
**FAMOUS CASES FROM AMERICAN LAW INVOLVING THE IMPLANTATION
OF FALSE MEMORIES IN INDIVIDUALS WITH HIGH SUSCEPTIBILITY (PAUL
INGRAM CASE)**



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ABSTRACT

To this day, all of the research has been solely concentrated on the implantation of false memories for individual occurrences. The current experiment is the first proof of concept that false memories may be implanted utilising a modified false memory implantation paradigm for repeated autobiographical events. The experiment was carried out on a human subject. In comparison to the traditional way of implanting false memories for single occurrences, we hypothesised that false memories would be generated using false memory implantation techniques for repeated events to a lesser extent. Within the context of our research, we divided our participants into one of three implantation conditions: standard, repeated, or gradual. The participants were subjected to three separate interview sessions, with a one-week break in between each session. In the Standard condition, we presented participants with a single-event implantation strategy across all three interviews. This was done to control for any potential bias.

Keyword: implantation strategy, false memories, Standard condition,

INTRODUCTION

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Memory research is one of those areas in the field of psychology that has a direct bearing on real-world applications. Consider, for instance, those who are afflicted with Alzheimer's disease. The debilitating dysfunction that these individuals endure makes it painfully clear that our memories play an essential and central part in our day-to-day lives. Memory illusions, on the other hand, are a separate memory phenomena that has been brought to light in the field of memory research and likewise brings with it a huge amount of theoretical and practical ramifications. That is to say, individuals commonly assert that they recall aspects of an event or even the entire occurrence, despite the fact that none of these things actually took place. These fabricated recollections have the potential to have severe repercussions if they are brought up in the testimony of witnesses, victims, or suspects in court proceedings (Howe & Knott, 2015 ; Otgaar, De Ruiter, Howe, Hoetmer, & van Reekum, in press). A person, for instance, could have a distorted recollection of being sexually assaulted as a child, and this memory illusion might lead to false charges, which might end in unjust convictions. Another possibility is that a person might not recall the abuse at all. There has been a multitude of research done to investigate the formation of false memories as well as the elements that contribute to their continued existence. This is mostly due to the potential legal ramifications that such false memories may have. Methods that have been used to experimentally induce false memories in the laboratory range from those that have strict experimental control to those that mimic situations that occur in clinical and legal practises. Across these studies, there exists a wide variety of methods that have been used to experimentally induce false memories in the laboratory. In this chapter, we present a description of several false memory techniques that memory researchers have used to explore the phenomena of false memories.

These procedures have been utilised by memory researchers to study false memories. We will also demonstrate that recent discoveries have taught us that at least for some of these procedures, what is actually created is a false belief rather than a false memory, despite the fact that some of these procedures were designed to promote the formation of false memory. This is something that we will demonstrate. Before going into detail about the various techniques for creating a false memory, we will first discuss the impetus that prompted researchers to begin conducting experiments into the phenomena of memory illusions.

Think of a woman who has been going to therapy for many years because she has trouble trusting men; she suffers from panic attacks; she has a very distant relationship with her father; and she suffers from disturbing nightmares. This will help illustrate the practical

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relevance of the topic by giving you an example of someone who is going through this. During the course of that therapy, at some time, she "recovers" some hazy recollections of her father abusing her when she was a little child. As a direct result of her decision, she severs all ties with her biological family. Is it possible that she has just reconstructed memories to fit in with her present-day ideas and emotions, as opposed to actually recovering old memories that she had previously lost? The literature on self-help for victims of abuse is quite straightforward. For example, "You must believe that your client was sexually assaulted, even if she herself occasionally questions that it happened."... Abuse is not a new concept. Nobody can ever make up for having been mistreated, not even children or women... (From the original German, taken from Bass and Davis, 1992, page 324) But what do memory specialists have to say? Are it possible that recommendations might cause people to form misleading recollections of their early childhood? How is it possible to bring back such memories? And how exactly do different theories of memory account for this phenomenon? And last, what kind of real-world ramifications does it have for scenarios like the one that was just given as an example? Because false memories are primarily phenomena, we begin our review of the literature on false memories (for others, see Koriat, Goldsmith, & Pansky, 2000; Schacter, 1999) with a description of the range of phenomena that are discussed under this topic. Astonishing findings are the focus of our discussion because false memories are primarily phenomena.

