Creating False Memories for Crimes

Is it possible to create rich, detailed false memories. Even for having committed a felony? Yes.

Constructing rich false memories of committing crime
Shaw & Porter, 2015

This is the first study to provide evidence suggesting that full episodic false memories of committing crime can be generated in a controlled experimental setting. With suggestive memory retrieval techniques, participants were induced to generate criminal and noncriminal emotional false memories, and researchers compared these false memories with true memories of emotional events. After three interviews, 70% of participants were classified as having false memories of committing a crime (theft, assault, or assault with a weapon) that led to police contact in early adolescence and volunteered a detailed false account. These reported false memories of crime were similar to false memories of noncriminal events and to true memory accounts, having the same kinds of complex descriptive and multisensory components. It appears that in the context of a highly suggestive interview, people can quite readily generate rich false memories of committing crime.

- Seventy students met the participation criteria, and the first 60 eligible students participated in the interview stage (Phase 2) in exchange for $50.
- A questionnaire was sent to subjects' primary caregivers. The questionnaires were returned by the caregivers of 91 participants, of whom 70 were deemed eligible to participate.
- Eligibility was based on the caregiver reporting that the participant had experienced at least one highly emotional event in the specified time frame, had not experienced any of the target criminal events, and had never had police contact.
- Researchers instructed caregivers to not discuss any of the events with the participants under any circumstances until the end of the study.
- Researchers used a modified familial-informant false narrative paradigm to attempt to convince young adult participants that they had committed a crime when they were between the ages of 11 and 14.
- In Phase 2 of the study, participants completed three interviews, at approximately 1-week intervals. The interviews were on average around 40 min long.
- Subjects were asked about both a true and the false memory in each of the three interviews.
- Researchers questioned each subject about one event the participant had experienced (true event) and one that the participant had not experienced (false event. The true event was always presented first in an effort to maximize the researcher's credibility.
- For implanting the false memories, strategies were employed throughout all the interviews based on literature regarding factors that facilitate the generation of false confessions (e.g., Kassin et al., 2012). The tactics that were scripted into all three interviews included incontrovertible false evidence ("*In the questionnaire, your parents/caregivers said. . .*"), social pressure ("*Most people are able to retrieve lost memories if they try hard enough*"), and suggestive retrieval techniques (including the scripted guided imagery).
- By the end of the study 70% were classified as having false memories of being involved in the criminal event resulting in police contact.
- Participants were as willing to accept false criminal accounts as they were to accept false noncriminal accounts
- Participants reported significantly more event details for true than for false memories, had more confidence in true than in false memories, and reported that their true memories were more vivid than their false memories.

- T-tests revealed that for participants classified as having false memories, there were no significant differences between the true and false memories in the number of cognitive-operations details, reported anxiety during the event, or the presence of any of the sensory components.
- Not only could the young adults in the study be led to generate false memories, but their rate of false recollection was high, and the memories themselves were richly detailed. Additionally, false memories for perpetrating crime showed signs that they may have been generated in a way that is similar to the way in which false memories for noncriminal emotional memories are generated. False memories for committing crime also shared many characteristics with true memories.
- The results align with the literature suggesting that exposure to misinformation provided by interviewers can lead to major distortions in memory (Morgan et al., 2013), and that malleable reconstructive mechanisms may be fundamental to episodic remembering
- *Fuzzy trace theory* (Brainerd & Reyna, 2002), proposes that a memory may be retrieved not by accessing a fixed representation of a past event, but rather by reactivating incomplete fragments that can be either distorted or accurate, and that may have arisen from other real events. This implies that false memories may actually be recalled in a way that is surprisingly similar to how memories for real events are retrieved.
- True and false memories have many similar features - including being highly detailed and multisensory. These results are also in line with neuroimaging research showing that true and false memories evoke similar brain activation patterns (Stark et al., 2010), and that even highly emotional content may not reliably indicate memory accuracy.
- The relevance of imagination for false memories may be partially explained by the *source-monitoring framework* (e.g., Johnson, Hashtroudi, & Lindsay, 1993), which refers to people's tendency to confuse imagination with reality. Individuals who are recalling details from a visualization exercise or experimenter misinformation can forget the source of their ideas and may think they are recalling details from a genuine experience.
- In particular, it has been shown that *forced-fabrication paradigms*, such as the one used in this study, lead participants to incorporate causally relevant misinformation into memory over time so as to help make sense of events that participants accept or believe happened but cannot remember (e.g., Chrobak & Zaragoza, 2008). In other words, imagined memory elements regarding what something could have been like can turn into elements of what it would have been like, which can then become elements of what it was like.
- This plausibility shift has been supported by the work of Mazzoni, Loftus, and Kirsch (2001), who suggested that perceived plausibility needs to pass only a relatively low threshold in order for a personalized manipulation to produce changes in belief that may then be incorporated into memory.

