

The Recovered Memories Controversy: Where Do We Go From Here?

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## The Recovered Memories Controversy: Where Do We Go From Here?

The greatest psychological controversy of the 1990s (and perhaps of the latter half of the 20<sup>th</sup> century) concerned cases of “recovered memories” of childhood sexual abuse (CSA). Debate focused on cases in which women who initially believed they had not experienced CSA reported recovered memories of sexual abuse after exposure to CSA-memory-oriented psychotherapy. Especially in the early years of the debate, perspectives on such cases were highly polarized, with critics of CSA-memory-oriented psychotherapies claiming that recovered-memory experiences are iatrogenic illusions (e.g., Ofshe & Watters, 1994) and counter-critics suggesting that such claims are motivated by a desire to minimize CSA and protect perpetrators (e.g., Pope, 1996). This topic was the focus of hundreds of publications in the 1990s, featured prominently in the popular media and in prestigious psychology journals (e.g., *American Psychologist*, the flagship journal of the American Psychological Association, and *Psychologist*, that of the British Psychological Society). Major professional societies representing a variety of constituencies in a number of countries produced policy statements and guidelines on recovered memories (see Grunberg & Ney, 1997, for a review of 10 such publications). Recovered memory cases led to legislative reforms, civil and criminal prosecutions of alleged abusers, and law suits against therapists by former clients and by parents (see Underwager & Wakefield, 1998).

As discussed by Lindsay and Briere (1997), numerous psychological and sociological factors converged to make the public and professional debate about recovered memories deeply divisive and fiercely contentious. Happily, as the 1990s draw to a close the fury of the “memory wars” is gradually subsiding, and professionals engaged in the debate are increasingly emphasizing points of consensus. In this chapter, we first briefly summarize these emerging points of agreement and then turn to a consideration of the numerous scientific questions left in the wake of the controversy. It is our hope and belief that the painful and destructive controversy of the last decade of the 20th century will bear fruit in the form of exciting new research in the first decade of the 21<sup>st</sup>.

### Where Here Is

There is near-universal agreement that individuals who experienced sexual abuse in post-infancy childhood sometimes do not remember in adulthood that they were abused, and that such individuals can sometimes remember the long-forgotten abuse when appropriately cued (e.g., Freyd, 1997, p. 1; Loftus, 1997, p. 191; Pendergrast, 1996, pp. 89-94, p. 536; Underwager & Wakefield, 1998, p. 402.). Similarly, there is near-universal agreement that suggestive influences can sometimes lead adults who were not sexually abused during childhood falsely to believe that they did experience such abuse, and that highly suggestive practices must be avoided in trauma-oriented psychotherapy (e.g., Briere, 1997, pp. 26-27; Courtois, 1997). It is not so much that agreement on these points is new, but rather that professionals on either side of the controversy have come increasingly to acknowledge and even highlight in their published and spoken statements the legitimate concerns of those on the other. Modest as these points of consensus may appear, embracing both of them provides the essential foundation for a shift away from polarized debate and toward constructive engagement with the research questions raised by accurate and illusory recovered memory experiences: How and why does each of these phenomena occur, how prevalent is each, and what are their practical implications (e.g., for psychotherapy and for legal practice)?

### How and Why

It is fittingly ironic that the decade of the recovered-memories controversy was also the vaunted “Decade of the Brain” in the United States (for the Presidential Proclamation of the Decade of the Brain,

see <http://lcweb.loc.gov/loc/brain/proclaim.html>). Technological breakthroughs enabling measurement of the active human brain (e.g., functional magnetic resonance imaging and event-related potential encephalography), harnessed in well-funded interdisciplinary collaborations between research psychologists, neurologists, and technologists, have greatly sped the acquisition of knowledge of the brain's structure and functions, including memory. Concurrently, cognitive psychologists have developed formal models of mental processes, sometimes instantiated in connectionist computer networks that well simulate human performance of certain memory tasks.

The rate of progress in the science of memory has been dramatic, but despite the wealth of beautifully colored images of the brain during performance of memory tasks, and despite the proliferation of sophisticated cognitive models of memory, science is still far short of an understanding of how memory works. We can point to certain brain structures (e.g., the hippocampus, particular regions of the frontal lobes, etc.) and say with considerable confidence that they play particular roles in various memory tasks, and we can enumerate the neurotransmitters secreted in those areas and describe the operation of the cellular gates by which electrochemical activation is transmitted from one neuron to another, but we have little idea how these cells and chemicals give rise to recollections of past experiences.

