power (1998), we presented subjects with two lists on a computer screen, each consisting of a series of intermixed trauma-related and positive words. We asked subjects to rate each word on a seven-point emotional meaning scale that ranged from -3 (very negative) to +3 (very positive). Each word appeared on the screen for 3 s, and 5 s elapsed between successive words.

Halfway through the words, the experimenter said, “What you have done so far is practice. You can forget about those words. I will now show you the actual set of test words that I want you to rate in the same way you did for the practice words.” Hence, the experimenter directed the subject to forget the first list of words, but she did not direct the subject to remember the subsequent words.

Immediately after the encoding phase, the subject spent 3 min on a filler task requiring him or her to complete 84 easy arithmetic problems. Following this task, the experimenter said, “Please write down as many words as you can remember seeing from BOTH lists.” This surprise, free recall task lasted for 5 min.

The results indicated that all groups recalled more words from the second list than from the first list, and recalled more trauma words than positive words. However, contrary to our hypothesis, the repressed and recovered groups did not exhibit poor recall of trauma words relative to positive words from the first list relative to the continuous memory and nonabused control groups. All groups exhibited a retrieval inhibition effect, and all groups exhibited this effect for positive words more than for trauma words. Hence, we failed to confirm the hypothesis of heightened retrieval inhibition for trauma words in the repressed and recovered memory groups. Trauma words were remembered equally well by all groups.

DePrince and Freyd (2004) questioned whether our directed forgetting experiments enhance understanding of the encoding and forgetting of CSA. They pointed out that these studies involved selective, not divided, attention in that subjects encountered one stimulus word at a time. They argued that a proper test would require subjects to perform another task concurrently with one concerning processing of threat cues. They emphasized that those sexually molested children who exhibit attentional dissociation during abuse episodes endeavor to attend to anything other than the abuse itself. Hence, experiments that require processing of threat cues under divided attention are more relevant to the clinical phenomenon than are those requiring selective processing of threat cues

To investigate this issue, DePrince and Freyd (2004) recruited college students, including some who reported trauma histories, and had them perform a directed-forgetting task involving trauma and neutral words. However, in this experiment, subjects either encoded words under either selective or divided attention. Consistent with their hypothesis, they found that students scoring high on the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) exhibited impaired recall of trauma words after having encoded them under divided, but not selective, attention conditions.

We endeavored to replicate DePrince and Freyd’s experiment by testing subjects reporting either recovered or continuous memories of CSA or reporting no history of CSA (McNally, Ristuccia, & Perlman, 2005). Relative to subjects with continuous memories of abuse or no abuse history, those who report recovered memories of abuse should exhibit memory impairment for trauma words relative to neutral words when they have encoded words under divided, but not selective, attention conditions. Following DePrince and Freyd (2004), we presented intermixed trauma (e.g., *incest*) and neutral household words (e.g., *lamp*), one at a time, in four consecutive blocks. Each word appeared at center screen for 6 s. For each subject, two blocks of

words appeared under selective attention conditions, and two blocks of words appeared under divided attention conditions. Under selective attention conditions, words appeared in black letters against a white background. Under divided attention conditions, words appeared against a white background, but randomly changed colors from red to blue and vice versa during the time they were on the screen. Hence, for example, the word *molested* might appear in blue letters for 2 s, switch to red letters for 1 s, and then switch back to blue letters for the final 3 s of the 6-s duration. For blocks involving divided attention, subjects had to press the space bar of the computer whenever a word changed color. Hence, they performed two tasks at once: encoding the word and tracking how many times it changed color. For each subject, instructions telling subjects to forget the words in the preceding block occurred after two blocks, whereas instructions telling subjects to remember the words in the preceding block occurred after the other two blocks.

A subsequent recall test, however, failed to detect the predicted recall deficits for trauma words encoded under divided attention among subjects reporting recovered memories. In fact, all three groups recalled more trauma words than neutral words, regardless of selective versus divided attention encoding conditions. Devilly et al. (2007) likewise failed to replicate the findings of DePrince and Freyd (2004), despite their testing college students who varied in dissociation proneness. Devilly et al.'s research prompted a critique by DePrince, Freyd, and Malle (2007) and a rebuttal by Devilly and Ciorciari (2007; DePrince et al., 2012, this volume, also comment on this laboratory research).

Our group conducted two additional experiments relevant to the concept of repression. Repression theorists hold that blocked memories of abuse may nevertheless affect the emotional life of CSA victims despite their being incapable of recalling their abuse. Accordingly, we tested whether repressed memory subjects might exhibit increased interference for trauma words in the emotional Stroop paradigm (McNally, Clancy, Schacter, & Pitman, 2000b). In this paradigm, subjects view words of varying emotional valence, and attempt to name the colors in which the words appear while ignoring the meanings of the words (Williams, Mathews, & MacLeod, 1996). Difficulty ignoring the meaning of word results in the subject taking longer to name its color. Patients with anxiety disorders (Bar-Haim, Lamy, Pergamin, Bakermans-Kranenburg, & van IJzendoorn, 2007), including those with PTSD (McNally, Kaspi, Riemann, & Zeitlin, 1990; McNally, Amir, & Lipke, 1996), exhibit slower color-naming of threat words relative to other negative words, positive words, and neutral words.

We administered a computerized emotional Stroop task to subjects reporting repressed, recovered, or continuous memories of CSA, or no history of CSA (McNally et al., 2000b). They named the colors of trauma words, positive words, and neutral words. Inconsistent with our hypothesis, patterns of Stroop interference in the repressed memory group were indistinguishable from that in the control group. Consistent with previous research, the severity of self-reported PTSD symptoms significantly predicted Stroop interference for trauma words, irrespective of group membership.

