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Repressed Memories and World War II: Some Cautionary Notes

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In a recent article in this journal, B. P. Karon and A. J. Widener (1997) argued that clinical data derived from WWII veterans provide unambiguous evidence for the existence of repressed and recovered memories. In response, the authors contend that (a) the research evidence for the existence of repression is considerably weaker than asserted by Karon and Widener, (b) the use of hypnosis and sodium pentathol to recover memories is more problematic than implied by Karon and Widener, and (c) the case study presented by Karon and Widener is difficult to interpret for a variety of reasons. The authors conclude that although further examination of case reports from WWII veterans is clearly warranted, it would be premature to conclude that these reports confirm the existence of repressed and recovered memories.

The question of whether traumatic memories can be repressed for long periods of time (i.e., years or decades) and then suddenly recovered in intact form is perhaps the most controversial issue in clinical psychology today (Loftus, 1993; Loftus & Ketcham, 1994; Ofshe & Watters, 1994; Pope, 1996; Wakefield & Underwager, 1992). Because extreme or unsubstantiated claims have sometimes been made by researchers and clinicians on both sides of this debate (Lindsay, 1996), it is incumbent on all of those who make assertions concerning either the existence or nonexistence of recovered memories to be circumspect in their interpretations of findings and to insist on high standards of evidence before drawing conclusions.

In a recent article in this journal, Karon and Widener (1997) argued that the contemporary controversy regarding the existence of repressed and recovered memories has itself been beset by a case of collective amnesia: "There is a mass of convincing empirical data on repression that is relatively easily available but seems to have been forgotten" (p. 338). The field of modern clinical psychology, they contended, has largely or entirely neglected an abundance of clinical findings derived from the battlefield experiences of WWII veterans. According to Karon and Widener, these findings convincingly demonstrate that (a) trau-

matic memories can be repressed for long periods of time; (b) these traumatic memories can be recovered in essentially intact form following psychotherapy, often with the assistance of hypnosis or sodium pentathol; and (c) recovery of these memories often led to immediate improvement in the symptoms of what would today be termed posttraumatic stress disorder (PTSD) or conversion disorder (American Psychiatric Association, 1994).

In addition, Karon and Widener (1997) presented a clinical case report that they maintained convincingly demonstrates the existence of repressed and recovered memories. On the basis of this case and those reported by others (e.g., Fisher, 1945), they concluded that

The war neuroses of WWII provide ample evidence that repression does indeed occur, and that the recovery of these traumatic memories and their related affects led to remission of symptoms. Moreover, these recovered memories were of events that had unquestionably occurred. (p. 339)

Karon and Widener's (1997) article raises important issues concerning both the reality of recovered memories and the historical underpinnings of the modern controversy regarding their existence. We concur with them that a closer examination of WWII case reports is merited (see also Shobe & Kihlstrom, 1997), and that such reports may provide useful insights into the impact of trauma on memory. Nevertheless, Karon and Widener's strong claims warrant careful scrutiny, and a close examination of their literature review and clinical evidence appears to leave us with more questions than answers. Although the length of our commentary may appear excessive given the brevity of Karon and Widener's article, we believe that a detailed examination of their assertions is needed for two reasons. First, a number of their claims regarding recovered memories are open to multiple interpretations, some of which require careful analysis. Second, their article has already been heralded by some as offering clear evidence for the existence of repressed and recovered memories. For example, a recent article in the *APA Monitor* (August, 1997) titled "WWII Veterans Provide Evidence of Repressed Memories" asserted that according to Karon and Widener's article, "A mass of scientific data on memory repression during World War II seems to have been forgotten

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in the current debate over whether people can repress and then recall traumatic events" (p. 8).

Before addressing Karon and Widener's principal arguments, we should note that we do not wish to summarily dismiss the possibility that a subset of recovered memories, including those of some WWII veterans, are genuine (e.g., Kihlstrom, 1996; Schooler, 1996). Nevertheless, we believe that the onus of proof lies on those who advocate the use of psychotherapy to recover traumatic memories to demonstrate that these memories can be corroborated by means of independent data. Moreover, the onus falls on therapists who use therapeutic techniques for excavating traumatic memories to demonstrate that these techniques produce improvement.