What exactly is going on in the brain when, for example, you remember the first time you rode a bicycle? Various densely interconnected constellations of neurons increase or decrease their rates of action potentials, consequently increasing or decreasing the activation of other neurons and, *voilà!*, you experience an echo of the butterflies and the pride mingled with fear of that long-past event, and see yourself (perhaps from an external perspective quite different from that of the experience itself) peddling madly away. To date, neuroscience can explain memory phenomena such as this only in the most vague terms (cf. Bub, in press). Similarly, formal mathematical models of memory perform quite well at fitting data from highly constrained memory tasks (e.g., yes/no decisions as to whether or not words on a test list had previously appeared on a study list), but at this point it is difficult to choose between competing models and in any case none provides anything like a satisfying account of autobiographical reminiscence. Cognitive psychologists specializing in autobiographical memory have identified a number of general principles and hypothesized various mechanisms (see, e.g., Cohen, 1996; Stein, Ornstein, Tversky, & Brainerd, 1997), but at this stage these theories are not well specified and hence do not enable precise predictions.

In short, the contemporary science of memory leaves ample room for debate as to accounts of forgetting, remembering, and confabulating memories of CSA in adulthood, and there are many questions sorely in need of empirical investigation. The following paragraphs highlight some of these questions.

How and why do some people who experienced CSA come to forget that they were abused? The mystery of memory would be considerably simplified if forgetting did not occur. Memory researchers would still have to grapple with questions such as how experience is represented and stored in the brain and how it is retrieved, but without the problem of forgetting the task of understanding memory would be much easier. People do forget, however, and the question of how and why individuals remember some things and forget others is a central issue for memory scientists.

Everyday experience and research evidence converge in demonstrating that a person who appears to have forgotten a particular event when tested under one constellation of conditions may reveal excellent memory for that event when tested under other conditions. You may, for example, find that you cannot now recall the name of the man who became Prime Minister of Israel in 1999. Receiving

additional cues (e.g., being told that the name begins with the letter “B”) might enable you to recall the name. Even if cues do not enable recall—and even if you have the subjective sense that you simply do not know this information—you may immediately recognize “Barak” as the correct name. If so, the memory information was available (i.e., represented in the brain) and although it was not accessible under the conditions of the recall tests it was accessible under the conditions of the recognition test. Furthermore, under a given set of testing conditions one may remember some aspects of a particular past experience but not others (e.g., remembering that a particular event happened but not when or where; Johnson, Hashtroudi, & Lindsay, 1991). Relatedly, an individual may know that s/he had a particular experience (e.g., a tonsillectomy) in the past yet not recollect any episodic details of that experience (e.g., Gardiner & Java, 1991). Research on “implicit” memory demonstrates that even when memories of past events do not give rise to a feeling of remembering or knowing on a recognition test they may nonetheless influence performance on indirect tests of memory. For example, prior auditory exposure to polysemous words in a disambiguating context (e.g., “taxi–fare”) can bias spelling of the critical words on a subsequent dictation task (e.g., “fare” rather than the more common “fair”) even when individuals do not recognize the items from the initial word list (Eich, 1984). Interestingly, manipulations at study, at test, or between study and test that affect memory on one kind of test may have no effect (or even opposite effects) on other kinds of memory tests (for review, see Kelley & Lindsay, 1996). Thus forgetting is far from an all-or-none phenomenon: We may forget a particular event in some senses and/or in some contexts but not in others, and multiple mechanisms may contribute to various forms of forgetting.

It is likely, therefore, that there is no single answer to the question of how some adults come to forget CSA. This is partly because there are various senses in which a person might be said to have forgotten abuse (e.g., not recalling the abuse because cues had not been encountered or had not been sufficiently specific; remembering some details or episodes of the abuse while forgetting others; failing to remember any episodic details of the abuse while retaining knowledge that it occurred; forgetting in such a way that the abuse would not be recollected under any conditions but the memories of it might nonetheless influence behavior and experience; entirely forgetting, in such a way that the system is unaffected by the past experience). Different mechanisms may be involved in different kinds or senses of forgetting.

Even for a given definition of forgetting, it may be that different mechanisms are involved in different sorts of CSA cases. For example, forgetting of abuse that occurred during the first 2 years of life can be attributed to infantile amnesia (Eacott, 1999; Eacott & Crawley, 1998; Fivush, 1998; Fivush & Hamond, 1990), which appears to be related to developmental changes in brain structure and function more than to psychosocial factors. In postinfancy, some forms of abuse may be experienced as ambiguous or confusing but not particularly salient or meaningful, whereas other forms of abuse may be experienced as overtly traumatic, and different mechanisms may account for forgetting of cases along this continuum. Forgetting of abuse that occurred early in childhood outside of the child’s regular environment may differ from forgetting of familial abuse. So too, abuse that occurred repeatedly, in a regularly scripted pattern, may be forgotten via different mechanisms (and/or in different senses) than isolated instances of abuse. Finally, even given a specific definition of forgetting and a well-specified category of abuse cases, there may be variation across individuals in forgetting mechanisms.

