

Memory Faults and Fixes

Research has revealed the limits of human memory; now the courts need to incorporate these findings into their procedures.

The sex abuse scandal enveloping the Catholic Church has prompted vigorous calls for action: The Church should hand over to prosecutors a list of all its priests who have ever been accused in the past of sexual abuse; priests should be forced to resign if there has ever been an accusation; courts should devise ways to interpret laws that would allow criminal charges against priests even when the statute of limitation stands in the way; and Catholic bishops should be sued for violating federal antiracketeering laws—the laws that were intended to help dismantle Mafia-run organizations.

No one can fail to be moved by the anguished looks and words of those who recount tales of abuse by priests. But before we rush to adopt the called-for measures, we should look closely at recent news about overturned convictions in the courts and at the growing body of research about human memory. For centuries we have had experience with people who come to court to testify and take the familiar solemn oath. In light of what I have learned about human memory, I

propose a more realistic alternative: “Do you swear to tell the truth, the whole truth, or whatever it is you think you remember?”

One has only to look at the growing number of cases in which DNA evidence has been used to exonerate innocent people. This year saw the release of the 100th person nationwide to be freed

from prison after genetic testing. Larry Mayes of Indiana, now 52 years old, spent 21 years in prison for a rape of a gas station cashier. The victim had failed to identify him in two separate lineups and picked him out only after she was hypnotized by police. Mayes’ story is a common one; analyses of these DNA exoneration cases reveal that faulty eyewitness memory is the major cause of wrongful convictions.

Issues have also cropped up in cases that are built on the soggy foundation of “repressed” memory. Arizona pediatrician John Danforth faced accusations by a former patient, Kim Logerquist, who suddenly remembered after an interval of two decades that he had repeatedly sexually molested her when she was between 8 and 10 years old. Her memories included a time when after an assault her panties were soaked with blood and she tossed them in the garbage can. At one point Logerquist wanted \$3 million to \$5 million in damages. Logerquist had been hospitalized

Elizabeth F. Loftus (eloftus@u.washington.edu) is professor of psychology and adjunct professor of law at the University of Washington.

57 times in the three years before her “flashbacks,” memories that she claimed were repressed until triggered by viewing a television ad for children’s aspirin. It is worth noting that Logerquist spent scores of hours in therapy in which she was urged to try to remember abuse that might explain her problems such as self-mutilation, depression, suicide attempts, obesity, and bulimia. Although she periodically denied it, records showed that she often spent time considering which men other than Danforth had abused her. A forensic psychiatrist bolstered Logerquist’s story with the unsubstantiated claim that people who have flashbacks do not later produce inaccurate recollections of those events. Nothing could be further from the truth. Danforth, in his late 60s, steadfastly maintained his innocence and was eventually cleared. It took the last jury less than 40 minutes to find for Danforth, to the delight of his extended family. The loud cheers were not surprising coming from a family that had endured 10 years of litigation as this landmark repressed-memory case worked its way through various trials and appeals.

Thousands of cases based on recovered memory captured public attention throughout the 1990s. Some involved highly implausible or impossible memory claims such as intergenerational satanic ritual abuse or abuse at the age of six months. These cases were able to go forward because of changes in the statutes of limitation that permitted people to sue their parents, other relatives, teachers, doctors, and others if they claimed that they now remembered sexual abuse that had previously been repressed. The cases proceeded under the belief that when people are repeatedly brutalized, their memories can be completely repressed into the unconscious and later reliably recovered with hypnosis, dream interpretation, sodium amytal, or other therapeutic “memory work.” In fact, no credible scientific support has been found for such claims.

After seeing the vast array of cases in which people sued their alleged abusers or brought them up on criminal charges in jurisdictions that allowed this, we began to see another sort of psychological and legal phenomenon. A large number of patients who came to believe as a result of questionable therapy that they had been extensively abused later concluded that their memories were false. Often having cut off their ties to family or even sought to destroy their families, many of these “retractors” sued their for-

mer therapists for planting the false memories. No tricky statute-of-limitation issues were involved here, as these were handled as traditional medical malpractice cases. The largest settlement to date was \$10.6 million against a psychiatrist and major hospital in Chicago for a woman and her two young children who were led to believe falsely that they were victims of satanic ritual abuse and had developed multiple personalities. Even the young children were hospitalized for years under this dubious diagnosis, left to flounder with their incredible set of beliefs and false memories.

