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Avoid Misidentification in Eyewitness Identification Procedures

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Abstract: Misidentification is detrimental in judicial proceedings. People perceive memories as the reality that has happened, but they are not exact images in their minds, and thus memory can be distorted, and false memories can be implanted into people's minds. Numerous studies highlight the frequent adverse effects of eyewitness identification methods. In order to reduce misidentification in judicial trials, this study explored the influencing factors of misidentification. Based on the previous studies, the present study describes misidentification and the influencing factors, including suggestive information, repeated identification procedures, and the witnesses' confidence. Recommendations are made regarding suggestive information that can influence eyewitnesses' decisions, the evidence is contaminated from repeated identification procedures, and only confidence in the initial identification can be considered reliable evidence. The significance of this study is beneficial for researchers to increase their insights into the influencing factors in misidentification, and it also has implications for reducing misidentification in judicial trials in the future.

Keywords: Suggestive information, Repeated identification procedures, the malleability of memories, confidence in the identification procedures

1. Introduction

Memory is malleable. People do not always focus their memory on details but remember the overall impression of what happened. Our brain often makes the best guess by what we know about the world. People perceive memories as the reality that has happened, but they are not exact images in their minds. Several studies on memory have determined that memories can be distorted, and false memories can be implanted into people's minds.

The malleability of memory has been reported. Misinformation can lead people to falsely believe they are seeing details only suggested to them, and it even leads people to have vibrant false memories [1]. In particular, Loftus has experimented with planting false memories about the lost-in-the-mall experience using suggestive information. They successfully implanted this false memory about people lost in the mall in their early childhood, and most people can completely describe the situation [1]. The result is in accordance with another experiment implemented by Loftus and Palmer. In their experiment about the reconstruction of memory of automobile accidents, changing the methods for asking questions can lead people to reconstruct memories about the accident [2]. An implication of these findings is the potential evidence for the malleability of memory that repeated suggestions can create a sense of familiarity and confuse people with the actual situation.

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Together these results provide crucial insights into the malleability of memories. While people may compare memory to a video camera that accurately records and stores everything that happens, memory is more like a collage, a patchwork of memory fragments, or even wholly fabricated pieces. Perhaps false memory in people's daily life will not cause too much trouble, but they can sometimes lead to severe consequences, especially in judicial trials. One of the significant issues is the reliability of eyewitness testimony in judicial proceedings because the false memory of a witness can lead to the wrongful conviction of an innocent person.

In particular, a tragic misidentification that highlights the frequent adverse effects of eyewitness identification methods is the case of Ronald Cotton. Ronald Cotton was wrongly identified by an eyewitness and sentenced to more than ten years in jail for crimes he did not commit. Jennifer Thompson, the victim, was requested to identify the offender after giving a police sketch artist a description of the offender's face. She first selected two images from a collection, Cotton being one of them. She was asked to select a lineup during the second test and again narrowed it down to two people, picking Cotton after several minutes [3]. How could law enforcement avoid the misidentification tragedy in the future? This paper sets out to determine suggestive information, repeated eyewitness identification procedures, and eyewitnesses' confidence has implications for eyewitnesses' misidentification.

2. Suggestive Information in Eyewitness Identification Procedures

It is law enforcement’s responsibility to prevent any suggestive information in the eyewitness identification procedures to avoid misidentification because earlier studies demonstrated that memory could be manipulated and distorted [1,2]. Memory is so malleable that the very act of testing memory can contaminate it. John S. Shaw and his colleagues have proposed that suggestive questions from co-witnesses immediately affect the identification accuracy of eyewitnesses [4]. As an example of suggestive information, consider the study of Shaw and his colleagues [4], in which the inaccurate suggestive question can lead to false identification of eyewitnesses because of the conformity bias. This study provides evidence that memory can be suggested and later believed to be true.

Kimberley A. Wade and her colleagues have published a considerable study about eyewitness testimony and reached the same conclusion as the study of Shaw and his colleagues. They found that exhibiting false evidence or evidence that is in some way suggestive can lead participants to make false accusations even though they did not witness what happened, even though the participants are aware that their testimony can lead to the punishment of another real person [5]. Their study further affirms the malleability of memory and indicates that anything suggestive can contaminate eyewitness memory.

