
COPING WITH PSYCHIATRIC AND PSYCHOLOGICAL TESTIMONY

SIXTH EDITION

David Faust

BASED ON THE ORIGINAL WORK BY

Jay Ziskin

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To my belt

David Faust

RECOVERED MEMORY EVIDENCE IN THE COURTROOM

FACTS AND FALLACIES

Stephen Porter, Kristine A. Peace, Rebecca L. Douglas, and Naomi L. Doucette

OVERVIEW OF CHAPTER

KEY IDEAS

- Historical overview of repressed/recovered memories
- The modern debate and inconsistent legal response
- Public perceptions of repressed memories
- Are recovered memories valid? Should they be allowed as evidence in the courtroom?
- The false memory phenomenon

PRACTICE GUIDELINES FOR EVALUATING CLAIMS OF RECOVERED MEMORIES IN COURT

- Seek corroboration
- Determine the context of the memory recovery and initial allegations
- Evaluate the content of the recovered memory
- Seek a psychological evaluation of the claimant's personality characteristics and susceptibility to memory distortion
- Present expert testimony on memory processes and delayed recall

SUGGESTIONS FOR ATTORNEYS IN QUESTIONING COMPLAINANTS AND EXPERT WITNESSES

As we highlighted in an earlier edition of this text (Porter & Marxsen, 1998), the reliability of witness memory has been brought into question throughout the history of our legal system. For example, evidence from many legal cases has established that eyewitness memory is malleable and highly prone to errors. In a 2001 inquiry into a wrongful murder conviction in Canada, Justice Cory stated that mistakes by "honest, right-thinking eyewitnesses" have been responsible for many injustices. His cogent observation on the potential fallibility of memory is supported by a large body of research (e.g., Yarmey, 2003).

In the present chapter, we examine one of the most controversial of human memory phenomena sometimes entered as evidence in the courtroom—the repressed or delayed memory. Any type of contested historical allegation can pose great challenges for the judiciary, and an allegation based on a "recovered" recollection of a crime can make credibility assessment especially difficult. Porter, Campbell, Birt, and Woodworth (2003a) gave an example of a historical case and the problem of credibility assessment therein:

Imagine being a juror in a trial that is based on a middle-aged woman's allegation that her neighbor sexually assaulted her after giving her a ride home forty years earlier. She recounts a vivid and emotional memory of the accused person attacking her and comes across as a confident witness. As in many sexual assault cases, the defendant denies the allegation and there is no other evidence to corroborate either testimonial. Additionally, the defense team points to inconsistencies in the complainant's testimony relating to dates and locations. How would you evaluate the evidence in this case? Noting the factual errors, some jurors might be skeptical. However, others might view the testimony as highly credible and consider the errors to be minor and the result of the passage of time. A factor that might further complicate decision-making is the complainant's report that her memory of the incident was only recently "recovered." (p. 190)

This hypothetical scenario has been played out in many civil and criminal cases in courtrooms throughout North America. For example, in our home province of Nova Scotia, former premier Gerald Regan was charged in the 1990s with numerous counts of sexual offenses against 13 women. The complaints concerned incidents ranging from fondling to rape and were alleged to have occurred from the 1950s to the 1970s. Ultimately, Regan was acquitted on several of the charges and the prosecutors elected not to pursue the remaining counts because of the low likelihood of conviction. Such cases involving alleged "historical" violence have created major challenges for the legal system. As we have pointed out elsewhere (Porter, Birt, Yuille, & Herve, 2001), the courts have demonstrated no consistent response to allegations based on recovered memories, some accepting them and others rejecting

them as evidence. This is highly problematic given the growing prevalence of claims of repressed memories from the 1980s to the present day, both in therapeutic and in legal contexts (McNally, 2003b; Porter & Marxsen, 1998). Using archival data, Canadian researchers (Connolly & Read, 2003) examined a sampling of more than 1,200 cases of sexual assault from the 1980s and 1990s and found that evidence for recovered or delayed memories has emerged in more than 5% of all sexual assault cases. Despite the inconsistent response of the legal system (documented later), the scientific community has come to a much firmer conclusion about the reliability of recovered memories since the 1998 edition of this book.

ORIGINS OF THE REPRESSION CONCEPT

Remembrance has a rear and front,
 'Tis something like a house;
 It has a garret also
 For refuse and the mouse.

—Emily Dickinson (Reeves, 1959)

Can a person hide unpleasant childhood events in the recesses of the unconscious? Part of the rich legacy of psychoanalysis (see Ellenberger, 1970; Sulloway, 1992), repression is commonly evoked—often in forensic settings—as an explanation for failures to recollect emotional events from childhood. Variations of the term *repression* have been around since at least the 1300s (much earlier, Socrates had considered the idea of holding a memory but losing conscious awareness of it). *Repressen* is thought to have its origin in the Latin and Old French languages (*repressus*; *represser*) and had a number of denotations in Middle English language including (a) to overcome, put down, or suppress a riot, rebellion, or disagreement; (b) to suppress sin or error; (c) to counteract venom or pain; (d) to weaken in effect or function; and (e) to reduce in size (Middle English Dictionary, 1984). The second usage of the term is most like the modern psychological version and, although it is not known to have referred directly to the suppression of a traumatic memory, it did sometimes concern the suppression of immorality, especially sexual urges (the Middle English dictionary [c. 1456/1984] provides many cases including: “God . . . wol repressen and putte doune frome ye alle ye bestial desires.”) However, it appears that few if any historical observers of human nature witnessed cases of repression. Although Matthew Arnold once wrote, “We forget because we must, And not because we will,” it is unclear whether he was referring to repression.

Although the origin of the contemporary idea of repression usually has been attributed to Freud, 18th- and 19th-century German philosophers were among the first to consider the phenomenon. In his principal work, *The World as Will and Idea*, Schopenhauer (1818/1896) outlined the weaknesses of the human intellect, one of which is the requirement that we store certain important thoughts in the unconscious in order to attend to more immediate ideas:

Therefore after a certain time, which varies with the individual, we must for the present give up every meditation

or deliberation which has had the fortune to remain undisturbed, but yet has not been brought to an end, even if it concerns a matter which is most important and pertinent to us; and we must dismiss from our consciousness the subject which interests us so much, however heavily our anxiety about it may weigh upon us, in order to occupy ourselves now with insignificant and indifferent things. During this time that important subject no longer exists for us; it is like the heat in cold water, *latent*. (p. 331)

Schopenhauer asserted that such “dismissed” thoughts were retrievable but would influence future ideas because the physical composition of the humors and tensions of the nerves change over time (in the Aristotelian tradition, Schopenhauer believed they left an echo behind them, “the tone of which influences the ideas which follow,” p. 331). He noted that humans are able to unconsciously suppress negative thoughts, observing, “it is a curious fact that in bad days we can very vividly recall the good time that is now no more; but that in good days we have only a very cold and imperfect memory of the bad” (1851/1974, p. 49). Not generally known as a man awash with optimism, Schopenhauer concluded that human memory is a fallible process, it is incomplete, and the little that is recalled is inaccurate.