Then came the third-party lawsuits. Even when the “patients” had not retracted the beliefs, some family members sued the therapists for planting false memories in the mind of their adult child. The first substantial case to come to national attention involved the Ramona family. The daughter came to believe that her father had raped for more than a decade, memories she acquired when she went into therapy as a sophomore in college. She sued her father, and he in turn sued the therapists who planted these beliefs. A jury in Napa California awarded him \$500,000.

Then came the “Daddy-dead” cases. It was inconvenient when Daddy took the stand and convincingly denied any abuse, so some accusers waited until he died and then sued the estate. This left grieving widows and other heirs to defend against the abuse claims that might have dated back a quarter of a century. There were also the civil cases brought against corporations by those who claimed that the newly remembered abuse happened on their premises. They would claim that the alleged abuse took place in a McDonald’s bathroom or on a Royal Caribbean cruise or in the high school art room. Even a well-funded corporation has a difficult time defending against supposedly repressed memories about events that purportedly happened 30, 40, or 50 years ago.

Psychological studies have shown that it is virtually impossible to tell the difference between a real memory and one that is a product of imagination or some other process. Occasionally the memories could be shown to be false because they were biologically, geographically, or psychologically impossible. People remembered extensive abuse by a relative who was not living in the area at the time, or they remembered abuse that was supposed to have happened when they were one year old. The documented cases of false

belief or memory illusion make it natural to wonder how it is that someone could come to believe that they had been sexually abused for years, and to even have very detailed memories, if in fact it never happened. Studies of memory distortion provide a clue. If there was anything good that came out of this decade of vitriolic controversy, it was a body of scientific research on memory that could leave a lasting positive contribution, at least in terms of its ability to help our understanding of the malleable nature of our memories.

The science of memory

For several decades, I and other psychological scientists have done research on memory distortion, specifically on showing how memories can be changed by things that we are told. Our memories are vulnerable to “post-event information”: to details, ideas, and suggestions that come along after an event has happened. People integrate new materials into their memory, modifying what they believe they personally experienced. When people combine information gathered at the time of an actual experience with new information acquired later, they form a smooth and seamless memory and thereafter have great difficulty telling which facts came from which time.

More specifically, when people experience some actual event—say a crime or an accident—they often later acquire new information about the event. This new information can contaminate the memory. This can happen when the person talks with other people, is exposed to media coverage about the event, or is asked leading questions. A simple question such as “How fast were the cars going when they smashed into each other?” has led experimental witnesses to an auto accident to estimate the speed of the cars as greater than did control witnesses who were asked a question like “How fast were the cars going when they hit each other?” Moreover, those asked the leading “smashed” question were more likely to claim to have seen broken glass, even though no glass had broken at all. Hundreds, perhaps thousands, of stud-

Psychological studies have shown that it is virtually impossible to tell the difference between a real memory and one that is a product of imagination or some other process.

ies have revealed this kind of malleability of memory.

But post-event suggestion can do more than alter memory for a detail here and there from an actually experienced event; it can create entirely false memories. In the past few years, new research has shown just how far one can go in creating in the minds of people detailed memories of entire events that never occurred. Here are some examples.

As researchers, we wanted to find out if it was possible to deliberately plant a false memory. We set out by trying to convince subjects that they had been lost in a shopping mall at the age of five for an extended time and were ultimately rescued by an elderly person and reunited with the family.

My colleague Jacquie Pickrell and I injected this pseudomemory into normal adults by enlisting the help of their mothers, fathers, and other older relatives, and by telling our subjects that the relatives had told us that these made-up experiences had happened. About a quarter of the subjects in our study fell sway to our suggestions and were led to believe, fully or partially, that they had been lost in this specific way.

