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RUNNING HEAD: Shaping Children's Memories

Forensic Consequences of Creating and Shaping Children's Memories

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How can we determine the veracity of a child's claim that they have been maltreated? Specifically, how can we tell whether that child's claim is based on an event that actually happened to them or is a (false) "memory" founded when having discussed whether such an event occurred with a significant other (e.g., their mother)? In their target article, Principe and London (2022) suggested that such discussions can have memory-altering effects on children's memory. If true, the judicial system needs to be able to have some sort of a litmus test in order to distinguish between these two types of "memories" prior to proceeding with legal action.

In this article, I discuss the very real problem of determining truth in memory. To begin, we know that all of memory in both children and adults is (re)constructive not reproductive. That is, regardless of whether memory has been interfered with intentionally or not, what is being remembered is at best partly a fragment of what actually happened and partly a fiction that "fills in the blanks" making the memory narrative consistent with our worldview (e.g., Conway & Howe, 2022; Howe, 2011).

That being said, even though memory is (re)constructive, this does not mean that memories cannot be a faithful representation of events that have happened to us (Zacks et al., 2022). That is, reconstructions of events can be reasonably accurate given that what gets reconstructed follows from a schema or internal representation that preserves the integrity of such events based on prior experiences. Memory accuracy can also be enhanced if these experiences, even traumatic ones, are repeatedly rehearsed¹ (e.g., see Wu et al., in press). Of course, not all memories, even ones for maltreatment, are maintained through rehearsal. In

¹ Of course, rehearsal itself can lead to the modification of memories. This is because the rehearsed memory, once reactivated, needs to be reconsolidated and this process can lead to the incorporation of new information into a revised or updated memory representation.

fact, many people try to avoid thinking about traumatic experiences, preferring instead to attempt to forget them. Although such attempts at forgetting are rarely successful, avoiding memories of such events can make them less accessible when attempting to remember them at a later time (e.g., see McNally, 2003).

Not only is memory (re)constructive, but memory illusions (false memories) can come to be believed as being memories for events that actually happened. Children, like adults, are susceptible to the development of false memories. However, there are some age differences in terms of how false memories can arise and these differences can be linked to changes in a person's knowledge base (for a recent review, see Howe & Otgaar, 2022). As the knowledge base develops as a function of day-to-day experience as well as formal learning, spontaneous false memories increase. These false memories arise because the processing of current information activates related but unpresented information in memory. Later, if the person fails to distinguish between the processed information and the spontaneously activated information, they can come to believe that all of the information was actually present during the original experience. As knowledge base development is frequently correlated with age in childhood, younger children are less susceptible to spontaneous false memories than older children and adults. However, children are perhaps more susceptible to false memories that occur through external suggestion or the presentation of misleading information. Thus, the primary concern with younger children is with this type of false memory induction, something that is more likely to occur when an authority or trusted figure (e.g., a parent) is the source of the suggestion or misleading information.

Having established that memories are generally (re)constructive, and that young children are susceptible to developing false memories when exposed to misleading information, the following question arises: Can we develop a technique by which we can determine which parts of a memory narrative are fundamentally correct, which parts are embellishments, or which memories are purely fictional. The simple answer is no, both in terms of cognitive-behavioral analysis as well as in terms of neurobiological differences (see Schacter & Loftus, 2013; Van de Ven, Otgaar, & Howe, 2018). From a behavioral point of view, true and false memories are often treated similarly by the person doing the remembering as they are convinced that their memories are representations of events that actually happened to them. From a neurobiological point of view, both true and false memories activate the same networks and cannot be reliably distinguished at a neural activation level. So here is the fundamental methodological problem: Unless we know the exact nature of the original event being remembered, and have a record of the experiencer's memory for the event at the time it happened, we cannot evaluate the veracity of a subsequent recollective narrative.

Because most of the time when we are evaluating memory narratives we do not know the nature of the original event, we have little or no way to evaluate its veracity. One way many attempt to get around this is to evaluate any source by which memory contamination could have occurred. We often accomplish this by examining external influences that may have affected the memory of the person recounting the (alleged) event – things such as obvious signs of suggestion from parents, peers, co-witnesses, or therapists as well as sources of

misinformation such as social media accounts of the event². Because the focus of this article is on contamination of children's memories by parents (in particular, mothers), in the rest of this paper, I will focus on two instances where court cases have arisen due to parental contamination of children's memories: One has to do with a case of possible "parental alienation syndrome" and the other has to do with a case of "false memory contagion" at a community level where charges ostensibly arose from children whose parents encouraged them to "remember events" that allegedly took place in their daycare.

