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The Limitations of our Knowledge About Social Influences on Memories of Sexual Abuse Over the Long-Term

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Abstract

Fagin, Cyr, and Hirst (2015) provide an informed and insightful application of the social memory literature to the important question of how memories of sexual abuse may be re-shaped, both over the short- and long-term, by communication with others, as well as with oneself. In the following commentary, we outline several respects in which we believe the application of this literature to memories of sexual abuse, particularly over the long-term, is still open to debate. In particular, we focus on induced forgetting and social contagion for such memories, as well as the application of the social memory literature to intrusive involuntary memories of trauma. Where applicable, we offer suggestions for future research that may contribute towards addressing the limitations of the existing literature

The Limitations of our Knowledge About Social Influences on Memories of Sexual Abuse Over the Long-Term

There is strong evidence that memories of emotional events, such as traumatic experiences, are usually very well remembered compared with more mundane events (McGaugh, 2003). Are there nonetheless ways in which such memories may be altered, or partly forgotten, as the result of social factors? This is the question addressed by Fagin, Cyr, and Hirst (2015) in their informed and insightful application of the social memory literature to the important question of how memories of sexual abuse may be re-shaped, both over the short- and long-term, by communication with others, as well as with oneself. Their review provides an invaluable primer on the topic. If there is a limitation to their paper, it is not a reflection of their own efforts, but of the consideration that they are constrained by the existing literature; in several respects, the application of this literature to memories of sexual abuse, particularly over the long-term, is still open to debate. Fagin and colleagues offer an opportunity, then, to address the limitations of the literature in this regard, with an eye towards the development – where possible – of research that addresses said limitations.

Induced Forgetting

Fagin and colleagues (2015) point to induced forgetting as one respect in which memories of sexual abuse can be altered by one's social environment. In particular, they invoke the twin phenomena of *retrieval-induced forgetting* (Anderson, Bjork, & Bjork, 1994) and *socially shared retrieval-induced forgetting* (SS-RIF; Cuc, Koppel, & Hirst, 2007). In retrieval-induced forgetting, the retrieval of a given memory leads to selective forgetting or reduced accessibility of related memories, compared to unrelated memories, in the individual performing the retrieval (we will henceforth refer to this as *within-individual retrieval-induced forgetting*, or WI-RIF, while using *retrieval-induced forgetting* more broadly to refer to both WI-RIF and SS-RIF); in SS-RIF, which represents an extension of WI-RIF to the social sphere, a speaker's discussion of a given memory induces the same pattern of forgetting in *another* person, that is, in a listener. Importantly for our purposes, the authors note that the memories of the speaker and listener do not have to be shared for SS-RIF to occur: Coman, Manier, and Hirst (2009) found that the discussion that unrelated, New York City-based participants had about their experiences of the terrorist attack of September 11, 2001 (9/11) led, on a recognition test, to slower reaction times in both speakers and listeners

for memories that were related to the discussed memories. Fagin and colleagues speculate that, similarly, if, for instance, a news report describing an incident of sexual assault includes some aspects of the assault and not others, this has the potential to induce forgetting, in those who have experienced sexual assault themselves, for some aspects of their abuse.

However, there are at least two respects in which the findings of the existent retrieval-induced forgetting literature may not hold for memories of sexual abuse over the long-term. The first limitation concerns the types of memories addressed. To be sure, WI-RIF and SS-RIF have been attained for wide range of memories. Of particular relevance here, they have each, again, been attained for personal experiences of 9/11 (Coman et al., 2009), and for both emotional and unemotional autobiographical memories (Stone, Barnier, Sutton, & Hirst, 2013). Also of note is Brown, Kramer, Romano, and Hirst's (2012) finding that combat veterans with post-traumatic stress disorder (PTSD) demonstrated greater WI-RIF and SS-RIF for both combat-related words and a combat-related story than did combat veterans without PTSD, as well as non-veterans. However, though these findings are suggestive that even trauma-related memories can be forgotten or rendered less accessible through retrieval-induced forgetting, and that trauma survivors with PTSD are particularly vulnerable to this induced forgetting in relation to their trauma, we would suggest caution in generalizing from studies on presumably non-traumatic autobiographical memories (e.g., Stone et al., 2013) or verbal material (e.g., Brown et al., 2012) to autobiographical memories of sexual abuse.

Additionally, a second limitation of the retrieval-induced forgetting literature concerns the duration of the forgetting involved, which is especially pertinent to Fagin and colleagues' (2015) discussion of the long-term effects of conversational influences on memory. It is worth keeping in mind, then, that the duration of the forgetting in both WI-RIF and SS-RIF remains an open question, even within laboratory-based studies employing verbal material. Although we are not aware of any SS-RIF studies that employed delays following retrieval practice beyond a single testing session, several WI-RIF studies have utilized delays of up to 24 hours or one week (e.g., MacLeod & Macrae, 2001; Storm, Bjork, & Bjork, 2012; Storm, Bjork, Bjork, & Nestojko, 2006). In these cases, it appears that forgetting is attained up to one week later if, prior to the final recall task, there is an initial recall task soon after the retrieval practice phase (Storm et al., 2006). However, in the absence of an intervening recall task, findings are mixed (MacLeod & Macrae, 2001; Storm et al., 2012).

