The Spectrum of Accuracy in Memories of Childhood Trauma

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In the context of public outcry about “false memories” of childhood sexual abuse, many persons with posttraumatic stress disorder are dismayed by their confusion about the historical basis of their intrusive memories. Numerous interacting factors impinge on memory of trauma to yield a broad spectrum of accuracy. In their endeavors to reconstruct coherent narratives of traumatic experience, clinicians and their patients will benefit from thinking in shades of gray rather than in terms of “true” versus “false” memories. (HARVARD REV PSYCHIATRY 1995;3:84–95.)

For many patients with posttraumatic stress disorder (PTSD), the core problem of reexperiencing the trauma is compounded by confusion about the historical basis of the intrusive memories. A large social movement organized as the False Memory Syndrome Foundation, a support group for accused parents, has evolved in the context of legal battles about “false memories” of childhood sexual abuse ostensibly engendered by psychotherapy. The recent publicity about false memories has only added to patients’ consternation. Over the past few years, I have developed a psychoeducational program on trauma for inpatients and day-hospital patients. The section on memory has been the most challenging to teach, in large part because of patients’ anxiety, defensiveness, and outrage about the idea of “false memories.” Given the litigiousness that has arisen in this context, many clinicians share their patients’ defensiveness.

There is no dispute about the potentially devastating consequences to individuals and families stemming from false allegations of sexual abuse. Clinicians must educate themselves and their patients to avoid unwittingly contributing to such allegations. Yet, as apt as the term “false memory” may be for legal purposes, it starts scientific and clinical discussion off on the wrong foot. Casting debate in terms of the black and white of “true” versus “false” memories raises hackles and promotes polarization. Joining others who have appealed for moderation and balance, I suggest that clinicians and patients alike think in shades of gray. The core principle of “fuzzy thinking” is a useful heuristic: “everything is a matter of degree.” As Guthell tersely put it, “Like most human phenomena, memories may range from utterly true to utterly false and everything in between.” In relation to trauma, there are many levels of knowing what happened. This paper synthesizes clinical and research literature to develop the thesis that a wide spectrum of accuracy in traumatic memories reflects numerous interacting factors that cloud memory of trauma to varying degrees. The literature search, limited to English language citations, included a review of Medline from 1990 to 1994, and of PsycLit (books/book chapters and journal articles) from 1987 to 1994, crossing memory with trauma, child abuse, or incest; also included was a review of Medline on dissociation from 1990 to 1994.

CONDITIONED-EMOTIONAL MEMORY VERSUS NARRATIVE-AUTOBIOGRAPHICAL MEMORY

The term “memory” covers a vast territory as a small sample of distinctions will illustrate. Duration of memory ranges from “icons” lasting fractions of a second to se-
mantic memories enduring for decades. Memory for motoric sequences is distinct from memory for sensory images, and the latter is divided among several modalities. Encoding and retrieval must be distinguished from storage. Moreover, memory is in dynamic flux, continually being reorganized by the process of remembering—both psychologically and neurophysiologically. On the heels of progress in cognitive science are beginning efforts to link various facets of memory to specific cerebral circuits. The challenge of applying findings of cognitive neuroscience to traumatic memory is daunting, and problems of translation from brain to mind are staggering. But I have found that a relatively gross distinction between “conditioned-emotional memory” and “narrative-autobiographical memory” helps patients to understand a core paradox in traumatic memory. As Van der Kolk has articulated, many persons with PTSD have an amalgam of too much memory (hypermnnesia) and too little memory (amnesia). They reexperience, but they do not really remember. They have too much conditioned-emotional memory and too little narrative-autobiographical memory.

The contrast between conditioned-emotional memory and narrative-autobiographical memory follows Pillemer and White’s conceptualization of a “dual memory system”:

The first system, present from birth and operational throughout life, is addressable by situational and affective cues. Past experiences are evoked by feelings, locations, or people. The memories are expressed through images, behaviors, or emotions. The second, socially accessible, system emerges during the preschool years. Memories are addressable through intentional retrieval efforts, apart from the original learning conditions. Furthermore, they are identified by the child as representing personally experienced events and, as such, compose the individual’s personal life history.