When people with depression attempt to recall specific memories in response to cue words (e.g., *happy*), they often experience difficulty doing so, recalling overgeneral memories instead (Williams et al., 2007). Most people can readily recall a specific memory, denoting an event that occurred on a certain day (e.g., “I was happy on the day my son was born”). However, people with depression often recall overgeneral memories that are either extended in time (e.g., “I was happy during my first year in college”) or that denote a category of events (e.g., “I am always happy when I am playing golf”). Difficulty recalling specific memories from one’s past predicts one’s difficulty overcoming depression (Brittlebank, Scott, Williams, & Ferrier, 1993) and predicts one’s difficulty solving problems (Evans, Williams, O’Loughlin, & Howells, 1992). Hence, the overgeneral memory phenomenon has important clinical implications. We found that patients with PTSD likewise exhibit difficulty recalling specific memories in this task (McNally, Litz, Prassas, Shin, & Weathers, 1994; McNally, Lasko, Macklin, & Pitman, 1995).

One hypothesis regarding overgeneral memory is that it reflects a person’s attempt to avoid thinking about an emotionally painful past (Williams et al., 2007). Accordingly, we tested whether repressed and recovered memory subjects, in particular, would exhibit difficulty retrieving specific memories in response to either positive or negative cue words, relative to continuous memory subjects and subjects who report no CSA (McNally et al., 2006b). We thought that overgeneral memories would be especially common in the repressed and recovered memories when we asked them to recall a specific episode from childhood versus adolescence or adulthood.

We found that all groups found it easier to recall specific memories from adulthood than childhood. Consistent with our hypothesis, the repressed memory group recalled significantly fewer specific memories than the control group did. The recovered memory and continuous memory groups fell midway between the other two groups. The relative impairment in the repressed memory group concerned difficulties retrieving specific memories from childhood, not adulthood.

These results are consistent with the repression prediction. They are also consistent with another interpretation. Some theorists have suggested that poor overall memory for one’s childhood may signify that one may harbor dissociated memories of trauma (e.g., Loewenstein, 1991). Hence, one’s difficulty retrieving specific memories from one’s childhood prompt some people to assume that psychological problems in their lives may arise from buried memories of trauma.

Strengths and Limitations of Laboratory Research

Our program of research has its strengths and weaknesses. In contrast to many investigators conducting research relevant to the Memory Wars, we have studied women and men recruited from the community who report continuous, recovered, or repressed memories of CSA, or who report no CSA history. Importantly, many of these community recruits have been in psychotherapy, but not with us. They are

diverse, varying in age, sex, ethnicity, education, and social class (McNally et al., 2006a). Yet they were volunteers, and it is difficult to know how they might differ from their counterparts who do not volunteer for research on sexual abuse. This issue, of course, is relevant to all research, not just ours.

On the other hand, our subjects knew that they were volunteering for research on survivors of sexual abuse. It is difficult to tell whether this affected their responses to questionnaires or responses on experimental tasks. For example, consider our directed forgetting experiments. We assumed that the ability to disengage attention from words related to abuse is a developed skill that CSA survivors can deploy in the laboratory in the item-cuing studies. Likewise, we assumed that heightened retrieval inhibition is a well-practiced process detectable in the laboratory. These assumptions may not be correct. For example, it is possible that subjects in the recovered memory group are no longer able to keep information about abuse from intruding on awareness. Once the “latch of repression” is unlocked, it may be impossible for these individuals to avoid thinking about their abuse. On the other hand, if one assumes that the repressed memory group does harbor memories of CSA, which they still cannot access, then this group should certainly have exhibited enhanced retrieval inhibition for abuse words, but they did not.

Our laboratory research involved established paradigms from cognitive psychology, and it involved standardized stimulus materials. Yet we had to make assumptions here, too. For example, subjects encountered mere words semantically related to abuse, not personal memories of abuse per se. We assumed that encoding, forgetting, and recalling words related to abuse would tap processes relevant to the encoding, forgetting, and recalling of autobiographical memories of abuse. Despite their emotional significance, words such as *molested* are unlikely to have the evocative power as a vivid memory of one’s own molestation. We assumed, though, that if someone cannot disengage attention from the word *molested*, then it seems unlikely that they could disengage attention from the genuine experience as it is occurring, their motivation to do so notwithstanding.

Trauma and Its Ambiguities

Canonical traumatic experiences are life-threatening events that incite overwhelming terror. They seem qualitatively different from the normal stressors and hassles of everyday life, and they alone presumably possess the capacity to produce the symptomatic profile of PTSD. These assumptions influenced the concept of trauma embodied in the DSM-III definition of PTSD.

It is entirely possible that a person exposed to subtraumatic stressors will develop the full range of PTSD symptoms, but fail to earn the diagnosis because the stressor fell short of qualifying as traumatic. Discomfort about denying these sufferers the PTSD diagnosis, and hence reimbursable treatment, motivated the expansion of the concept of trauma in later editions of the DSM. For example, the DSM-IV PTSD committee, of which I was a member, modified the text and criteria for the disorder, causing a conceptual bracket creep in the definition of what counts as a traumatic

stressor (McNally, 2003c). Hence, people who experience intense fear, horror, or helplessness after merely learning about another person's exposure to danger now count as victims of trauma themselves, eligible for the diagnosis of PTSD. According to DSM-IV, a person no longer needs to be physically present at the scene of trauma, either as its direct victim or as witness, to qualify as a trauma survivor today (McNally & Breslau, 2008). This means that horrified citizens throughout America who watched television coverage of the September 11, 2001 terrorist attacks count as trauma survivors potentially diagnosable with PTSD just as much as those who nearly perished in the assault on the World Trade Center (Marshall et al., 2007).