Half a century later, Freud introduced his version of repression, surpassed by few other concepts in its influence on psychological thought in this century. The influence of repressed memories was a key foundation of psychoanalysis, reflected in the declaration of Breuer and Freud (1895/1955): “hysterics suffer mainly from reminiscences” (p. 7). In the 1890s, Freud postulated his seduction theory, based on his analysis of women afflicted with what was known at the time as “hysteria.” Initially, Freud believed that these physical symptoms were rooted in childhood traumas. He specified several types of defense mechanisms that individuals utilized to cope with painful events and unconscious impulses; the most widely known and controversial being repression (Freud, 1922). Freud viewed repression as a mechanism by which painful or traumatic memories were detached from a person’s conscious awareness. According to Freud (1922), repression involves an emotional event being actively buried in the unconscious, a process independent of ordinary forgetting. Freud defined trauma in terms of the economy of psychological energy expended during an event resulting from excessive stress or “stimulation.” The traumatic event was one that “within a very short space of time subjects the mind to such a very high increase of stimulation that assimilation or elaboration of it can no longer be effected by normal means, so that lasting disturbances must result in the distribution of the available energy in the mind” (p. 232). The memory remained intact but inaccessible because a “connection . . . had been broken” (p. 239). To clarify the process, Freud used the metaphor of an anteroom containing the unconscious and a smaller reception room containing the conscious. On the threshold of the two rooms is a doorkeeper who examines the various “mental excitations,” censors them, and decides whether to admit them to the reception room or the consciousness. Those excitations

that are turned back by the doorkeeper are repressed (Freud, 1922). Thus, repression is a type of amnesia in which the psyche defends itself against intolerably painful knowledge. Memory for a traumatic psychological event is not permitted—via unconscious controls—into a person's conscious awareness.

Despite the "burying" of trauma in the unconscious, it was argued that these repressed incidents could still exert some degree of influence on behavior or symptomology in adulthood (e.g., anxiety, dislike or unexplained fear of certain places, physical ailments, depression). In his view, in order to treat hysteria, these painful experiences must be brought to the surface or "recovered" from the recesses of the unconscious and reexperienced for complete integration to occur. The typical means of achieving this recovery included hypnosis, free association, and deep introspection (Freud, 1922). Freud's patients often began to remember traumatic incidents from childhood through these procedures, and the "recovery" of such memories led him to conclude that emotions have the power to block memory.

The modern psychodynamic view, like Freud's, is that such repressed material can continue to exert psychological effects on the person over the life span and that a fundamental goal of therapy is to recover the memory (Breuer & Freud, 1893/1957; Earleywine & Gann, 1995; Freud, 1922; Myerson, 1977). Modern-day theorists argue that it is not solely the nature of trauma that causes repression, but the intrapsychic conflict created by perceiving family members/relatives or authority figures as both abusers and caretakers (Smith-Lee, 1996). Some argue that the nature of sexually abusive relationships, often involving concealment, threats, and blackmail, causes children to internalize their psychological injury and repress all memories of the abuse (e.g., Freyd, 1996).

"Recovered memories" refer to those memories that were previously repressed and have been brought into conscious awareness. According to some clinicians, the recovery of traumatic memories can be triggered by visual stimuli, body sensations, highly emotional events, therapeutic intervention, or other cues that bring forth the buried memory (e.g., Brady, 1996; Herman, 1992; Terr, 1994). The recovery of traumatic memories is said to occur when the psychological and environmental circumstances of the individual promote a "safe" atmosphere to deal with the trauma in adulthood (e.g., Gannon, 1989; Mollon, 1998).

THE MODERN DEBATE AND LEGAL RESPONSE

After a century of near-blind acceptance by the mental health professions of the aforementioned conceptualization of repression, a heated debate arose in the 1980s over the validity of recovered memories for experiences of past childhood abuse. At the same time, such memories began to serve as evidence in courts throughout North America. As the debate became increasingly polemical, some argued that those who questioned the validity of recovered memories were attempting to deny the reality of sexual abuse. However, few if anyone would deny that sexual abuse is a serious problem in today's society.

Estimates suggest that one in eight males and one in four females have been sexually victimized (Finkelhor, Hotaling, Lewis, & Smith, 1990) and that approximately 10%–25% of women have been sexually assaulted in adulthood (Koss, 1993). The vast majority of allegations stemming from such experiences are based on continuous memories.

Despite the acknowledged widespread problem of abuse, it soon became apparent that not all reports of historical abuse based on recovered memories were accurate (e.g., Lindsay & Read, 1994a; Porter, Yuille, & Lehman, 1999). In fact, many such memories were actually mistaken (e.g., Bruck, Ceci, & Hembrooke, 1998; Loftus, 1993, 1998, 2003b). In many cases, the individual who recalled the event later recanted his or her story in coming to the realization that the memory had been mistaken. For example, in a 1992 case, Beth Rutherford "recovered" memories of her father raping her between the ages of 7 and 14 years while her mother held her down (Loftus, 1997). She also remembered being impregnated twice and being forced to abort the fetus with a coat hanger. However, a medical examination ruled out the credibility of these memories; in fact, she was a virgin. The daughter sued the church counselor who had helped her "retrieve" the memory and received a million-dollar settlement in 1996. In Canada, "Donna Cole" recovered memories of being sexually abused by her father at the age of 18 months (see Porter, Spencer, & Birt, 2003). She reported that her father put her in a roasting pan in an oven, butchered a female hitchhiker, and raped the family dog. Based on her outlandish testimony, her father was convicted. Such cases led to the development of an intense debate on the validity of allegations based on recovered or "delayed" memories (e.g., Prout & Dobson, 1998).

Unfortunately, the courts still have no consistent approach for assessing recovered memory claims (e.g., Porter & Marxsen, 1998; Seniuk & Yuille, 1995). In a Maryland case (*Jane Doe et al. v. Joseph Maskell*, 1996), a court asserted that repression is not a valid phenomenon. By contrast, an Ontario court judge viewed repressed memories as valid (see Porter et al., 2003a). Criminal charges were founded on allegations by a 15-year-old girl that her grandfather had sexually abused her between the ages of 5 and 8 years. The girl had originally been receiving counseling from a pastor to deal with her parents' divorce, during which the pastor repeatedly asked her whether her grandfather had ever touched her sexually. Although initially the girl could recall nothing, she was told that she had buried the memories. The vivid memories eventually began to "flood into her mind." Although the defendant denied the story, the trial judge theorized that he "himself may have repressed or dissociated from any recollection of what to his moral background and makeup would be repulsive and horrible acts. . . I could take it that [defendant] could be testifying honestly as to what he recalls, and he does not and cannot recall these acts." This notion by the judge gave the grounds for an appeal and the conviction was reversed (*Regina vs. Campbell*, 1996).

In recent years, civil cases tend to be the foremost arena for repression in the courts. Civil damages in excess of \$5 million have been rewarded to victims of alleged abuse based on their recovered memories (e.g., Bannon, 1994). More recently,

the legal system has seen another trend, in which complainants have recanted their recovered memories and sued therapists for leading them to develop false memories (Kisch, 1996).

To highlight the various judicial approaches to repressed memory in the courts, several cases are worthy of note. In the landmark case *Tyson v. Tyson*, supra (1986), the Washington Supreme Court ruled that the statute of limitations would apply and refused to admit recovered memory testimony as evidence in trial. The judge in this case argued that the length of time between the alleged events and the claim of forgotten abuse influenced the likelihood of inaccurate recollections of events. In addition, the court found that psychological or psychiatric testimony in support of the possibility of repressed memories does not reduce the subjectivity of the memory (see Bickel, 1991). However, one judge dissented, stating that the statute of limitations should begin at the point when the individual became aware that the abuse took place, not from the date of the actual incident (*Tyson v. Tyson*, supra, 1986). Subsequently, there have been several cases in the United States that have applied what has become known as the delayed discovery doctrine to cases of historical abuse (e.g., Brown, Schefflin, & Hammond, 1998; Gothard & Ivker, 2000; Porter et al., 2003a). Further specifications for the application of the discovery rule were highlighted in *Johnson v. Johnson* (1988). The judge argued that cases involving historical memories should be subdivided into two categories: Type I refers to cases where the plaintiff had repressed all memories of the abuse until they were later recovered at some point in time, whereas Type II cases refer to when the plaintiff continuously recalled memories of abuse but was unable to understand the causal link between the abuse and continuing emotional distress until the present (Gerstenblith, 1994). This distinction has been used in subsequent cases, and judges tend to reject the discovery doctrine more often in Type II cases (e.g., Garza, 2003). However, some courts have been more wary of recovered memories and refuse to apply the discovery rule unless there is corroborating evidence (Kisch, 1996). Apart from legal doctrines pertaining to the statute of limitations, several important judicial rulings about the admissibility of repressed memory evidence have been made. In *Rock v. Arkansas* (1987), hypnotically refreshed or revived memories were not permitted as evidence, due to the court's concerns about hypnosis as a potential source of bias in recall. Furthermore, Justice Groff refused to admit repressed memory testimony and ruled that "memory repression is not generally accepted in the field of psychology" in *State of New Hampshire v. Hungerford* (1995, p. 15).