A central question raised by the recovered-memories controversy is whether or not forgetting of CSA entails the operation of a special traumagenic amnesia mechanism, qualitatively distinct from the mechanisms that underlie forgetting of other sorts of childhood experiences (e.g., poor encoding, lack of rehearsal, lack of appropriate external and internal cues). The points made in the preceding paragraph suggest that ordinary mechanisms of forgetting may be sufficient to explain at least some cases of

forgetting of CSA (e.g., failures to recall isolated instances of non-violent abuse that occurred early childhood). There is room for debate as to whether or not a special traumagenic forgetting mechanism underlies forgetting of other forms of CSA and, if so, what kinds of abuse histories can be forgotten only via such a special mechanism.

The question of whether or not forgetting of CSA entails a special mechanism is analogous to the controversy regarding so-called flashbulb memories—unusually vivid and detailed recollections of the circumstances under which one learned of a very surprising and personally significant event (e.g., John Lennon’s murder). Brown and Kulik (1977) proposed that humans are biologically equipped with a special mechanism that engages on such occasions and creates extremely vivid and durable memories. Debate continues as to whether flashbulb memories reflect the operation of a special mechanism or the “ordinary” effects of such factors as salience, distinctiveness, and rehearsal. People often experience extraordinarily detailed, long-lasting recollections of significant events, but critics of the flashbulb-mechanism hypothesis note that such recollections are not necessarily accurate, are affected by the same variables that affect other recollections, and are not restricted to momentous events (see, e.g., Winograd & Neisser, 1992, for reviews). These critics argue that flashbulb events foster the use of ordinary mechanisms that lead to vivid (albeit imperfect) memories: In the words of Christianson (1989), flashbulb memories are “special, but not so special.” Some cognitive psychologists, however, argue that flashbulb memories cannot be explained entirely in terms of ordinary mechanisms of memory (e.g., Conway, 1995).

Returning to the question of the mechanisms that underlie forgetting of CSA, intuition suggests that there are limitations on the kinds of CSA histories that could be forgotten via ordinary mechanisms of forgetting. For example, it seems counterintuitive that a person could “simply forget” having been forcibly raped as a young child. It does seem likely that there are limits on the sorts of histories that can be forgotten via ordinary mechanisms, but it may be that a systematic bias leads people to have inaccurate intuitions about the likelihood of forgetting dramatic childhood experiences: People can recollect all of the important, dramatic childhood experiences that they can recollect, and they rarely encounter evidence of the important, dramatic childhood experiences that they have forgotten. Ongoing research in our labs indicates that forgetting of significant childhood and adolescent experiences may be substantially more common than intuition would suggest (Lindsay, Read, Hyman, & Schooler, 1999; see also Henry, Moffitt, Caspi, Langley, & Silva, 1994; Loftus, 1993; Read, 1997).

Given the limitations of intuition, it is clear that we must instead rely on carefully conducted empirical investigations of the forgetting of CSA. Unfortunately, most studies that have attempted to shed light on the mechanisms by which CSA is forgotten suffer from two major limitations. One limitation is that most of the studies have used a retrospective design, in which adults who currently report having experienced CSA are asked about prior periods during which they did not remember the abuse. One problem with this approach is that it necessarily excludes individuals who experienced abuse but do not currently remember it. Furthermore, it is not clear what it means when individuals in such studies report prior periods of not remembering (e.g., do they mean that they avoided thinking about the abuse, that they had not encountered cues that would have led them to think of it, or that they were completely unaware of having such a history even though they encountered relevant cues?). Melchert and Parker (1997) found that 20% of their sample who reported a CSA history also reported prior periods without memory for the abuse, but these respondents often indicated that they were referring to intentional avoidance of thinking about the abuse rather than to amnesia for it; Williams (1995) likewise reported that some of the women in her sample who reported prior periods of not remembering a

documented instance of CSA indicated that they were referring to times during which they avoided thinking about the abuse.

Even if researchers devised questionnaires that would adequately clarify what respondents mean when they report prior periods of not remembering, there are reasons to be skeptical of people's ability to make accurate retrospective assessments of prior non-remembering. For example, Schooler, Ambadar, and Bendiksen (1997) reported two cases in which individuals who reported newly recovered memories had apparently told others about the abuse during the time when they were allegedly unaware of their abuse histories. Furthermore, Belli, Winkielman, Read, Schwarz, and Lynn (1998) and Read and Lindsay (in press) reported evidence that having recently engaged in efforts to remember childhood events can dramatically alter individuals' assessments of their prior ability to remember. Therefore, the fact that all or many of the respondents in several of the retrospective self-report studies published to date had previously been involved in CSA-memory-oriented psychotherapy further complicates the interpretation of their results. Because of the ambiguities of retrospective self-report designs, prospective designs, such as those employed by Williams (1994) and Widom (1997) have much greater potential informativeness.

