

The influence of misleading information psychology essay



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Using Loftus study on the influence of misleading information on an individuals eyewitness testimony, it was predicted that after viewing a video clip, there would be a compelling difference amid participants who were misled due to misleading questions and participants who were not misled. Additionally, it was predicted that participants would be increasingly misled from information derived from that of a truck, opposed to that of a church. Critical misleading questions about a church and a red truck were a necessity, when in reality both did not exist; questions about the original event were additionally used. Twenty-five participants answered misleading post-video questions and twenty-five participants answered non-misleading questions. Analyses revealed that participants were greater influenced by the questions in the misleading condition; church ($M = 1.36$, $SD = 0.50$) and truck ($M = 1.28$, $SD = 0.46$). Consequently, advocating the hypothesis that misled participants can have their eyewitness testimony influenced due to misleading post-event information. Recommendations were manufactured for both questioning and design of the study in future experiments.

Introduction

Eyewitness testimony is considered a legal expression. It refers to an account given by an individual, of a selective occurrence that they have formerly witnessed. The criminal system alone relies profoundly on an individual's eyewitness testimony for investigating and prosecuting crimes. Thousands of individuals have been faced with criminal litigation as a consequence of questionable memories. The unreliability of an individual's eyewitness testimony poses a critical aftermath in the administration of criminal justice. It is well established that information that is encountered following an event can alter subsequent retention of that event. Conjointly, in the aftermath of an event, any erroneous information can derail a police investigation; as focus may be put on an innocent individual while the actual culprit remains unidentified.

Memory operates in three principle stages. The strategies which are associated in the retrieval of memory accurately involve; encoding, storing and retrieval. Information from an environment must be encoded before entering into the working brain; once the information is encoded it then requires being reserved within the brain. The information can be stored in the short-term memory or consequent to rehearsal and alternative components moved into the long-term memory. The information can then be retrieved from the brain when desired. When a complex incident is cultivated, it is suspected that some of the features of the event are extracted and stored. The eyewitness must decide which aspects of the visual stimulus they should attend to and therefore encode and store that knowledge. Our visual environment contains a tremendous amount of

information, and only a small proportion of that information is actually perceived.

The contents of one's memories are subject to influence from a number of factors, including parents, friends, the media, photographs etc... However, eyewitness testimony research has demonstrated that suggestibility is one of the most substantial factors that influenced the accuracy of eyewitness testimony. Suggestibility is the characteristic of being more inclined to accept and act on the suggestions of others. According to Benton and Bandura (1953) individuals who experience stressful or intense emotions are more receptive to ideas and consequently more suggestible. Suggestibility focuses on how the memory can be influenced by certain situations we find ourselves in and how that memory can become distorted over time. Wagstaff (1991) described suggestibility as the influence on one person from another by implanting an idea in the individuals head. Additionally, Binet (1900) proposed that suggestibility is a number of phenomena's including; obedience to an authority figure, conformity, bias and stereotyping, confabulation (unconscious errors of a vivid imagination) and unconscious processes due to distraction or an altered state of consciousness.

As early as 1907, a German psychologist Hugo Munsterberg published a book that was called ' On the Witness Stand' which demonstrated that professional observers (e. g. doctors and lawyers) could surprisingly report inaccurate events that had been staged for them. Their accounts were found to be frequently inaccurate when recalling crucial details. Munsterberg believed that children were significantly more prone to errors. He

recommended careful questioning of all witnesses to minimise suggestible
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responding. After his book, the legal establishment largely ignored Munsterberg's claims and on an account of this, psychology lost interest in the problems that Munsterberg identified. Despite this, his work has been exceeding influential in recent generations.

Sporer (2008) believes that modern studies into eyewitness testimony owe a substantial amount to William Stern. Stern (1871-1938) was fully aware of the controversy that came along with post-event information, suggestive questions and false memory induction. Nonetheless, he emphasised the importance of error and deception. Stern used these to illustrate that an individual's standards and truthfulness differ when being questioned. Truthfulness may vary due to perceived consequences.