Corrigendum: Constructing rich false memories of committing crime

Shaw & Porter, 2015

This was a correction published by Shaw and Porter shortly after their study had been published.

Main Findings

Only one finding of interest in the original article was nonsignificant in the corrected analysis: The article reported that *"participants were found to be significantly more likely to report adopting multiple perspectives (i.e., being able to see themselves in the memory as well as to see things from their own perspective) in the true than in the false memory"* (pp. 297–298); however, as shown in Table 1, that difference was not significant in the corrected analysis. Other changes of note include the following. The mean number of total details recalled for false memories was 64.95 (not 71.76). This was because incorrect cells

were included in the original calculation of the details for participants told they had committed assault and assault with a weapon. The mean number of details recalled for assault was 66.25 (not 75.63), and the mean number of details recalled for assault with a weapon was 62.29 (not 71.29).

False Memories of Fabricated Political Events
Steven J. Frenda (2013)
Journal of Experimental Social Psychology. Volume 49, Issue 2, March 2013, Pages 280-286

In the largest false memory study to date, 5,269 participants were asked about their memories for three true and one of five fabricated political events. Each fabricated event was accompanied by a photographic image purportedly depicting that event. Approximately half the participants falsely remembered that the false event happened, with 27% remembering that they saw the events happen on the news. Political orientation appeared to influence the formation of false memories, with conservatives more likely to falsely remember seeing Barack Obama shaking hands with the president of Iran, and liberals more likely to remember George W. Bush vacationing with a baseball celebrity during the Hurricane Katrina disaster. A follow-up study supported the explanation that events are more easily implanted in memory when they are congruent with a person's preexisting attitudes and evaluations, in part because attitude-congruent false events promote feelings of recognition and familiarity, which in turn interfere with source attributions

- Over 5,000 subjects were asked if they remembered fabricated political events.
- About half of the sample showed evidence of memory distortion.
- Political preferences appeared to guide the formation of false memories.
- Suggestions that are congruent with prior attitudes and evaluations can produce feelings of familiarity and recognition.
- These can in turn bias source judgments, leading to false memories

Misinformation can influence memory for recently experienced, highly stressful events
C.A. Morgan III (2013).
International Journal of Law and Psychiatry. Volume 36, Issue 1, January–February 2013, Pages 11-17

A large body of research has demonstrated that exposure to misinformation can lead to distortions in human memory for genuinely experienced objects or people. The current study examined whether misinformation could affect memory for a recently experienced, personally relevant, highly stressful event. In the present study we assessed the impact of misinformation on memory in over 800 military personnel confined in the stressful, mock POW camp phase of Survival School training. Misinformation introduced after the negatively affected memory for the details of the event (such as the presence of glasses or weapons), and also affected the accuracy of identification of an aggressive interrogator. In some conditions more than half of the subjects exposed to a misleading photograph falsely identified a different individual as their interrogator after the interrogation was over. These findings demonstrate that memories for stressful events are highly vulnerable to modification by exposure to misinformation, even in individuals whose level of training and experience might be thought to render them relatively immune to such influences.

- The term "*misinformation effect*" refers to the errors in recalling the details of a past event made by individuals who were subsequently exposed to false or erroneous information about the event. The misinformation effect appears to operate largely outside a person's awareness. That is, when people claim erroneously that they have seen the misinformation details, they seem to truly believe that they did.