In the Canadian courts, there has been much disparity in the judicial response to repressed/recovered memory evidence. In two cases, *R. v. O'Dell* (2001) and *R. v. R.J.H.* (2000), judges accepted the testimony of the complainant as accurate and credible. In the first case, a male complainant testified that he was sexually abused over the course of several years by a Catholic priest and that he had blocked the memories of the abuse until his 20s. Although the reliability and credibility of recovered memories was a significant concern at the trial, the judge believed the complainant. By relying in part on expert

testimony, the judge concluded that the complainant's memory difficulties were due to "imperfect retrieval of memory resulting from traumatic amnesia" (*R. v. O'Dell*, 2001, para 16). The accused was found guilty, and on appeal, the conviction was upheld. In the second case, *R. v. R.J.H.* (2000), two sisters accused their father of sexual abuse, claiming that they had no memory of the abuse until their memory was triggered by another incident. The judge concluded that both witnesses were credible and believable and found the accused guilty of two counts of sexual assault. Similarly, Justice Robins in *R. v. Francois* (1993) stated that repression is a "widely recognized psychological [process]." This opinion was also upheld in the Supreme Court of Canada in (*K.M. v. (H.) M.* (1992), where Justice La Forest extended the limitations in such claims by applying the doctrine of reasonable discoverability. Legal decisions such as these are widely cited by legal scholars as having validated the notion of repressed memories and substantiated their credibility (e.g., Brady, 1996). In contrast to the aforementioned cases, other Canadian judges have ruled against the admissibility of repressed memory evidence. In *Justice v. Doucet* (2000), the Manitoba Court of Appeals expressed concern over the way in which the complainant's memories had been uncovered. The judge ruled that there was a lack of sufficient evidence or reason to believe that the recovered memories had actually taken place. Likewise, Justice Hanssen dismissed a case based on repressed memory evidence and stated that the abuse was "merely a product of [the complainant's] mind" (*R. v. R.L.B.*, 1994, paras 4 & 5).

As indicated, there is no consistent approach by the courts in evaluating and validating claims of recovered (previously repressed) memories of childhood abuse or trauma (Porter & Marxsen, 1998). Convictions have been obtained, cases have been dismissed, and convictions have been overturned (Connolly & Read, 2003). Ernsdorff and Loftus (1993) offer four recommendations to address the problem of repressed memory testimony in court: (1) not tolling the statute of limitations for cases concerning a recovered memory; (2) requiring corroborating evidence in support of a returned memory; (3) adopting specific procedural requirements in cases involving the return of repressed memories; and (4) admitting expert testimony on the reliability of memories. However, with respect to the last point, it is important to acknowledge that experts on either side may present a biased view of the research and state of knowledge according to their perspective, and they are often polarized in this debate (Yuille, Daylen, Porter, & Marxsen, 1995). It is no easy task to determine what the appropriate course of action should be. Disagreement between members of the mental health profession (e.g., Reagan, 1999) and lack of clear guidelines on repressed memory cases have led to a case-by-case approach within the legal system of considering repressed memory evidence as fact or fiction.

Some have gone so far as to argue that "since the very field which researches recovered memories cannot agree on their validity, the best way to protect the public is to prohibit the use of questionable memories as evidence" (Kisch, 1996, p. 209). However, we have argued that "it is not our role as psychologists to make policy decisions for the legal system, just as it is not our role to comment on whether recovered

memory evidence should be admissible in the courtroom" (Porter, Campbell, Birt, & Woodworth, 2003b, p. 213). Instead, psychologists should serve in the dissemination of relevant psychological information to aid legal professionals in their decision-making processes. Canadian courts have not eliminated or excluded the use of recovered memory evidence to date; this furthers the need for established guidelines to help legal decision makers be triers of "fact" rather than "fiction."

PUBLIC PERCEPTIONS OF REPPRESSED MEMORIES

What does the public (potential jurors) think of recovered memory reports? Research on people's perceptions of witnesses indicates that laypersons have traditionally given much credence to accounts of events and identification of perpetrators (e.g., Bell & Loftus, 1988). Vivid accounts with a high degree of expressed confidence have been found to be especially persuasive (e.g., Penrod & Cutler, 1995). Loftus, Weingardt, and Hoffman (1993) examined how people react to claims of recovered childhood memories. Participants answered questions about a legal case arising out of allegations of sexual assault. In one version of the allegation, the complainant claimed to have repressed the memory for 10 years and recovered it in therapy, whereas in the other, she showed continuous recall for the incidents but did not report them for 10 years. Participants, particularly males, judging the allegations tended to be more skeptical of the repression case. Additionally, the repressed and nonrepressed cases evoked different considerations; participants skeptical of the repressed memory viewed it as honest but false, whereas skeptics of the nonrepressed memory thought that the complainant may have been lying. Using a similar approach, Key, Warren, and Ross (1996) found that participants were more likely to convict a defendant when testimony concerned a continuous memory for sexual abuse (67%) than a recovered repressed memory (58%). There appears to be an acceptance of the concept of repression but a mild skepticism for particular cases among university students (Golding, Sego, Sanchez, & Hasemann, 1995). Additional research by Golding, Sego, and Sanchez (1999) studied the believability of repression in the courtroom when cases involved multiple incidents of forgotten childhood sexual abuse. They reported that mock jurors rated the alleged abuse as more believable when there were multiple assaults, as compared with a single incident of sexual abuse, regardless of the reporting condition. In addition, female "jurors" in this study were more likely than males to believe the victim's memory and rule in her favor regardless of whether the abuse was reported immediately or delayed (repression and no-repression conditions). Perceptions about the context of recall have also been examined in case simulations. For example, Coleman, Stevens, and Reeder (2001) found that mock jurors rated recovered memories elicited under hypnosis as more credible and valid than those recovered via other treatment techniques, and they ruled more favorable verdicts for the complainant. However, in cases involving therapeutic mal-

practice, participants rated hypnosis as most highly related to the generation of false memories, as compared with other techniques, and gave less favorable verdicts to the therapist (Coleman et al., 2001).

ARE REPPRESSED AND RECOVERED MEMORIES VALID?

Clearly, there is great variability in the credibility given to repressed memories both in and out of the courtroom. Within the scientific community, many researchers strongly question the validity of such memory reports (see Porter et al., 2003a, for a review). In fact, the existence of repression remains unverified by scientific research, and many scholars are questioning the claim that memories could be stored intact and unaltered for decades in the unconscious (e.g., Loftus, 2003b). Freud himself began to question the reliability of memories of childhood events (Freud, 1962): "What seemed to be very vivid memories of real occurrences in childhood often turn out to be contradicted by clearly established facts" (cited in Fancher, 1973, p. 108). Freud argued that the "scenes" being "replayed" in therapy represented the fantasies of the patient and deviated from objective and historical fact (e.g., Orne, 1981). Thus, Freud's seduction theory, which was initially rooted in repression, became rooted in fantasy (Richardson, 1999). Despite this, many clinicians and even some researchers have tenaciously held on to the notion of repression as a valid explanation for lost memories of trauma that resurface years or decades after the alleged events (see McNally, 2003b; Schacter, 1996). For this reason, we will discuss the empirical evidence on both sides of the debate and provide the reader with a clear indication of the new psychological consensus that is emerging in the literature.

