The International Conference on Interdisciplinary Humanities and Communication Studies
DOI: 10.54254/2753-7048/5/20220669

Factors Influencing False Memory Implantation Regarding Criminal Acts

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Abstract: False memory can be easily formed, and in some circumstances, it can be behaviourally or phenomenally indistinguishable from true memory. It is certain that memory is prone to be erroneous without consciousness. People can be persuaded to remember a certain event that is not real, in the case of forming false memory related to criminal behaviors, this would lead to a further false confession and police intervention. The present study explored the influencing factors of false memory and found four main influencing factors: the credibility of the interviewer, suggestive interview, incontrovertible evidence with true details, and external environment. Current research and experiments are referenced to support and explain the possible factors that could increase the chance for people to generate false memory regarding criminal behaviors. Even though implanting false memory related to crime seems impractical, the study aims to state that with the use of certain techniques and tactics, the memory of people can be readily distorted in an experimental setting. In other words, generating a false memory of committing a crime is achievable. The purpose of the research is to indicate the potential for false memory of criminal acts to be deliberately implanted in people, trying to extend the awareness and focus of police and judges on the area of false memory relating to crime.

Keywords: false memory, memory implantation

1. Introduction

According to previous studies, it is easy to distort the memory of people by using specific methods, in other words, false memory can be promptly generated [1]. The implications caused by the false memory of people committing crimes could lead to serious erroneous judgment in court, e.g., putting innocents in jail. With fabricated confessions and evidence, it would threaten the righteousness of criminal investigation [2]. The existing experiment by Shaw and Porter used different tactics to implant a false memory relating to crime. The result supported the hypothesis that by the use of techniques, the false memory of committing a crime can be generated in people. Out of 30 participants in criminal conditions, 21 of them, or 70% have implanted a false memory. This research is related to the implantation of false memory, particularly to generating false memory in relevance to the committing of crimes. The research is aim to investigate the existing factors that could affect and potentially stimulate the distortion of memory, which increases the possibility for people to believe in the false accusation that they had been involved in a crime. Factors that could be used to increase the distortion of memory to generate rich false memory of committing a crime consist of four major

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determinants: the credibility of the interviewer, suggestive interview, incontrovertible false evidence with true details, and external environment. Throughout the research, the factors will be explained for the public to understand the capabilities of people to generate false memory of themselves committing a crime, ultimately assisting the police and legal authorities in concentrating more on the area of false memory pertaining to criminal conduct.

2. Influencing Factors

2.1. Credibility of Interviewer

The interviewer is one of the most significant factors that would affect the participants' memory and the ability of people to judge and suspect the veracity of implanted false memory. Research by Shaw and Porter suggested that in a situation where the interviewer has gained trust or built up a relationship with the participants, similar to the lost-in-mall study, when another person that has a close relationship with the participant, in particular, their family member or close friend, claiming that the participant has an experience of loss in a mall, it is more possible for the participant to trust them and form false memory [3]. The interviewer could use several techniques to increase their credibility. One significant strategy is to build rapport with participants, this includes the use of open questions (e.g. How has your day been? How has your semester been?) along with a generous attitude toward the participants in order to reduce the stress of participants and to provide additional information to the interviewer [4]. Interviewers that are well-trained with extraverted traits tend to be more successful in implanting false memory of a criminal act in the participants, since they are more persuasive and confident, which increases the chance for them to interact and motivate the cooperation of participants to try to retrieve the memory [5]. Another method for the interviewer to make themselves trustworthy and establish their credibility is to prepare and put visible books regarding memory retrieval and loss of crime-committing memory in the place where participants can notice [4]. This way, participants are more likely to believe that the interviewer is a real memory researcher and so may increase the probability for them to generating false memory of committing the crime.

2.2. Suggestive Interview

The memory can be easily distorted if certain tactics were used to implicitly exert influence on the participant. One commonly applied technique is to use negative and positive feedback toward the participants [4]. This method will effectively impact the participants' memory and could increase the possibility for people to doubt themselves. For instance, the interviewer can act disappointed if participants cannot remember the occurrence of the event. Conversely, the interviewer reacts encouraging if participants have added details to the false event, using leading questions (What else? Can you think of more details to describe the situation?) to let participants alter their memory and fabricate the participation in a criminal act that has never happened. The suggestive interview also consists of the application of social pressure or social demands, the interviewer will tell participants that it is likely for the majority to retrieve memory if they tried hard enough [1], forcing the participants to construct false memory without noticing their constructions of memory are not real [3]. Alternatively, it is also obtainable to impose social pressure by using phrases such as 'you will not get better unless to confess about...'[6]. In a more serious condition, by mimicking the police interrogations, social pressure could be exerted on the participants by the use of several interviewers, numerous inquiries, use of silence, echo, and scenario or theme suggestions, decreasing the self-esteem of participators [7]. Another method to suggest the veracity of a fake memory pertaining to a crime is to employ imagination. According to the False Memory Syndrome Foundation (FMSF), imagination can increase participators' confidence in their new beliefs. The imagination of a certain event, in this case, imagining a situation of committing a crime, could lead participants to erroneously

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remember having performed these tasks, forming false autobiographical memories [8]. It simply helped in the construction of false memory by using the details of relevant episodes of events and the generic event script since it is possible for false memories of criminal acts to share many characteristics and similarities with true memories [7].