These two systems parallel the fundamental distinction between “implicit” and “explicit” memory—alternatively, “perceptual” versus “reflective” and “nondeclarative” versus “declarative” memory. In Schacter’s terms, implicit memory “refers to situations in which previous experiences facilitate performance on tests that do not require intentional or deliberate remembering,” and it “need not and often does not involve any conscious memory for a prior experience.” In contrast, explicit memory “refers to intentional recollection of previous experiences” and is “roughly equivalent to ‘memory with consciousness’ or ‘memory with awareness.”” Tobias and colleagues have given examples of patients with amnesia for whom implicit and explicit memory are dissociated: “In each of these cases, the person shows a change in emotional response... that is directly attributable to some previous experience; yet in each case, the experience itself is not remembered.”

Conditioned-emotional memory
All ongoing experience is channeled through memory, and memory and emotion are intertwined. Long-term memories and associated affects can be triggered consciously in milliseconds by sensations and perceptions. Such emotional responses can be construed as a form of implicit memory. Many patients grappling with conditioned fear responses lament their vulnerability to “triggers.” Mounting evidence suggests that their symptoms are mediated substantially by the amygdala, which forges links between unconditioned and conditioned stimuli and orchestrates multiple components of the fear response within fractions of a second. From the patients’ perspective, a wide array of cues associated with trauma evoke anxiety, fear, panic, or terror. These cues need not be external; perturbed printlnusory is an unavoidable trigger for many. Traumatic associative networks have a strong emotional pull, which Pitman and Orr likened to a black hole: “As all roads lead to Rome, all the patient’s thoughts lead to the trauma... The trauma appears to irresistibly draw thoughts and perceptions to it.” And the associative network does not simply evoke fear; just as multiple pathways lead into the black hole, ramifications proliferate inside it. Images associated with trauma may be evoked in various sensory modalities—visual, auditory, olfactory, and somatosensory. Rage may be evoked along with fear. At worst, the activation of the traumatic associative network results in an escalating spiral of intrusive images, flashbacks, and nightmares.

Terr’s metaphorical description of traumatic visual images as “burned in” is consistent with much research suggesting that conditioned-emotional responses can be indelible, or at least highly resistant to extinction. These conditioned responses established in the context of traumatic experience are problematic not only by virtue of their persistence but also because of their overgeneralization; and Van der Kolk put it, they are “not conditional enough.”

Narrative-autobiographical memory
Autobiographical memory is memory for information significant to the self, comprising personal memories for unique and generic events as well as autobiographical facts. Personal memories are episodic memories in a spatiotemporal framework that include much visual imagery, whereas autobiographical facts are more verbal. Considerations of “true” or “false” memory properly apply to narratives of autobiographical memories. Based on conscious, intentional recall, autobiographical narratives are prototypical of explicit memory.

Compared to conditioned-emotional memory, narrative-autobiographical memory is a highly sophisticated developmental achievement. In contrast to conditioned-emotional memory, which can be established in infancy,
narrative-autobiographical memory gradually begins to develop between the second and third years of life. Autobiographical memory is a social construction that enriches relationships through reminiscence. Autobiographical memories are rehearsed in conversation and also reshaped in the process of retelling.

Although little pertains to trauma, there is accumulating research on the accuracy of autobiographical memory. Memory for recent events is more accurate than that for remote events. Unique events are more accurately remembered than generic ones, because the latter tend to be schematized. Autobiographical memory is self-knowledge, and what one recalls is consistent with the self-concept at the time of the recall. Typically, individuals are highly confident in the accuracy of their autobiographical memories, but their level of confidence is unrelated to the accuracy of those memories.

Autobiographical memory generally captures the gist of events, notwithstanding the reorganization of memory and the substitution or addition of inaccurate details. As a result, people often spontaneously and likely be accurate. Inaccuracies occur when individuals try to force themselves to remember or when they are under external pressure to remember particular events—for example, when being pressed for details in eyewitness testimony. Plainly, pressure from a therapist (or from within the patient) to remember traumatic events runs the risk of promoting confabulation.