Since the initial lost-in-the-mall study, numerous investigators have experimented with planting false memories, and many exceeded our initial levels of successful tampering. Taken together, these studies have taught us much about the memory distortion process. For example, one group of researchers at the University of British Columbia obtained facts about their subjects’ childhoods from relatives and then attempted to elicit a false memory using guided imagery, context reinstatement, and mild social pressure, and by encouraging repeated attempts to recover the memory. The false memories the researchers tried to plant were events such as suffering a serious animal attack, a serious accident, or an injury by another child. They succeeded in creating a complete false memory in 26 percent of their subjects and a partial false memory in another 30 percent. Another research group from the University of Tennessee

planted false memories of getting lost in a public place or being rescued by a lifeguard. With the help of techniques to stimulate the subject's imagination, they succeeded in 37 percent of their subjects. One false lifeguard rescue memory was quite detailed: "We went to the pool at the N the year we lived there. And my parents were lying by the pool, and I was in the shallow end with this kid I knew. And we started swimming toward the deep end, but we didn't get very far . . . and I remember he started to go under, and he grabbed me and pulled me under with him. And I remember being under water and then hearing this big splash. He jumped in and just grabbed both of us at once and pulled us over to the side . . . And he was yelling at us."

Efforts to distinguish true from false memories revealed a few statistical differences. For example, the true memories were more emotionally intense than the false ones and images in false memories were more likely to be viewed from the perspective of an observer, whereas images in true memories were more likely to be viewed from the first-person perspective. However, many of the differences between true and false memories are lessened or eliminated when the false memories are repeatedly rehearsed or retold. The statistical differences were never large enough to be able to take a single real-world memory report and reliably classify it as true or false.

The false memories of lifeguard rescues and other created events were helped along by the encouragement to use imagination. In other studies too, imagination has been a fruitful way to lead people to false memories. In one study, imagination succeeded in getting people to be more confident that as a child they had broken a window with their hand, and in another study imagination helped lead people to remember falsely that they kissed a plastic frog.

Imagination helps the false-memory formation process in a number of ways. Some scientists have used the term "memory illusion" to refer to cases in which people have a false belief about the past that is experienced as a memory. In these cases, the person feels as if he or she is directly remembering some past event personally. By contrast, the term "false belief" applies to the case where the person has an incorrect belief about the past but doesn't feel as if this is being directly remembered. An insinuation or assertion that something happened can make someone

believe that something happened: a false belief. But imagination supplies details that add substance to the belief. Rehearsal of these details can help to turn the false belief into a memory illusion.

One could argue that these studies bear little resemblance to the world of psychotherapy, which was so frequently implicated in the repressed-memory legal cases. To address this, my Italian collaborator Giuliana Mazzoni and I attempted to create an experimental world that would be somewhat closer to the therapy experience. We began with the observation that dream interpretation is commonly used in psychotherapy. From ancient times, dreams have seemed mysterious and frequently prophetic. Modern bookstores are filled with books devoted solely or partly to the analysis of dream material, and some psychotherapists believe (as did Freud) that dream interpretation can lead to accurate knowledge about the patient's distant past. We wondered, however, whether dream work might be leading not to an extraction of some buried but true past, but to the planting of a false past. In our first dream study, a large pool of undergraduates filled out a questionnaire to screen them about the likelihood of early childhood experiences happening to them. These included being lost for an extended period of time or feeling abandoned by their family before the age of three. We selected students who indicated that these experiences probably didn't happen to them.

Half of the subjects were selected to participate in what they thought was a completely different study, one that involved bringing a recent or recurring dream with them for analysis in a study of sleep and dreams. These subjects related their dreams to a trained clinician, an individual who happened to be a popular radio psychologist in Florence, Italy, where this first study was conducted. He told the subject about his extensive experience in dream interpretation and how it was that dreams reflected buried memories of the past. He talked to the subject about his or her ideas about the dream report and then offered his own interpretation. His analysis was always the same, no matter what the dream report: The dream indicated that the subject had some unhappiness related to a past experience that happened when the subject was very young and might not be remembered. His suggestions became even more specific: that the dream seemed to indicate that the subject had been lost for an

extended time in a public place before age 3, that the subject felt abandoned by his or her family, that the subject felt lonely and lost in an unfamiliar place. He stressed that these traumatic experiences could be buried in the subject's unconscious memory but were expressing themselves in the dream. The entire session with the clinician lasted about a half hour.