- False memory endorsements about non-trivial items (i.e., weapons) were observed in at least 27% of participants. Even higher endorsement rates, upwards of 80% of participants, occurred with respect to misinformation about uniforms or human faces. That researchers were able to alter memory for such non trivial events in military personnel trained to resist propaganda and exploitation techniques extends the applicability of false memory research to a wider population than heretofore examined, and suggests that these observations should be taken seriously by professionals who work with victims of traumatic stress and who interact with the criminal justice system.
- Consistent with previous reports suggesting that misinformation is more readily accepted by a person when the misinformation is paired with someone who is trusted or who is familiar to that person,
- Thus, it may be that misinformation is more likely to be accepted when presented in association with persons perceived, by the recipients, to be in positions of authority.

The impact of interrogation stress on compliance and suggestibility in U.S. military special operations personnel

Morgan (2020)

Ethics, Medicine and Public Health. Volume 14, July–September 2020, 100499

Summary

The present study was performed to test whether acute stress exposure would significantly increase human compliance and suggestibility. One hundred active duty military participants enrolled in military survival school training were randomized to receive the Gudjonsson Compliance and Suggestibility Scales (GCS and GSS) prior to, during or after exposure to interrogation stress. All participants were also assessed prior to, and after stress exposure for symptoms of dissociation. Stress exposure significantly increased compliance in individuals who exhibited a pre-stress propensity to dissociation; stress exposure significantly increased suggestibility. These data support the view that some individuals are more likely than others to experiencing an increase in compliance and in suggestibility if exposed to interrogation stress. These data also suggest that individuals who are vulnerable to stress induced increases in suggestibility and compliance can be identified using psychological measures of dissociation.

Reconstructing alcohol-induced memory blackouts

Robert A. Nash (2011)

Memory. Volume 19, 2011 - Issue 6, pp.566-573

Blackouts afford an excellent opportunity to study the strategies people use to reconstruct forgotten experiences. Researchers conducted a survey of university students to explore how people choose to reconstruct blackouts, and the likely accuracy of these reconstructions. Their findings add to the growing research literature on people's strategies for validating their past experiences, and highlight the important role of external sources in the reconstruction process. The data showed that people's desire to ''fill in the blanks'' can lead them to rely on rather unreliable sources, and may also encourage them to adopt weaker source-monitoring criteria. Indeed, in at least some cases reconstructing blackouts appears to lead to the development of false beliefs or memories.

- A total of 280 students (78.2% female; age M 22.2 years, SD 5.10, Range 18 47) voluntarily completed an Internet survey investigating students' experiences of the effects of alcohol on memory.
- Section 1. The first section of the survey assessed participants' evaluations of different strategies for reconstructing blackouts. Researchers told participants to imagine they went to a party and drank a lot of alcohol, but the next morning they remembered nothing that

happened after arriving. They then asked participants how motivated they would be to find out what happened at the party and how motivated they would be to use each of eight strategies to this end.

- Finally the participants rated how reliable they thought each strategy would be for obtaining accurate information.
- Section 2. The second section asked participants about their experience of helping others to reconstruct blackouts. Researchers asked whether any of the following statements were true of at least one such occasion: (1) ''*some of the details may have been unintentionally inaccurate*''; (2) ''*I made up some of the details*''; (3) ''*I gave the other person an entirely made-up account of what they did.*'' Where applicable, participants were asked to describe what they had told the blackout sufferer, and the reasons for their possible inaccuracies.
- Section 3. Section 3 asked about participants' experiences of reconstructing their own blackouts.
- Participants first reported whether they had ever experienced a partial or total blackout. Participants who selected ''*Total''* or ''*Partial''* were asked to select which if any external source types (intoxicated people; non-intoxicated people; photos/videos; other physical evidence) they had relied on to reconstruct real blackouts.
- Finally they were asked whether they had ever learnt that they did something during a blackout, only to discover later that it never really happened.
- Overall, participants said they would be highly motivated to reconstruct a blackout.
- Blackout sufferers were relatively more motivated to rely on friends who had been intoxicated
- When blackout sufferers reported the external sources they had consulted to reconstruct real blackouts, researchers observed that consulting intoxicated people was somewhat more common.
- Although this retrospective data relied on self-reports, and so were vulnerable to recollection biases and errors, the data suggests that when people reconstruct forgotten recent episodes just as when verifying childhood memories they tend to rely on rather unreliable information sources.
- One interesting finding was that blackout sufferers as compared to drinkers who had never experienced a blackout placed significantly more confidence in the reliability of intoxicated people, and said they would be more motivated to obtain information from them.

