

False Memory in Trauma and PTSD

This paper addresses a narrow and frequently misunderstood question: whether people who have experienced trauma, and particularly those who have developed post-traumatic stress disorder (PTSD), differ from others in their susceptibility to memory error in controlled studies. It is a companion to the overview in *Emotion, Trauma and Memory*, which addresses how stress and emotion shape the encoding and retention of an event; here the focus is on the laboratory research on false memory and suggestibility in trauma-exposed populations, and on the strict limits of what that research can and cannot show.

The topic is sensitive, and precision matters. The findings summarized below concern tendencies measured with artificial laboratory materials; they make no claim about the veracity of any individual's account of an actual traumatic event.

What the Laboratory Studies Find

Researchers have used standardized false-memory procedures, most often tasks in which people study lists of related words and are later tested on whether they remember a strongly associated word that was never presented, to compare trauma-exposed and non-exposed groups. The results are genuinely mixed. Some studies find that trauma-exposed individuals, especially those with PTSD, falsely recall or recognize related-but-absent items at somewhat higher rates than non-exposed controls, while others find no such difference (Zoellner, Foa, Brigidi, & Przeworski, 2000; Bremner, Shobe, & Kihlstrom, 2000). A parallel line of work on the misinformation effect suggests that trauma exposure and PTSD symptoms can be associated with somewhat greater susceptibility to incorporating misleading post-event information. The most defensible reading is that trauma and PTSD are associated, inconsistently and modestly, with elevated susceptibility to certain laboratory memory errors, not that they reliably produce dramatic distortion.

An Equally Important Counter-Finding

A balanced account must place alongside those findings a substantial body of evidence pointing the other way. Memory for the central features of a traumatic or highly emotional event is often well retained, and trauma-exposed individuals frequently show better memory for trauma-related information than for neutral information. The laboratory susceptibility effects, where they appear, concern peripheral detail and artificial materials, and they coexist with generally strong memory for the gist and central content of significant events. Trauma does not erase memory, and the research does not portray trauma survivors as broadly unreliable rememberers.

The Limits of the Research

The most important point is also the most easily abused. These studies do not show that people who have experienced trauma fabricate, or are especially prone to fabricate, memories of their own lives or of their specific traumatic experiences (Clancy, McNally, Schacter, Lenzenweger, & Pitman, 2002). A heightened tendency to endorse a related word on a list, or to absorb a misleading suggestion in an experiment, cannot be generalized into a claim that a given trauma account is false. The laboratory paradigms were designed to isolate cognitive mechanisms under controlled conditions, and their authors caution expressly that the results do not transfer to the truth of real traumatic events. At the same time, the genuine, if modest, evidence of elevated suggestibility under some conditions is a sound reason to interview trauma victims with particular care to avoid introducing suggestion (Otgaar et al., 2019; McNally, 2003).

Special Issues in Legal Practice

The principles described above apply with equal force to every party in a legal proceeding. Memory operates the same way regardless of who is asking the questions, and the science summarized here favors no side. What differs between the parties is not the science but the vantage point — the particular places where memory issues tend to surface, and the particular errors each party is best positioned to guard against. The two summaries below identify those recurring issues. They are offered for

orientation, not as litigation strategy; in every case the controlling question is what the evidence in that case will, and will not, support, and the expert's role is to inform the trier of fact rather than to advocate for either side.

Special Issues for Prosecutors

For the State, this research bears on how the accounts of traumatized victims are obtained and presented. The prosecution is well positioned to emphasize that trauma does not make a witness unreliable, that memory for the central features of a traumatic event is often well retained, and that laboratory susceptibility effects neither establish fabrication nor transfer to the reality of an actual experience (Clancy et al., 2002; McNally, 2003). The error to guard against lies in the conditions of interviewing; because trauma and PTSD are associated, in some studies, with greater susceptibility to suggestion, the State is best served by early, open-ended, non-leading interviews that minimize the introduction of post-event information, so that the victim's own memory, rather than the interview, supplies the account. The safeguard is careful interview practice and corroboration, not reliance on the assumption that a traumatic memory must be either perfect or false.

Special Issues for Defense

For the defense, the research is relevant where suggestive interviewing, repeated questioning, or other post-event influences may have shaped a trauma-exposed witness's account, conditions under which the modest evidence of elevated suggestibility is most pertinent (Zoellner et al., 2000; Otgaar et al., 2019). The defense is well positioned to examine how an account was elicited and whether suggestion may have contributed. The corresponding error to guard against is overclaiming, and here the caution is especially strong. The laboratory findings are mixed and concern artificial materials; they do not show that trauma victims fabricate their experiences, and memory for the core of a traumatic event is often robust (Clancy et al., 2002). Responsible cross-examination and expert testimony should confine the research to its proper use, evaluating the risk of suggestion in how the account was obtained, and must not present it as evidence that a trauma survivor's memory is inherently untrustworthy or that the underlying event did not occur.

References

- Bremner, J. D., Shobe, K. K., & Kihlstrom, J. F. (2000). False memories in women with self-reported childhood sexual abuse: An empirical study. *Psychological Science*, 11(4), 333–337. <https://doi.org/10.1111/1467-9280.00266>
- Clancy, S. A., McNally, R. J., Schacter, D. L., Lenzenweger, M. F., & Pitman, R. K. (2002). Memory distortion in people reporting abduction by aliens. *Journal of Abnormal Psychology*, 111(3), 455–461. <https://doi.org/10.1037/0021-843X.111.3.455>
- McNally, R. J. (2003). *Remembering trauma*. Harvard University Press.
- Otgaar, H., Howe, M. L., Patihis, L., Merckelbach, H., Lynn, S. J., Lilienfeld, S. O., & Loftus, E. F. (2019). The return of the repressed: The persistent and problematic claims of long-forgotten trauma. *Perspectives on Psychological Science*, 14(6), 1072–1095. <https://doi.org/10.1177/1745691619862306>
- Zoellner, L. A., Foa, E. B., Brigidi, B. D., & Przeworski, A. (2000). Are trauma victims susceptible to “false memories”? *Journal of Abnormal Psychology*, 109(3), 517–524. <https://doi.org/10.1037/0021-843X.109.3.517>

Legal Authorities

- Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).
- Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).
- Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

Related topic papers: [Emotion, Trauma and Memory](#) · [Recovered and Repressed Memory](#) · [Dissociation and Memory](#) · [False Memory](#)