A couple of weeks later the students returned to what they thought was the earlier study and once again filled out the screening questionnaire on their childhood experiences. Control subjects who had not been exposed to any dream interpretation responded pretty much as they had before. The majority of subjects whose dreams had been interpreted by the clinician became more confident that they had been lost in a public place before age 3, that they had felt abandoned by their family, and that they had felt lonely and lost in an unfamiliar place. In a later study we tried to find out more about the phenomenological experience: Did subjects have a false belief or did they have a memory illusion? We found that about half the time our dream-interpretation subjects ended up with a false belief and half the time with a memory illusion.

What is remarkable is that such large alterations of autobiography could be achieved so quickly. A half hour with the clinician is far less than the extensive and repeated dream interpretation that goes on in some psychotherapy that spans months or even years. Because many people enter therapy with the notion that dreams reveal real past events, and some therapists bolster this belief and freely suggest possible meanings, the potential for the personal past to become distorted in this way is very real. This is probably why a number of psychologists are now suggesting that dabbling in dream interpretation can be a dangerous activity. Psychologist Tana Dineen, in an essay entitled "Dangerous Dreaming," suggested that professionals should not pretend to know what dreams mean or that they reveal anything about the past.

*The growing
number of
wrongfully
convicted
individuals who
have been
exonerated by DNA
evidence has given
the world a real
appreciation of the
problem of faulty
eyewitness memory.*

These and other therapeutic interventions have been vigorously criticized in recent years because of the science-based fear that they encourage patients to concoct images of false events such as sexual abuse, to suppose that these images must be memories, and to act on them in destructive ways.

More routes to memory

People might think that avoiding certain types of psychotherapy where dream interpretation and imagination exercises are used renders them safe from unwanted intrusions into autobiography, but they should think again. There are other avenues by which fiction can creep into memory structures.

In fall 2000, I delivered a series of lectures in New Zealand and on one occasion offered up the prediction that we would see a rise in cases of demonic possession. I'm

not sure that my audience took the news with the seriousness that they should have. But I knew a few things they didn't know. I knew about some recent findings on demonic possession, and I knew then that the famous film *The Exorcist* was soon to be re-released.

When I learned that *The Exorcist* would be re-released, I was prompted to look back at what happened in 1971 when William Blatty's book by that name was first published, followed two years later by the release of the film. Millions of people saw Linda Blair, as the 12-year old Regan, spewing vomit and waving a bloody crucifix. They saw various priests perform an exorcism on her. What followed were reports of fainting and vomiting during the film, mass hysteria in the form of symptoms of vomiting, fainting, and trembling, and a mini-epidemic of supposed possession. People sought exorcisms in record numbers. In the words of sociologist Michael Cuneo, "Thousands of households across America seemed to become infested all of a sudden with demonic presences, and Catholic rectories were besieged with calls from people seeking exorcisms for themselves, for their loved ones, and sometimes even for their pets."

Cuneo did an interview with Father Tom Birmingham who had played a minor role in the film and received screen credit as a technical advisor: “When the movie came out, I found myself on the hot seat. People saw my face and my name on the screen, and they assumed I was the answer to their problems. For quite a while dozens of people were trying to contact me every week. And they weren’t all Catholics. Some were Jewish, some Protestant, some agnostic, and they all believed that they themselves or someone close to them might be demonically possessed. They were truly desperate people.”

What was going on? In giving visual form to a phenomenon, *The Exorcist* and other films and stories like it convinced people that possession by the devil was plausible, that possession was more than a possibility. Some people were led even further—to actual belief and symptoms. How could this happen? Can it happen only to people who already think that demonic possession is plausible?