EVIDENCE FOR REPRESSION?

The following arguments have been offered as evidence for the existence for repression as a mechanism that blocks memories of traumatic events from awareness until alleged victims are psychologically prepared to recover them.

ACCEPTANCE OF REPRESSION BY EXPERTS/THERAPISTS

Many clinicians not only endorse, but may devote their entire practice to, the recovery of traumatic memories (e.g., Herman, 1992). In the 1990s, survey research has indicated that the concept of repression is widely accepted among many practicing therapists (e.g., Poole, Lindsay, Memon, & Bull, 1995), despite the strong criticisms of repression that dominate the empirical literature (e.g., Loftus, 1997; Porter et al., 2003a). Many "recovered memory therapists" are poorly trained or self-professed specialists in the field (Leo, 1997). The use of directive and suggestive processes to retrieve buried traumas casts doubt on the recovered memory representing true historical fact (see later in chapter). In addition, therapists who

are trained in treating child sexual abuse victims may inadvertently engage in a form of self-confirming bias, by seeking out or "recovering" information from memory that supports their theory of suspected abuse.

PSYCHOGENIC AMNESIA IS A WIDELY ACCEPTED PHENOMENON

Proponents of repressed memories cite the fact that psychogenic or dissociative amnesia—a mental disorder in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, APA, 2000)*—operates like repression. In cases of psychogenic amnesia, memories and personal information are lost after exposure to a traumatic event. This is argued to be akin to repression, in that the brain can "forget" events that are too painful to exist in conscious awareness (Smith-Lee, 1996). However, psychogenic amnesias are poorly understood pathological conditions and are very rare (Yuille et al., 1995). There is no evidence whatsoever for the involvement of a repressed memory process. Furthermore, in general, unlike the single event typically preceding psychogenic amnesia, recovered memories often concern multiple episodes of trauma over time, while memories for intermediary events (e.g., birthdays, summer holidays) are retained (McNally, 2003b; Yuille et al., 1995).

MEMORY PROBLEMS ARE ASSOCIATED WITH POSTTRAUMATIC STRESS DISORDER

Many people who have experienced traumatic events, including childhood sexual abuse, may develop posttraumatic stress disorder (PTSD) in the months and years following these experiences (Schiraldi, 2000). Furthermore, people who have reported recovered memories often show high levels of PTSD symptoms, such as intrusion, avoidance, and hyperarousal (McNally, 2003a). Although memory problems are part of the diagnostic criteria for PTSD, including an "inability to recall an important aspect of the trauma" (*DSM-IV-TR, APA, 2000*), this provides no proof of repression. In fact, people with PTSD are often unable to forget the traumatic experience(s) due to flashbacks, nightmares, and reliving the event (Berntsen, Willert, & Rubin, 2003; Carlson, 1997). Furthermore, memory gaps that are associated with some cases rarely encompass the entire traumatic event (e.g., Christianson & Nilsson, 1989).

REPRESSION IS SUPPORTED BY SCIENTIFIC RESEARCH

Advocates of repressed memory cite three key studies as scientific evidence that repression exists. In one study, Williams (1994a) interviewed 129 women who had documented histories of sexual victimization, from fondling to rape. When the women were asked about a specific incident of abuse, 38% failed to report the abuse (Williams, 1994a, 1994b). Another study looked at a sample of 53 women who were in a group therapy setting for survivors of abuse (Herman & Schatzow, 1987). The authors reported that 40% of the sample had corroboration for the abuse, and that 28% did not recall the

abusive incidents. Finally, Briere and Conte (1993) interviewed 450 self-reported abuse victims in therapy. Of this group, 59% reported a period of time when they could not recall the abuse (also see Melchert, 1996).

The findings from these studies are used to support the notion that repression occurs at a high rate among sexual abuse survivors. However, advocates of repression typically have not considered several alternative explanations for the studies' findings (e.g., Loftus, 1993; Loftus & Ketcham, 1994; Ofshe & Watters, 1994). For example, the women in the study by Williams (1994a, 1994b) may have chosen not to disclose the abuse to researchers because they were not comfortable doing so. Furthermore, of the 49 women who did not report memories for the abuse, 33 discussed other incidents of child sexual abuse, indicating that all memories for the abuse were not repressed. In addition, the sexual experiences selected in this sample occurred between the age of 10 months and 10 years. Williams (1994a) failed to consider the role of infantile/childhood amnesia in the lack of reporting (e.g., Howe, Courage, & Peterson, 1996). Of the 16 women who did not report any abusive incidents, 63% were under the age of 6 years when the experience occurred. Therefore, the claim that 38% of women repressed memories of childhood sexual abuse is uninterpretable. Similar problems can be found in the studies by Herman and Schatzow (1987) and Briere and Conte (1993) (see Leo, 1997, for review). Researchers have argued that the three main studies used in support of repression are so methodologically flawed that they have failed in two respects: (1) to demonstrate the existence of repression, or (2) to add to the scientific understanding about the relationship between trauma and memory (Loftus, 2003b; Ofshe & Watters, 1994). There remains no strong empirical evidence that supports the construct of repression (e.g., Holmes, 1990; Loftus, 2003a; McNally, 2003a).

MEMORIES FOR TRAUMATIC EVENTS CANNOT BE "CREATED"

Repressed memory advocates argue that there is no proof that experiences as traumatic as sexual abuse can be implanted. However, Rosen, Sageman, and Loftus (2004) discuss the historical case of Bernheim, who implanted a false traumatic memory of torture and rape in one of his patients in 1889. The history of the generation of false memories is well established (see later in this chapter), and there is a concerted international effort devoted to the study of mistaken memories. As will be described later, there are numerous studies that have demonstrated the ability of researchers and clinicians to implant partial and complete false memories of a variety of events, from mundane to traumatic in nature (e.g., Loftus, 1979; Porter et al., 1999).

PEOPLE WHO HAVE EXPERIENCED SEVERE TRAUMATIC EVENTS OFTEN HAVE POOR MEMORIES

Although case studies have been reported on traumatic memory loss (e.g., Christianson & Nilsson, 1989; Terr, 1994), memory "gaps" are often associated with temporary forgetting

or suppression, as opposed to widespread repression. In fact, research on traumatic memories demonstrated that severe traumas are recalled better than those lower in severity (Porter & Birt, 2001). Furthermore, Peace and Porter (2004) found that traumatic memories were detailed, vivid, and consistently (and continuously) recalled over time.

THE HIGH PREVALENCE OF REPORTED RECOVERED MEMORIES SUGGESTS A REAL PHENOMENON

Supporters of the validity of repressed memories have claimed that the presence of so many people that do report recovered memories validates the theory that traumatic memories can be repressed and later recovered (Smith-Lee, 1996). However, a high prevalence of such reports could reflect a high prevalence of mistaken recollections.

REPPRESSED MEMORIES ARE TOO DETAILED AND REALISTIC TO BE FALSE

This argument has been widely accepted by therapists and the public (e.g., Loftus, 2004). However, research and anecdotes have demonstrated that false memories also often are detailed, emotional, and vivid accounts of childhood experiences (e.g., McNally, 2003a; Porter et al., 1999). For example, there have been cases involving detailed claims of mass satanic ritual abuse, in which ritualistic sacrifice of infants, fetuses, and adults allegedly occurred (Victor, 1993). Despite massive investigations, no physical evidence has been found to substantiate the claims (see Ofshe & Waters, 1994, for a review). Nowhere is this more evident than in the devastating and widely publicized case of Paul Ingram (see Wright, 1994 for a review).