**AUTOBIOGRAPHICAL MEMORY AND IMAGERY AS CONSTRUCTIONS**

For many patients with PTSD, even the gist of traumatic events is elusive. Such patients have the formidable task of constructing explicit autobiographical narratives out of implicit conditioned-emotional responses—often isolated images and intense affects without any historical context.

Many patients, like the majority of psychologists, hold the video-recorder model of memory: in effect, notwithstanding retrieval problems, prior experience is accurately stored somewhere in the mind/brain. But unlike video recorders, humans actively interpret experience. Moreover, autobiographical memories are not replayed; they are reconstructed, as Bartlett recognized more than six decades ago: “Remembering is not the re-excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience, and to a little outstanding detail which commonly appears in image or in language form.” More succinctly put, “Out of a few stored bone chips, we remember a dinosaur.” If the video-recorder model is misleading, so is the library metaphor: “memory is not so much like reading a book as it is like writing one from fragmentary notes.”

Bartlett’s thinking about reconstructive processes foreshadowed contemporary cognitive neuroscience. Like memory, perception, and schemas are two-way streets. For example, meaningful visual perception emerges from the moment-to-moment convergence of feedforward (bottom-up) and feedback (top-down) processes. Features encoded in primary visual (striate) cortex are actively configured by representations constructed in various levels of association cortex.

Minsky has argued that memory entails partial recreation of the mind/brain state extant at the time of the perception. Instantiating Minsky’s views, Kosslyn has demonstrated not only that visual imagery follows the principles of visual perception but also that voluntarily generating a mental image activates primary visual cortex, presumably making use of circuits involved in constructing visual percepts.

This neurophysiological perspective introduces a cautionary note into the interpretation of traumatic imagery. It is possible to transform an idea into a vivid visual image that mimics perception and to recall it as a percept. For example, found that some children have created inaccurate visual memories on the basis of stories they were told by their families. Thus it can be misleading to view visual images per se as lending credence to the accuracy of autobiographical memories. One could speculate that, in the throes of the “black hole” of traumatic memory networks, relatively indelible images initially embedded in conditioned-emotional responses could become intermingled with subsequently elaborated imagery. Therefore it may be prudent not to view “flashbacks” as literal replays but rather as reconstructions that can vary in degree of correspondence to prior experience.

**FACTORS THAT CLOUD AUTOBIOGRAPHICAL MEMORIES OF TRAUMA**

The “false memory” debate centers on the accuracy of narrative-autobiographical memories of childhood sexual abuse. Because such traumatic experience is inherently so salient, it may seem incredible that some individuals cannot recall it continuously. Yet a wide array of impinging factors can cloud autobiographical memories of all forms of trauma—even in the face of persistent conditioned-emotional responses.

**Time**

Autobiographical memory is consistent with other forms of memory in showing a decrement in retention over time.
Kihlstrom and Barnhardt have formulated this finding as the “time-dependency principle,” namely, “The probability of remembering an event is a negative function of the length of time between encoding and retrieval.” On the basis of time alone, it is reasonable to expect that adults’ autobiographical memories of childhood trauma would be clouded. Moreover, erosion of accurate detail over time is likely to be accompanied by introduction of distorted detail.

Infantile and childhood amnesia
A relatively dense “infantile” amnesia before age two reflects the fact that narrative-autobiographical memory gradually begins to develop at 18–36 months in tandem with the evolution of a sense of self and capacity for language. Yet infantile amnesia pertains only to autobiographical memory; conditioned-emotional responses can be established in infancy. Moreover, Terr has observed that preschool children may behaviorally reenact traumatic events that they experienced in infancy, even if they cannot narrate them, an example of the dissociation between implicit and explicit memory.

By the third year of life, the cognitive machinery for the development of narrative-autobiographical memory is operative. Nevertheless, autobiographical memories in the preschool years tend to be relatively rudimentary and loosely organized, gradually becoming more detailed with age. But it is hard to generalize: there are significant individual differences as well as differences in memorability of different types of childhood events.

Disrupted consolidation
Strong emotion generally contributes to the salience of an event and thus increases the probability of recall. Yet the relation between emotional arousal and memory is highly complex. Up to a point, stress-related changes in neurotransmitter and neurohormone levels may enhance memory. But at traumatic levels of affect, the associated neurophysiological changes may impair autobiographical memory, as is well documented in the clinical literature.