Both studies suggest the possibility of generating false memory in eyewitnesses. Suggestive information can induce people to falsely remember an event that never happened to result in convicting innocent people. Therefore, in the eyewitness identification procedures, the prosecutors and the police should prevent any suggestive information because something as subtle as the nature of a question being posed to an eyewitness can influence what the witness later remembers.

2.1. Theoretical Evidence for Avoiding Repeated Identification Procedures

For the purpose of obtaining righteous eyewitness identification procedures, repeated identification procedures must be avoided based on theoretical evidence. Source monitoring and signal detection theory are two principal theoretical sources on memory for understanding how witnesses make decisions based on their memory. The source monitoring hypothesis is the process of determining the origins of one's memory. Memory can be considered as building up with specific cues where the content of a memory is tested through recognition to see if the memory genuinely fits with the correct

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context. Witnesses' memory of a face is defined by the memory of the context that accompanies the encoding of the face in the crime. Nevertheless, People's perceptions of the crime could be different when people consider misleading information as part of an event that is not distinct from the actual event [6]. Therefore, these specific cues could mislead the witness's judgment of a culprit.

Furthermore, visual memory can be understood using a signal detection theory framework. Psychologists often use signal detection theory to measure how people make decisions under conditions of uncertainty. Memories can be thought of as having more robust or weaker signals, which correspond to how accurate we believe the memory is. The strength of a memory signal for the recognition of a face increase on average as the presented face resembles the face in memory more and more [7]. According to figure 1, the face is identified as the memory-match-signal (m) generated by witnesses becomes stronger enough to exceed the witnesses' decision criterion (c). However, there is a possibility that an innocent face could generate a strong memory-match signal that also exceeds the witnesses' decision criteria resulting in putting the innocent suspect in prison.

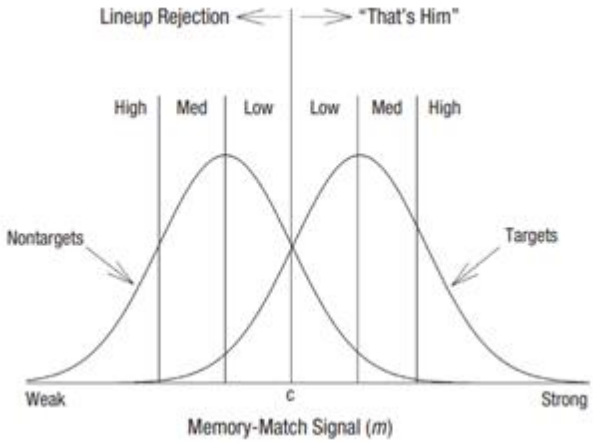

Figure1： Signal Detection Theory from Wixted [15].

Based on the theoretical frameworks for how recognition memory works, it is possible that repeated identification procedures can skew eyewitnesses' judgment of what is true. Memory about a culprit can be contaminated because someone can be biased towards a certain culprit by a sense of familiarity when they see him/her a second time. For example, when Jennifer Thompson was in the eyewitness identification procedures, her initial identification procedures enhanced her memory signal for Cotton and gave her a misleading specific cue of Cotton's face that was not distinct from the actual culprit. This effectively contaminated her memory as she went into the second procedure due to a false increase in the sense of familiarity. Both theoretical evidence illustrates that seeing a suspect's face repeated twice in an identification lineup contaminates the eyewitness's memory, as the associated context (potential culprit) of the suspect is reinforced. Hence, it is equitable to conclude that repeated identification must be avoided.