The second major limitation of existing research on the mechanisms of forgetting CSA is that almost none of the studies has included assessment of forgetting of non-CSA events. Such studies have implied that reports of prior periods of partial or complete forgetting of CSA can be taken as evidence of partial or complete traumagenic amnesia for CSA. As noted by Read (1997) and Read and Lindsay (in press), it is essential to include appropriate controls if one wishes to test hypotheses about the special nature of forgetting of CSA. For example, Read found that a non-trivial minority of a community sample reported prior periods of partial or complete lack of memory for a wide variety of kinds of childhood events (e.g., music lessons). The point here is not to dismiss the hypothesis that there is a special traumagenic amnesia mechanism, but rather merely to point out the need for more and better research on this issue (i.e., prospective designs with appropriate control conditions).

Just as in the debate about flashbulb memories, it will likely prove difficult to bring definitive evidence to bear on the question of whether or not a special mechanism underlies forgetting of CSA. For one thing, "ordinary" mechanisms of memory are complex, interactive, and as yet incompletely understood, making it difficult to distinguish them from a hypothesized traumagenic amnesia mechanism. For another thing, some of the hypothesized "special mechanisms" bear a striking resemblance to "ordinary mechanisms." It may be difficult, for example, to draw a clear distinction between the clinical construct of dissociation and the "ordinary" cognitive constructs of divided attention and poor encoding.

The cases that most demand the postulation of a special mechanism of forgetting, if they are to be accepted as accurate, are those in which individuals report new memories of a horrific history of years of violent abuse of which they were previously utterly unaware. For example, the case that engaged our interest in the recovered-memories controversy involved a middle-aged woman who had by all accounts been on good terms with her father throughout her adult life, and had no memories or beliefs about abuse, but who then experienced (over the course of 2 years of intensive therapy with a CSA-memory-oriented counselor) new memories of multiple instances of bizarre and tortuous abuse by her father and neighborhood men. Although the limitations of "ordinary" mechanisms of forgetting are not known, it seems unlikely that they could account for such cases. Our opinion is that such cases are best understood in terms of illusory memories and false beliefs, rather than in terms of mechanisms of forgetting. It must

be acknowledged, however, that current scientific knowledge does not enable us to draw a clear line between CSA histories that could versus could not plausibly be forgotten and then recovered.

Given Forgetting of CSA, How and Why Would Memories Be Recovered? The notion of “transfer appropriate processing” (TAP) (Roediger, Weldon, & Challis, 1989) provides a useful framework for understanding memory recovery. According to TAP, the likelihood that memories of a past experience will be accessed is determined by the degree of similarity between current cognitive processes and cognitive processes performed when the event occurred. For example, if your current cognitive processes become similar to those you performed at breakfast this morning, you may retrieve memories of breakfast. Mentally processing information related to breakfast (e.g., reading the word “breakfast,” smelling bacon, experiencing a hunger pang, stepping into your kitchen, etc.) causes current cognitive processes to come to resemble those performed at breakfast, and if the similarity is sufficiently great and distinctive it will cue retrieval of memories of breakfast. Thus any factor that increases the similarity of current cognitive processing to processing performed during a particular past experience (e.g., providing verbal or environmental cues that reconstitute aspects of cognitive processing during the past experience; inducing an affective state similar to that of the past experience, etc.) will increase the likelihood that memories of that experience will be accessed.

Cognitive principles of memory such as those described above have been implemented in the Cognitive Interview, a technique designed to maximize the amount of accurate information that eyewitnesses provide to forensic investigators (e.g., Fisher, 1995). Research on the Cognitive Interview indicates that techniques such as context reinstatement and instructions to recall witnessed events from a variety of perspectives can substantially increase the amount of accurate information recalled, without affecting (or, in the case of children, only slightly increasing) the incidence of false recall (see Memon, 1998).

These ideas are also consonant with those offered by some CSA-memory-oriented clinicians. The TAP perspective suggests that some forms of psychotherapy may encourage essentially accurate recollections of long-forgotten CSA, because such therapies orient clients toward thinking about their childhoods, may present rarely discussed cues associated with long-forgotten events, and may re-establish rare affective and cognitive states that facilitate retrieval of memories of prior occurrences of similar states.

It is important to emphasize that the subjective experience of remembering does not arise necessarily and exclusively from “retrieval” of memory “traces.” For one thing, accessing information about a past experience is not a matter of moving an object from one spatial location in the brain to another but rather a matter of partially reinstating the pattern of cognitive processing performed during the past experience. For another thing, people can reactivate and use memory information about a specific past event without having the feeling of remembering (as in involuntary plagiarism and other examples of implicit memory), and can have the feeling of remembering events that never occurred in their pasts (as in *déjà vu* and other sorts of illusory memories).