Moreover, there is reason to be concerned that early traumatic experience may be associated with limbic-system dysfunction, and hippocampal damage in particular, potentially resulting in more-general and more-persistent memory impairment. Even short of persistent hippocampal damage, excessive stimulation of the amygdala during trauma may interfere with hippocampal functioning and thereby impair the capacity to integrate experience meaningfully. Although hippocampal dysfunction impinges on explicit memory, it leaves amygdala-mediated conditioned-emotional memories intact. Thus the individual responds to trauma-related cues with fragmented images and affects that make no autobiographical sense.

Pope and Hudson have noted that clinicians should not overlook other biological factors that may impair memory, including seizures, substance abuse, and head trauma. Although they emphasized the latter in the context of combat, severe physical abuse could also contribute to memory impairment via head injury.

Fantasy proneness
Fantasy-prone individuals—who perhaps constitute as little as 4% of the population—report that they live their lives through fantasy. As children, they populate their make-believe worlds with imaginary companions and endow their dolls and stuffed animals with feelings and personalities. Confounding autobiographical memory, many confuse memories of their fantasies with memories of actual events. There are various reasons to become fantasy prone, and trauma is one of them, along with isolation and loneliness. Because trauma abets fantasy in predisposed individuals, fantasy may be a sign of trauma rather than a means of ruling it out.

Dissociation
Dissociative alterations of consciousness defensively blunt overwhelming stimulation. What cannot be escaped physically can be escaped by inward flight. To varying degrees, individuals with the capacity to dissociate may buffer themselves by diminishing awareness of the outer world—feeling detached, tuned out, spaced out, fuzzy, far away, or in a fog or a dream. At the extreme end of the spectrum, some feel as if they have entered a “void” or “blackness.” To the extent that the original experience was dissociatively blurred, the quality of subsequent autobiographical memory will be dissociative (e.g., hazy or unreal). If the traumatic event was not perceived clearly, it cannot be stored or retrieved clearly in the form of autobiographical memory.

Alternatively, dissociation can break apart the unity of experience as it occurs. As Braun described, behavior, affect, sensation, and knowledge can be separated. Sharp perceptual fragments in one modality or another may be experienced and subsequently retrieved, isolated from their broader context. In addition, I speculate that the global dimming of consciousness that many patients describe cannot always be sustained throughout an extended traumatic event. Intense sensory input could interrupt dissociative detachment, leading to momentary patches of sharp perception alternating with dreamlike feelings of unreality. One patient, for example, described “snapshots” of reality punctuating a long course of foggy dissociative experience.

Dissociative amnesia and other defenses
Dissociation may impair encoding and can also block subsequent recall of whatever is encoded. Dissociation during the course of a traumatic event may prevent consolidation of
any coherent autobiographical memory. In addition, amnesia can ensue in the aftermath of a traumatic event to block retrieval of a consolidated autobiographical memory. Broadly defined, psychogenic amnesia is "a reversible memory impairment in which groups of memories for personal experience that would ordinarily be available for recall to the conscious mind cannot be retrieved or retained in a verbal form." Amnesia of varying duration and extent is a common reaction to such traumatic experience as combat, rape, and accidents. 