Social scientists and legal practitioners have long held the suspicion that suggestive forensic questioning procedures are a key contributor to inaccurate eyewitness evidence. On the other hand, it wasn't until Elizabeth Loftus published a highly influential series of studies on eyewitness suggestibility in the 1970s that a systematic body of scientific literature on this topic started to emerge. Loftus's studies are credited with starting the field of eyewitness suggestibility research. Since that time, a large number of empirical studies on the suggestibility of eyewitnesses have been published, and each one of them is a variation on the fundamental experimental paradigm that Loftus devised. At the beginning of the 1970s, practically all research and theory concerning memory was focused on examinations of people's abilities to remember lists of words or sentences (see, e.g., Crowder, 1976). Loftus demonstrated that it was possible to conduct well-controlled experiments that were high in ecological validity by studying memory for complex, fast-moving, and forensically relevant events (typically depicted in film clips or slide shows). This allowed him to demonstrate that it was possible to study memory (Banaji & Crowder, 1989). Her investigations produced

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undeniable proof that suggestive interviews may lead to major inaccuracies in eyewitness testimony, which in turn raised serious doubts regarding the trustworthiness of memory as well as eyewitness testimony. Her work demonstrated that judicial decision-making may be informed by scientific studies on memory and suggestibility, and that this should be the case. In addition, her discoveries sparked several theoretical arguments concerning the constructivist nature of memory, the mechanics of forgetting, and the enduring nature of memories. Eyewitnesses can be led to report items and events that they did not actually see if they are exposed to misleading post-event information. In this chapter, we will examine the empirical evidence and theoretical proposals that have been put forward to account for this phenomenon, which is referred to as the misinformation effect.

Memory for aggression, false memory, and false confessions are all subfields of applied cognitive psychology, and this study combines the theories, methodologies, and applications from all three of those subfields. Although these subfields are closely related to one another, they do not typically interact with one another. In the current investigation, we transcend these boundaries in order to connect together significant overlapping regions from a variety of subfields. The study of aggressive cognition has shown that people who engage in aggressive conduct have specific thinking patterns. These thought patterns are likely to influence their behaviour in violent circumstances as well as their memory of having engaged in aggressive behaviour in the past. The study of false memories has shown that it is frequently trivially easy to implant false memories (or for people to develop their own) for a range of autobiographical experiences. Research into false memories has shown this. And research on false confessions, in particular internalised false confessions, has proven that people occasionally confess to actions that they did not do. In the current study, we investigated whether it would be possible to implant false memories for overtly aggressive acts without any of the complex context or evidence that is typically used in research on false confessions. Specifically, we wanted to determine whether or not it would be possible to do this. In addition to this, one of the questions that we wished to answer was whether or not hostile people are more inclined to fabricate their recollections. This propensity, if it is real, would be a significant concern because it could make aggressive individuals (who may be vulnerable to arrest because of their aggressive tendencies) particularly likely to make internalised false confessions and, as a result, put themselves at risk of being wrongfully convicted.

FALSE MEMORIES

One line of investigation has demonstrated that it is possible, after being exposed to varying degrees and types of suggestion, for a person to start thinking that they have experienced full events that they have not, in fact, experienced (e.g., Loftus & Pickrell, 1995; Thomas & Loftus, 2002; Wade, Garry, Read, & Lindsay, 2002). Although the need to explain traumatic but evidently inaccurate memories that were appearing in courtrooms in the 1980s initially motivated most false memory research (Loftus, 2007; Loftus & Ketcham 1994), most false memory research has since dealt with more mundane events, largely for ethical reasons (Bernstein, Laney, Morris, & Loftus, 2005; Wade et al., 2002). The fabrication of emotionally charged false memories has been a tangential but persistent motif throughout this story (Heaps & Nash, 1999; Laney & Loftus, 2008; Loftus & Pickrell, 1995; Porter, Yuille, & Lehman, 1999). In specifically, the research that this study is most closely based on was a study that was aimed to compare real and false memories for emotionally significant experiences that occurred in childhood. This study (Laney & Loftus, 2008) used the false feedback paradigm (Bernstein et al., 2005) to give some subjects false memories of being hospitalised overnight, catching their parents having sex, or witnessing a violent fight between their parents. Laney and Loftus found that these false memories were more likely to be retained than the true memories. After that, these fake memories were contrasted with the real memories that other participants had of the identical events on a number of dimensions, with a particular emphasis placed on the emotional content of the recollections. On the whole, researchers were unable to differentiate between genuine and fabricated memories in terms of the emotions they evoked. Therefore, contrary to what may be assumed by those who have been entrusted with determining whether or not a memory is accurate, the degree to which an individual expresses their emotions is not a reliable indicator of whether or not a memory is accurate. To this day, implanted autobiographical experiences that are most comparable to crimes that take place in the actual world have a tendency to position participants in the role of victim. This places participants as the passive recipient of some experience (for example being lost or attacked by an animal; Loftus & Pickrell, 1995; Porter et al., 1999). To put it another way, the purpose of these research was not to investigate the possibility of having a false recollection of being the aggressor or to compare the rates of having a false memory of being the victim to those of being the aggressor. In the research on false confessions, however, we do find examples of fabricated recollections of non-criminal behaviours.