The text accompanying the current criteria for PTSD explicitly certify CSA as a qualifying trauma, irrespective of threat of harm. According to DSM-IV-TR (APA, 2000), "For children, sexually traumatic events may include developmentally inappropriate sexual experiences without threatened or actual violence or injury" (p. 464). Reviewing the history of how mental health professionals and other experts have conceptualized sexual abuse, Davis (2005) concluded, "The PTSD framework as a general model for sexual abuse was by no means obvious" (p. 116). It is unclear how well it fits the trauma paradigm if violence or threat of violence is absent. Nevertheless, many clinicians, including me (e.g., McNally, 2003a, pp. 2–3), have used the term *survivor* of childhood sexual abuse. Calling someone a survivor implies that the person was in danger of losing his or her life (cf. cancer survivors and Holocaust survivors). Yet few victims of childhood sexual abuse were in mortal danger.

However, to note the oddity of calling someone a *survivor*, whose life was not endangered, does not minimize the moral reprehensibility of the sexual molestation of children. Yet people who question the survivor label or trauma label run the risk of being accused of minimizing sexual abuse, and unwittingly providing aid and comfort to pedophiles.

Unfortunately, conflation of moral and scientific issues is common in the field of traumatic stress studies. Indeed, unlike the other anxiety disorders, PTSD implies the moral categories of perpetrator and victim. In contrast, consider panic disorder. When someone develops panic attacks, no one is to blame. When someone develops PTSD, there is usually someone or something to blame. PTSD is morally complex in ways that the other anxiety disorders are not.

However, we must avoid confusing moral and scientific issues when considering trauma. Problems arise when we fail to distinguish between them. For example, the study of risk factors for PTSD was de facto taboo for many years, based on the mistaken notion that it amounted to blaming victims for their plight (McNally, 2009b).

Another example concerns the uproar occurring in response to Rind, Tromovitch, and Bauserman's (1998) meta-analytic study showing that many sexually abused children do not suffer long-term psychiatric consequences. While serving on the DSM-IV PTSD committee, I had completed the literature review of the then-small literature on childhood PTSD (McNally, 1993). Accordingly, Rind et al.'s findings surprised me as they did many clinicians. Yet the outrage at the authors who, after all, merely synthesized and interpreted the results of CSA studies done by others, was even more surprising, especially when it culminated in a formal Congressional condemnation of their peer-reviewed article in *Psychological Bulletin* (Lilienfeld, 2002).

I suspect that critics of Rind et al. feared that data showing that many sexually abused children are resilient and do not experience lasting harm would authorize pedophilia on the grounds of “no harm, no foul.” Pedophiles surely would have enthusiastically drawn this normative conclusion from the data. Ironically, the reactions of both Rind et al.’s critics and the pedophiles indicate that both groups presupposed the validity of a utilitarian (consequentialist) ethics whereby the moral character of an action depends entirely on its consequences (Bentham, 1823/1948, p. 2). If the child receives no harm and the perpetrator receives pleasure, then sexual molestation is permissible, according to a consequentialist ethic. But one need not draw this appalling conclusion if one adheres to a deontological ethical system (Kant, 1785/1964, p. 34). That is, we can accept the fact that children are often resilient and still categorically condemn sexual contact between children and adults. Deontological ethics prohibit adults from using a child as a means to satisfy themselves sexually, irrespective of the psychiatric consequences for the child. Had Rind et al.’s critics been more Kantian and less utilitarian, the brouhaha over Rind et al.’s *Psychological Bulletin* article and its formal condemnation by Congress would have never occurred.

The recognition that CSA need not qualify as a canonical traumatic stressor that provokes terror and fear for one’s life points to a third interpretation of recovered memories distinct from both the repression account and the false memory account (McNally & Geraerts, 2009). That is, one can reject the concept of repressed memories of trauma as lacking evidential support without assuming that all recovered memories of CSA must therefore be false memories.

In our research program, we have defined recovered memory subjects as people who report sexual abuse as a child, report not having thought about it for many years, and then report recalling it later in life (e.g., McNally et al., 2006a). This definition does not presuppose that the victim experienced the abuse as a terrifying trauma when it occurred, and nor does it presuppose that the memory of the abuse was inaccessible, thanks to repression or dissociation, during the long period of time when it apparently never came to mind.

Hence, there appear to be recovered memories of CSA that were neither traumatic nor previously repressed. In the typical case (Clancy & McNally, 2005/2006), the victim was about 7 years of age and failed to understand the experience as sexual or as abusive. The victim knew and trusted the perpetrator who neither threatened nor physically harmed the victim, who experienced confusion, disgust, or anxiety, but not terror. The abuse, often fondling, seldom occurred on more than one or a few occasions. The victim was able to avoid dwelling on this unpleasant, confusing experience precisely because it was not traumatic in the sense of being terrifying. He or she rarely disclosed it to other people, and hence did not discuss it with others. If the perpetrator died or moved away, the victim often lacked reminders of the experience to prompt recollection during the period when he or she did not think about the abuse. However, encounters with reminders in adulthood prompted recovery of the memory of CSA, and understanding it through the eyes of an adult often resulted in PTSD symptoms. For the first time, victims realized that someone, often someone they knew, loved, and trusted, had sexually exploited them.