Several studies have investigated the prevalence of amnesia for memories of childhood sexual abuse, and figures vary widely. Herman and Schatzow found a wide spectrum of recall in 53 patients: 20 (38%) had full recall, 19 (36%) had partial recall, and 14 (26%) had severely limited memory. Memory was most complete for abuse in adolescence, and amnesia was most extensive for abuse in early childhood and for violent abuse. Briere and Conte found that 59.3% of 450 patients reporting histories of sexual abuse had some period of amnesia; higher rates of amnesia were associated with earlier, more prolonged, and more violent abuse. Binder and colleagues studied 30 women reporting histories of sexual abuse and found that 36.7% reported a period of amnesia. In this relatively small sample, no abuse characteristics distinguished those who remembered from those who did not. In a sample of 57 women in treatment for substance abuse who reported histories of sexual abuse, Loftus and coworkers found that 19% reported a period of forgetting the abuse and another 12% reported forgetting parts of the abuse. Degree of forgetting was not related to characteristics of the abuse. This study was methodologically advanced in employing a set of ten-point scales to assess the spectrum of clarity of numerous facets of memory. Feldman-Summers and Pope found that among 79 psychologists who reported a history of sexual or physical abuse, 40.5% had reported a period of forgetting. Of those who reported sexual abuse by a relative, 52.7% forgot some or all of the abuse for a period of time; of those reporting abuse by a nonrelative, 44.4% had a period of forgetting. Forgetting was significantly greater among persons who reported more than one type of abuse. Williams located 129 women with histories of sexual abuse documented in emergency room visits; 38% did not remember the associated incident. For many, the event studied was embedded in a broader context of abuse; 68% of the women with amnesia for the hospital visit remembered other incidents of sexual assault. Only 12% with documented trauma histories reported that they had never been abused. For the group as a whole, less recall was associated with abuse at a younger age and a closer relationship to the perpetrator.

The percentages and degrees of remembering differ from one study to another, but periods of failure to recall childhood sexual abuse are commonly reported. Although the findings vary, the likelihood of poorer recall is greater in the context of more-severe abuse. Yet, if there is any consistency in these data, there is none in their interpretation. Much of the debate has focused on "repressed" memories of sexual abuse, and the concept of repression has crossed the boundaries of the clinical and scientific literature into the popular press and the law. At this point, clinicians may only be able to agree that some persons go through a period of "not remembering" or "not thinking about" some or all of the abuse. The mechanism could involve "amnesia," "repression," or both. One could make a case for restricting the term "repression" to warring off confessional wishes and applying the concept of dissociation (including the DSM-IV term "dissociative amnesia") to the exclusion of traumatic memories from consciousness. Moreover, there is no reason to restrict discussion of defenses to dissociation and repression. "Terrorized" patients point out that individuals facing trauma will use any psychological defense at their disposal—denial, projective identification, displacement, intellectualization, rationalization, suppression, and splitting. Many patients in my psychoeducational groups report using distraction. They describe a sense of "running," immersing themselves in work or frenetic activity. When stress accumulates and they slide into depression, they cannot sustain the high level of defensive activity, and then the intrusive experience of PTSD ensues, often coupled with reintegration of dissociative defenses.

Social context

Narrative-autobiographical memory is constructed substantially from discourse, and the secrecy associated with abusive experience in childhood is hardly conducive to re- hearings. Not only is traumatic experience not discussed; it may be actively denied as it unfolds. A sense of unreality may be fostered by the family milieu: "it didn't happen; it happened but it wasn't important and has no consequences; it happened, but (s)he provoked it; it happened but it's not abusive." At worst, abused individuals "doubt whether they know anything." 

Although the family context may often obscure memories of abuse, the reverse could also happen. For example, antagonism between parents could lead to pressure on a child to construct memories of abuse. Emphasizing the power of parental authority, Tesser has documented a dramatic example of a mother brainwashing her daughter into constructing wholly false memories of sexual abuse by mental health professionals.
EMPIRICAL QUESTIONS

The foregoing review delineates a wide range of factors that may cloud or completely obscure memory of childhood trauma. To varying degrees, these factors postulated above to be potentially operative have been supported by clinical observation and research in various contexts. In principle, they provide a cogent explanation for individuals' inability to remember such horrible events. Yet no research has directly investigated the mechanisms by which some individuals keep some or all childhood sexual abuse out of mind for substantial periods of time. This would not only call for clear confirmation of abuse and clear-cut amnesia, as Pope and Hudson have advocated; it would also require longitudinal investigation of cognitive and defensive processes at the time of the abuse and in its aftermath. Recent studies of the long-range effects of dissociation at the time of adulthood trauma provide a model, although they have not focused on memory. Admittedly, the problems in conducting such research in the context of childhood sexual abuse would be monumental, if not insurmountable.