Overall, none of these commonly cited pieces of evidence for repression carries much weight. As noted in our chapter in an earlier edition of this book (Porter & Marxsen, 1998), the argument that repressed and later recovered memories remain dormant and completely unaltered is unconvincing. Since our writing, the scientific community is now overwhelmingly skeptical of this memory phenomenon, one that is still supported by many mental health professionals. While some therapists continue to use suggestive techniques to "recover" memories (deemed necessary to alleviate the symptoms of the patient), researchers continue to search for evidence to confirm or disconfirm the possibility that repression exists. The vast majority of research does not support the existence of a repression mechanism and suggests that memories of childhood abuse are subject to normal cognitive processes such as forgetting (e.g., Epstein & Birmaher, 2002; Loftus, 2003a; Reagan, 1999).

THE MALLEABILITY OF MEMORY: SOME REPPRESSED MEMORIES ARE FALSE MEMORIES

If repressed memories have little empirical support, what is the alternative? The best explanation is that many or most reports

of recovered memories are completely mistaken. Throughout the past century, research has established that memories are not flawless and that numerous factors can result in memory alterations (see Loftus, 2002, 2003b, 2004). It is now clear that people can forget complete events, recall events that have never taken place (e.g., Porter et al., 1999), and misremember details of events that have occurred (e.g., Porter et al., 2003). The controversy here, of course, is whether "repressed" or "delayed" memories represent a true clinical phenomenon or another variation of memory distortion.

Since the last edition of this text, applied memory research has evolved in focus in two ways, and it provides useful information in the current context. Whereas most eyewitness studies had traditionally focused on memory for relatively benign events, researchers are now paying greater attention to emotional or traumatic events (e.g., McNally, 2003b; Read & Lindsay, 1997). Furthermore, complainants often relate an experience after a long passage of time, pointing to the need for prospective research on traumatic memory. A better understanding of how such traumatic memories are reported and change over time would have the potential to improve credibility assessment in many cases. Secondly, research has addressed whether false memories for emotional events can be implanted.

The importance of memory researchers focusing on traumatic experiences stems from the conclusion that trauma is recalled differently from other types of memories. In the debate over traumatic memories, there are two main theoretical perspectives (see Porter & Birt, 2001). According to the *traumatic memory argument* (TMA), traumatic events result in memory impairment such that the recollections contain sensory/emotional images but lack a coherent verbal narrative (e.g., Herman, 1992). Conversely, the *trauma superiority argument* (TSA) asserts that trauma may enhance memory rather than impair it. There is increasing evidence for the validity of the TSA. For example, Porter and Birt (2001) asked 306 adults to describe their most traumatic and their most positive experience. It was found that traumatic memories were more detailed, but both memory types were vivid and coherent. Also, trauma severity did not impair memory quality, despite a prediction of the TMA. Peace and Porter (2004) conducted a prospective study of 59 participants who had experienced a recent trauma (e.g., witnessing the death of a loved one). They recalled both the traumatic and another emotional experience in interviews separated by 3 months. At Time 2, traumatic memories were more vivid and reliable than other memories, lending further support for the TSA. In general, the literature suggests that traumatic events are recalled better (more vividly and more accurately)—not worse—than other types of events.

Secondly, memory *distortion* has become a prominent focus of research in contemporary cognitive psychology and neuroscience (e.g., Bjorklund, 2000; Loftus, 2004; McNally, 2003a). Although the level of interest in this phenomenon clearly has been heightened by recent forensic and clinical cases, memory distortion has been the subject of empirical research for more than a century (e.g., Bartlett, 1932; Burnham, 1889a, 1889b), and it can be traced back thousands of years in

philosophical writings (see Knoché, 2001). During this time, two major perspectives on how memory operates can be seen. By far the more dominant spatial or storehouse view maintained that memories are stored somewhere in the mind (such as repression), and memory problems are construed as failures of retrieval. Proponents of the more recent and better-supported *constructive* view have observed that memory is alterable, constructive, and architectural (e.g., Loftus, 1997, 2003a; Porter et al., 1999; Wade, Garry, Read, & Lindsay, 2002). The constructive view received its strongest support through research demonstrating that people can recall entirely false events.

The *false memory* phenomenon currently attracts such interest because of its relevance to basic human cognition and its practical implications. False memories have important theoretical implications because they indicate that memory is the product of constructive processes, contrary to the traditional conceptualization of memory as a virtual reproduction of the original perception (e.g., Atkinson & Shiffrin, 1968). According to the constructive memory framework (e.g., Schacter & Dodson, 2002), memories consist of a pattern of features that represent a record of the processes (sensory and perceptual) that were active during encoding. Recalling the event involves reactivating such features across different parts of the brain, a type of "pattern completion." However, various encoding and retrieval factors can influence the extent to which details in memory deviate from reality.

Consistent with a constructive memory framework, research findings show that memory is greatly affected by the conditions of encoding and retrieval (e.g., Loftus, 2003b). In the case of a crime, encoding would refer to how the witness or victim experienced the event, and retrieval would refer to the act of recalling the event privately or to another person such as a police officer. Although false memories have been studied for more than 70 years (Bartlett, 1932), the catalyst for the enormous level of interest in the phenomenon at present was Elizabeth Loftus's *postevent misinformation paradigm*, developed in the 1970s. In the original paradigm, participants were shown a slide presentation of a crime or accident (e.g., Loftus, Miller, & Burns, 1978). Some witnesses then received misinformation after which they answered questions about the event. For example, in studies using a slide sequence depicting a car accident, experimental witnesses were provided misinformation such as "Did the car stop at the stop sign?" when, in fact, there had been a yield sign. On a recognition test, misled witnesses chose a stop sign far more often than did control witnesses. Another advance in the area was the Deese-Roediger-McDermott (DRM) paradigm (e.g., Roediger & McDermott, 1995), inspiring numerous false memory studies since the 1990s. This work established that after participants encode related words (e.g., rest, bed, awake), many later misremember a related word (e.g., sleep) that was not presented. The premise of the DRM is that memory is associative; when items are associated semantically, processing one tends to activate the other in recall.

Building upon these experiments, recent studies have established that it is not only minor details that can be altered in memory. With misleading questions and other suggestive

techniques sometimes used by police, false memories are possible for major details in a scene or even entire personal experiences. Within the context of the recovered/repressed memory debate, the focus has been on the possibility of implanting false memories for personal, childhood events. Research has now shown that it is possible to lead individuals to believe in, and have memories of, childhood events that did not actually occur. One of the earliest studies to document this finding involved participants creating a memory of being lost in a shopping mall (Loftus & Pickrell, 1995). Researchers questioned participants about several childhood events; both true events that their parents had reported having happened and a false event of having been lost in a shopping mall. Participants were informed that their parents had reported that they were lost in the mall when they were 5 years old; after several days of working on remembering this event, 29% of participants came to have partial or complete memories of the fictitious childhood occurrence. Several subsequent studies also have found similar rates of false memory creation. Using a modification of the "lost in the shopping mall" procedure, approximately 25% of participants come to "remember" at least some aspects of false childhood events, such as spilling a punch bowl onto the bride's parents at a wedding (Hyman & Billings, 1998; Hyman, Husband & Billings, 1995; Hyman & Pentland, 1996).