Psychological research over the past century has consistently exposed significant errors in eyewitness testimony. Perjury is a crime, as lying whilst on the stand can affect the course of justice. However, perjury is defined as knowingly making a false statement, merely misremembering is not a crime. If an individual witnessed a crime, the witness is likely to be interviewed by many people. Firstly, they would be interviewed by the police to help gain as many clues as possible, if the case extends to the legal system then the witness will be further questioned by lawyers before eventually testifying in court. It is additionally expected that the witness will replay the event outside the context of the legal system to friends, family or health care professionals in an attempt to help understand and overcome the terms of the event. All these techniques that the witness has used talking about the event may affect the accuracy of the event witnessed, as the original details may be replaced with false details (Loftus, 1975). This false information that <https://assignbuster.com/the-influence-of-misleading-information-psychology-essay/>

has been received after the original event witnessed may be due to a number of different factors. Any misinformation may be a result of presuppositions in questions about the original event (Loftus and Palmer, 1974), it may occur due to narrative allegedly written by the experimenter (Tversky and Tuchin, 1989) or other sources such as a defence lawyer (Dodd and Bradshaw, 1980), it may have come from other witnesses of the same crime (Gabbert, Memon and Allan, 2003), or it may be generated by the witness themselves (Zaragoza et al, 2001).

Additionally, according to Hyman (1994) an eyewitness is believed to recall the event in a distinctive nature depending on certain factors, such as the audience. When recalling the witnessed event to an authority figure (police or experimenter) the witness would focus greater on perceptual and temporal details rather than one's own personal reactions to the event. On the other hand, the eyewitness's account that is recalled to a friend or therapist is likely to be focusing on one's emotional reaction about the witnessed event rather than the facts.

Psychologists should familiarise the jury system of the errors that can manifest in retrieving memories and aim to improve the accuracy and assessment of eyewitness accounts. Although the legal system is taking miniature steps in this direction, more should be done to guarantee that innocent individuals are not sentenced, due to flaws in false eyewitness testimonies. Therefore, eyewitness testimony should not be used solely for evidence.

Literature Review

“Eyewitness testimony is the most damning of all evidence that can be used in a court of law” (Loftus, 1996). Elizabeth Loftus is a superior figure in the field of eyewitness testimony research. She has demonstrated through the use of leading questions and post-event information how it is possible to distort a person’s memory of an event. She believes that psychology has the potential to improve legal decision-making and avoid miscarriages of justice.

Greene and Loftus (1984) estimated that there may be as many as 8, 500 wrongful convictions every year. Half of these involve false eyewitness testimonies. In June, 1958 a woman called Mary Killean testified in court that a man called Fred Capon was the man who previously broke into the shop she worked at in Chicago and stole \$254 at gunpoint. Capon was sentenced for armed robbery even though he pleaded not guilty and had a strong alibi from his Wife who stated that at the time of holdup Capon was in Indiana. Killean’s testimony reveals that she positively identified the defendant at the trial. Eyewitness testimony was, in this case, the pivotal factor in determining the verdict. This case study shows how the serious implications of false eyewitness testimonies have on innocent people.

Many memories occurring in everyday life involve profoundly complex, largely visual, and often fast-moving events. When a person witnesses a highly complex and sudden event, the individual’s perception of the event will not be an identical copy of the original event. These gaps in the memory rely on general knowledge about the world we live in to fill those memory gaps. The most influential way to fill those gaps is from information received after an event; this information may be misleading and become imbedded

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within the memory of the actual event, therefore making the reality of the event bias. We are rarely required to provide precise recall of such experiences, but on certain occasions recall is demanded, such as witnessing a crime or an accident. When an individual has witnessed a critical event, they are commonly asked a series of questions regarding what happened. It is well known that eyewitnesses are vulnerable to post-event misinformation; this is erroneous information that is encountered after viewing the original witnessed event.

The majority of research that has been established into the influence of eyewitness testimony tends to be conducted in a corresponding way. Participants fundamentally view an arrangement of slides depicting an event such as a traffic incident. The participant's then apprehend new information about the event, such as questions about the event. The participants in the misled condition receive new information which provides misleading information about a detail from the original event (e. g., a stop sign might have appeared in the original event, but the new information suggests a yield sign). The subjects in the non-misled condition (control group), the new information provides no specific information about a critical detail. Fig. 1 summarises the experimental design.

Fig. 1. Table showing typical experimental design.

After being presented with new information, participants in both conditions are given a two-alternative forced-choice recognition test on what they saw in the slides. A question is presented about the critical detail (e. g., What type of sign was seen in the video?), the choices are the original item that

was distinguished in the video (stop sign) and the item that was bestowed in the new information (yield sign). There is a steady finding that misled participants perform considerably poorer than control participants on the test question about the critical item.