In conclusion, although the repression account holds that people become incapable of recalling their abuse *because* it was so traumatic, our data suggest a different

interpretation. People forget their abuse because it was not traumatic when it first occurred, even though it remains morally reprehensible nevertheless.

Susan Clancy's *The Trauma Myth*

This chapter mainly concerns our group's research on recovered memories of CSA. However, my former Ph.D. student and postdoctoral fellow, Susan Clancy (2009) has extended some of these themes to childhood sexual abuse in general in her book entitled *The Trauma Myth*. The focus of her book is continuous, not recovered, memories of CSA. She mentions recovered memories only in passing. Nevertheless, *The Trauma Myth* has sparked controversy reminiscent of the Memory Wars. Favorable book reviews have appeared in publications ranging from *People* magazine to *Science* magazine, but postings to Amazon.com and other Internet sites document sharply divided opinions about her central thesis. Ironically, some of her angriest critics are therapists, whereas many of her strongest supporters are abuse survivors themselves who say that Clancy truly understands their experience.

Her interviews with adults reporting histories of CSA have led her to conclude that the trauma model of sexual abuse is often incorrect. That is, many of her interviewees say that they did not experience the terror that accompanies violent, often life-threatening, canonical traumatic events, such as rape, combat, and so forth. They report that perpetrators were usually adults with whom they had a close relationship (e.g., teacher, grandfather). The perpetrators did not use threats, physical force, or other coercion. However, they did provide the victims with attention, non-sexual affection, and gifts. The victims, often in elementary school, were too young to understand that these trusted adults were sexually exploiting them. The children often experienced anxiety, confusion, and disgust, but their desire to maintain their relationship with the perpetrator led them to overlook the bizarre, secretive sexual experiences with the perpetrator. Sometimes lonely and starved for affection, these children were vulnerable for exploitation.

As the children grew older, they understood what had been happening to them. They reacted with feelings of shock and betrayal (cf. Freyd, 1996). Some of them disclosed the abuse to adults, but the responses they received were far from uniformly positive. Some adults disbelieved their reports, whereas others asked the children why they did not refuse to participate in the sexual activities. Others were supportive of the victims.

Ironically, partly because victims did not experience coercion, violence, and terror during the abuse itself, they become especially vulnerable to delayed psychological damage. Many of Clancy's interviewees told her that they felt somehow complicit in their abuse, believing that their failure to resist the authority of the adult abuser means that they had consented to sexual activity. As Clancy is quick to emphasize, youngsters cannot consent to things they do not understand, such as sexual activity with adults. Hence, the blame rests entirely with the perpetrators. Tragically, however, many of the victims were haunted by feelings of guilt and shame, believing that they were somehow responsible for what happened to them.

As Clancy emphasizes, had coercion been involved, victims would likely have experienced less guilt and shame later in life because it would be nearly impossible for victims to feel complicit in their own molestation. As a mother of three young daughters herself, Clancy felt intense anger at the perpetrators, yet was often surprised that the victims themselves were less angry about their betrayal than Clancy expected them to be. She suspects that irrational feelings of guilt, shame, and complicity might have muted their anger. The upshot is that sexual abuse has very damaging long-term psychological consequences even when, or perhaps especially when, the abuse was neither coercive or terror inducing.

Contrary to the implication of her book's title, Clancy stresses that some victims *do* experience coercive and violent sexual abuse in childhood. These victims clearly fit the trauma model and hence are at risk for developing acute PTSD. Her complaint is that traumatologists have too often assumed that CSA *always* counts as a terror-inducing trauma when it occurs. Because she suspects that the trauma model fits only a minority of cases, clinicians will misunderstand how CSA psychologically damages victims. The toxic emotion is not terror, as the trauma model implies, but shame and guilt however irrational these feelings may be. To say that CSA is often not traumatic when it occurs does not minimize the psychological damage it can subsequently cause. Indeed, traumatic events – experiences that threaten one's life and induce terror – are not the only kind of experience that can cause lasting psychological harm.

As Clancy acknowledges, the trauma model has served to underscore the seriousness of sexual abuse, putting it on the radar screen of society and clinical psychology. Unfortunately, it may misdirect clinical interventions for CSA victims for whom it does not apply. The model has roots in animal research on Pavlovian fear conditioning (e.g., Foa, Zinbarg, & Rothbaum, 1992), and accordingly has inspired efficacious treatments for rape-related PTSD such as prolonged imaginal exposure therapy that diminishes fear associated with traumatic memories (e.g., Foa & Rothbaum, 1998). Yet to the extent that negative self-referent emotions, such as shame and guilt, figure prominently in the clinical picture, exposure therapy may not be the best approach (Foa & McNally, 1996). Cognitive therapy (Ehlers et al., 2003) targeting guilt and shame may work best for CSA victims for whom the trauma model does not fit.

In conclusion, the moral reprehensibility of sexual abuse remains regardless of whether the victim experienced trauma at the time of its occurrence and regardless of extent or type of psychological damage occurring in its wake. On this point, all participants in the Memory Wars can agree.