REVIEW OF LITERATURE

M. L. Howe, Mark (2018) The fabrication of false memories can have significant repercussions in the judicial system, including the wrongful incarceration of innocent individuals. In the United States, erroneous memories held by eyewitnesses are the primary contributor to cases of justice being administered incorrectly. No research has been done on the subject of false memories and their potential impact on the Chinese judicial system as of yet. The goals of this study are to (1) provide a concise summary of the most recent results on false memory and eyewitness testimony in the existing body of research, and (2) give some insight on the potential ways in which the Chinese judicial system may put these experiences into effect. In general, false recollections of eyewitnesses are created either by external misleading information or by internal cognitive processes. False memories may drive police investigations in the wrong direction or cause eyewitnesses to incorrectly identify an innocent person as the offender. We come to the conclusion that specifically developed interview techniques, such as the Cognitive Interview, eyewitness cautions, and the use of blind lineups, have the potential to minimise or reduce the occurrence of false memories.

Cara Laney (2013) Is it possible for people to create false memories of engaging in aggressive behaviour? What parallels may be seen between this process and the formation of false memories of victimhood? In the current study, we employed a straightforward process called false feedback to implant fake memories of either perpetrating violent behaviours (such as giving someone a black eye or spreading spiteful rumour) or being the victim of such acts (receiving a black eye). After that, we compared these fake recollections to the real memories that other patients had for comparable occurrences. It was far too simple to plant fictitious memories of aggressive behaviour, in particular within the psyches of those who had a tendency toward violent behaviour. After being implanted, the fake memories were indistinguishable from real memories of the identical events, on several dimensions, including the emotional content of those recollections. The implications of this finding for memory linked to aggressiveness more broadly as well as for false admissions are examined.

Henry Otgaar (2018) Is it possible to imprint a memory of an incident that a youngster has never really lived through? Even if the specified occurrence is said to have occurred to them on several occasions? The formation of fabricated memories in youngsters is the topic of discussion in this particular piece of writing. In the first part of this lesson, we are going to talk about a court case that involves children who lied about remembering been assaulted on

many occasions. After that, we will talk about the primary approach used to investigate the construction of false memories for an entire event in the lives of children (implantation paradigm). Studies on the formation of children's false memories for repeated occurrences are reviewed here in order to provide an explanation for how children's false memories for repeated events can be developed. Our discussion will come to a close with an explanation of how these findings might be interpreted with reference to a significant false memory framework known as fuzzy trace theory. We also provide a concise explanation of the detrimental effects that these cases have on the lives of victims and their families, as well as the obligation that falls on practitioners who are in charge of cases in general. Children, the implantation paradigm, false memories, and the McMartin preschool are some of the key terms in this study.

RESEARCH METHODOLOGY

On the Open Science Framework, we have already preregistered the procedures and materials that will be used in this study (OSF). Because our initial registration was not sufficiently detailed about the statistical approach to testing the predictions, we updated it before the data collection was finished and before we analysed the data. This allowed us to offer better-specified hypotheses and the corresponding statistical tests. Both the randomization processes and the data coding procedures needed to be updated, which resulted in the creation of two extra registrations. This allowed for the rebalancing of the groups following the data exclusions. These revisions were made before the data analysis was performed. This page contains all of the aforementioned information in addition to other relevant items.