These and related findings led Jacoby and his co-workers (e.g., Jacoby, Kelley, & Dywan, 1989) to argue that the subjective experience of remembering arises when people attribute aspects of their current mental experience to memory (see also Johnson et al., 1993). Several factors are thought to be involved in determining whether a mental event is experienced as a memory rather than as a product of perception, inference, or fantasy. For example, because using memory typically facilitates processing (e.g., it is easier to form an image of a face by reactivating memories of a previously seen face than by using imagination to construct an image of a never-seen face), people have a bias to attribute fluent

images to memory. The person's current orientation and expectations also matter: People are more likely to experience an image or idea as a memory if they are trying to remember something when it comes to mind than if they are otherwise oriented. Thus a vivid image that is fluently generated during an attempt to remember is likely to be experienced as a memory. This hypothesis is supported by studies in which manipulations that cause non-studied items to come fluently to mind at test sometimes lead people to mistake those thoughts as memories (e.g., Kelley & Jacoby, 1998; Lindsay & Kelley, 1996; Whittlesea, 1993; Whittlesea & Williams, 1998).

In summary, existing evidence and theory suggest that long-forgotten memories of CSA may be remembered (i.e., "recovered") if conditions lead individuals to (a) partially reinstate patterns of cognitive processing that are similar to those performed during the abuse and (b) be oriented toward attributing thoughts, feelings, and images to memory. Considerable research is needed, however, to assess the extent to which these ideas, which are based primarily on laboratory research, can indeed be generalized to real-world recovered-memory cases.

How and Why Can Non-Abused Adults Come Falsely to Believe that they were Abused? This question has been the focus of prior publications by a number of cognitive psychologists (e.g., Hyman & Billings, 1998; Lindsay & Read, 1994; Loftus, 1993, 1997), and space considerations prohibit a detailed review of the relevant theories and data here. Briefly, a century of research on eyewitness suggestibility effects and other memory errors demonstrates that people sometimes experience illusory recollections of events that did not really occur. Research indicates that false memories are most likely when suggestive influences are strong and concern an event or time period that is poorly remembered. Suggestions increase in strength if they are given by an authority figure, are perceived as plausible and are not perceived as overtly misleading, are encountered repeatedly, or are presented in ways that evoke vivid images or encourage the recipient to accept thoughts, images, and feelings as accurate memories. Some individuals may be more susceptible to suggestive influence than others (perhaps because they are more responsive to authority, less analytically critical in their thinking style, or have more vivid imagery than other individuals) (Eisen & Carlson, 1998; Heaps & Nash, 1999; Hyman & Billings, 1998; Schooler & Loftus, 1993).

It was noted above that remembering of long-forgotten events occurs when current conditions lead an individual to (a) partially reinstate patterns of cognitive processing that are similar to those performed during the abuse and (b) be oriented toward attributing thoughts, feelings, and images to memory. So too, illusory memories occur when conditions lead an individual to (a) create patterns of cognitive processing (via imagination, perhaps blended with veridical memories) like those that would have occurred during abuse and (b) be oriented toward attributing such mental events to memory. Ironically, many of the same conditions that would likely assist an individual in recovering essentially accurate memories (e.g., use of guided imagery to mentally reinstate context, encouragement to work at remembering and not to be critical or doubtful about the historical accuracy of whatever comes to mind) would also promote illusory memory experiences.

Although extant research enables us to identify numerous factors that modulate the likelihood that suggestive influences will lead to false beliefs, much remains to be discovered about how these factors interact with one another. For example, comparisons both across and within studies demonstrate that, all else being equal, it is easier to create false memory reports regarding a peripheral detail in a passively witnessed event than to create false memory reports regarding a dramatic life event. Furthermore, it has been demonstrated that if suggestive influences are sufficiently strong, and if the suggested event is said to have happened long ago, false memory reports of fairly dramatic childhood



life events can be obtained in a substantial minority of adult participants (e.g., Hyman & Billings, 1998; Loftus & Pickrell, 1995; Porter, Yuille, & Lehman, in press; Spanos, Burgess, Burgess, Samuels, & Blois, 1999; see also Gudjonsson's [e.g., 1992] work on interrogative suggestibility and false confessions; for a recent review of related suggestibility effects in children, see Poole & Lindsay, 1998). Yet we are far short of a detailed understanding of the way the various factors that determine the strength of suggestive influences combine with one another and interact with the content of the suggestions and with individual differences. Specific claims regarding the likelihood that a particular constellation of suggestive influences would lead to particular kinds of false memory reports in specific individuals must await the development of such an understanding.