According to Harris (1973) the wording of a question after an occurrence may alter the answer. His participants were informed that the experiment concentrated exclusively on the accuracy of guessing measurements. They were then queried on one of two questions, such as 'how short was the player?' or 'how tall was the player?' Participants were more predisposed to say the player was shorter when the word 'short' was employed to ask, and vice versa for the 'tall' question. This study demonstrates that the wording of a question can affect the answer.

In an investigation of eyewitness testimony, Loftus and Palmer (1974) provided evidence that eyewitness testimony can be inaccurate due to leading questions acquired after a witnessed event. Participants were presented with a short film of a traffic accident and were then directed to answer questions related to the accident. The participants were interrogated about the momentum of the vehicle in several contrasting ways. The words used to illustrate the accident were; smashed, bumped, hit and contacted. It was established that the word 'smashed' exchanged the witnesses memory as they estimated the speed to be greater, remembering the accident as being more overwhelming than it had genuinely been. This study demonstrates that leading questions can mislead eyewitnesses and affect the accuracy of memory recall. This manifestation furthermore proposes that an individual's memory report was not naturally mental replays of the event <https://assignbuster.com/the-influence-of-misleading-information-psychology-essay/>

experienced, but memory was a reconstruction that was staged using post-event information.

Similarly, there is further evidence to commend that eyewitness testimony can be erroneous. Loftus (1975) scrutinised the usefulness of misleading post-event information. Two groups of participants were exposed to an identical video of a car travelling down a lane. They were then asked one of two questions. The first group were asked how fast the car was travelling when it passed the stop sign, whilst the second group were asked how fast was the car travelling when it passed the barn? When in fact, there was no barn. A week later all participants were asked if they observed the barn. Loftus found that notably more people in the second group stated seeing a barn. This demonstration is unmistakable support for the hypothesis that misleading information received after the event, can influence the memory of the event itself.

Furthermore, Loftus (1977) conducted an experiment on college students to distinguish that witness's memories can become 'blended' due to post-event information. The students were bestowed with a number of coloured slides of a road traffic accident. A red car knocked down a pedestrian which was witnessed by a driver of a green car who did not stop. Participants were misled that this latest car was blue. The misinformed participants were more likely to conform to selecting a blue or bluish-green colour (from a choice of colours) for the car that did not stop than the control group. This study provides conformation of blended memories, a blend of green (the colour of the witnessed event) and blue (the colour suggested).

Loftus and Pickrell (1995) supervised a study into how accurate real life memories are when presented with false memories. Participants comprehended a list of childhood experiences that their family had corroborated as true, however one event was indeed false (being lost in a shopping centre for a considerable time when 5-6 years old and being assisted by an elderly person and reunited with their family). They found that 25% of participants believed that this event was genuinely true.

Furthermore, around 20% of the participants embellished the event with further 'recalled' details from their 'memory'. This study demonstrates that if the individual is advised by a trusted person (their family) that something commenced, then they are more acceptable to false information and to therefore 'reconstruct' a memory of that event. Consequently, if an individual witnesses an event with a trustworthy person who observed an item that they didn't (e. g., broken glass) the individual would be more inclined to report seeing the broken glass, when in fact they didn't see any glass.

Clancy et al. (2002) looked into false memories of recovered alien sightings. They studied 3 groups of people; Abductees, who had no autobiographical memory of the event, Abductees, who's memories had 'recovered', and Non-abductees. The participants were given a critical lure test where the item stayed consistent with schema (e. g., exposed them to items such as 'sour, sugar, honey, tart, etc.'). The aim was to discover whether the participants would falsely recognise 'sweet' as a critical lure. They observed that recovered memory alien abductees were more plausible to falsely recognise words not seen previously. It was argued that this was due to

source monitoring, misattribute an internally generated memory as an externally generated memory (e. g. from TV).

However, not all research supports these findings. Research by Yuille and Cutshall (1986) found that in some circumstances witness recall can be extremely accurate. They looked at witnesses of a shooting in a town in Canada. A man had attempted to rob a gun shop, during the robbery the shop keeper was shot and returned fire killing the would-be robber. The event occurred in the middle of the day, in front of a large number of witnesses. A few months after the incident, fifteen witnesses agreed to recall their vision of the event. Yuille and Cutshall detected that the witnesses were able to recall the incident in a great deal of detail and that the witness's accounts were not influenced in response to leading questions. These findings, which are obtained from a real-life setting and are therefore high in external validity cast doubt on the validity of Loftus and others conclusions.