PARTICIPANTS

We made the decision in advance that we would continue to recruit participants until we reached our goal sample size of $N = 120$ individuals who provided data that could be used. This objective was established on the basis of what we deemed to be achievable in light of the time and resources at our disposal. In addition, to the best of our knowledge, the present study makes use of the biggest sample size that has ever been reported in the research on false memory implantation (see Table A1). A sensitivity analysis revealed that this sample size provides .80 power to detect effects of $f^2 = .03$ ($d = .32$), assuming a conventional alpha level of .05. This was based on the fact that each participant had three measurements taken of them, which resulted in $N = 360$ observations. In order to do this computation, we relied on the pwr package that is available for R (Champely, 2018). (R Core Team, 2018).

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We were able to enlist the participation of 245 students in total, comprised of those attending one of the institutions involved in this project as well as those attending a Music Conservatorium in the Netherlands. Our participants hailed from a wide range of nations and ranged in age from 18 to 36 years old. Participants were disqualified if it was discovered that they (1) had been exposed to our false narrative (this was confirmed with the participants' parents); (2) did not fall within the age range of 18-36 years old (this was determined by our prescreening demographic questionnaire); (3) were not currently enrolled in the third year of the psychology bachelor's, master's, or doctorate programmes at University X (also determined by our prescreening demographic questionnaire); or (4) had discussed the study with their family and friends (this was checked via email with participants in the prescreening phase). In addition, the parents of some of our participants did not supply any childhood tales for those individuals, which rendered it impossible for those participants to continue taking part in the study. Because some of the participants did not respond to our emails requesting that they arrange their interview sessions, we were unable to include them in the research.

A total of 125 individuals were disqualified from the study. These individuals were eliminated from the study at the prescreening phase, with the exception of one participant. One participant stood out from the rest of the group because he revealed to us during the testing phase that his roommate had also taken part in our research and had revealed to him the true purpose of the project. These exclusion criteria were in place to ensure that (1) the suggested narrative was, in fact, a false narrative for each participant, (2) the suggested narrative would have taken place at a reasonably similar amount of time in the past for each participant, (3) the participants were less likely to have received relevant education about false memory phenomena, (4) the participants did not discover that the suggested narrative was false during the testing period, and (5) the participants were not aware that the suggested narrative was false during the testing period. Moreover, the participants were excluded from the study. Following the completion of the selection process, the final sample size was $N = 120$ individuals. At the conclusion of the final interview session, participants were given either an academic credit voucher in the amount of €15 or a cash prize for their participation. The permanent ethics committee of University X gave its approval to proceed with this project.