Given the potentially clouding factors delineated here, it is natural to question the accuracy of belatedly recalled memories of sexual abuse. The data on corroboration are relatively sparse. Herman and Schatzow reported that, "The majority of patients (74%) were able to obtain confirmation of the sexual abuse from another source," but these data have been criticized. Feldman-Summers and Pope noted that 46.9% of the subjects who reported forgotten abuse found some corroboration, and they delineated the various degrees of corroboration ranging from official records to personal diaries. Williams's study, grounded in medical records, is the most convincing, prompting Loftus and colleagues to conclude, "The findings do support the claim that many children can forget about a sexually abusive experience from their past. Extreme claims such as 'if you were raped, you'd remember' are disproven by these findings."

THE SPECTRUM OF ACCURACY

The array of factors that impinge on the accuracy of traumatic memories yields a spectrum that can be divided into seven a priori categories: (1) clear memory with corroboration, (2) clear memory without corroboration, (3) clouded memory with corroboration, (4) clouded memory without corroboration, (5) exaggerated/distorted memory, (6) false memory—suggested by others, and (7) false memory—patient constructed. In keeping with the emphasis of the preceding discussion, the spectrum distinguishes clear from clouded memories and corroborated from uncorroborated ones.

Category 1 refers to relatively clear and continuous memories of traumatic experience and those memories that are buttressed by corroborating evidence. Individuals with such memories have no reason to question their validity. Category 2 includes clear memories unsupported by corroborating evidence; given their sense of clarity, however, persons with such memories are likely to have little incentive for corroboration.

Category 3 includes memories that are clouded but are supported by corroborating evidence. Despite their clouded recall, individuals with such memories would have knowledge and conviction about what happened to them on the basis of external evidence. Category 4 includes memories that are clouded and for which there is no corroborating evidence. Individuals with memories in this category are highly likely to be beset by the dual problems of too much conditioned-emotional memory and too little narrative-autobiographical memory, and they are the most likely to be defensive about "false memories."

Category 5 includes memories of actual trauma that are highly exaggerated or distorted, with history and fantasy thoroughly intermingled. This includes memories of children who embellish traumatic events with developmentally natural fantasy, as well as memories of adults who confabulate from fiction and fantasy to generate recollections of bizarre trauma. Ganaway has noted that highly fantasy-laden memories of trauma may serve the defensive function of obscuring more unthinkable abuse in the family.

Categories 6 and 7 include memories of individuals who may or may not have experienced some kind of trauma but who wrongly come to remember and believe that they have been abused. Category 6 includes those who have presented with psychiatric symptoms and whose therapists have erroneously insisted that the symptoms are a result of childhood sexual abuse. These persons have captured the interest of the False Memory Syndrome Foundation. With or without the aid of hypnosis, owing to suggestion, they develop inaccurate memories of childhood. Given the constructive nature of autobiographical memory, perhaps fueled by fantasy proneness and a capacity for vivid imagery, this scenario is plausible, and clinical horror stories have been amply documented in the literature. Accordingly, a history of exposure to suggestion should alert the clinician to memory distortion. Of course, therapists are not the only ones who might encourage false memories; peers, members of self-help and therapy groups, and family members might also do so.

In principle, a therapist's or someone else's complicity is not necessary for the construction of inaccurate memories. Category 7 applies to memories of individuals who—on their own—wrongly conclude that they have been abused. Hypothetically, reading popular literature and knowing of the prevalence of psychiatric symptoms related to sexual abuse, a person experiencing anxiety and depression could suspect
a history of abuse, begin having nightmares, construct images of abuse, and develop relatively "false" memories. It is plausible that anger toward the ostensible abuser could be a part of the motivational context for such false memories of sexual abuse, just as anger could motivate deliberately false accusations. Of course, such anger may be spawned by other forms of trauma (e.g., emotional and physical abuse or neglect).

Even in the context of "false" memory, however, it is helpful to avoid thinking in extremes (0.0% accuracy). Imagine a woman who develops traumatic memories of her father "penetrating" her and subsequently concludes that sexual penetration did not occur. Yet she clearly remembers that her father often barged in when she was in the bathroom, routinely went through her mail and other belongings, and showed an intrusive interest in her sexuality. The memory of "penetration" is hardly 100% false in a psychological sense, although the distinction between sexual penetration and other forms of intrusion remains profoundly significant.

