

Dangerously Neglecting Courtroom Realities

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Summary: Brewin and Andrews recently argued that expert witnesses should be cautious when informing the legal arena about the potential for false memories. We argue that memory researchers—whose studies often were inspired by miscarriages of justice due to erroneous statements provided by witnesses, victims, or defendants—can and should emphasize the base rates of false memories. After all, even if Brewin and Andrews' estimate of 15% is an accurate higher bound estimate of false memories in real life cases, neglecting the science of false memories could lead to many more unnecessary miscarriages of justice. Copyright © 2016 John Wiley & Sons, Ltd.

When looking at false memory phenomena, there are two perspectives. One could go from the lab to the court, assuming that researchers first became interested in false memories and then generalized the conclusions that could be drawn from the gathered empirical evidence to court cases in which memory accuracy of an eyewitness or victim was crucially important for justice to be served. Alternatively, one could go from the court to the lab. Evidently, many researchers in the field of false memory have taken this second route. They are familiar with cases in which innocent people were convicted based on false memories, and it was this tragedy that inspired and informed their lab research (e.g. Loftus, 2002; McNally, 2012). The statistics of the *Innocence Project* show that in a considerable proportion of miscarriages of justice, mistaken eyewitness testimonies and false confessions play a prominent role (<http://www.innocenceproject.org>; e.g. Scheck, Neufeld, & Dwyer, 2001). At minimum, this suggests that the problem of false memories in courts should not be trivialized. In the UK, a topical dissertation regarding cases brought to the Criminal Cases Review Commission revealed that in many of these cases, the applicant argued that a key witness (or witnesses) had been mistaken at trial (Heaton, 2013).

Many memory researchers have been inspired by legal cases featuring erroneous memory—ranging from minor (albeit non-trivial) memory distortions to full-blown false memories—to examine potential causes of false memories in eyewitnesses, victims, and defendants. These memory researchers never aspired to provide the courts with precise risk taxations but rather aimed to inform the legal arena of why and when memory errors tend to occur. To be sure, one of the problems in generalizing from the lab to the court has to do with limited research relying on clinical samples. Indeed, research on how false memories may be elicited in the laboratory by and large employed non-clinical samples of clever undergraduate students whose memory, verbal skills, and motivation may not at all be representative of individuals who end up in a court case as witnesses, victims, or defendants. Consider the prototypical person taking legal actions based on recovering memories of childhood sexual abuse.

Such a person is routinely in search of an explanation for current complaints such as a depression, anxiety, or an eating disorder, and it is this very need for an explanation that may render this person vulnerable to accepting seemingly plausible reasons such as childhood sexual abuse (i.e. 'motivated cognition'; see Loftus & Davis, 2006; Merckelbach, 2003). It was not until studies regarding genuine and false memories in undergraduate samples had provided clues about potential causes underlying recovered memories that research started focusing on people actually reporting memories of childhood sexual abuse (McNally, 2012).

Brewin and Andrews's (B&A; in press) practical message seems to be that expert witnesses should be wary when informing the legal arena about the scale on which full false memories might be induced. We would argue that this message is naïve: Even if one accepts 15% as an accurate higher bound estimate of the false memory base rate induced by mildly suggestive techniques in intelligent undergraduates, this percentage is alarmingly high. B&A stress that most paradigms elicit false beliefs rather than false memories and that, hence, the base rate of full false memories is lower than previously assumed. However, even if techniques such as the false feedback paradigm are more likely to elicit false beliefs than false memories, this is still perilous for legal settings. Evidence is accumulating that behavioural consequences are driven by beliefs and less by recollections (Bernstein, Scoboria, & Arnold, 2015). This suggests that a false belief of child sexual abuse might be sufficient to start a legal proceeding.

One other issue that should be considered is that expert witnesses may not be very good in determining whether a childhood memory that forms the basis for an allegation is false or accurate. After all, in terms of accompanying emotions and bodily signs, false memories might appear as genuine as true memories (e.g. McNally et al., 2004). Thus, all expert witnesses can do is point at the base rates of false memories in lab studies that used mild interventions and then compare these to the interventions that might have contributed to the memory of the event that is the focus of the court case. While there is an extensive literature on false memories in the lab—as the review by B&A nicely demonstrates—studies on the false memory potential of routine clinical interventions are conspicuously absent. What happens if—as is performed in eye movement desensitization and

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reprocessing—patients are encouraged to retrieve memories by providing them with the metaphor of memory as a perfectly recorded movie? What happens if—as is performed in schema-focused therapy—patients learn that their sense of who they are (their ‘self’) consists of early maladaptive schemas containing buried childhood memories? What happens when patients’ aversive memories undergo positive reinstatements? We do not know, simply because there is almost no scientific literature addressing these issues. Brewin (2015, p.21) recently advanced the idea that ‘psychotherapy creates new memories’. If true, legitimate follow-up questions would be whether and on what scale interventions create new memories that are false. What we do know is that therapeutic interventions sometimes harm people (Crawford et al., 2016; Lilienfeld, 2007), and that unlike pharmacological trials, psychotherapeutic trials seldomly record adverse side effects (Parry, Crawford, & Duggan, 2016). It is this absence of vital information that should be noted as an important limitation in court reports. Indeed, future studies in this field focusing on the false memory potential of routine clinical interventions in symptomatic individuals are urgently needed.

In sum, we argue that B&A’s review is selective in the studies and in the topics it addressed, and in doing so, sketches a picture that could lead researchers to incorrectly assume that outside the psychological lab, false memories have a low probability. That would be unfortunate, if only because it would neglect the realities of the courtroom in which false memories may wreak havoc in the lives of innocent people.

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