It would be unethical to conduct experiments designed to assess the likelihood that particular forms of suggestive influences will lead to particular kinds of false memories of CSA. Therefore researchers can only (a) conduct experiments using analog suggestions that meet ethical requirements yet can plausibly be generalized to false memories of CSA (e.g., Hyman & Billings, 1998; Loftus & Pickrell, 1995; Porter et al., in press; Spanos et al., 1999) and (b) use survey and case study methodologies to assess the extent to which the principles appear to fit actual cases of illusory recovered-memory experiences (e.g., Dalenberg, 1997; de Rivera, 1997; Gudjonsson, 1992). Given the limitations of these approaches, experts on both sides of this issue will have to continue to be cautious in their claims regarding specific recovered-memory cases.

Most if not all published experimental studies of suggestibility have used suggestions of quite specific events. For example, Hyman and his co-workers have suggested to young adults that when they were 5 years old they knocked over a punch bowl at the head table at a wedding reception. Clients receiving CSA-memory-oriented psychotherapy may be exposed to comparably specific suggestions (e.g., by hearing or reading other people's accounts of CSA), but it is likely that CSA-memory-oriented therapies usually impart much more general suggestions regarding a broad category of events (i.e., suggestions that the client experienced some form of CSA). On the one hand, highly specific suggestions provide detailed external support for images that could subsequently be misidentified as memories. On the other hand, more general suggestions are less likely to be dismissed as implausible, and leave more room for the free use of imagination and for the intermingling of veridical memories and products of imagination. Research is needed comparing the effects of highly specific versus general suggestions on illusory memories.

Although discussions of suggestibility have emphasized false memories, it is worth noting that real-world cases in which reports of CSA emerged via highly suggestive therapies may not always involve false memories per se. It is clear that some individuals do experience vivid and perceptually detailed pseudomemories (e.g., of satanic ritual abuse or alien abductions), but others may simply come to believe that suggested events happened, without experiencing pseudomemories of those events. This too is an area in need of investigation.

To date, little is known about the impact of misleading suggestions to the effect that an event had not occurred. It may be harder to "erase" recollections than to create pseudomemories, because a suggestion that X did not occur would be a good cue to retrieve memories of X's occurrence (leading recipients immediately to reject the suggestion as inaccurate); in contrast, failing to retrieve memories in response to a positive suggestion would not provide a basis for rejecting the suggestion as inaccurate (unless recipients were sure they would remember the suggested event if it had occurred).

We are aware of only two studies on the effects of "erasing" suggestions. In a study by Pezdek and Roe (1997), some 4- and 10-year-old children who were touched innocuously during an interaction

with the experimenter later received a suggestion that no touching had occurred. Other children received a suggestion to the effect that a different form of innocuous touching had occurred. Yet other children were not touched at all, and some of these received a suggestion to the effect that they had been touched. Only the changed-touch suggestion distorted children's reports of touching during a final interview, perhaps because the event to which the suggestion pertained was very recent and/or because the suggestibility manipulation was quite weak (i.e., a passing comment). In contrast, Wright, Loftus, and Hall (1999) found that when a scene in a previously witnessed event was omitted from a postevent narrative description of that event, participants were subsequently less likely to recall or recognize that scene on a final memory test, and that this "erasure" effect was comparable in size to that postevent suggestions that added false information. This is yet another area in need of vigorous research activity.

### How Often

Prevalence of Forgetting CSA. A number of studies have reported data that could be used to estimate the prevalence of prior periods of non-remembering of CSA among adults who report a CSA history (see Schefflin & Brown, 1996). Findings range dramatically, from a low of 16% in Williams's (1995) prospective study to a high of 77% in Roe and Schwartz (1996). Unfortunately, such studies suffer from the limitations discussed in the preceding section on mechanisms of forgetting CSA (e.g., uncertainty regarding what respondents mean when they report prior periods of non-remembering, questions about the validity of such retrospective self-reports, concerns about subject-selection procedures and about reactivity). In the two prospective studies published to date, Williams (1994) found that 12% of the 129 women with a documented history of CSA did not report any CSA when interviewed 17 years after the documented abuse, whereas Widom (1997) found that 37% of 94 women with documented histories of CSA denied having experienced CSA when interviewed 20 years later. These different findings may reflect differences in the actual CSA histories of the two samples (e.g., it may be that those in Williams's study had experienced more CSA, or experienced CSA at a later age), differences in the interviewing techniques (e.g., Williams's participants may have been more disclosing or better cued), or any of a number of other differences between the studies. Further research using prospective designs and careful assessments of memory for abuse are needed.