Parental Alienation Syndrome³

Parental alienation syndrome frequently arises in child-custody cases where one parent (frequently the mother) attempts to obtain sole custody of the children or, at the very least, severely restrict the visitation rights of the other parent. This is achieved through attempts to denigrate the other parent to the children, often accusing the other parent of having abused the children, including accusations of emotional, physical, and sexual abuse. In some cases, the children come to adopt the accuser's claims, ostensibly believing that the alienated parent did commit such acts of abuse. This may also include the development of false memories for such abuse (e.g., Gardner, 2004; but see Shaw, 2019). When such cases end up in court, and children's memory serves as the primary (or only) evidence, it is difficult to know whether such

² Of course there can be other factors that we need to take into consideration including any signs of psychopathology. However, these factors are beyond the scope of this article.

³ Like false memory syndrome, whether parental alienation is an actual syndrome is controversial. For many, neither of these phenomena represents a syndrome in a medical sense but that false memories exist, as does parental alienation, is not in question.

abuse claims are based on events that actually happened or are based on events that have emerged from misleading suggestions that lead to the creation of a false memory.

If such accusations are based on a false memory, it is particularly egregious as the suggestion comes from a trusted authority figure (a parent), something that is known to make it much easier to implant a false memory. To illustrate, consider a divorce case that involved parental alienation in which I was asked to provide an expert opinion. This case arose in Family Court in which the mother was petitioning for divorce and sole custody of their children. As it turned out, in her bid for sole custody, the mother had led her children to believe that their father had both physically and sexually abused them. Both of the children had made claims to this effect in the courtroom, claims that were not investigated until during the trial itself. After the police had investigated these claims, the father was exonerated. The mother subsequently confessed that she had fabricated the abuse and coached the children so that they believed that their father had committed such atrocities.

Interestingly, my role in this case was not about the current development of false memories that arose through parental alienation. Rather, the father's attorney wanted me to opine about the development of future false memories in these children. Given that they had come to believe that he had abused them, but now knew that this was not true, was it still possible that sometime in the future his children could come to believe that the abuse actually did happen. Although we know a considerable amount about how false memories can be created, we know much less about how to prevent them from reoccurring in the future. It might be prudent to suggest that these children be reminded about what actually did happen from time to time, or at least have that information available for them if a question arises in the

future about the father's behavior in their earlier childhood. However, this question does provide a different perspective on the nature of false memory longevity, something that is worthy of scientific scrutiny.

That attempts at parental alienation can lead to parent-induced false memories is not in question. In this particular case, had it not been for the mother confessing that she had implanted memories of abuse in her children, we may never have been able to tell whether the children's narratives described events that actually happened or events that were entirely fictitious. Many court cases of this sort remain unresolved, particularly when forensic investigations of abuse allegations do not occur before the case comes to trial.

False Memory Contagion

Principe and London (2022) discuss the forensic cascade effects of mothers developing false beliefs about their child being abused. These false beliefs can lead to questioning their child about sexual abuse in an attempt to ascertain the truth of these beliefs. This questioning, in turn, can lead children to provide answers consistent with these beliefs, answers that can eventually lead the child to develop false memories of being abused.

This cascade problem can reach even more extreme levels when a number of parents within the same community hold similar false beliefs about their children. To illustrate, consider the Christchurch civic creche case (for an exhaustive account of this case, see Hood, 2019). The case begins on November 20, 1991 when the parent of one of the children attending the creche came forward with suspicions surrounding alleged abuse of their son by one of the teachers, Peter Ellis. In the course of this investigation, over 100 children were interviewed by sexual

abuse specialists. During a subsequent preliminary court hearing which began nearly a year later on November 2, 1992, Peter Ellis faced 45 charges of indecencies involving 20 children. A further 15 charges were eventually laid involving five children. These charges ranged from having inserted his finger, penis, needles, sticks, and food into the children's vaginas, mouths, and anuses to having urinated on them and making them eat his urine and feces. All of the witnesses were children whose age ranged from 6 to 9 years at trial (3 to 6 years at the time of the alleged offences). In the eventual court case that ensued, Peter Ellis faced 23 charges involving 13 children. On June 6, 1993 following 24 days of evidence and five days of summation and deliberation, Peter Ellis was found guilty on three counts of sexual violation, eight counts of indecent assault, and five counts of performing indecent acts. He was sentenced to 10 years in prison. Over a year later (in July 1994), one of the children who had been described by the prosecution at the time of the trial as being compelling and believable, retracted her allegations saying she had lied because she thought that was what her mother had wanted her to say (*R v Ellis* [1994] 12 CRNZ 172). The court of appeal quashed the three convictions based on her testimony but upheld the remaining 13 and left Peter Ellis' sentence as it was – he continued to maintain his innocence.