It is well to assume that everything happens, but how prevalent are these various forms of memory? What proportion of individuals seeking treatment for traumatic childhood experience fall into each of these categories? These are empirical questions. Although there is ample reason to be concerned about the numbers of individuals in categories 6 and 7, this spectrum helps to put matters into perspective: as is evidenced by the numerous members of the False Memory Syndrome Foundation, there has been a huge social protest about recovered memories of sexual abuse. This is not a problem to be dismissed lightly. Yet the true extent of the "false memory" problem (categories 6 and 7) is unknown, whereas the horrifying prevalence of trauma and the numbers of individuals in categories 1 through 5 are amply documented. There is a false memory problem of unknown proportions and a more-or-less accurate memory problem of staggering proportions. Diagnosis and treatment of trauma-related disorders must remain a paramount concern.

But it is misleading to divide individuals as if categories 1 through 7 were mutually exclusive. Given the multitude of factors that impinge on memory, those who have experienced multiple forms of childhood trauma are liable to have memories spanning all categories. For example, such individuals may remember clearly and have corroborating evidence for much traumatic experience (physical and verbal abuse). They may have cloudy memory for much other traumatic experience (sexual abuse). They may have reconstructed highly exaggerated memories (incest). In addition, they may have some memories that are patently false (abuse in satanic cults). Binder and colleagues gave a telling example of the intermingling of fact and fantasy: a woman with partial memories of childhood abuse believed in astral projection and reported that she had seen a flying saucer. She also had a history of being abused by a man who was convicted of child molestation and sent to prison. The authors cautioned that implausible beliefs not be used ipso facto to discredit claims of childhood trauma.

Inaccurate details do not render traumatic memories "false." As Spiegel and Scheff put it, "it is illogical to reason from the fact that a memory has false details to the conclusion that there is no real incident from which this false memory is an inaccurate depiction." Given that trauma may spawn fantasy and distorted perception, "false memories"—rather than discrediting a traumatic autobiography—may be counted among the unfortunate sequelae of trauma.

LEGAL IMPLICATIONS

The principle of "fuzzy thinking" may be useful in clinical practice, but it is hardly welcome in the courtroom. Yet the mismatch between legal constraints and human complexity long antedates the "false memory" problem. As Oliver Wendell Holmes put it, "The law takes no account of the infinite variety of temperament, intellect, and education which make the internal character of a given act so different in different men." Continuously evolving narrative truth with infinite shades of gray is grist for psychotherapy, whereas black-or-white historical truth is required by law. In principle, however, testimony regarding the import of memories presented in psychotherapy is no different from any other expert testimony; it is always a matter of professional opinion expressed in probabilities rather than certainty.

Clinicians should not attempt to be detectives in search of historical truth, but neither should they blur narrative and historical truth. In medical records, for example, it is prudent to document uncorroborated memories as "reports," not facts. Nor should narrative and historical truth be equated in the courtroom. Mirroring professional controversy, there is wide variability among states in statutes pertaining to recovered memories of sexual abuse. There is no professional consensus on what constitutes sufficient evidence for the validity of delayed memories.

In evaluating the veracity of memory, Terry has given considerable weight to signs and symptoms of trauma. Binder and colleagues have argued that "the validity of delayed memories is increased when the recall is of a single dramatic event (and therefore confusion with other events is unlikely), the identity of the main actors is well known to the witness (and therefore the risk of misidentification is decreased), and the witness is not subject to outside efforts to influence her testimony." On the other hand, consistent with the thesis of this paper, Spence would give most credence to clouded memories:

The most truthful account of an early childhood experience is probably one that is told haltingly in a rather disconnected manner with many internal contradictions, false starts, blind alleys, and all the other earmarks of a confused
memory that refers to an event that took place many years
ago at a time when details were vague, implications only
partly known, and the world was just beginning to come
into focus.

In the face of divergent opinions about what constitutes
credible memory, a conservative tack
c is to rely on external
corroboration—also a matter of degree.

CLINICAL IMPLICATIONS

Although persons who have forgotten childhood trauma
report a wide variety of contexts for remembering, psycho-
therapy is common among them. 