Additionally, several researchers have questioned whether misleading information 'over-writes' or replaces the original event and stating that the original information is not lost from memory, but is merely rendered inaccessible. McCloskey and Zaragoza (1985) argue that misleading post-event information has no effect on memory for the original event. They believe there are two arguments to expect poorer misled than control performance even if misleading post-event information has no significant effect on the participants ability to remember the originally witnessed event.

Firstly, misleading information is thought to bias the responses of participants who, for reason unrelated to the presentation of misleading information, do not remember what they originally witnessed. In the control

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group, participants who do not remember the original event will guess on the two-alternative test questions, and should only be correct 50% of the time. However, in the misled condition expected performance for not remembering participants is less than 50% correct. Therefore, misled participants who do not remember the originally witnessed event, but do remember the misleading post-event information will presumably choose the latter on the test, and will be systematically incorrect. Secondly, some misled participants who remember both the original information and the misleading information may choose the latter on the test; this may be due to them trusting the information in the post-event narrative more than their own recollections of the original event.

There is a colossal amount of work into the influence of misleading information; previous studies however have rarely examined the influence of sentence types and structures presented in post-event questioning. Post-event information can be presented in many different forms, including an affirmative statement (It is a red truck), a question (Is it a red truck?) or even a negative statement (It is not a red truck). Lee and Chen (2013) investigated whether the influence of post-event information presented in an affirmative form may have on the misleading effect. They used post-event narratives containing misleading information rather than direct questions containing misleading information (as used in previous studies). The post-event narrative did contain questions; however participants did not have to answer questions about the original event before the final memory test. They found that post-event information presented in an affirmative statement form produced a misleading effect. The post-event misleading information

increased the participant's recall of misleading items and impaired their recall of correct items. This pattern of results did not appear when post-event information was presented in question form.

The amount of vulnerable witnesses that testify in court has increased significantly in recent years in the majority of Western countries. The most common of these are children, the elderly and witnesses with learning disabilities. William Stern (1910) a German psychologist conducted a study on children to provide evidence that a child's eyewitness testimony can be biased easily. Stern asked children aged 7-18 years old to recall certain details of a picture that they had studied previously. The children were then given questionnaires, some of which had misleading questions. Stern reported that the misleading questions produced the most errors and the younger children were easier to influence.

To support this, Poole and Lindsay (2001) gave 3-8 year olds a science demonstration. Afterwards, their parents read them a story which included information from the demonstration as well as new information. The children were then asked questions just to do with the science demonstration. It was discovered that the children mixed up a lot of the new information from the story (post-event information) into the original memory of the demonstration. When they were asked very carefully to give the information from just the science demonstration, some of the older children made their account more accurate, on the other hand the younger children could not do this.

Suggesting that eyewitness testimonies of children, especially young children, may be flawed as their memories are easily distorted by post-event information. The reliability of a child's memory for an experienced witness
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event may depend on the time from witnessing the event to testifying. Younger children tend to forget information a lot faster than older children, so the time delay between the witnessed event and testifying is critical (Howe, 1991). These conclusions have been further supported by Gordon et al. (2001) who reviewed child witness research and concluded that children's statements are easily influenced. However, child based research can be criticised. It is very difficult to be certain that research using young children is valid, as it is hard to be confident that the children understand the instructions given or if they are paying attention. If not, the data that the children provide is invalid. Additionally, researchers may misinterpret a child's answers and jump to conclusions about the meaning of the child's statement.

Research has moreover suggested that elderly individual's eyewitness testimony may be inaccurate. In general, recall has been found less accurate compared to young adults, whether it's a slide show (Yarmey and Kent, 1980), or a video clip (Holliday et al, 2011). Yarmey (1984) in addition found that elderly eyewitness testimonies can be less accurate due to staged events. He staged an event where a man was holding a knife. He found that 80% of elderly individuals failed to mention the knife compared to only 20% of younger adults.

Individuals with learning disabilities are another group of eyewitness who are regarded in psychology and the criminal system as vulnerable witnesses.