Research Evidence for the Existence of Repression

Repression has traditionally been conceptualized as the unconscious motivated forgetting of unpleasant material (Holmes, 1990). Karon and Widener (1997) maintained that "Laboratory experiments from the 1930s . . . to the present . . . have shown evidence for repression" (p. 338). In contrast, we would offer a more tempered appraisal of this complex body of literature. Although a wealth of anecdotal data concerning cases of dissociative amnesia (American Psychiatric Association, 1994) provide intriguing suggestive support for the existence of repression (Cohen, 1996; Schacter & Kihlstrom, 1989), over 60 years of laboratory research has failed to yield compelling support for this phenomenon (Holmes, 1974, 1990).

Many of the studies cited by Karon and Widener as providing evidence for repression are vulnerable to a host of alternative explanations. For example, the findings of Diven (1937) and Haggard (1943), which demonstrated that electric shock (or, in the case of the latter study, autonomic activity associated with electric shock) is associated with poorer recall of words, are potentially attributable to the interfering effects of stress on memory (Holmes, 1990). In addition, the findings of Mathews and Wertheimer (1958), like those of many other perceptual defense studies, are potentially attributable to participants' greater reluctance to report emotional than nonemotional words and to differences in familiarity between these two classes of words (Holmes, 1990). Although Mathews and Wertheimer matched emotional and nonemotional words on frequency based on Thorndike and Lorge's (1944) word counts, these word counts appear to be relatively poor indicators of familiarity (Erikson & Pierce, 1968). Finally, the study by Shevrin, Williams, Marshall, and Hertel (1992) concerning event-related brain potentials was consistent with the possibility that at least some cognitive processing of simple stimuli occurs below the threshold of awareness, but it did not provide direct evidence for the existence of repression (or of dissociation or other special mechanisms).

Moreover, the study by Williams (1994) that was cited by Karon and Widener did not offer conclusive evidence for the existence of repression. Williams found that 38% of a sample of 129 adult women who had been treated for sexual abuse 17 years earlier did not report this abuse to an interviewer. Although Williams' study is notable for its incorporation of documented histories of previous abuse, its implications for the existence of repression are unclear. A number of women in her sample may

have forgotten the abuse by means of memory processes other than repression, such as ordinary forgetting (Loftus, Garry, & Feldman, 1994) or childhood amnesia (Kihlstrom, 1996). Still others may have felt reluctant to disclose sexual abuse to an interviewer (Kihlstrom, 1996) or may, as a consequence of memory distortion, have accidentally reported a different incident of sexual abuse (Loftus et al., 1994). Although Williams' findings provide potentially useful information concerning the false-negative rates for reported sexual abuse, it would be premature to conclude that all, or even some, of these false-negative errors are necessarily attributable to some special mechanism such as repression.

The weak research evidence for repression notwithstanding, it is important to note that the crux of the current debate concerning recovered memories is not the existence of motivated forgetting per se, but rather the question of whether individuals can banish memories of trauma from awareness for long periods of time and then exhume them (Buttenweiser, 1993) in essentially pristine form with the assistance of psychotherapy and adjunctive procedures (e.g., hypnosis, sodium pentathol). Even if unconscious-motivated forgetting can be shown to exist, the question of whether memories that have been repressed for long time periods can later be successfully recovered remains. It is to this question that we now turn.

Hypnosis, Sodium Pentathol, and the Recovery of Memories

In discussing common therapeutic practices during and shortly after WWII, Karon and Widener (1997) pointed out that, "In order to speed up therapy, there were experimental uses of hypnosis and of sodium pentathol interviews to undo the repression and recover the memories in brief therapy" (pp. 338-339). They argued that these procedures both permitted the successful recovery of repressed memories and "allowed the rapid recovery of the patient to pretraumatic functioning" (p. 339).

We should first note that by assuming that the improvement of patients following the apparent recovery of traumatic memories was attributable to this apparent recovery of memories, Karon and Widener in effect committed the error of post hoc ergo propter hoc (after this, therefore because of this). Even if a subset of patients with PTSD and similar conditions were able to successfully recover intact memories of trauma, this does not demonstrate that their improvement was a consequence of memory recovery. Instead, this improvement could have stemmed from a number of variables, including expectancy (placebo) effects, effort justification (Cooper, 1980), spontaneous remission of symptoms, and the prolonged exposure of patients to anxiety-provoking stimuli that bore a relation to their consciously recalled combat experiences (for recent overviews of the efficacy of exposure techniques and other treatment methods for PTSD, see Foa & Meadows, 1997, and Frueh, Turner, & Beidel, 1995).