2.3. Incontrovertible Evidence with True Details

Incontrovertible false evidence is a way to convince participants of being guilty and to make the implanted memory seems less distinguishable from the truth since the evidence is blended with real details [9]. These tactics mainly consist reminders of to the participants about their past, giving them a feel about their capability of being in the crime [6]. Particularly, when the interviewees cannot recall or remember a certain event, the interviewers would suggest the past experience of the participants, along with mentioning other people, especially people who knew the interviewee well, and giving comments such as 'your caregivers /parents have claimed...', mixing false evidence with true details to display information that confused participator, such as mention the accurate name of the participant's friend during the occurrence of the criminal event [1], which diminish the confidence of the interviewee to clearly remember the occurrence of the event and thus result in the increased possibility of false confessions [6]. Furthermore, according to the present research, it has been stated that the incontrovertible false evidence should be mentioned repeatedly along with the interviewer's certainty in order to put participators in the state that they are unsure about themselves, originate them to be lack rationality, resulting in disabilities for participators to make reasonable and plausible evaluations for the information and claims placed by the interviewers [10]. Incontrovertible evidence appears more credible when it is cited often; in other words, the interview must be long enough for the interviewer to restate their claim and minimize the confidence in the participants. As a consequence, incontrovertible evidence with accurate facts must be combined, as well as adequate time during the interview to reclaim this fake evidence for the participants to build false memories of committing crimes with less suspicion [6].

2.4. Manipulation of External Environment

The participants' attitudes about the false memory implanted during the interview may be significantly impacted by the surrounding environment. Especially when the implanted memory is related to the criminal act, which needs to be set in a condition of closed social context. A closed social context is viewed as a crucial factor in the literature on false confessions because it deters people from looking for sources of information that contradict or otherwise challenge the truth that an interviewer is determined, for instance, by contacting their relatives or gathering historical data of their background. An interview in a closed social environment, means that the interviewees are only able to depend on their own judgment to assess the accuracy of the interviewer's information, hence they are unable to dispute the interviewer with adequate evidence, raising the probability for participants to suspect themselves and believe the claim of interviewer [6]. The purpose of manipulating the outside environment is to prevent participants from gaining the confidence that the implanted memory of crime is untrue. The experimental environment may assist to reduce information acquisition by, for example, prohibiting the use of electronic devices and other forms of communication. It is also conceivable for the interviewer to work with the participants' caregivers and families to require them to withhold information that is controversial with the false memory during the interview session or to refrain from answering any questions about the false memory of the crime.

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3. Conclusions

Memories is precious for human. However, it is not fixed and could influence the extent of righteousness in the criminal justice system. The present study found that the credibility of the interviewer, suggestive interview, incontrovertible evidence with true details, and the manipulation of the external environment could increase the possibility of implantation of false memory regarding criminal acts since those tactics make the false memory seems real, in other words, raises the obscurity and complexity for participants to recognize rich false memories of the crime. Those tactics could diminish the participators' confidence to judge the information rationally without being persuaded by the interviewer. Various research has proved that false memory can be implanted on purpose, with the most popularly known, being the manipulation of memory to generate a false childhood event. However, since false memory relating to crime seems less plausible, it is harder to make the interviewee generate a new false belief of being involved in a criminal act. Correspondingly, versatile tactics are used and the side effects are much more severe. Implantation of false memory relating to crime could lead to serious consequences, for instance, contributing to failures to convict a criminal offender since there are false confessions from innocents who have generated false memory. This also discounts or even makes the juries ignore the true testimony if they believed in the confessions. False memory can be formed deliberately, and there need to be more complete measures to determine the false memory of committing crimes such as using self-report and behavioral measures of participants to make a prediction of who is more susceptible to forming false memory. In addition, scientific knowledge could also help to minimize the potential for police and judges to believe in false confessions through training and seminars, there could be judicial instructions and expert testimony provided to the jurors as well. Nevertheless, further research into the subject of false memory is necessary, with a particular emphasis on the aspects of memory relating to criminal acts and false confessions. Confessions should be given more weight by the court because legal systems rely heavily on memory-related evidence, and because people's memories can be distorted through the use of tactics, more considerations to increase the credibility of the confessions should be carefully drafted in order to avoid erroneous judgment.

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