References

- 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.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders – text revision* (4th ed.). Washington, DC: Author.
- Arrigo, J. M., & Pezdek, K. (1997). Lessons from the study of psychogenic amnesia. *Current Directions in Psychological Science*, 6, 148–152.
- Bar-Haim, Y., Lamy, D., Pergamin, L., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2007). Threat-related attentional bias in anxious and nonanxious individuals: A meta-analytic study. *Psychological Bulletin*, 133, 1–24.
- Beck, A. T., & Steer, R. A. (1987). *Beck depression inventory manual*. San Antonio, TX: Psychological Corporation.
- Bentham, J. (1823/1948). *The principles of morals and legislation* (rev. ed.). New York: Hafner.
- Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *The Journal of Nervous and Mental Disease*, 174, 727–735.
- Bjork, R. A. (1989). Retrieval inhibition as an adaptive mechanism in human memory. In H. L. Roediger III & F. I. M. Craik (Eds.), *Varieties of memory and consciousness: Essays in honor of Endel Tulving* (pp. 309–330). Hillsdale, NJ: Erlbaum.
- Borch-Jacobsen, M. (2009). *Making minds and madness: From hysteria to depression*. Cambridge: Cambridge University Press.
- Breslau, N., Reboussin, B. A., Anthony, J. C., & Storr, C. L. (2005). The structure of posttraumatic stress disorder: Latent class analysis in 2 community samples. *Archives of General Psychiatry*, 62, 1343–1351.
- Breuer, J., & Freud, S. (1893/1955). On the psychical mechanism of hysterical phenomena: Preliminary communication. In J. Strachey (Ed. and Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 2, pp. 3–17). London: Hogarth Press.
- Brewin, C. R. (2003). *Post-traumatic stress disorder: Malady or myth?* New Haven, CT: Yale University Press.
- Briere, J., & Conte, J. (1993). Self-reported amnesia for abuse in adults molested as children. *Journal of Traumatic Stress*, 6, 21–31.
- Brittlebank, A. D., Scott, J., Williams, J. M. G., & Ferrier, I. N. (1993). Autobiographical memory in depression: State or trait marker? *The British Journal of Psychiatry*, 162, 118–121.
- Brown, D., Schefflin, A. W., & Hammond, D. C. (1998). *Memory, trauma treatment, and the law*. New York: Norton.
- Brown, D., Schefflin, A. W., & Whitfield, C. L. (1999). Recovered memories: The current weight of evidence in science and in the courts. *Journal of Psychiatry and Law*, 27, 5–156.
- Carey, B. (2007). A study of memory looks at fact and fiction. *New York Times*, February 2, A15 and A21.
- Ceci, S. J., & Loftus, E. F. (1994). “Memory work”: A royal road to false memories? *Applied Cognitive Psychology*, 8, 351–364.
- Choderlos de Laclos, P.-A.-F. (1782/1961). *Les liaisons dangereuses* (P. W. K. Stone, Trans.). London: Penguin.
- Clancy, S. A. (2005). *Abducted: How people come to believe they were kidnapped by aliens*. Cambridge, MA: Harvard University Press.
- Clancy, S. A. (2009). *The trauma myth*. New York: Basic Books.
- Clancy, S. A., & McNally, R. J. (2005/2006). Who needs repression? Normal memory processes can explain “forgetting” of childhood sexual abuse. *Scientific Review of Mental Health Practice*, 4, 66–73.
- Clancy, S. A., McNally, R. J., & Schacter, D. L. (1999). Effects of guided imagery on memory distortion in women reporting recovered memories of sexual abuse. *Journal of Traumatic Stress*, 12, 559–569.
- Clancy, S. A., McNally, R. J., Schacter, D. L., Lenzenweger, M. F., & Pitman, R. K. (2002). Memory distortion in people reporting abduction by aliens. *Journal of Abnormal Psychology*, 111, 455–461.
- Clancy, S. A., Schacter, D. L., McNally, R. J., & Pitman, R. K. (2000). False recognition in women reporting recovered memories of sexual abuse. *Psychological Science*, 11, 26–31.