Some researchers have been critical of these early false autobiographical memory studies, charging that events like spilling a punch bowl or being lost in a mall are not analogous to childhood sexual abuse, and that it cannot be conclusively determined that they did not actually happen to the participants (and would therefore actually be true memories). Furthermore, it has been argued that having a parent claim that a false event has occurred is not analogous to a therapy situation in which the parent is accused of abuse. Subsequent research has attempted to address these criticisms. Although it is obviously unethical to attempt to implant memories of childhood sexual abuse, researchers have now demonstrated that participants can be led to develop false memories for emotional childhood events. Porter et al. (1999) investigated whether false memories were possible for more negative, stressful events. Parents of the participants were asked to provide information about several negative events (e.g., medical procedure, animal attack) that may have happened to their child. Participants then were questioned about a real and false event in three suggestive interviews over 2 weeks. Results indicated that 26% of participants came to fully recall the false event, while another 30% recalled something about it. In addition, researchers have implanted false memories for events that can be conclusively ruled out as ever having happened; in one such study over 20% of British participants developed a memory of having a strip of skin removed from their finger—a procedure that is never performed in the United Kingdom (Mazzoni & Memon, 2003). The potentially problematic use of parental feedback has also been addressed. Using a paradigm more analogous to a suggestive therapy setting, participants who have completed bogus test materials and who subsequently received feedback that their resulting "profile" was consistent with having experienced a given childhood event have also developed false memories (Mazzoni, Loftus, & Kirsh, 2001).

Although these findings demonstrate that people can develop false memories for stressful childhood events, it has been argued that an event must be plausible to be incorporated as a false memory. Difficulty implanting memories for a religious ritual of another religion, and of a rectal enema, has led some to suggest that the development of false memories is related to the degree to which the event is plausible to that individual, and whether the individual has a "script" for the event (Pezdek, Finger, & Hodge, 1997). However, given the number of books, movies, and other mediums that have been devoted to the important topic of child abuse, it seems possible that many people could imagine, or have a "script" for, this type of abuse. In addition, although some have suggested that child abuse would not be a plausible event for someone with no memory of such, research has suggested that given the right set of circumstances, it appears possible to convince someone of being a victim of child abuse. A distressed person seeking answers in therapy, along with suggestive therapy techniques and "laundry lists" of abuse symptoms, may provide the context for the development of false memories of childhood abuse (e.g., Leo, 1997).

RISK FACTORS FOR MEMORY DISTORTION AND THE DEVELOPMENT OF FALSE MEMORIES

Researchers have identified various characteristics of both individuals and therapy techniques that appear to increase the likelihood of false memory creation.

INDIVIDUAL CHARACTERISTICS

One finding concerning suggestibility is that individuals who are more prone to dissociation (disruption in the integration of consciousness, memory, identity, or perception) are more likely to believe events that they have only imagined to have occurred (Heaps & Nash, 1999; Paddock et al., 1998; Porter, Birt, Yuille, & Lehman, 2000). Individuals who are more prone to dissociation have also been found to be more susceptible to induction of false childhood memories in laboratory experiments (Hyman & Billings, 1998; Porter et al., 2000). One study found an association between hypnotizability and false memory creation (Spanos, Burgess, Burgess, Samuels, & Blois, 1999). Hypnotizability has been linked to a susceptibility to believe that imagined events have actually occurred (Heaps & Nash, 1999). Furthermore, individuals with alien abduction "memories" are also more hypnotically suggestible (Clancy, McNally, Schacter, Lensenweger, & Pitman, 2002).

Magical thinking, fantasy-proneness, and imaginative capability also have all been linked to memory distortion or false memory creation (Clancy et al., 2002; Hyman & Billings, 1998; McNally et al., 2004; Spanos et al., 1999). In addition, several other individual characteristics have been linked to memory distortion, including having an external locus of control (tendency to attribute outcomes to external factors; Paddock et al., 1998), lower extraversion (Porter et al.,

2000), and higher empathy (Tomes & Katz, 1997); however, these findings require replication. Furthermore, one study has found that individuals with a history of traumatic experience are more likely to develop false memories, and that the creation of false memories was related to having a more anxious personality and PTSD symptom severity (Zoellner, Foa, Brigidi, & Przeworski, 2000). Finally, one team of researchers has suggested that some patients who have experienced features of a sleep disorder, such as sleep paralysis and associated hypnopompic hallucinations (hallucinations upon wakening), in addition to other risk factors, may attribute such experiences to resurfacing memories of abuse (Lynn, Stafford, Malinoski, & Pintar, 1997).

Little research has focused on personality characteristics of the interviewer/therapist that may increase the likelihood for false memory creation in a patient. However, one study found that higher extraversion in interviewers was associated with the creation of false-negative childhood memories (Porter et al., 2000). Although this appears to be the only research finding concerning interviewer personality and false memory induction, there has been a great deal of research regarding the therapy techniques used by the interviewer/therapist, and their relation to false memory creation.

THERAPY TECHNIQUES

Various therapy techniques, often referred to collectively as "memory work" or "memory recovery therapies," have been implicated in many cases of false memories in legal contexts (see Loftus, 2003a; Porter et al., 2003a). Such techniques include hypnosis and age regression, guided imagery, journaling and writing exercises, misleading bibliotherapy, and suggestive questioning (see Lindsay & Read, 1994b; Loftus, 1993, 1994), each of which is discussed in turn in the following sections.

HYPNOSIS AND "AGE REGRESSION"

Although it continues to be used as a tool to uncover repressed memories, there is no evidence that hypnosis increases memory accuracy, and the procedure may in fact increase spontaneous errors in memory (e.g., Wrightsman & Porter, 2005). Furthermore, hypnosis increases the confidence in the accuracy of memory reports (Lynn, Lock, Myers, & Payne, 1997). "Age regression" (imagining or mentally recreating childhood experiences) may also have a similar influence; one study found that both hypnosis combined with age regression and age regression alone, along with suggestive interviewing techniques, led to both thoughts and dreams of early infancy (Spanos et al., 1999). Due to the developmental phenomenon of infantile amnesia, such thoughts and dreams cannot be accurate memorial representations. Concern about the use of hypnosis is not new: An American Medical Association Council on Scientific Affairs (1986) report regarding the scientific status of hypnosis as a memory enhancement tool concluded that "... recollections obtained during hypnosis can involve confabulations and pseudomemories and not only fail to be more accurate, but actually appear to be less reliable than nonhypnotic recall" (p. 1).

Much research has established that guided imagery or visualization, which involves imagining/visualizing certain scenarios, can result in memory distortion. Simply imagining a childhood event increases the likelihood that an individual will believe that it actually happened (Garry, Manning, Loftus, & Sherman, 1996; Paddock et al., 1998). Imagining alone also increased the number of participants who subsequently had memories of a nonexistent medical procedure during childhood (Mazzoni & Memon, 2003). In addition, guided imagery, along with suggestive questioning and false information from a parent, has resulted in false memories for childhood events in several studies (e.g., Heaps & Nash, 2001; Hyman & Pentland, 1996; Porter et al., 1999).

USE OF CHILDHOOD PHOTOGRAPHS

In a procedure somewhat similar to guided imagery, but with a concrete cue, some therapists recommend viewing childhood photographs to trigger forgotten memories of abuse (see Poole et al., 1995). However, such perceptual images may be combined with other sources of information to create convincing false memories. One study found that using a real class photograph from the same time period in early childhood as a false suggested event, along with other suggestive procedures, resulted in 65% of participants developing some memories of the false event (Lindsay, Hagen, Read, Wade, & Garry, 2004).

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In these types of writing exercises, often recommended in self-help books (e.g., Bass & Davis, 1988, 1994), patients are instructed to write down emerging memories of childhood abuse and may be asked to read them aloud. Often using a stream-of-consciousness approach, these exercises may increase the likelihood of false memory formation, especially in conjunction with other suggestive techniques or feedback, such as being told that journaling will bring about accurate memories (see Lindsay & Read, 1994a).