Certainly, a safe therapeutic relationship is conducive to
remembering. Moreover, thinking about one’s past in
exploratory psychotherapy exemplifies a general principle
of memory articulated by Kihlstrem and Barnhardt.

“Continued efforts at retrieval will always prevent
yielding previously forgotten material.” Yet
these authors also made it plain that clouding factors will
set limits on what can be remembered; “little can be done
to improve the situation where encodings were poor.”
Remembering in psychotherapy is a matter of degree, and it
occurs in shades of gray. I have not seen a patient
who discount the traumatic proportions of events
they do remember relatively clearly (e.g., physical abuse and
neglect), sometimes wondering what other ostensibly more
severe traumatic events (e.g., incest) might account for
their symptoms. They may indeed remember more trauma as
time goes on, but residual cloudiness remains.

Although often embroiled in polemics, the “false
memory” debate has had a salutary effect in drawing attention
to misguided clinical practice and underscoring the
need for therapeutic neutrality: “A strong prior belief by
the psychiatrist that sexual abuse, or other factors, are
or are not the cause of the patient’s problems is likely
to interfere with appropriate assessment and treatment.” The
debate also has been helpful in fostering broader awareness
that hypnosis is not a viable means of unearthing the truth but
rather is prone to the same distortions as any other form
of remembering, abetted by heightened suggestibility.

Consistent with neutrality, the role of the therapist is not
to verify the accuracy of memories but rather to help
the patient tolerate uncertainty while taking on the chal-
lenge of reconstructing autobiographical memory and deciding
what to believe. Patient and therapist must strike a
balance between belief and skepticism, and the therapist
must “help the patient carefully sift through the mixture of
fact, fantasy and illusion, eventually to settle on what the
patient must decide is his or her final truth.”

With a patient who is confused about the historical basis
of traumatic memories, the best strategy is to diffuse defen-
siveness about “false memories” by emphasizing shades of

gray. Therapists must educate their patients about the need
for painstaking reconstruction, disabusing them of illusions
about memory as video recorder and hypnosis as the route
to the “play” button. As long as the process can be
contained in the consulting room and kept out of court, narra-
tive truth can be given priority over historical truth.

Constructing some coherent autobiographical account of
intrusive experience is helpful in ameliorating traumatic
associations and symptoms. Developing the capacity to
talk about the trauma enables the patient to shed the
shackles of secrecy and, as Herman put it, allows the
therapist to bear witness.

Although reconstruction is essential for healing, the pro-
cess is fraught with pitfalls. Intense affect is liable to be
retraumatizing rather than therapeutic. As concerns
about the possibility of “kindling” in relation to PTSD
attest, exploration always runs the risk of sensitizing
rather than desensitizing the patient to cues associated
with trauma. Van der Hart and Spiegel advocated that “what
is essential is the authenticity of the experience of trauma-
related emotions, not their intensity.” Klitz’s motto
should be borne in mind: “the slower you go, the faster you
gain.” I advise patients to treat their autobiographies
always as working drafts to be gradually expanded and
revised over a lifetime.

Patients must go slowly, but how far must they go?
Remembering is indispensable in the treatment of posttrau-
matic symptoms. But how much remembering? Even in the
context of posttraumatic symptoms—and especially in their
absence—clinicians and their patients should not automatically
assume that more remembering is always better. The
dangers of symptom exacerbation and retraumatization are
real. Not uncommonly, the quest for more memories is
associated with a deteriorating clinical course. But we
should also look beyond the immediate clinical situation
to consider the long-range existential impact of remembering.

“The patient is left with the dilemma of what to do with
the new information. If a memory of abuse within the family is
recalled, how is the person to feel now about the perpetrator?
And what about others who may have known but done
nothing? Some patients are left wiser but sadder and wish
they had never embarked on the research.”

Challenging the zeitgeist of exploratory zeal, Lewis Thomas
proposed that “unconscious minds” must have evolved for
a reason, and that we should take advantage of them: “Stock them
up, put more things into them, make use of them. Forget
whatever you feel like forgetting.” Thomas addressed this
heretical advice to his “psychiatric friends,” but many
patients might also find it liberating.

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