- Courtois, C. A. (1992). The memory retrieval process in incest survivor therapy. *Journal of Child Sexual Abuse, 1*, 15–31.
- Crews, F. (1995). *The memory wars: Freud's legacy in dispute*. New York: New York Review of Books.
- Davis, J. E. (2005). *Accounts of innocence: Sexual abuse, trauma, and the self*. Chicago: University of Chicago Press.
- Deese, J. (1959). On the prediction of occurrence of particular verbal intrusions in immediate recall. *Journal of Experimental Psychology, 58*, 17–22.
- DePrince, A., Brown, L., Cheit, R., Freyd, J., Gold, S. N., Pezdek, K., & Quina, K. (2012, this volume). Motivated forgetting and misremembering: Perspectives from betrayal trauma theory. In R. F. Belli (Ed.), *True and false recovered memories: Toward a reconciliation of the debate* (pp. 193–242). Vol. 58: *Nebraska Symposium on Motivation*. New York: Springer.
- DePrince, A. P., & Freyd, J. J. (2004). Forgetting trauma stimuli. *Psychological Science, 15*, 488–492.
- DePrince, A. P., Freyd, J. J., & Malle, B. F. (2007). A replication by another name: A response to Devilly et al. (2007). *Psychological Science, 18*, 218–219.
- Devilly, G. J., & Ciorciari, J. (2007). Conclusions in science when theory and data collide. *Psychological Science, 18*, 220–221.
- Devilly, G. J., Ciorciari, J., Piesse, A., Sherwell, S., Zammit, S., Cook, F., et al. (2007). Dissociative tendencies and memory performance on directed-forgetting tasks. *Psychological Science, 18*, 212–217.
- Dollinger, S. J. (1985). Lightning-strike disaster among children. *The British Journal of Medical Psychology, 58*, 375–383.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., et al. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Archives of General Psychiatry, 60*, 1024–1032.
- Engelhard, I. M., van den Hout, M. A., Weerts, J., Arntz, A., Hox, J. J. C. M., & McNally, R. J. (2007). Deployment-related stress and trauma in Dutch soldiers returning from Iraq: Prospective study. *The British Journal of Psychiatry, 191*, 140–145.
- Evans, J., Williams, J. M. G., O'Loughlin, S., & Howells, K. (1992). Autobiographical memory and problem-solving strategies of parasuicide patients. *Psychological Medicine, 22*, 399–405.
- Femina, D. D., Yeager, C. A., & Lewis, D. O. (1990). Child abuse: Adolescent records vs. adult recall. *Child Abuse & Neglect, 14*, 227–231.
- Foa, E. B., & McNally, R. J. (1996). Mechanisms of change in exposure therapy. In R. M. Rapee (Ed.), *Current controversies in the anxiety disorders* (pp. 329–343). New York: Guilford Press.
- Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape: Cognitive-behavioral therapy for PTSD*. New York: Guilford.
- Foa, E. B., & Tolin, D. F. (2000). Comparison of the PTSD symptom scale-interview version and the clinician-administered PTSD scale. *Journal of Traumatic Stress, 13*, 181–191.
- Foa, E. B., Zinbarg, R., & Rothbaum, B. O. (1992). Uncontrollability and unpredictability in post-traumatic stress disorder: An animal model. *Psychological Bulletin, 112*, 218–238.
- French, C. C., Santomauro, J., Hamilton, V., Fox, R., & Thalbourne, M. A. (2008). Psychological aspects of the alien contact experience. *Cortex, 44*, 1387–1395.
- Freud, S. (1962). The aetiology of hysteria. In: J. Strachey (Ed. and Trans.), *The standard edition of the complete works of Sigmund Freud* (Vol. 3, pp. 191–221). London: Hogarth Press.
- Freyd, J. J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse*. Cambridge, MA: Harvard University Press.
- Freyd, J. J., DePrince, A. P., & Gleaves, D. H. (2007). The state of betrayal trauma theory: Reply to McNally – conceptual issues and future directions. *Memory, 15*, 295–311.
- Gallo, D. A. (2010). False memories and fantastic beliefs: 15 years of the DRM illusion. *Memory & Cognition, 38*, 833–848.
- Garry, M., Manning, C. G., Loftus, E. F., & Sherman, S. J. (1996). Imagination inflation: Imagining a childhood event inflates confidence that it occurred. *Psychonomic Bulletin and Review, 3*, 208–214.

- Golding, J. M. (2005). Directed forgetting tasks in cognitive research. In A. Wenzel & D. C. Rubin (Eds.), *Cognitive methods and their application to clinical research* (pp. 177–196). Washington, DC: American Psychological Association.
- Herman, J. H., & Schatzow, E. (1987). Recovery and verification of memories of childhood sexual trauma. *Psychoanalytic Psychology*, *4*, 1–14.
- Israëls, H., & Schatzman, M. (1993). The seduction theory. *History of Psychiatry*, *4*, 23–59.
- Johnson, H. M. (1994). Processes of successful intentional forgetting. *Psychological Bulletin*, *116*, 274–292.
- Kant, I. (1785/1964). *Groundwork of the metaphysic of morals* (H. J. Paton, Trans.). New York: Harper Torchbooks.
- Kihlstrom, J. F., & Schacter, D. L. (2000). Functional amnesia. In F. Boller & J. Grafman (Eds.), *Handbook of neuropsychology* (2nd ed., Vol. 2, pp. 409–427). Amsterdam: Elsevier Science.
- Lilienfeld, S. O. (2002). When worlds collide: Social science, politics, and the Rind et al. (1998) child sexual abuse meta-analysis. *American Psychologist*, *57*, 176–188.
- Loewenstein, R. J. (1991). An office mental status examination for complex chronic dissociative symptoms and multiple personality disorder. *Psychiatric Clinics of North America*, *14*, 567–604.
- Macklin, M. L., Metzger, L. J., Litz, B. T., McNally, R. J., Lasko, N. B., Orr, S. P., et al. (1998). Lower precombat intelligence is a risk factor for posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *66*, 323–326.
- Marshall, R. D., Bryant, R. A., Amsel, L., Suh, E. J., Cook, J. M., & Neria, Y. (2007). The psychology of ongoing threat: Relative risk appraisal, the September 11 attacks, and terrorism-related fears. *American Psychologist*, *62*, 304–316.
- McGaugh, J. L. (2003). *Memory and emotion: The making of lasting memories*. New York: Columbia University Press.
- McNally, R. J. (1993). Stressors that produce DSM-III-R posttraumatic stress disorder in children. In J. R. T. Davidson & E. B. Foa (Eds.), *Posttraumatic stress disorder: DSM-IV and beyond* (pp. 57–74). Washington, DC: American Psychiatric Press.
- McNally, R. J. (1998). Experimental approaches to cognitive abnormality in posttraumatic stress disorder. *Clinical Psychology Review*, *18*, 971–982.
- McNally, R. J. (2003a). *Remembering trauma*. Cambridge, MA: Belknap Press/Harvard University Press.
- McNally, R. J. (2003b). Recovering memories of trauma: A view from the laboratory. *Current Directions in Psychological Science*, *12*, 32–35.
- McNally, R. J. (2003c). Progress and controversy in the study of posttraumatic stress disorder. *Annual Review of Psychology*, *54*, 229–252.
- McNally, R. J. (2004). The science and folklore of traumatic amnesia. *Clinical Psychology: Science and Practice*, *11*, 29–33.
- McNally, R. J. (2006). Cognitive abnormalities in post-traumatic stress disorder. *Trends in Cognitive Sciences*, *10*, 271–277.
- McNally, R. J. (2007a). Do certain readings of Freud constitute “pathological science”? A comment on Boag (2006). *Review of General Psychology*, *11*, 359–360.
- McNally, R. J. (2007b). Dispelling confusion about traumatic dissociative amnesia. *Mayo Clinic Proceedings*, *82*, 1083–1087.
- McNally, R. J. (2007c). Revisiting Dohrenwend et al.’s Revisit of the national Vietnam veterans readjustment study. *Journal of Traumatic Stress*, *20*, 481–486.
- McNally, R. J. (2007d). Betrayal trauma theory: A critical appraisal. *Memory*, *15*, 280–294.
- McNally, R. J. (2009a). Can we fix PTSD in DSM-V? *Depression and Anxiety*, *26*, 597–600.
- McNally, R. J. (2009b). Posttraumatic stress disorder. In P. H. Blaney & T. Millon (Eds.), *Oxford textbook of psychopathology* (2nd ed., pp. 176–197). Oxford: Oxford University Press.
- McNally, R. J., Amir, N., & Lipke, H. J. (1996). Subliminal processing of threat cues in posttraumatic stress disorder? *Journal of Anxiety Disorders*, *10*, 115–128.
- McNally, R. J., & Breslau, N. (2008). Does virtual trauma cause posttraumatic stress disorder? *American Psychologist*, *63*, 282–283.
- McNally, R. J., & Clancy, S. A. (2005a). Sleep paralysis, sexual abuse, and space alien abduction. *Transcultural Psychiatry*, *42*, 113–122.