BIBLIOTHERAPY

To supplement ongoing treatment, therapists often recommend self-help books for patients; this practice is known as "bibliotherapy." Although not inherently problematic, some books that are recommended may be written by individuals with no professional mental health training and may contain recommendations for suggestive techniques, such as those described earlier. These materials may also contain misinformation about the nature of human memory and provide invalidated symptom checklists to help readers determine whether they have been abused (see Loftus, 1993). A survey of 800 doctoral-level psychologists conducted by the American Psychological Association found that *The Courage to Heal* (Bass & Davis, 1988, 1994), a book characterized by the features listed earlier, was the self-help book most commonly recommended to patients (Clifford & Norcross, 1998).

In addition to the procedures described earlier, therapists may use other suggestive questioning techniques. Some examples include insisting a patient has a history of abuse despite no evidence of such, based on a nonspecific symptom "profile"; informing patients that various techniques will lead to the retrieval of abuse memories; and describing abuse as a plausible explanation for the patient's presentation (see Loftus, 1993). Several laboratory paradigms have examined the influence of these types of suggestion on memory distortion. For example, the use of repeated suggestive questioning, along with guided imagery, has led to false memories for stressful childhood events (Porter et al., 1999). Furthermore, suggestive information from an authoritative source regarding the plausibility and likelihood of having witnessed a demonic possession increased how plausible and likely participants felt that they had actually witnessed the event (Mazzoni, Loftus, & Kirsch, 2001).

As of the 1990s, the techniques described earlier appear to be used relatively frequently; 71% of surveyed clinicians in the United States and the United Kingdom reported using techniques such as hypnosis/age regression, guided imagery, use of family photographs, and journaling to help recover abuse memories (Poole et al., 1995). Having an authority figure (i.e., a therapist) provide a patient with a rationale for believing that memories are likely to be recovered, especially through the use of certain suggestive procedures, may provide a context in which false memories can be created (Spanos et al., 1999). As noted by Ceci and Loftus (1994, p. 359), "The point is not that suggestive memory work techniques unalterably lead to false memory, but merely that they *may* do so."

OFFICIAL RESPONSES TO RECOVERED MEMORY CLAIMS

In light of the growing research literature demonstrating the fallibility of memory, both psychological and psychiatric organizations have issued statements on the validity of repressed memories. For example, the Canadian Psychological Association has concluded that recovered memories should never be accepted without corroboration due to their questionable reliability (Blackshaw, Chandarana, Garneau, Merskey, & Moscarello, 1996). The American Psychological Association (1995) has taken a similar stance in concluding that the vast majority of victims of child sexual abuse can continuously recall at least a portion of what happened. Furthermore, they have acknowledged that there are gaps in our knowledge about what contributes to accurate and inaccurate recall of abuse (Alpert et al., 1996).

CAN TRUE AND FALSE MEMORIES BE DISTINGUISHED?

Given the potential clinical and legal implications of a false memory of childhood abuse, for both the accuser and accused, the differentiation of true and mistaken memories is an important task. At present, the issue is still hotly debated.

The American Medical Association has stated that there is no scientific method that can be used to assess the accuracy or veracity of a recovered memory (Anonymous, 1995). However, some psychologists have felt sufficiently confident in their ability to identify recovered repressed memories that they have provided guidelines publicly. For example, following the highly controversial 1995 CBC *Passionate Eye* documentary "Divided Memories," the host asked a panel of mental health professionals, "Is there any formula . . . is there any way to tell when a memory is real?" A research psychologist responded that there are two specific attributes almost invariably associated with true recovered memories of abuse—appropriate levels and types of emotional and sensory experience will accompany the memory being recovered, and the memory recovery will be involuntary ("out of the blue") and of a fragmentary nature, rather than sudden and complete. At the time, this was pure conjecture.

Proponents of repressed memories have argued that there are three factors that determine whether a recovered memory is likely to be a valid historical account of abuse or an inaccurate recollection: (1) the patient's symptoms; (2) level of detail of the memory; and (3) level of emotion associated with the memory report (Terr, 1994). According to these "criteria," if a recovered memory is associated with emotional disturbance and a high level of detail and is highly emotional, then the memory is likely to be a truthful account of a traumatic event (Terr, 1994). However, researchers have begun to identify additional factors that may help make such a distinction. One study found that false memories for emotional events were less vivid, less coherent, and held with less confidence (Porter et al., 1999). However, this study did not account for rehearsal; while the true memories of early childhood may have been thought about many times, the false memories of early childhood were new "memories," with little rehearsal opportunity. When rehearsal is taken into account, differences in emotional intensity and amount of details between true and mistaken memories are not evident (Heaps & Nash, 2001). Others have also confirmed that emotional response is not a good indicator of memory veracity. Participants reporting memories of alien abduction have exhibited greater psychophysiological responses, in addition to self-reported arousal, fear, and surprise while listening to abduction scripts than non-"abductees" (McNally, Clancy, Macklin, Pitman, & Orr, 2004), despite the implausibility of the abduction memories. Nor is confidence a good determinant of memory accuracy; research on eyewitness memory has found that the relationship between confidence and accuracy is nonexistent when misinformation has been suggested (Tomes & Katz, 2000). Researchers also have examined whether true and false memories differ in terms of perspective. However, while Porter et al. (1999) found that a "participant" perspective was more common in false memories, Heaps and Nash (2001) found the opposite to be true—false memories were more likely to have an observer perspective. Given these findings, it is clear that more research must be undertaken in this area before memory veracity can be evaluated reliably based on qualitative characteristics.

More recently, researchers have started to examine potential differences in the way in which the brain processes true

and mistaken memories. For example, brain electrical activity (Gonsalves & Paller, 2000) and neural processing (Okado & Stark, 2003) differences have been found during the processing of true and false memories. However, neither of these experiments examined false memories for childhood events. Although promising, to date these types of procedures cannot be used to determine whether any given "memory" is true or false.

Given these findings, it is not surprising that people generally have difficulty distinguishing true and false memories. One study found that lay judges correctly identified mistaken memories as false only 60% of the time, while correct memories were accurately identified only 53% of the time (Campbell & Porter, 2002). More important, if lay judges are not able to distinguish between genuine and false claims of victimization, how do the courts treat such recovered memory claims?

APPLICATIONS IN THE COURTROOM

Based on our review of the literature, there are several recommendations that we suggest be implemented in cases of reported repressed/recovered memories of childhood abuse or trauma. The general guidelines that we provide next may be of assistance during attorney interactions with psychological experts, as well as provide a guide to the investigation and understanding of the veracity of each claim. In addition, we have provided several specific guidelines pertaining to legal questioning in such cases.

GENERAL GUIDELINES

There are five primary considerations that may be useful in the legal decision-making process regarding claims of recovered memories. First, *seek corroboration for all claims of alleged abuse or trauma based on recovered memory evidence*. Although there may be difficulties in finding objective and verifiable evidence of abuse when dealing with cases of repressed or delayed recall, any evidence that refutes or supports the allegation is essential. Many psychological and legal scholars have argued that without corroboration, these claims should not proceed in the criminal justice system and legal doctrines should be modified to reflect this requirement (e.g., Loftus, 2003a; Montoya, 1996; Weber, 1997). Corroboration can sometimes be obtained by interviewing potential witnesses (e.g., relatives, neighbors) and reviewing any official documentation that may exist (e.g., hospital records). Some courts in the United States (e.g., South Carolina) require that objective, verifiable evidence be present due to concerns about the reliability of repressed memories, such as physical evidence, written statements of abuser (e.g., diaries, letters), photographs or recordings, eyewitness accounts, or evidence that the accused committed similar substantiated acts of abuse against others (Bannon, 1994; Johnson, 2000). Lack of corroborating evidence will cast doubt on the allegations and credibility of the memory (Porter et al., 2003a).