2.2. Empirical Evidence for Avoiding Repeated Identification Procedures

Besides the theoretical evidence, empirical evidence unambiguously supports that eyewitness identification procedures must circumvent repeated identification with the same suspects and witnesses. Memory, like any other evidence, can be contaminated with repeated exposure to potential suspects. In Godfrey and Clark's experiment, they exhibited a photo array followed by lineup identification at intervals of one week and 30 minutes [8]. They observed that repeated identification procedures could confuse the witness's memory retrieval source and raise the witnesses' expectations

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that the culprit is present in the identification procedures, which could contribute to higher identification rates for both guilty and innocent suspect identifications [8]. Their findings suggest that the repeated identification processes may only be used as limited evidence in the trial. Steblay and her colleagues reach the same conclusion as Godfrey and Clark's study [8]. They explored the effect of repeating the same suspect in two physical lineups on eyewitness decisions in a 2-week interval. According to their results, the misidentification of the innocent suspects in the first lineup has a carry-over effect on the second lineup, and most witnesses (82%) failed to correct this error in the second lineup [9]. This led to the conclusion that repeated identifications can contaminate eyewitness evidence, and contamination of this evidence (memory) could result in the incorrect selection of an innocent person in a lineup. Therefore, law enforcement must avoid repeated identification procedures in order to avoid misidentification in the future.

Since the laboratory research and theoretical evidence on repeated identifications manifest that law enforcement should avoid repeated identification procedures when implementing eyewitness testing, there is an adjustment in the instructions for identification procedures. According to the instructions in 1998 of the American Psychology-Law Society [10], it accommodates issues regarding witnesses' confidence, the double-blind procedures, pre-line-up instruction, and the selection of suspects. None of the procedures mentions the discussion of repeated identification procedures. Fortunately, the new protocol in 2020 avoids repeated identifications in addition to the four recommendations back in 1998 [11]. This is a significant development in identification procedures because it has the potential to avoid misidentification in the future.

2.3. The Confidence in the Identification Procedures

Aside from repeated identification procedures, confidence in initial identification procedures is also a considerable factor that can avoid misidentification. Although a police-department-based field study involving witnesses of real crimes [12] showed that high confidence and rapid identifications were highly accurate, some data also suggests that confidence is unreliable evidence. Previous studies [8,9] on repeated identification procedures described that repeated identifications might exaggerate eyewitness confidence. This result is concordant with 30 papers of meta-analysis that high eyewitness confidence does not directly indicate the high accuracy of the identification [13]. In some DNA exonerated cases, many eyewitnesses with high confidence showed uncertainty in their first identifications [14]. It is practicable to surmise that confidence in the initial identification is reliable based on the preceding evidence. Unfortunately, the present study did not find complete evidence of initial eyewitness confidence in DNA exonerate cases.

In laboratory research, Wixted and his colleagues use meta-analysis of experimentally controlled research [7], police department field investigations, and DNA exoneration cases to demonstrate that only confidence in the initial identification helps predict the accuracy of the identification in laboratory tests [15]. High confidence identification typically has a significant impact on jurors' decisions. Therefore, law enforcement should consider documenting the confidence of initial eyewitness identification procedures, and only this confidence should be used as the primary evidence in court.

3. Conclusions

Identification of eyewitnesses is crucial to the judicial trial. Eyewitness identifications are not a credible source in court, as several misidentification incidents in real life were revealed. This demonstrates how ineffective eyewitness identification techniques are and the malleability of memory. People do not always focus their memory on details but remember the overall impression of what happened. Our brain often makes the best guess by what we know about the world. Previous

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studies on memory have determined that memories can be distorted, and false memories can be implanted into people's minds [1]. This lies the foundation of explaining the misidentification. Although, as mentioned earlier in the research, eyewitness identifications are unreliable because of the malleability of memory. However, the results of the present study suggest that eyewitness identification can be considered reliable evidence under reliable measures. The focus of current research has shown that reliable measures include avoiding suggestive information, repeating identification processes, and taking confidence in the first identification into account. Specifically, suggestive information can induce people to falsely remember an event that never happened to result in convicting innocent people, and witnesses observing the repeated identification procedures could confuse the witness's memory retrieval source and raise the witnesses' expectations that the culprit is present in the identification procedures, which could contribute to higher identification rates for both guilty and innocent suspect identifications. In addition, repeated identifications might exaggerate eyewitness confidence. The results of the present study try to predict and prevent eyewitness misidentification and thus help the globe reduce eyewitness misidentification. However, it should be noted that there is still abundant space for further research to reduce future misidentification.

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