- McNally, R. J., & Clancy, S. A. (2005b). Sleep paralysis in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Anxiety Disorders, 19*, 595–602.
- McNally, R. J., & Clancy, S. A. (2006). Sleep paralysis and recovered memories of childhood sexual abuse: A reply to Pendergrast. *Journal of Anxiety Disorders, 20*, 538–540.
- McNally, R. J., Clancy, S. A., Barrett, H. M., & Parker, H. A. (2004). Inhibiting retrieval of trauma cues in adults reporting histories of childhood sexual abuse. *Cognition and Emotion, 18*, 479–493.
- McNally, R. J., Clancy, S. A., Barrett, H. M., & Parker, H. A. (2005). Reality monitoring in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology, 114*, 147–152.
- McNally, R. J., Clancy, S. A., Barrett, H. M., Parker, H. A., Ristuccia, C. S., & Perlman, C. A. (2006a). Autobiographical memory specificity in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Cognition and Emotion, 20*, 527–535.
- McNally, R. J., Clancy, S. A., & Schacter, D. L. (2001). Directed forgetting of trauma cues in adults reporting repressed or recovered memories of childhood sexual abuse. *Journal of Abnormal Psychology, 110*, 151–156.
- McNally, R. J., Clancy, S. A., Schacter, D. L., & Pitman, R. K. (2000a). Personality profiles, dissociation, and absorption in women reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Consulting and Clinical Psychology, 68*, 1033–1037.
- McNally, R. J., Clancy, S. A., Schacter, D. L., & Pitman, R. K. (2000b). Cognitive processing of trauma cues in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Abnormal Psychology, 109*, 355–359.
- McNally, R. J., & Geraerts, E. (2009). A new solution to the recovered memory debate. *Perspectives on Psychological Science, 4*, 126–134.
- McNally, R. J., Kaspi, S. P., Riemann, B. C., & Zeitlin, S. B. (1990). Selective processing of threat cues in posttraumatic stress disorder. *Journal of Abnormal Psychology, 99*, 398–402.
- McNally, R. J., Lasko, N. B., Clancy, S. A., Macklin, M. L., Pitman, R. K., & Orr, S. P. (2004). Psychophysiological responding during script-driven imagery in people reporting abduction by space aliens. *Psychological Science, 15*, 493–497.
- McNally, R. J., Lasko, N. B., Macklin, M. L., & Pitman, R. K. (1995). Autobiographical memory disturbance in combat-related posttraumatic stress disorder. *Behaviour Research and Therapy, 33*, 619–630.
- McNally, R. J., Litz, B. T., Prassas, A., Shin, L. M., & Weathers, F. W. (1994). Emotional priming of autobiographical memory in post-traumatic stress disorder. *Cognition and Emotion, 8*, 351–367.
- McNally, R. J., Luedke, D. L., Besyner, J. K., Peterson, R. A., Bohm, K., & Lips, O. J. (1987). Sensitivity to stress-relevant stimuli in posttraumatic stress disorder. *Journal of Anxiety Disorders, 1*, 105–116.
- McNally, R. J., Metzger, L. J., Lasko, N. B., Clancy, S. A., & Pitman, R. K. (1998). Directed forgetting of trauma cues in adult survivors of childhood sexual abuse with and without posttraumatic stress disorder. *Journal of Abnormal Psychology, 107*, 596–601.
- McNally, R. J., Perlman, C. A., Ristuccia, C. S., & Clancy, S. A. (2006b). Clinical characteristics of adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *Journal of Consulting and Clinical Psychology, 74*, 237–242.
- McNally, R. J., Ristuccia, C., & Perlman, C. A. (2005). Forgetting of trauma cues in adults reporting continuous or recovered memories of childhood sexual abuse. *Psychological Science, 16*, 336–340.
- McNally, R. J., & Shin, L. M. (1995). Association of intelligence with severity of posttraumatic stress disorder symptoms in Vietnam combat veterans. *The American Journal of Psychiatry, 152*, 936–938.
- McTeague, L. M., McNally, R. J., & Litz, B. T. (2004). Prewar, war-zone, and postwar predictors of posttraumatic stress disorder in female Vietnam veteran health care providers. *Military Psychology, 16*, 99–114.
- Meyersburg, C. A., Bogdan, R., Gallo, D. A., & McNally, R. J. (2009). False memory propensity in people reporting recovered memories of past lives. *Journal of Abnormal Psychology, 118*, 399–404.
- Myers, L. B., Brewin, C. R., & Power, M. J. (1998). Repressive coping and the directed forgetting of emotional material. *Journal of Abnormal Psychology, 107*, 141–148.