More important, however, is Karon and Widener's (1997) assumption that both hypnosis and sodium pentathol can aid in the recovery of accurate memories (pp. 338-339). There is strong evidence, for example, that hypnosis does not improve accuracy in recall, although it does increase respondents' confi-

dence in their recall (Lynn, Lock, Myers, & Payne, 1997; Steblay & Bothwell, 1994). For example, Lynn et al. reviewed data from several studies indicating that hypnotized participants performed either no better than or worse than nonhypnotized participants on both structured and unstructured tests of recall. Moreover, a meta-analysis demonstrated that hypnotized participants exhibit higher rates of false memories following misinformation and leading questions than nonhypnotized participants (Steblay & Bothwell, 1994). In addition, hypnosis does not increase participants' recall of emotionally arousing events (e.g., a videotaped murder), nor do participants' levels of arousal increase the accuracy of their recall under hypnosis (Lynn et al., 1997).

These findings raise questions concerning a number of WWII case reports cited by Karon and Widener, including those of Fisher (1945), who reported that he successfully used hypnosis to recover memories from a series of soldiers suffering from what would today be termed dissociative amnesia or dissociative fugue. Although Karon and Widener (1997) asserted that "Each case of traumatic recovered memory (in Fisher's series) could be corroborated by people other than the patient" (p. 338), careful inspection of Fisher's (1945) article reveals a considerably more ambiguous picture: "The hypnotized subject (was) brought back to this moment either by describing to him in detail the situation he was in at the time, as it was learned from his history, and suggesting to him that he relive it, or by utilizing the age regression technique devised by Erickson" (p. 439). Although Fisher referred to knowledge of each patient's history, virtually none of the memories reported by his patients was corroborated by external evidence. Indeed, in one of the six cases reported by Fisher, "the patient was not observed in any of these periods [for which he was amnesic prior to therapy], nor during the fugue states themselves" (p. 441). Moreover, there is no evidence that hypnotic age regression produces a genuine reinstatement of the memories characteristic of earlier ages, although the verbal reports of age-regressed participants are often extremely convincing (Lynn et al., 1997; Nash, 1987).

Karon and Widener's assertions concerning the utility of sodium pentathol in memory recovery are also not borne out by the extant literature. The admittedly limited data on this issue reveal that sodium pentathol and similar barbiturates (a) are not so-called truth serums in that they do not inhibit dishonest responding or increase accurate recall of memories (Lilienfeld, 1993) and (b) markedly increase the number of false memories and factual distortions (Piper, 1993). As Piper (1993) noted in a literature review concerning the cognitive effects of sodium amytal, a barbiturate closely related to sodium pentathol, "Memories retrieved in an Amytal-induced trance are likely to contain both fact and fantasy in a mixture that cannot be accurately determined without external verification" (p. 462). It is interesting that in an article dating from WWII discussing the treatment of patients who had experienced combat trauma, Sargent and Slater (1941) made a virtually identical observation regarding the use of barbiturates to uncover memories: "The information gained will often be a mixture of truth and fantasy, and will have to be sifted" (p. 763). This quotation suggests that, Karon and Widener's assertions (1997, p. 339) notwithstanding, therapists of the WWII era were aware that the use of

barbiturates to recover memories was fraught with interpretational problems.

Moreover, because the vividness and clarity of memories are notoriously unreliable barometers of their accuracy (Toblia, 1996), there is ample reason to be cautious about accepting claims of recovered memories on the basis of patients' expressed convictions regarding their veracity. In a study of phantom flashbulb memories, for example, Neisser and Harsch (1992) found that many students reported extremely vivid and confident recollections of the explosion of the space shuttle *Challenger 3* years after it occurred, even though one third of them were entirely wrong as gauged by a comparison of their memories with their memories the day after the explosion. Although Karon and Widener (1997) referred to a "well-documented body of data" (p. 339) on the recovered memories of WWII veterans, it is the memory reports of these patients, not the factual events referred to in such reports, that are reasonably well-documented.