DESIGN

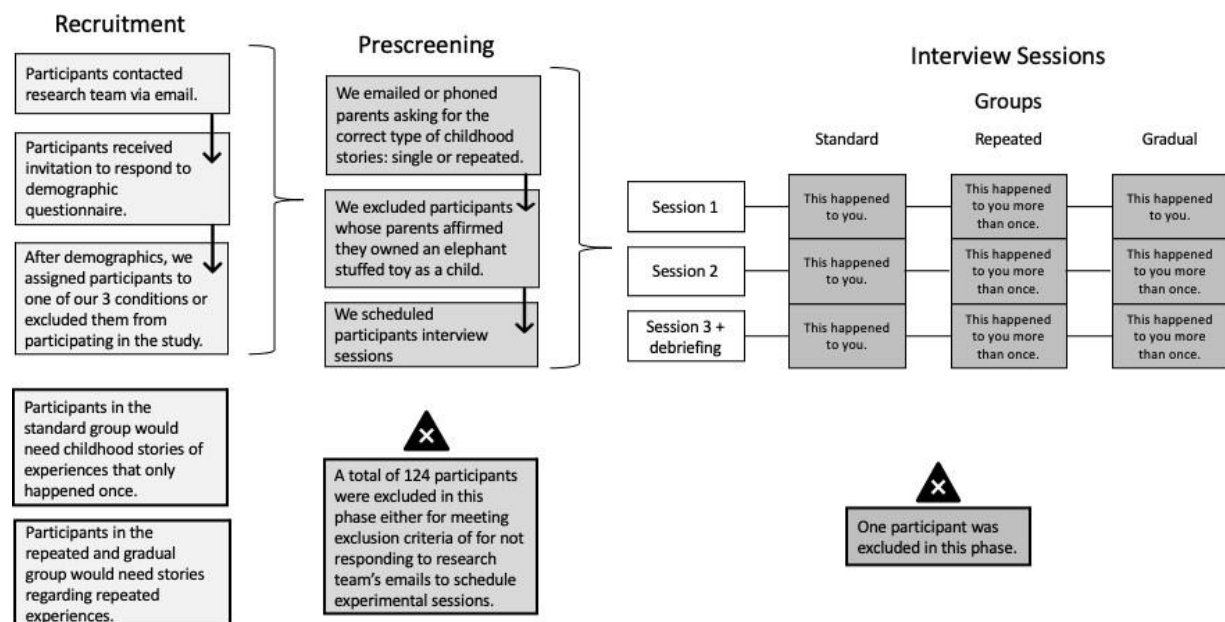
We conducted our research using a mixed design that consisted of a 3 (Implantation Method: Standard, Repeated, and Gradual; across participants) x 3 (Time: Interview 1, Interview 2, Interview 3; within subjects) configuration. All of the participants were given a random assignment to one of the three separate groups (the Standard group had 40 people, the Repeated group had 41 people, and the Gradual group had 39 people). Participants in the Standard and Repeated groups were told by the interviewer on a consistent basis, from the first to the third interview session, that they had experienced the false narrative (and their true experiences) in a given fixed frequency, either once or more than once. This information was relayed to the participants in the Standard and Repeated groups throughout the entirety of the study. The participants in the Gradual group heard in the first interview session that the false narrative (and true experiences) had occurred to them once. However, in the second and third interview sessions, the interviewer suggested that all childhood stories (false narrative included) had actually occurred more than once. This was the case even though the participants in the Gradual group had heard in the first interview session that the false narrative (and true experiences) had occurred to them once.

PROCEDURE

A graphical representation of the steps may be seen in Figure 3.1. We called our research project "Childhood Memories," and in our promotional materials, we explained that we were curious about the extent to which people could recall details from their formative years. Students who contacted us through email to express an interest in taking part in our research were provided with a link to a demographic survey that was administered online. Following the collection of their demographic information, we used a random assignment method to place them in one of the three different experimental situations. Because the screening process was different for each condition, randomization was required for this point in the process. In particular, we reached out to the families of the participants in order to obtain either anecdotes about childhood events that occurred just once (for the Standard situation) or on several occasions (for the Repeated and Gradual conditions). We contacted the family member that the participants nominated in their demographic questionnaire via email or phone in order to collect true stories from the participants' childhoods and to check whether or not our false narrative had happened to them. Our goal was to determine whether or not our false narrative had in fact happened to the participants. Individuals named their parents in

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97.5% of the cases; one person named both their brother and mother; and two participants named both of their sisters.



Experimental Procedure

The eight interviewers for this study were students at University X who were pursuing master's degrees in either forensic psychology or legal psychology. These students were working on our project as part of their master's thesis requirements. They had been briefed on all of the assumptions and the methodology behind the experiment for this reason. They were given training that lasted for a total of forty hours and was spaced out over a period of two weeks. This training allowed them to get familiar with the interview script, which should be adhered to in a stringent manner to prevent excessive variances between interviewers. After receiving training, the interviewers were able to conduct interviews with participants from all three experimental groups.

There was a one-week break between each of the three interview sessions that each participant attended. Each session consisted of an interview that was audio recorded. At the conclusion of the third session, we engaged in some debriefing activities. During the course of the interview sessions, the experimenter revealed to the participant that their parents had mentioned to us that all of the events described in the narratives had occurred in the participant's life between the ages of 5 and 10 years old. In each of the three interviews, the childhood tales were related in the following sequence: (1) a true story, (2) another real story, (3) an untrue story, and (4) another true story. To be more specific, when it came to the fake

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tale that had only occurred once, we informed the participants the following: "So, your mother told us that when you were a youngster, you lost one of your favourite snuggling toys." You had a strong fondness for the elephant in question. Your mother claims that it was very difficult for you to lose this item, and that you felt highly upset and wept a lot as a result of it. Please share any recollections you have regarding this occasion. For the scenarios when the event occurred more than once, we told the participants, "So, your mom told us that when you were a youngster, it happened to you more than once that you lost one of your favourite snuggling toys." You had a strong fondness for the elephant in question. Your mother claims that it was very difficult for you to lose this item, and that you felt highly upset and wept a lot as a result of it. You had this occurrence more than once. Tell me the thing that stands out the most to you about the occasions that this has happened. In this particular instance, we make reference to the participant's mother; however, this was modified in accordance with the member of the participant's family that they had mentioned to us.