One of the most insidious aspects of this case is that the young child witnesses, all of whom were attending the same preschool, may have developed false memories of being abused following repeated questioning by their parents. This case, it is thought, involved a sort of contagion, or collaborative false memory, inasmuch as the parents and the children making these accusations were all involved in meetings and discussions about the preschool prior to forensic interviews of the children. In fact, across a number of different meetings, the parties

engaged in child-parent conversations, parental cross-talk, and peer-cross talk, all of which together with exposure to therapy, support groups, scene reconstruction techniques (e.g., through drawing, dolls, and toys), and sex education books, could have led to the development of children's false memories.

All of the parents involved in the case believed the children. In fact, some (but certainly not all) parents believed the children even when they described highly improbable events involving infanticide and cannibalism. These latter parents posted the following notice on their internet site:

Children who attended the Christchurch Civic Creche described bizarre sexual abuse with reference to frightening rituals. The children allege they were removed from the day care facility and transported to other locations, including a cemetery and a Masonic lodge, where they were abused by adults dressed in black and white and wearing masks. In addition to their reports of being used for pornographic purposes, the children described being abused within a circle; chanting and participating in mock marriages; being tied up and confined to cages and boxes buried beneath the ground; being penetrated with needles and sticks; witnessing the torture and killing of animals; being drugged; being forced to hurt other children; having blood poured over their heads; and consuming what they believed was human flesh (see Hood, 2019, p. 28).

Perhaps the most interesting thing about this case, unlike other similar daycare/preschool abuse cases, is that notes about the pre-interview meetings were available to investigators. Thus, investigators could have compared what was said in these meetings with what the children said in subsequent interviews as well as what was said in the courtroom. Although it is difficult to disentangle all of these effects in children's subsequent testimony in this case, it was argued (at trial, the appeal, and during a subsequent ministerial inquiry) that there was a correspondence between what parents and children discussed prior to the interviews and the content of what was contained in those forensic interviews and subsequent courtroom testimony. To the extent that the content of children's interview narratives was guided by prior discussions, and perhaps not by events that actually happened, the veracity of subsequent courtroom testimony could have been called into question and taken very seriously when rendering a judgement of guilt or innocence.

Like the parental alienation case, this case is perhaps quite unique because there is a record of what transpired between the children and their parents prior to the onset of forensic interviews with the children. Although there might not be a one-to-one correspondence between what was said in the parent-child conversations and what was said during the forensic interviews and courtroom testimony, investigators at least had the opportunity to evaluate the degree of association between two. Without this initial record, we would again be in the more typical position of not knowing whether children's testimony had been affected by prior conversations with one or both parents.

Conclusion

Because memory is (re)constructive, it is susceptible to error. Such errors, including false memories, can be dangerous in forensic settings as they can lead to false accusations and miscarriages of justice (for a review, see Howe et al., 2018). Like Principe and London (2022), I have focused on one critical factor that can lead to errors in forensic settings, namely, the contamination of children's memories due to parental influences. This is often difficult to detect and Principe and London (2022) offer a number of important ways forensic investigators can attempt to assess the influence of parents on what children remember.

As described in their article, there are many reasons why parents might come to believe that their child has been maltreated or perhaps even sexually abused. Such beliefs can lead to action including suggestive and misleading questioning of the child about the suspected abuse, questioning that could lead children to harbor false memories of abuse that has never really happened. The two instances I have described in this article exhibit the telltale signs of such false memories. In the parental alienation case, had the mother not confessed that she had created these events in her children's minds, we may never have known that their allegations were not based on true recollections. In the creche example, we know that at least one of the child witnesses was simply doing what she thought her mother wanted and that she was not actually sexually abused. We also have the availability of evidence concerning what parents and children discussed prior to their forensic interviews.

Tragically, in most cases, we do not have the luxury of this kind of hindsight. In the parental alienation case, the mother's admission or in the case of the creche, one child's recantation as well as access to some of the notes concerning what was said to the children by

parents (and others) prior to the children's forensic interviews. The steps recommended by Principe and London (2022) to examine the possibility of prior contamination of children's interview content by parents are not only sage, but are long overdue and will go a long way toward ameliorating this insidious problem when it comes to assessing the veracity of children's claims of being maltreated.

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