- Olio, K. A. (1989). Memory retrieval in the treatment of adult survivors of sexual abuse. *Transactional Analysis Journal*, *19*, 93–100.
- Pendergrast, M. (1996). *Victims of memory: Incest accusations and shattered lives* (rev. ed.). London: HarperCollins.
- Piper, A., Jr., Pope, H. G., Jr., & Borowiecki, J. J., III. (2000). Custer's last stand: Brown, Schefflin, and Whitfield's latest attempt to salvage "dissociative amnesia. *Journal of Psychiatry and Law*, *28*, 149–213.
- Pope, H. G., Jr., Oliva, P. S., & Hudson, J. I. (1999). Repressed memories: The scientific status. In D. L. Faigman, D. H. Kaye, M. J. Saks, & J. Sanders (Eds.), *Modern scientific testimony: The law and science of expert testimony* (Vol. 1, Pocket part, pp. 115–155). St. Paul, MN: West Publishing.
- Pope, H. G., Jr., Poliakoff, M. B., Parker, M. P., Boynes, M., & Hudson, J. I. (2007a). Is dissociative amnesia a culture-bound syndrome? Findings from a survey of historical literature. *Psychological Medicine*, *37*, 225–233.
- Pope, H. G., Jr., Poliakoff, M. B., Parker, M. P., Boynes, M., & Hudson, J. I. (2007b). The authors' reply. *Psychological Medicine*, *37*, 1067–1068.
- Porter, S., & Peace, K. A. (2007). The scars of memory: A prospective, longitudinal investigation of the consistency of traumatic and positive emotional memories in adulthood. *Psychological Science*, *18*, 435–441.
- 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.
- Roediger, H. L., III, & Bergman, E. T. (1998). The controversy over recovered memories. *Psychology, Public Policy, and Law*, *4*, 1091–1109.
- Roediger, H. L., III, & McDermott, K. B. (1995). Creating false memories: Remembering words not presented in lists. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *21*, 803–814.
- Rubin, D. C., Berntsen, D., & Bohni, M. K. (2008). A memory-based model of posttraumatic stress disorder: Evaluation basic assumptions underlying the PTSD diagnosis. *Psychological Review*, *115*, 985–1011.
- Schacter, D. L. (1996). *Searching for memory: The brain, the mind, and the past*. New York: Basic Books.
- Schooler, J. W., Bendixen, M., & Ambadar, Z. (1997). Taking the middle line: Can we accommodate both fabricated and recovered memories of sexual abuse? In M. A. Conway (Ed.), *Recovered memories and false memories* (pp. 251–292). Oxford: Oxford University Press.
- Shin, L. M., Kosslyn, S. M., McNally, R. J., Alpert, N. M., Thompson, W. L., Rauch, S. L., et al. (1997). Visual imagery and perception in posttraumatic stress disorder: A positron emission tomographic investigation. *Archives of General Psychiatry*, *54*, 233–241.
- Shin, L. M., McNally, R. J., Kosslyn, S. M., Thompson, W. L., Rauch, S. L., Alpert, N. M., et al. (1999). Regional cerebral blood flow during script-driven imagery in childhood sexual abuse-related PTSD: A PET investigation. *The American Journal of Psychiatry*, *156*, 575–584.
- Spiegel, D. (1997). Foreword. In D. Spiegel (Ed.), *Repressed memories* (pp. 5–11). Washington, DC: American Psychiatric Press.
- Terr, L. C. (1991). Childhood trauma: An outline and overview. *The American Journal of Psychiatry*, *148*, 10–20.
- Trandel, D. V., & McNally, R. J. (1987). Perception of threat cues in posttraumatic stress disorder: Semantic processing without awareness? *Behaviour Research and Therapy*, *25*, 469–476.
- Widom, C. S., & Morris, S. (1997). Accuracy of adult recollections of childhood victimization: Part 2. Childhood sexual abuse. *Psychological Assessment*, *9*, 34–46.
- Wilkinson, C. B. (1983). Aftermath of a disaster: The collapse of the Hyatt Regency Hotel skywalks. *The American Journal of Psychiatry*, *140*, 1134–1139.
- Williams, J. M. G., Barnhofer, T., Crane, C., Hermans, D., Raes, F., Watkins, E., et al. (2007). Autobiographical memory specificity and emotional disorder. *Psychological Bulletin*, *133*, 122–148.
- Williams, J. M. G., Mathews, A., & MacLeod, C. (1996). The emotional Stroop task and psychopathology. *Psychological Bulletin*, *120*, 3–24.
- Williams, L. M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology*, *62*, 1167–1176.