Karon and Widener (1997) acknowledged that hypnosis and sodium pentathol can sometimes produce heightened suggestibility but maintained that, "The heightened suggestibility of the patient under hypnosis or pentathol was not considered a problem because the therapist frequently knew many of the realistic details of the combat trauma from other people. Hence, the problem of creating false memories was never a serious issue" (p. 339). We contend, however, that therapists' knowledge of the facts surrounding the actual events of the trauma is not as unproblematic as it might appear. Therapists who possess such knowledge may be especially likely to unintentionally prompt patients to report material consistent with the known details of these events. Although patients' "recollections" in such cases may be factually correct, they may represent therapist-guided verbal productions rather than genuine episodic memories. Because there is strong evidence that memory reports can be altered dramatically by suggestion (Loftus & Pickrell, 1995), this possibility cannot be dismissed lightly.

Karon and Widener's Clinical Example

Karon and Widener (1997) offered an interesting case report to buttress their assertion that traumatic memories can be recovered after many years of repression. According to Karon and Widener, the individual described in this case report was referred to the psychology service of a Veterans Administration hospital several years after the termination of WWII. The patient had experienced an apparent conversion symptom (paralysis of an arm for which no physiological basis could be found) following a traumatic event during wartime but was unable to recall any of the details surrounding this event. Approximately 6 months into treatment, the patient purportedly recovered a repressed memory of having survived the crash of a two-person plane in England. The patient suffered a broken arm in the crash and heroically used his other arm to drag the pilot to safety. Following the war, he was awarded a medal for bravery. Although his broken arm healed, his other arm became paralyzed. According to Karon and Widener, this paralysis served to psychologically protect the patient from the terror of ever experiencing the plane crash again. When the memory of the traumatic event and its associated affect were uncovered in psychoanalysis, his symptom partially remitted.

Nevertheless, a closer analysis of this case raises at least four important questions. First, the patient's therapist, who was the brother of the article's first author, died approximately 20 years ago (B. Karon, personal communication, August 5, 1997). This long time interval introduces the possibility of errors in retrospective recall on the part of the first author and renders objective determination of the actual details of both the wartime event and the patient's recall of this event difficult or impossible.

In addition, it not clear what materials (e.g., written reports, tape recordings, word of mouth) were used by the authors to reconstruct the details of this case. Because sharpening and leveling of complex information is especially likely after long time periods (Gilovich, 1991), further information concerning the original source or sources of the case information is needed to evaluate the possibility of unintentional retrospective distortions in the reporting of this information.

Second, because Karon and Widener did not provide independent corroboration of the patient's memories, it is unknown how much of the story related by the patient is factually accurate. Moreover, it is unclear how much of the patient's verbal reports may have been influenced by (a) the patient's prior knowledge of this event, (b) unintentional prompting on the part of the therapist, or (c) both. With regard to the former, Karon and Widener referred to a newspaper article brought in by the patient to a psychotherapy session immediately prior to his apparent recovery of the memory. Because it is not known how much of this article contained details of the incident subsequently reported by the patient in therapy, the possibility that the patient's verbal reports were contaminated by his reading of the article is difficult to exclude. With regard to the latter, it is not known how much of the newspaper article, if any, the therapist had read prior to the sessions in which the patient's memory was uncovered. As a consequence, it is difficult to exclude the hypothesis that the patient's verbal reports were the product of unintentional cueing by the therapist. Although Karon and Widener (1997) referred to a number of similar cases involving recovery of traumatic memories among WWII veterans (p. 339), these assertions, like those of Fisher (1945), are difficult or impossible to evaluate without independent verification of such memories.

Third, even if Karon and Widener's report of the case is factually accurate, we cannot be certain that their interpretation of the causes of the patient's symptom is correct. It is possible, for example, that his symptom represented malingering (American Psychiatric Association, 1994) in an attempt to avoid reentering the war, rather than a conversion symptom. Although Karon and Widener noted that the patient's paralysis persisted after the war ended, it is difficult to exclude the possibility that he derived reinforcement (e.g., treatment, avoidance of occupational responsibilities) from maintenance of this symptom. If the patient's symptom reflected conscious malingering rather than conversion disorder, Karon and Widener's assertion that the disappearance of this symptom was triggered by the recovery of previously unconscious memories becomes less plausible.

Fourth, Karon and Widener's interpretation of this case hinges on the critical assumption that because the patient did not tell the therapist about the traumatic event until 6 months into psychotherapy, he must not have remembered it. It is conceivable, however, that the patient remembered the event all along but

elected not to tell the therapist about it until he felt comfortable doing so. Because it is not known whether the patient had discussed this event with other individuals prior to revealing it in psychotherapy, this possibility is difficult or impossible to exclude with confidence.