DATA ANALYSIS AND RESULT

Due to the sheer volume and breadth of the data that was generated by the current investigation, we will begin with a concise narrative explanation of the findings, and then go on to more formal statistical analysis. Using the participants' coded comments that they supplied during the interviews, we may offer a concise summary by saying that we can evaluate the construction of false memories. In the Standard condition, 25.64% (10/39) of the subjects offered a statement that was categorised as a false recollection in at least one of the three interviews. These statements ranged from being partial to being complete to being robust. It would appear that a non-trivial proportion of individuals had fabricated memories in regard to the proposed incident as a result of this. Nevertheless, contrary to our predictions, this rate was significantly lower than the total rate that was discovered in the literature (see below; Scoboria et al, 2017).

34.14% of participants (14/41) in the Repeated condition developed false memories (according to this operationalization), and of those, 14.28% (2/14) offered more than one such remark within a single interview, which indicates false recollections for repeated occurrences. In a manner analogous to the previous instance, 36.84% (14/38) of the participants in the Gradual condition generated false memories, and of those, 28.57% (4/14) formed false memories for repeated experiences. Contrary to our presumptions and despite the fact that the rate of false memory creation for repeated events was much lower than the

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overall rate of false memory formation, implying that the target event occurred more than once did not lower the overall rate of false memory formation. These findings are supported by the self-reporting done by the participants in the study.

In the Standard condition, 76.92% (30/39) of participants offered at least one statement suggesting acceptance of a false memory for the suggested event. This indicates that participants were willing to accept that the memory was false. According to this metric, individuals in the Repeated condition (75.61%, 31/41) and the Gradual condition (81.57%, 31/38) accepted at least one occasion of the recommended event at comparable rates. There was a significant minority of participants in both the Repeated (24.39%, 10/41) and Gradual (36.84%, 14/38) conditions who provided more than one statement within a single interview that indicated at least acceptance of the event. This indicates that participants may have held false beliefs regarding repeated events.

To summarise, suggesting that the false event happened repeatedly (either from the beginning of the interviews or gradually) led to some participants believing and/or remembering that they experienced the event several times. However, this did not lead to a reduction in the overall rate of false memory formation, as we had anticipated it would. The current study reveals that it is possible to implant false memories for events that have occurred several times.

COMPARISON TO PAST IMPLANTATION STUDIES

In the current experiment, we looked at the Standard condition, which is analogous to the implantation strategy used in all of the previous investigations that were described in Scoboria et al (2017). For the purpose of this comparison, we tallied the number of individuals who offered a report during any of the interview sessions that satisfied the criteria of having a partial, complete, or strong false memory. In this experiment's Standard condition ($n = 39$), 25% (10) of participants developed false memories, and 77% accepted the false story as real, according to the researcher evaluation. The number of participants who produced false memories was measured. The standard for false memory in the scientific literature is 46%, although the rates of false remembering were lower than that ($N = 423$; Scoboria et al., 2017), $\chi^2(1, N = 462) = 5.92$, $\phi = 0.12$, $p = .01$. In terms of false belief rates, there was a marginal difference that was not statistically significant between the literature benchmark of 69% and the current trial ($N = 423$; Scoboria et al., 2017), $\chi^2(1, N = 462) = 1.11$, $\phi = 0.04$, $p = .30$.

RESEARCHER RATINGS

The interviews of two participants, one in the Standard condition and one in the Gradual condition, could not be coded because the audio files they used were corrupted. Therefore, the following group sizes were accessible for the coding process: The standard n value is 39, the repeated n value is 41, and the gradual n value is 38.