Based on a series of studies conducted with Giuliana Mazzoni of Seton Hall University and Irving Kirsch of the University of Connecticut, we understand some of the process. In the first of these studies, subjects first rated the plausibility of a number of events and gave information about their childhood experiences, including the event of witnessing demonic possession as a child. Later, some subjects read several short articles that described demonic possession, suggesting that it was more common than previously thought, and described typical possession experiences. Subjects also took a “fear profile” in which their particular fears were analyzed; whatever their responses on the profile, they were given the false feedback that witnessing a possession during childhood probably caused those fears. In the final phase of the study, subjects once again rated the plausibility of life events and gave information about their own childhood experiences. Relative to control subjects, those who were exposed to the possession manipulation increased the plausibility of witnessing possession but also made a number of individual claims that it had happened to them.

In follow-up studies, we found that the stories alone could produce some influence and that stories that were set in contemporary culture were more effective than those set in some remote time and culture. Taken together, the studies show that reading a few

stories and hearing about another individual’s experience can increase plausibility and make you more confident that something, even something implausible, happened to you. A major point worth emphasizing is that the suggestive material in the study worked not only with people who began with the belief that demonic possession was plausible but also with those who began with the belief that it was rather implausible. The studies constitute the beginning of a recipe for making the implausible seem plausible and sending someone down the road to developing a full-blown false memory.

Back to the prediction I made to that New Zealand audience that demonic possession would soon be on the rise. On September 22, 2000, *The Exorcist* was re-released with 11 added minutes of original footage. On Halloween, there was a broadcast of *Possessed*, a TV docudrama about a purported exorcism in a mental hospital. By the end of November, the *New York Times* was reporting that new exorcism teams had been assembled in response to increased public demand. In New Zealand, I’m receiving a lot more respect. This is an example of how the mass media can mythologize reality. It can show us something we have never seen and might never even have imagined otherwise. In this way it gains a pervasive influence over our consciousness in its power to fashion reality for us.

No escape

Lest you think you might stop watching films and television programs, stop reading magazine stories, and find refuge in the advertisements, that might not help. Even this material has the power to tamper with autobiography. Kathryn Braun, Rhiannon Ellis, and I designed a series of studies in which we used advertising copy to try to plant memories. In one study, subjects filled out questionnaires and answered questions about a trip to Disneyland. One group read and evaluated a fake Disneyland ad featuring Bugs Bunny and describing how they met and shook hands with the character. About 16 percent of the people who evaluated the fake Bugs ad later said that they had personally met Bugs Bunny when they visited Disneyland. Later studies showed that with multiple exposures to phony Disney ads involving Bugs, the percentages rose to roughly 30 percent. The problem is that Bugs is a Warner Brothers character not to be

found at Disneyland. Despite the impossibility of this false memory, significant numbers were influenced to remember meeting him and ultimately also became more likely to relate Bugs Bunny to other Disney concepts such as Mickey Mouse or the Magic Castle.

We are not suggesting that advertisers are actually planting false memories deliberately. After all, you would not in reality see an ad for Disney that featured Bugs Bunny. But you might see one featuring a handshake with Mickey Mouse, and this would increase confidence that the viewer personally experienced such a handshake. The memory might be true for some people, but it is certainly not true for all. In this way, the advertisements may actually be tampering with our childhood memories in ways that we're not even aware of.

What does it all mean?

Medieval and modern philosophical accounts of human cognition stressed the role of imagination. The 18th-century philosopher Immanuel Kant talked about imagination as the faculty for putting together various mental representations such as sense percepts, images, and concepts. This integrative activity bears a great resemblance to what memory actually is and does. We see a film, it feeds into our dreams, it seeps into our memories. Our job as researchers in this area is to understand how it is that pieces of experience are combined to produce what we experience as "memory." All memory involves reconstruction. We put together pieces of episodes that are not well connected, and we continually make judgments about whether a particular piece belongs in the memory or not. One expects to see shuffling of pieces with a process that works like this.

As scientists work toward understanding how false autobiographical memories come to be, we'll understand ourselves better, but we will also have a better handle on how such errors might be prevented.