Conclusion

Karon and Widener (1997) have performed a useful service by bringing a potentially important body of literature—the memory reports of veterans in the aftermath of WWII—to the attention of clinical and cognitive psychologists. We concur with them that further investigation of case reports of WWII veterans is warranted and that such reports have the potential to elucidate the relation between trauma and memory. Careful scrutiny of their literature review and clinical material, however, suggests that their strong conclusions are premature.

In general, isolated case reports are more helpful in the context of discovery (i.e., hypothesis generation) than in the context of justification (i.e., rigorous hypothesis testing; Reichenbach, 1938). In rare cases, however, case reports can function as existence proofs that falsify the hypothesis that a given phenomenon cannot occur (Lazarus & Davison, 1971). For example, indisputable evidence that even one child with autistic disorder could effectively communicate by means of facilitated communication would suffice to falsify the hypothesis that facilitated communication is impossible (see Jacobson, Mulick, & Schwartz, 1995).

Nevertheless, isolated case reports cannot serve as convincing existence proofs until all alternative explanations for the phenomenon in question have been excluded. In the case of recovered memories, such case reports cannot be used to falsify the hypothesis that recovered memories do not exist unless unambiguous corroborating information is available from objective sources. It is imperative that all of those involved in the debate concerning repressed and recovered memories remain open to the possibility of their existence. But it is equally imperative that all of those involved in this debate withhold judgment on a final verdict until scientifically convincing data become available.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Buttenweiser, P. (1993, August 1). The exhumed memory [Review of the book *Once upon a time: A true story of memory, murder, and the law*]. *New York Times Book Review*, pp. 9–10.
- Cohen, N. J. (1996). Functional retrograde amnesia as a model of amnesia for childhood sexual abuse. In K. Pezdek & W. P. Banks (Eds.), *The recovered memory/false memory debate* (pp. 81–95). San Diego: Academic Press.
- Cooper, J. (1980). Reducing fears and increasing assertiveness: The role of dissonance reduction. *Journal of Experimental Social Psychology*, *16*, 199–213.
- Diven, K. (1937). Certain determinants in the conditioning of anxiety reactions. *Journal of Psychology*, *3*, 291–308.
- Erikson, C., & Pierce, J. (1968). Defense mechanisms. In E. Borgatta & W. Lambert (Eds.), *Handbook of personality theory and research* (pp. 1007–1040). Chicago: Rand McNally.
- Fisher, C. (1945). Amnesic states in war neurosis: The psychogenesis of fugues. *The Psychoanalytic Quarterly*, *14*, 437–468.