Assessing the Diagnosticity of a Persuasion-Based and a Dialogue-Based Interrogation Approach

Joseph Eastwood, 2020

Journal of Police and Criminal Psychology

The current study assessed the relative propensity of a persuasion-based and a dialogue-based interrogation approach to generate true and false confessions (i.e., their diagnosticity). Following the Russano cheating paradigm, participants were first either induced or not induced to cheat on an experimental task to create innocent and guilty conditions. An experimenter, blind to the participants' guilt or innocence, then attempted to generate a confession using a persuasion-based or a dialogue based interrogation approach. Chi-square analyses showed that both interrogation approaches generated an equally high proportion of true confessions from guilty participants (95% for both approaches; $p = 0.942$) but that the persuasion-based approach generated substantially more false confessions from innocent participants than the dialogue-based approach (45% vs. 0%, respectively; $p = 0.001$). The dialogue-based approach's clear advantage over the persuasion-based approach in this study adds to the call for law enforcement organizations to utilize dialogue-based approaches within real-world interrogations.

- The predominant interrogation approach utilized in North America today is the Reid Technique and similar accusatorial style approaches (Inbau et al. 2011; Miller et al. 2018). The Reid technique can be classified as a persuasion based approach as it uses psychologically manipulative tactics to try and generate confessions from suspects deemed likely to be guilty (Meissner and Russano 2003).
- These tactics include having the interrogator stress that they are certain of the guilt of suspect at the beginning of the interrogation (e.g., "There is no doubt in my mind that you took the money"; direct positive confrontation), providing face-saving justifications that minimize and normalize the crime (e.g., "Maybe you just took the money to help buy food for your family; theme development), not allowing the suspect to voice denials regarding their involvement in the crime, and eventually presenting the suspect with two options for why they committed the crime, one reprehensible and one understandable (e.g., Did you steal the money to buy drugs, or to buy food for your family?; alternative question). It is argued that systematic application of these tactics through the Reid technique's nine-step process will cause many suspects to confess to their involvement in a criminal offence (Inbau et al. 2011).
- Kassin and Kiechel (1996) found that over 90% of participants falsely confessed to making a computer crash when presented with untrue inculpatory evidence
- a collaboration of academics and law enforcement officers in the UK created the PEACE model of investigative interviewing in the early 1990s (see Snook et al. 2010). PEACE is an acronym for the five stages of the interview process: Preparation and Planning, Engage and Explain, Account, Closure, and Evaluation. The PEACE model is an inquisitorial method that employs a noncoercive information gathering approach to interviewing all interviewee types (Meissner and Russano 2003; Snook et al. 2010; Gudjonsson and Pearse 2011).
- Unlike the Reid technique and similar approaches, PEACE contains no tactics designed to explicitly generate an admission or confession from the suspect and instead focuses primarily on generating dialogue with a suspect which can then be compared with the existing case evidence to determine veracity (see Centrex 2004).
- Analyses of confession rates in the UK before and after the implementation of the PEACE model, however, show similar rates of confessions (Hartwig et al. 2005).
- A fundamental feature of an effective interrogation approach is its *diagnosticity* - the ability to generate true confessions from guilty suspects while not generating false confessions from innocent suspects.
- The sample consisted of 80 students
- The two interrogation scripts were designed to represent either a persuasion-based approach or a dialogue-based approach. Both approaches contained two pieces of evidence that supported the experimenter's belief in the participant's guilt—identical wrong answers on a specific question in the individual problem-solving task and that the confederate suggested to the experimenter that the participant had in fact helped on that question. In the persuasion-based approach, the experimenter used the following script to try and elicit a confession:
- Both persuasion-based and dialogue-based approaches were highly effective at eliciting true confessions - approximately 95% of guilty participants in both conditions confessed.
- The persuasion-based approach elicited substantially more false confessions than the dialogue-based approach (45% vs. 0%, respectively).
- There was a notable difference across interrogation conditions for innocent participants. Specifically, almost half of the participants in the persuasion-based condition provided a false confession compared with no false confessions within the dialogue based condition.
- Not a single participant in the innocent condition provided a false confession—despite this appearing to be a key motivator for guilty participants to confess.