If we apply these findings to the potential induction of WI-RIF or SS-RIF for memories of sexual abuse by talking about one's abuse, or by listening to descriptions of

others' abuse through interpersonal interactions or the media, this suggests that, unless individuals attempt to recall all aspects of their abuse soon afterwards, such retrieval-induced forgetting may be transient. However, Fagin and colleagues (2015) note that people may discuss the same event many times, likely often excluding the same aspects. We expect that holds for experiences of sexual abuse. Likewise, survivors of sexual abuse may be exposed to dozens of descriptions of others' sexual abuse over the years following their own assault, and these accounts may also exclude parallel aspects of the assaults. Similar to the increase in the inhibitory effects in the think-no-think paradigm over repeated trials (Anderson & Green, 2001), the cumulative effect of repeated exposure to potential sources of WI-RIF or SS-RIF may produce longer-lasting induced forgetting than has been consistently attained in laboratory designs. This speculation is supported, to an extent, by the attainment of slightly greater WI-RIF effects, though not to a statistically significant degree, when participants have received more rounds of retrieval practice. This has been found at both an immediate delay (Macrae & MacLeod, 1999) and a one-week delay (Storm et al., 2012). Taken together, these findings suggest that RIF may become stronger and/or more durable with repeated retrieval.

Fortunately, though, whereas the question of whether memories of sexual abuse in particular can be forgotten or rendered less accessible through retrieval-induced forgetting likely cannot be directly tested due to ethical concerns, the issue of whether retrieval-induced forgetting holds over the long-term is a tractable research question; so, too, is the question of whether repeated exposure to potential sources of retrieval-induced forgetting leads to more durable forgetting. These are two promising avenues, then, through which to pick up on the question of how WI-RIF and SS-RIF apply to memories of sexual abuse.

Social Contagion

A second respect in which Fagin and colleagues (2015) point out that memories of sexual abuse can be re-shaped by social influences is through *social contagion*, referring to the alteration of an existing memory or the implantation of an entirely new (i.e., false) memory. As the authors note, there is a rich literature on social contagion, which includes demonstrations of the implantation of entirely false autobiographical memories, even quasi-traumatic memories such as getting lost in a mall (for a review, see Loftus & Bernstein, 2005). However, while much of this literature concerns memory implantation through direct, misleading suggestions about one's own experiences (for an exception, see, e.g., Hart &

Schooler, 2006), social contagion through exposure to descriptions of others' sexual abuse would constitute memory implantation in the absence of any such direct suggestion.

This type of social contagion represents a less straightforward phenomenon. Fagin and colleagues (2015) note one pathway for its occurrence, namely, that hearing of someone else's sexual abuse can make the idea that one was also assaulted by the alleged abuser more plausible. Moreover, as Pezdek, Finger, and Hodge (1997) suggest, hearing of the sexual abuse of others may also more broadly increase the plausibility that one was likewise sexually abused. Given the importance of event plausibility in social contagion (Loftus & Berntsein, 2005), media reports of sexual abuse can therefore eventually lead to false recollections of abuse. However, while considering an event to be plausible can lead an individual to believe that he or she experienced the event, and may often represent a first step towards developing an elaborated false memory for it, event plausibility alone does not appear to be sufficient to create a false memory (Hart & Schooler, 2006; Loftus & Bernstein, 2005). Another research question which therefore arises from Fagin and colleagues' review, though, is whether there is a practical or functional distinction between believing that one was sexually abused, and possessing an actual memory for the abuse.

Intrusive Involuntary Memories

Individuals who have experienced traumatic events, such as sexual assaults, often have persistent intrusive memories of the trauma (American Psychiatric Association, 2013). Such memories typically arise in response to concrete, environmental cues that may overlap with features of the traumatic experience (e.g., Berntsen, 2015; Ehlers, Hackmann, & Michael, 2004). For example, a woman who had been sexually assaulted by her boyfriend had an intrusive memory of this event when participating in a crowded birthday party a few months later. In this context she involuntarily remembered: "What he looked like on that day when he came home, how he smelled of beer and smoke" (Berntsen, 2015; see Berntsen & Rubin, 2008, for more examples). As illustrated by this example, the exposure to relevant cues and the ensuing activation of the memories are to a large extent beyond the control of the person. Therefore, the retrieval of such involuntary memories follows somewhat different mechanisms than the public and goal-driven remembering addressed by Fagin and colleagues (2015) when describing socially-shaped forgetting.

As a consequence, even if social influences on memory, such as retrieval-induced forgetting, diminish access to the traumatic memory even after longer delays, it is likely that

involuntary intrusive remembering of the trauma would occasionally reactivate some of the forgotten or less accessible parts of the memory, provided that there is the presence of relevant cues in the ongoing situation (Berntsen, 2015). As a result, the involuntary intrusive memories may bring back perspectives on, and aspects of, the original traumatic experience that have been left out of the conversation. Such involuntary rehearsal would therefore help the abuse memory withstand socially motivated forms of forgetting. By the same dynamics, involuntary memories may invoke, or reinforce, a conflict or contradiction between the remembering of the group, and the spontaneous intrusive memories of the individual. From the perspective of the individual, this dynamic is a key to both distress and liberation.

Conclusions

In sum, we believe there is still considerable work to be done to further elucidate how induced forgetting and social contagion apply to memories of sexual abuse, particularly over the long-term, as well as the role of intrusive involuntary memories in sustaining memories of such events. Of the many virtues of Fagin and colleagues' (2015) review, then, among them is the consideration that their application of the social memory literature to memories of sexual abuse helps clarify the areas in which more research would be particularly helpful.

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