What shall we do with all we have learned about the malleable nature of memory? We might start by

A reconstructed memory that is partly fact and partly fiction might be good enough for many facets of life but inadequate for legal purposes.

recognizing that a reconstructed memory that is partly fact and partly fiction might be good enough for many facets of life, but inadequate for legal purposes where very precise memory often matters. It matters whether the light was red or green, whether the driver of the getaway car had straight hair or curly. It matters whether that face is the face of the person who committed the murder. Keep in mind that some 200 people per day in the United States become criminal defendants after being identified from lineups or photo spreads. The growing number of wrongfully convicted individuals

who have been exonerated by DNA evidence has given the world a real appreciation of the problem of faulty eyewitness memory, which is the major cause of wrongful conviction. Faced with the horror of these recent cases, investigations by the U.S. Department of Justice, the Canadian government, and an Illinois Commission on Capital Punishment have resulted in strong and specific recommendations designed to reduce the prevalence of wrongful convictions. Many of the recommendations reflect a heightened appreciation of the malleable nature of memory.

The U.S. Department of Justice released a 1996 report after analyzing 28 cases of DNA exonerations and concluding that 80 percent of these innocent people had been convicted because of faulty eyewitness memory. The Justice Department then assembled a committee that came up with a set of guidelines for law enforcement. *Eyewitness Evidence: A Guide for Law Enforcement* offers a set of national guidelines for the collection and preservation of eyewitness evidence. The guide includes recommendations such as asking open-ended questions, not interrupting eyewitness's responses, and avoiding leading questions. It includes guidelines specifying how lineups should be constructed (for example, including only one true suspect per lineup and including the proper number of "fillers"). The publication, which makes use of psychological findings and explicitly acknowledges that these findings offer the legal system a valuable body of empirical knowledge, is not a legal mandate but

rather a document that hopes to promote sound professional practice. Nevertheless, it is apparently having an influence on actual practice, and those who deviate significantly from it are often forced under cross-examination to say why.

The Canadians were also rocked by cases of wrongful conviction, prominent among them the case of Thomas Sophonow. He had been wrongfully convicted of murdering a young waitress who worked in a donut shop and spent nearly four years in prison. An official inquiry was established to investigate what went wrong, to determine just compensation for Mr. Sophonow, and to make recommendations about future cases. Commissioner Peter Cory was eloquent in his description of the suffering of this one falsely accused man: "What has he suffered? . . . He is psychologically scarred for life. He will always suffer from the core symptoms of post-traumatic stress disorder. As well, he will always suffer from paranoia, depression, and the obsessive desire to clear his name. His reputation as a murderer has affected him in every aspect of his life, from work to family relations. The community in which he lived believed him to be the murderer of a young woman, and that the crime had intimations of sexual assault. The damage to his reputation could not be greater . . . His reputation as a murderer will follow him wherever he goes. There will always be someone to whisper a false innuendo. . . In the mind of Thomas Sophonow, he will always believe that people are talking about him and his implication in the murder." Commissioner Cory awarded \$1.75 million dollars in nonpecuniary damages with a total award exceeding \$2.5 million. To minimize future miscarriages of justice, the inquiry report on the Sophonow case calls for specific procedural changes in activities such as lineups, as well as more general guidance such as encouraging judges to emphasize to juries the frailties of memory, to recount the tragedies of wrongful convictions, and to readily admit expert testimony on the subject of memory.

A final example comes from Illinois. In March 2000, shortly after Governor Ryan declared a moratorium on executions in the state, he appointed a commission to determine what reforms, if any, would make the state's capital punishment system fair and just. These activities were prompted in part by the release of 13 men from death row during the preceding decade. Many of these had been exonerated by

DNA evidence. Steven Smith had been sentenced to death on the dubious testimony of a single eyewitness. Anthony Porter had been sentenced to death because of two eyewitnesses. They later recanted, and another man subsequently confessed and is now in prison. The commission made 85 recommendations, many of which flowed from a concern about faulty memory. They include training in the science of memory for police, prosecutors, and defense lawyers and the development of jury instructions to educate the jurors about factors that can affect eyewitness memory.