Second, *determine the context of the memory recovery and the initial allegations*. Many repressed memories for childhood

trauma have been recovered in therapeutic settings (McNally, 2003b). Although well intentioned, the use of certain therapeutic methods (discussed earlier in this chapter) have been associated with increased susceptibility to suggestions and memory distortion, including "memory work," guided imagery, sodium amytal, hypnosis, "survivor" literature and groups, journaling, and suggestive questioning (e.g., Bannion, 1994; Kisch, 1996; Read & Lindsay, 1994). The use of such techniques should cause the legal professional to carefully question the veracity of the claims. To fully consider the context of recall, it is necessary to evaluate therapeutic records and notes, as well as police interviews, and to conduct interviews with the alleged victim (Porter et al., 2003a). In addition, an evaluation of the context in which the memory was initially recalled is critical. Memories of trauma that are spontaneously recovered prior to therapy may be more credible and not as susceptible to suggestive influences. Fletcher (2003) advocates that spontaneously recovered memories should be given more evidentiary weight in court, as opposed to those elicited by therapeutic techniques. It is also important to evaluate what types of information on repressed/recovered memories the claimant has been exposed to in contexts other than therapy, because therapy is not the only source of suggestive material (e.g., TV, magazines, self-help books). Regardless, it has been argued that the courts should focus on the context of recall, the recovery methods used, the biasing nature of such methods, and present expert evidence on memory distortion (Fletcher, 2003; Yamini, 1996).

Third, it is important to *evaluate the content of the recovered memory*. As we have discussed previously (Porter et al., 2003a), content differences have been found between real and mistaken memories. Although more research is required to validate its utility, one of the more sophisticated and empirically based guides to assessing the credibility of historical memory reports is the Memory Assessment Procedure (Porter et al., 1999; Porter & Birt, 2001). This tool may assist trained experts in structuring their evaluation of memory content. As reviewed earlier, historical memories tend to remain vivid for the central details of the event, while less personally significant peripheral information (times, dates, locations) may become distorted with time. Hence, it is reasonable to expect some decay in the memory, while the key details should remain consistent with time. A related important component to the evaluation of historical memories is the determination of whether the memory has been continuously held by the complainant versus not recalled for an extended period of time and later "recovered." Even if the complainant has a continuous memory of the alleged incident, the context in which the allegations were made to the authorities should be examined to identify possible distorting factors.

Fourth, have a *psychological evaluation of the claimant's personality characteristics and susceptibility to memory distortion* conducted by a consulting psychologist trained in this area. As noted in the section on mistaken memories, certain personality characteristics (e.g., dissociation, introversion, imaginative abilities, suggestibility) have been associated with an increased proneness to memory distortion and should be considered through standardized testing (e.g., Clancy et al., 2002;

McNally et al., 2004; Porter et al., 2000). Measures such as the Dissociative Experiences Scale (Bernstein & Putnam, 1986), Creative Imagination Scale (Wilson & Barber, 1978), and the NEO Five Factor Inventory (Costa & McCrae, 1992) would be useful in this respect. This guideline also extends to evaluation of other recognized psychological disorders (e.g., PTSD, psychogenic fugue) because these may mediate the extent to which an individual's memory of traumatic events was delayed or forgotten (e.g., McNally, 2003a).

Fifth, *seek objective expert testimony on memory processes and delayed recall*. As suggested throughout this chapter, effectively dealing with cases of repressed/recovered memories should encompass consultation with a trained psychologist specializing in traumatic memory phenomenon. Psychological experts can assist with the assessment and questioning of the claimant, as well as investigation and understanding of the content and context of recall (Porter et al., 2003). In addition, legal scholars may find it useful to review materials relevant to normal memory functioning (e.g., Tulving & Craik, 2000), and the literature about repressed/recovered memories and false memories (McNally, 2003b; Porter et al., 2003a; Reagan, 1999).

SUGGESTIONS FOR QUESTIONING COMPLAINANTS

Prior to testifying, it is recommended that as much information as possible be gathered regarding the claimant, including family history and relevant medical/psychiatric/psychological records. We suggest that the following questions be considered in order to elicit information from or about the claimant that will be most useful in establishing the validity of their testimony:

1. Was the memory continuously held or repressed/recovered?
2. Were there any delays in making the allegations? If so, why?
3. Was the memory recovered spontaneously or in therapy?
4. Was the claimant in therapy pre or post memory recovery?
5. What was the original purpose for seeking therapy?
6. What types of procedures have been used in therapy? Were any "memory recovery" techniques used?
7. Has the claimant been involved in any group therapy for survivors of abuse?
 - a. Has the claimant read any self-help books on abuse that may be potentially biasing or contain abuse "checklists" (e.g., *Courage to Heal*, Bass & Davis, 1988; *Secret Survivors*, Blume, 1990)?
8. What types of materials regarding memory and sexual abuse has the claimant been exposed to?
9. What are the psychological characteristics of the claimant (e.g., hypnotizable, dissociable, suggestible)?

10. Does the claimant have a history of psychological problems or mental disorders?
11. Has the claimant ever made allegations of abuse previously? If so, what was the context?
12. What is the nature of the claim (e.g., satanic ritual abuse)?
13. How old was the claimant at the time the alleged event(s) occurred?
14. How well does the claimant remember other events from around the same time period (positive, negative, and neutral)?
15. Is there any external corroboration?

This information should be of assistance to attorneys in devising their questioning strategies. Furthermore, some research has suggested that complex questions (e.g., use of double negatives, leading questions, multipart questions) may confuse witnesses/claimants and result in decreased accuracy of the testimony (e.g., Kebbell & Johnson, 2000). Thus, lawyers should use caution when questioning claimants in recovered memory cases because their recall may be highly subjective and based on a blend of both historical fact and inaccurate perceptions. It is essential to get the best representation of the truth to support or refute his or her memory for past traumatic events.

SUGGESTIONS FOR QUESTIONING EXPERT WITNESSES

Many psychological and legal studies have examined the role of the psychologist as expert witness in the courtroom (e.g., Bannion, 1994; Johnson, 2000; Kisch, 1996; Loftus, 2003a). In a previous edition of this text, Porter and Marxsen (1998) argued that "an 'expert' on repression should be questioned on his/her knowledge of the shortcomings of the research, the literature on dissociative amnesia, and how he/she reconciles Freudian repression with how autobiographical memory functions generally" (p. 118). In addition, we suggest that legal professionals present the psychological expert testimony in a manner that is clear and understandable to the "layperson." We argue that such testimony should also focus on the following: the empirical support for possible false memory implantation of negative, stressful, childhood events; characteristics of certain therapies (as detailed earlier) that may lead to increased likelihood for mistaken memories of abuse; the interaction between the claimant's personality characteristics and the recall context; normal memory functioning and processes; and false memory syndrome. Finally, lawyers should also have the expert address the finding that strong emotion and confidence in a memory are not indicative of veracity (McNally et al., 2004; Tones & Katz, 2000).

CONCLUSIONS

The purpose of this chapter has been to provide information to legal professionals who may have to deal with claims of

recovered memories of childhood abuse. We have reviewed the evidence surrounding repression and recovered memories and discussed the possibility of false memories as an alternative explanation to memory recovery. In addition, we outlined conditions that may increase the likelihood of memory distortion and presented current findings concerning the differentiation of true and mistaken memories. Finally, we provided concrete suggestions for use in legal cases involving claims of recovered memory. These recommendations should provide a scientific foundation when dealing with both complainants and expert witnesses.

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