Participants who were randomly assigned to the Single condition (n = 39) each reported three measures of belief and three measures of remembrance (one in each of the three Interviews). Each participant in the Repeated condition (n = 41) handed in nine measures related to their belief and nine related to their remembrance (three incidents in each of three interviews). The Gradual condition participants (n = 41) each reported seven measures of belief and seven measures of remembrance (one incident in Interview 1 and three incidents in Interviews 2 and 3).

DESCRIPTIVE ANALYSIS

The descriptive findings of the researcher ratings for each participant measurement are shown below. The table provides a count of the cases that belong to each category, as well as the percentages of the overall number of cases that belong to each implantation category, which are included in parentheses. The gradual formation of erroneous memories by implantation with the passage of time (interview sessions 1, 2, and 3). In this section, we can see the grade that the researcher assigned to each of the three potential occurrences of the false story that occurred during the course of the three interview sessions. These findings demonstrate that by the third and final interview session, a sizeable proportion of false memories fall into the category of "Accepted False Memory" (in the Standard condition, 38% of false memories, in the Repeated condition, 22% of false memories, and in the Gradual condition, 26%). The categories of "Partial Erroneous Memory," "Full False Memory," and "Robust False Memory" each contain a lesser proportion of the total number of false memories. In addition, 25% of participants in the Repeated group and 34% of participants in the Gradual group described two or more occurrences of the false narrative that, according to the researcher rating, were placed in either the "Accepted False Memory" category or the "Robust False Memory" category. Both of these categories were referred to as "Accepted False Memory" and "Robust False Memory," respectively.

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We are able to view the whole report for each participant who provided a description of two or more false events that the researcher categorised as Accepted, Partial, Full, or Robust false memories. There are several distinct "evolutionary" processes associated with false recollections. As can be seen in Table C3, a few of the participants' responses gave the impression that the vividness of their fake recollections was fading with passing time. For instance, the researcher found that during the initial interview, participant 2 in the Repeated condition provided verbal information that matched a Robust false memory categorization. This was determined by the researcher. For the other hand, the research regarded the information presented to match with the Accepted false memory category on participant 2's second and third interviews. This category is lower than the Robust false memory categorization in terms of the amount of erroneous information it contains. It is not our intention to entirely ascribe a rationale for the method in which participants decided to transmit their recollections; yet, it is plausible that individuals avoided redundancy in the comments that they made. For example, participant 2 mentions the event in their third interview and adds, "I remember it. In my opinion, the clarity is rather poor. Like I mentioned last week. I can vividly remember my mother telling me about the missing elephant when I was little."

CONCLUSION

The current experiment provides the first demonstration that false memories for repeated autobiographical events can be implanted under certain circumstances, in much the same way that false memories for single events can be implanted. This is significant because false memories for single events have been shown to be implantable. Furthermore, if our findings can be extrapolated to recurrent victimisation, then false memories for repeated incidents might have a profound influence on people's life. This is especially the case when such false memories answer crucial concerns that an individual has about themselves (e.g., why one is experiencing depression or anxiety). Memory distortions may have serious consequences when brought into the courts. These consequences can last for years and cause the persons concerned a great deal of mental anguish, and they can even lead to the wrongful conviction and incarceration of an innocent person. Although the extent to which false memories for repeated events play a role in the legal system is impossible to estimate based on the results of our experiment, the potential repercussions of these false memories are significant, and they are a psychological phenomenon that deserves more attention and study in the future.

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We have provided an overview of the primary techniques that are utilised in the laboratory to implant fake memories. We have shown that several of these strategies employ some type of suggestion in order to promote false memories, whilst other methods depend on the spontaneous development of false memories based on fundamental memory mechanisms such as spreading activation. We have demonstrated that many of these approaches were developed in response to legal concerns over the veracity of eyewitness evidence. As a result, these methods reflect real-life scenarios, including those that are relevant to legal contexts. In addition, the approaches that elicit suggestion-induced false memories or spontaneous false memories both have importance in the field of law since both types of false memories might occur in a single unique instance. That is to say, a small child may all of a sudden come up with a declaration of having been mistreated after being suggestively probed by his or her mother about what may or may not have occurred. These kinds of examples are fairly typical in situations involving the sexual abuse of children, which highlights how important it is to investigate the many ways in which false memories can be created. Researchers and forensic investigators have a better understanding of the significance of memory in the legal system as well as the processes that might result in the production of erroneous recollections as a direct result of this practise.

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