How prevalent are recovered-memory experiences? How commonly do people have recovered-memory experiences of various kinds, and under what circumstances? A number of published studies of diverse kinds of restricted samples shed various degrees of light on this question, including:

- Surveys of psychotherapists' perceptions of memory recovery phenomena in their clients (e.g., Andrews, Morton, Bekerian, Brewin, Davies, & Mollon, 1995; Andrews, 1997; Bottoms, Shaver, & Goodman, 1996; Palm & Gibson, 1998; Polusny & Follette, 1996; Poole, Lindsay, Memon, & Bull, 1995; Pope & Tabachnick, 1995);
- Studies of clients who received CSA-memory-oriented therapies (e.g., Briere & Conte, 1993; Dalenberg, 1997; Gold Hughes, & Hohnecker, 1994; Herman & Shatzow, 1987);
- Research by specialists in Dissociative Identity Disorder (formerly Multiple Personality Disorder) (e.g., Coons, 1994; Ross, Miller, Bjornson, Reagor, Graser, & Anderson, 1991);
- Surveys of individuals who self-selected on the basis of memory for childhood CSA or other trauma (e.g., Albach, Moorman, & Bermond, 1996; Dale & Allen, 1998; Hovdestad & Kristiansen, 1996; van der Kolk & Fisler, 1995);

- Williams's (1994, 1995) prospective study, in which women who reported the documented instance of CSA were asked about prior periods during which they did not remember it;
- Elliott and Briere's (1995) general population self-report survey of 505 U.S. respondents.
- Case studies of individuals who experienced recovered memories (e.g., Cheit, [http://www.brown.edu/Departments/Taubman\\_Center/Recovmem/](http://www.brown.edu/Departments/Taubman_Center/Recovmem/); Corwin & Olafson, 1997; Schooler et al., 1997);
- Self-report surveys of samples from restricted populations, such as undergraduate students (e.g., Melchert and Parker, 1997; Sheiman, 1993), women in a drug rehabilitation program (Loftus, Polonsky, & Fullilove, 1994), therapists (Feldman-Summers & Pope, 1994), "retractors" (i.e., individuals who recovered memories that they subsequently decided were illusory) (e.g., de Rivera, 1997), and accused parents (e.g., Gudjonsson, 1997).

Given the conceptual complexity, methodological difficulty, and emotional/political sensitivity of the issues at hand, it is perhaps not surprising that such studies have yielded diverse findings and interpretations regarding the frequency of memory-recovery experiences. There is a need for large-scale surveys of the general population to estimate the prevalence of recovered-memory experiences and to characterize those experiences along a variety of dimensions (e.g., How often are the memories perceived as false versus accurate by the person who experienced memory recovery, and by others? What if any personality characteristics or situational variables are associated with memory recovery? How often do recovered-memory experiences include specific memory images?). To the best of our knowledge, the only general-population survey designed to shed light on any of these issues was that conducted by Elliott and Briere (1995); this is an impressive study in many ways, but like any single study it has limitations (e.g., vague definition of "amnesia," lack of information about how memory recovery came about, etc.).

We suspect that the dramatic sorts of memory-recovery experiences that have been the focus of debate, in which individuals who initially believed they experienced no CSA come to remember multiple instances of extreme forms of abuse, are rare in the general population. On the one hand, existing research suggests that only a minority of the population suffers severe forms of CSA (see, e.g., Finkelhor, 1994) and that most people who experienced such abuse remember it (see Alpert, Brown, Ceci, Courtois, Loftus, & Ornstein, 1996; Koss, Tromp, & Tharan, 1995). It is also probable that only some of those who do forget ever recover memories of the abuse. Thus it is likely that essentially accurate recovered-memory experiences involving severe abuse are quite rare. On the other hand, existing research also indicates that people are unlikely to develop illusory memories of CSA unless they are exposed to quite powerful suggestive influences, and so it is likely that essentially false recovered-memory experiences are also rare in the general population, and that they are becoming more rare as use of highly suggestive approaches to memory-recovery work diminishes. Although we believe these speculations to be well-grounded, systematic research is needed on these issues.

### Implications

Is it beneficial for clients to remember CSA? Despite the widespread popularization of CSA-memory-oriented approaches to psychotherapy in the 1990s, there is little empirical support for such approaches. Indeed, we have not been able to find any published study that tested the hypothesis that adults who initially have no recollections of CSA but who present with certain symptoms thought to be associated with a CSA history benefit from attempts to uncover memories of such events. There are empirical data supporting the idea that adults who are aware of recent sexual assault can benefit from

therapies that include attention to and desensitization of abuse memories (e.g., Foa, Rothbaum, Riggs, & Murdock, 1991; Resick & Schnicke, 1992), and it may be that CSA-memory-oriented therapies can be helpful for adults who were sexually abused as children, but this is an issue desperately in need of empirical work.