The need for education

These studies all recognize the need for education in order to integrate psychological science into law and courtroom practice. Judges, jurors, attorneys, and police will almost certainly be helped by an increased understanding of human memory. At a minimum, it is important to fully appreciate that false memory reports can look like true ones and that without independent corroboration it is virtually impossible to tell whether a particular report is the product of true memory or the product of imagination, suggestion, or some other process. Judges and juries sometimes think that they can tell the difference, but they are actually responding to the confidence, the detail, and the emotion with which a memory report is delivered. Unfortunately, these characteristics do not necessarily correspond with reliability.

How shall we educate people about the science of memory? It's not quite as simple as the late Carl Sagan's exhortation to teach more about the fundamentals of science in school. Education helps, but it has not protected people from embracing unsubstantiated beliefs such as paranormal phenomena, alien abduction, extraterrestrial visitors, telepathy, or communication with the dead. One effort to reduce these types of beliefs that had some early success involved getting students to participate actively in studies that reveal how such claims can be faked. In the current domain, we might consider not just asserting particular truths about memory but actually showing how studies have been done and what findings have been achieved.

Judges and jurors need to appreciate a point that can't be stressed enough: True memories cannot be distinguished from false without corroboration. Occasionally mental health professionals enter legal cases as expert witnesses and claim that they can tell

that a “victim” is telling an accurate story. These purported experts frequently are there to bolster accusations that might otherwise seem strange. Beware of them. As Supreme Court Justice Breyer wrote two years ago in *Issues* (“Science in the Courtroom,” Summer 2000), “Most judges lack the scientific training that might facilitate the evaluation of scientific claims or the evaluation of expert witnesses who make such claims.” Education can help enhance the appreciation of good scientific information about memory as well as giving judges and jurors the confidence to reject pseudoscientific claims about memory.

Scientific knowledge about memory could be imparted in numerous venues: seminars for judges, law school classes for prospective attorneys, training for police, jury instructions, or expert testimony for jurors. This preliminary and tentative list could be expanded and refined through a cooperative effort by legal and scientific experts to develop a workable program for action. The American Judicature Society, an educational and research organization, recently proposed the creation of an “innocence commission” that would study why the legal system fails in ways that are reminiscent of what the National Transportation Safety Board does when planes crash. A National Memory Safety Board has a nice ring to me.

And what about the priests?

The past decade produced innumerable casualties associated with claims of repressed or dissociated memories. As we cope with the recent revelations about abuse by Catholic priests, is there a lesson to be learned? As Dorothy Rabinowitz of the *Wall Street Journal* noted, these new revelations bring home the contrast between bogus charges and credible ones. Many victims of priest abuse had long histories of molestation, repeated over and over, with contemporaneous complaints that were recorded, even if they were hidden from the public. Other victims knew all along about their abuse, even if they never talked about it. There are few claims of abuse at age 6 months, or claims of impregnation at the age of 6, or

*Judges, jurors,
attorneys, and
police will almost
certainly be helped
by an increased
understanding of
human memory.*

claims of abuse in intergenerational satanic rituals adorning these reports. But just as there was real sex abuse before the bogus repressed memory claims emerged, so there will be a mix of real and false accusations against priests, especially because there is the possibility of cash awards for damages. Not only will deliberate frauds emerge, but there will be “victims” who will, through suggestive therapy or media coverage, come to believe that they have been abused by priests when they have not. Publicizing the names of

every single priest who might ever have been accused and firing priests simply on the strength of accusations is unfair and unjustified.

After the thousands of criminal changes and lawsuits against alleged abusers, we can expect to see retractors who sue their therapists and falsely accused individuals who sue their accusers and those who helped them develop the accusations. Large sums will be paid not only to those who bring the accusations but also later to those who claim they were falsely accused. It will not be a pretty sight. Apart from the lawsuits, there is the human damage. We’ve seen the names of the accused prominently featured on the front pages and airwaves before there is any sort of investigation. Cardinal Roger Mahony of Los Angeles saw his name in the headlines because of a single accusation by a 51-year-old woman who had been previously diagnosed with schizophrenia. The *Los Angeles Times* drew parallels between the case of Mahony and that of the late Cardinal Joseph Bernardin. In a civil lawsuit filed against Bernardin in 1993, Steven Cook, a 34-year-old seminarian, charged—on the basis of “recovered memory” “induced through hypnosis—that Bernardin had sexually abused him 17 years earlier. He sued for \$10 million. The cardinal was “startled and devastated” by the accusation. I was an expert witness in that case and saw close up how dubious the memory recovery was, including the pieces brought out by a massage therapist. Eventually Cook retracted the accusation and apologized. Bernardin forgave him. Although he experienced a newfound