- Foa, E. B., & Meadows, E. A. (1997). Psychosocial treatments for post-traumatic stress disorder: A critical review. *Annual Review of Psychology*, 48, 449-480.
- Frueh, B. C., Turner, S. M., & Beidel, D. C. (1995). Exposure therapy for combat-related PTSD: A critical review. *Clinical Psychology Review*, 15, 799-817.
- Gilovich, T. (1991). *How we know what isn't so: The fallibility of human reason in everyday life*. New York: Free Press.
- Haggard, E. A. (1943). Some conditions determining adjustment during and readjustment following experimentally induced stress. In S. S. Tomkins (Ed.), *Contemporary psychopathology* (pp. 529-544). Cambridge, MA: Harvard University Press.
- Holmes, D. S. (1974). Investigation of repression: Differential recall of material experimentally or naturally associated with ego threat. *Psychological Bulletin*, 81, 632-653.
- Holmes, D. S. (1990). The evidence for repression: An examination of sixty years of research. In J. L. Singer (Ed.), *Repression and dissociation* (pp. 85-102). Chicago: University of Chicago Press.
- Jacobson, J. W., Mulick, J. A., & Schwartz, A. A. (1995). A history of facilitated communication: Science, pseudoscience, and antisociality. *American Psychologist*, 50, 750-765.
- Karon, B. P., & Widener, A. J. (1997). Repressed memories and World War II: Lest we forget! *Professional Psychology: Research and Practice*, 28, 338-340.
- Kihlstrom, J. F. (1996). The trauma-memory argument and recovered memory therapy. In K. Pezdek & W. P. Banks (Eds.), *The recovered memory/false memory debate* (pp. 297-311). San Diego: Academic Press.
- Lazarus, A., & Davison, G. C. (1971). Clinical innovation in research and practice. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis* (196-213). New York: Wiley.
- Lilienfeld, S. O. (1993). Do "honesty" tests really measure honesty? *Skeptical Inquirer*, 18, 32-41.
- Lindsay, D. S. (1996). Contextualizing and clarifying criticisms of memory work in psychotherapy. In K. Pezdek & W. P. Banks (Eds.), *The recovered memory/false memory debate* (pp. 267-278). San Diego: Academic Press.
- Loftus, E. F. (1993). The reality of repressed memories. *American Psychologist*, 48, 518-537.
- Loftus, E. F., Garry, M., & Feldman, J. (1994). Forgetting sexual trauma: What does it mean when 38% forget? *Journal of Consulting and Clinical Psychology*, 62, 1177-1181.
- Loftus, E. F., & Ketcham, K. (1994). *The myth of repressed memory: False memories and allegations of sexual abuse*. New York: St. Martin's Press.
- Loftus, E. F., & Pickrell, J. E. (1995). The formation of false memories. *Psychiatric Annals*, 25, 720-725.
- Lynn, S. J., Lock, T. G., Myers, B., & Payne, D. (1997). Recalling the unrecalled: Should hypnosis be used to recover memories in psychotherapy? *Current Directions in Psychological Science*, 6, 79-83.
- Mathews, A., & Wertheimer, M. (1958). A "pure" measure of perceptual defense uncontaminated by response suppression. *Journal of Abnormal and Social Psychology*, 57, 373-375.
- Nash, M. R. (1987). What, if anything, is age regressed about hypnotic age regression? A review of the empirical literature. *Psychological Bulletin*, 102, 42-52.
- Neisser, U., & Harsch, N. (1992). Phantom flashbulbs: False recollections of hearing the news about Challenger. In E. Winograd & U. Neisser (Eds.), *Affect and accuracy in recall: Studies of "flashbulb" memories* (pp. 9-31). New York: Cambridge University Press.
- Ofshe, R. J., & Watters, E. (1994). *Making monsters: False memories, psychotherapy, and sexual hysteria*. New York: Scribners.
- Piper, A. (1993). "Truth serum" and "recovered memories" of sexual abuse: A review of the evidence. *The Journal of Psychiatry and Law*, 21, 447-471.
- Pope, K. S. (1996). Memory, abuse, and science: Questioning claims about the False Memory Syndrome epidemic. *American Psychologist*, 51, 957-974.
- Reichenbach, H. (1938). *Experience and prediction*. Chicago: University of Chicago Press.
- Sargant, W., & Slater, E. (1941). Amnesic syndromes in war. *Proceedings of the Royal Society of Medicine*, XXXIV, 757-764.
- Schacter, D. L., & Kihlstrom, J. F. (1989). Functional amnesia. In F. Boller & J. Grafman (Eds.), *Handbook of neuropsychology* (Vol. 3, pp. 209-231). New York: Elsevier.
- Schooler, J. W. (1996). Seeking the core: The issues and evidence surrounding recovered accounts of sexual trauma. In K. Pezdek & W. P. Banks (Eds.), *The recovered memory/false memory debate* (pp. 279-296). San Diego: Academic Press.
- Shevrin, H., Williams, W. J., Marshall, R. E., & Hertel, R. K. (1992). Event-related potential indicators of the dynamic unconscious. *Consciousness and Cognition*, 1, 340-366.
- Shobe, K. K., & Kihlstrom, J. F. (1997). Is traumatic memory special? *Current Directions in Psychological Science*, 6, 70-74.
- Stebly, N. M., & Bothwell, R. K. (1994). Evidence for hypnotically refreshed testimony: The view from the laboratory. *Law and Human Behavior*, 18, 635-651.
- Thorndike, E. L., & Lorge, E. (1944). *The teacher's word book of 30,000 words*. New York: Columbia University Press.
- Toglia, M. P. (1996). Recovered memories: Lost and found? In K. Pezdek & W. P. Banks (Eds.), *The recovered memory/false memory debate* (pp. 313-323). San Diego: Academic Press.
- Wakefield, H., & Underwager, R. (1992). Recovered memories of sexual abuse: Lawsuits against parents. *Behavioral Sciences and the Law*, 10, 483-507.
- Williams, L. M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology*, 62, 1167-1176.
- WWII veterans provide evidence of repressed memories. (1997, August). *APA Monitor*, pp. 8-9.

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