If systematic research does reveal benefits of CSA-memory-oriented therapies for adults (relative to appropriate control treatments), a host of related questions will become pressing. Can procedures be developed to identify which clients are more or less likely to benefit from CSA-memory-oriented therapy? Which approaches to fostering CSA memories are associated with favorable outcomes, and which are not? Are CSA-memory-oriented therapies still effective if steps are taken to reduce risks (e.g., informed consent, limited number or duration of techniques)? How can therapists best support clients who report concerns about a possible CSA history in the absence of memories? Professional organizations (see Grunberg & Ney, 1997) and individual professionals (e.g., Courtois, 1997, 1999) have offered a variety of thoughtful opinions on these issues, together with guidelines for dealing with CSA-memory issues in therapy, but the empirical foundation of such recommendations requires substantial strengthening.

How can psychologists improve support for sequelae of recovered memories? Individuals who experience recovered memories of CSA often report that memory recovery was a traumatic experience (e.g., Courtois, 1999). The popular literature promoting CSA-memory-oriented therapy addresses the need for healing from sequelae of recovering memories, including developing alternative forms of social support for people who terminate contact with family members and sever friendships with those who doubt the accusations (e.g., Bass & Davis, 1988; Frederickson, 1992). Further development of effective supports for people who recover memories may benefit from systematic research.

Some people who recover memories later come to doubt or even reject the belief that they were sexually abused, and it is likely that this process also involves considerable psychological stress, especially if the individual had previously confronted a family member with allegations. Thus there is a need for research on efficacious treatment interventions for such people. Similarly, parents accused of having sexually molested their offspring may also experience psychological suffering, largely attributable to the destruction of their families but also sometimes to stress associated with public humiliation, financial strains imposed by civil suits, or even threats to liberty. The suffering of accused parents may be genuine even when the accusations are partly or entirely valid. There is a need for research on effective psychotherapies for such individuals, as well as for the development of ways of helping families cope with disintegration and, where appropriate, re-integration. Finally, therapists who work with CSA issues face tremendous stress, and systematic research and theory development may assist in devising approaches to practice that minimize that stress and provide resources and support for practitioners while maximizing care for clients (Arvay & Uhlemann, 1996; Courtois, 1999).

Are there reliable means of postdicting the accuracy of recovered-memory reports? Research indicates that it is possible crudely to estimate the accuracy of recovered-memory reports by weighing a constellation of kinds of evidence including (a) the presence/absence of converging evidence; (b) how the memories came about (the less evidence of suggestive memory-recovery work the greater the confidence), (c) the nature and clarity of the memories (with more credence given to detailed, integrated recollections than to vague feelings), (d) the likelihood of the alleged events being forgotten if they had actually occurred (e.g., when and how often the abuse is said to have occurred; probability that the person would have encountered reminders, overall memorability of the alleged events, etc.), (e) the plausibility of having memories to recover (e.g., less credence given to reports of events said to have

occurred before 2 years of age), and (f) the base rate of the alleged type of abuse. Future research may also enable the development of valid and reliable individual difference measures that might be useful, along with other information, in evaluating recovered-memory reports (Read & Winograd, 1998).

At this point, it is not known exactly how these factors should be weighted, nor how well this approach would work: It is likely that even an optimal solution would sometimes erroneously reject essentially accurate memory reports as false and erroneously accept essentially illusory memory reports as accurate. Systematic research on this issue will be difficult, and will doubtless require converging evidence using a variety of paradigms (e.g., experimental research using analog events and suggestions [which enable researchers to know exactly which memory reports are accurate and which are not] and studies of real-world cases in which individuals report various kinds of recovered memories [see Read, *in press*, for citations]).

### Summary

The fiercely polarized contentiousness of the early years of the recovered-memories debate has given way to more balanced and constructive perspectives. With regard to the politics of the recovered-memory issue, it has become clear that there is no contradiction between being concerned about childhood sexual abuse and being concerned about the risks of suggestive forms of CSA-memory-oriented therapies. From the perspective of memory science, it has become clear that both essentially accurate and essentially illusory recovered-memory experiences are genuine phenomena urgently in need of rigorous empirical investigation. The memory wars of the '90s have already provided the impetus for exciting new research on a wide range of empirical and theoretical fronts, and new research in the '00s will greatly advance our understanding of the questions raised in this chapter and elsewhere (e.g., Berliner & McDougall, 1997; Lindsay & Briere, 1997; Schooler & Hyman, 1997). In addition to its intrinsic intellectual value, the knowledge gained through such research will enhance psychologists' ability to support adults who were sexually abused as children while minimizing the risk of iatrogenic illusory memories or false beliefs.

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