sympathy for those falsely accused, the cardinal demonstrated a strengthened resolve to reach out to genuine victims of sexual abuse. Bernardin died of pancreatic cancer in 1996, not long after his accuser had died of AIDS. In the book that he completed 13 days before his death, he singled out his cancer and the false accusations as the “major events” of his life. Although he lived a busy life marked by enough distinguished accomplishments and good works to fill several obituaries, virtually every obituary written after his death found space to mention the allegations of sexual abuse.

The parallel accusation against Mahony was front-page news for days. His accuser claimed that one day, 32 years earlier when she was in high school, she passed out near the band room and when she awoke her pants were off and she saw Mahony’s face. The police investigated the charge and found it groundless. A careful reader could have seen this reported in the press later the same month. What should we expect to find when his obituary is written?

The example should be a warning of the importance of keeping in mind just who we are. We’re a nation that developed a legal system based first and foremost on due process. Of course we believe that it is important to punish evildoers, but we also have to balance that with the need to protect the innocent. If we ever lose that core element of our justice system, we will lose something that will ultimately cause us a grief far greater than we have ever known. As the church scandal gains momentum, perhaps we should have a commission of respected leaders whose role it is to keep the accusations in perspective and to convince everyone to withhold judgment until the facts are in.

If knowledge about human memory were to help reduce even slightly the likelihood of wrongful accusations, the benefit for the accused and his or her extended family would be obvious. Society would also be better off, because while the wrong person is jailed, the real one is sometimes out and about committing further crimes.

But knowledge about human memory can help many others. When patients in therapy are being treated under the unsubstantiated belief that they have repressed memories of childhood trauma and that those memories must be excavated, this may not be

doing the patients any good. If patients are diverted from the true cause of their problems and from seeking professional help that would actually make them better, they are harmed.

The mental health profession has also suffered from a proliferation of dubious beliefs about memory. The ridicule of a subgroup with questionable memory beliefs drags down the reputation of the entire profession. And finally, there is one last group that is harmed by a system that accepts every single claim of victimization no matter how dubious. That system dilutes and trivializes the experiences of the genuine victims and increases their suffering.

Recommended reading

- Joseph Cardinal Bernardin, *The Gift of Peace*. (Chicago: Loyola Press, 1997).
- K. A. Braun, R. E. Ellis, and E. G. Loftus, “Make My Memory: How Advertising Can Change Our Memories of the Past,” *Psychology & Marketing* 19 (2002): 1–23.
- Honourable Peter deC. Cory, *The Inquiry Regarding Thomas Sophonow* (September 2001) (also available at <http://www.gov.mb.ca/justice/sophonow/toc.html>).
- E. Connors, T. Lundregan, N. Miller, and T. McEwan, *Convicted by Juries, Exonerated by Science: Case Studies in the Use of DNA Evidence to Establish Innocence after Trial* (Alexandria, Va.: National Institute of Justice, 1996).
- M. W. Cuneo, *American Exorcism* (New York: Doubleday, 2001).
- E. F. Loftus, “Creating False Memories,” *Scientific American* 277, no. 3 (1997): 70–75.
- G. A. L. Mazzoni, E. F. Loftus, and I. Kirsch, “Changing Beliefs about Implausible Autobiographical Events,” *Journal of Experimental Psychology: Applied* 7, No. 1 (2001): 51–59.
- S. Porter, A. R. Birt, J. C. Yuille, and D. R. Lehman, “Negotiating False Memories,” *Psychological Science* 11 (2000): 507–510.
- Technical Working Group for Eyewitness Evidence, *Eyewitness Evidence: A Guide for Law Enforcement* (Washington, DC: United States Department of Justice, Office of Justice Programs, 1999).