According to Milne and Bull (2001) adults with learning disabilities are typically reported as slower than normal developing adults to encode, store and retrieve details of an event. Studies have detected that individuals with <https://assignbuster.com/the-influence-of-misleading-information-psychology-essay/>

learning disabilities are more susceptible to the negative effects of social demand factors. Kebbell and Hatton (1999) reported that adults with learning disabilities are more likely to answer 'yes' to questions irrespective of the content of such questions, they are likewise more inclined to make up answers. Therefore, caution must be taken when using eyewitness testimonies from individuals with learning disabilities.

The accuracy of eyewitness testimony may additionally be affected by the level of anxiety an eyewitness experiences at the time of the incident. Most laboratory based research has suggested that a high level of anxiety impairs recall and therefore reduces the accuracy of eyewitness testimony. Loftus (1979) engineered a situation where participants in a waiting room could hear a conversation between two people behind a closed door. Half the participants heard an innocent conversation and saw a man leave with a pen, whilst the other half heard an angry conversation with breaking glass and saw a man leave with a blood-stained knife. Loftus established that participants who had witnessed the peaceful scene were more accurate in identifying the man who left the room from a set of 50 photos than those participants who had witnessed the violent scene. Loftus states that this may be due to the anxiety of the bloody weapon narrowed the participant's attention away from the man's face. Additionally, Loftus and Burns (1982) exposed participants to crime videos' of varying levels of violence. Participants who watched a boy being shot in the face had a less accurate memory of the incident and any information running up to the incident than participants who watched a less violent crime. This supports the idea that anxiety may make eyewitness testimony less accurate.

However, these studies on anxiety can be criticised for lacking external validity. In real life situations, high levels of anxiety may not have poor recall accuracy as these laboratory studies suggest. Christianson and Hubinette (1993) in fact showed that high anxiety in real life situations may make memories more accurate and detailed. They surveyed individuals who had witnessed bank robberies. Some participants had simply witnessed the robbery, whilst other participants had been threatened by the robbers. It was found that those participants who had actually been threatened (and so presumably had experienced more anxiety) had more accurate recall. This finding suggests that the findings of laboratory experiments into the effect of anxiety on eyewitness testimony may not reflect real life and therefore we should be cautious when drawing conclusions based on their data.

The aim of this study is to extend to the numerous amounts of psychological evidence which warns the justice system of problems with eyewitness testimony. Jurors need to be made aware that confident, trustworthy witnesses can be mistaken. Evidence from Elizabeth Loftus states that using an individual's eyewitness testimony alone is an unreliable source of evidence as the individual may have been influenced by post-event information or other factors and therefore the testimony may not always be accurate in determining criminal justice. This study will concentrate solely on the effects of post-event information that may be received after witnessing an event.

The hypothesis of this study is whether or not participants who are exposed to misleading post-event information will have their eyewitness testimony influenced. Those participants who are tested using misleading questions will

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be more influenced than those participants who have non-misleading questions. Additionally, it is hypothesised that participants would be increasingly misled from information derived from that of a truck, opposed to that of a church.

Method

Participants:

Participants were Undergraduate Psychology and Counselling students from Swansea Metropolitan University who received course credits towards their degree for participating. Fifty participants were used (twenty-five females, twenty-five males). They were recruited voluntarily through the University's Experiment Management System (EMS). They were randomly assigned to one of two conditions: the manipulated with questions (n = 25; fourteen females, eleven males); the non-manipulated with questions (n = 25; eleven females, fourteen males). This random assignment to contrasting conditions was accomplished by placing participant's names in a hat. Participants were tested with a questionnaire after being exposed to a short video of a car excursion along a rural road.

Design:

The study was an experimental laboratory-based method, which employed a between-measures design. The purpose was to investigate any hypothetical anomalies of accuracy within memory recall, between misleading questions and standard questions. This was tested with the use of two differing questionnaires, one which established the use of misleading questions and one which exclusively used standard non-misleading questions. The <https://assignbuster.com/the-influence-of-misleading-information-psychology-essay/>

questions were identical on both questionnaires, excluding the misleading question used. As the study was a laboratory experiment, quantitative data was generated. The independent variable was the misleading post-event information, which was determined by a questionnaire. The dependent variable was the extent to which misled subjects incorporate the misleading information into their own eyewitness testimonies, which was measured by the memories of the participants given in the questionnaire. An independent-samples t-test was conducted to compare the results of the misled participants with the not-misled participants; this was employed to distinguish if the influence of leading questions had a significant effect on memory recall.

Materials:

A laboratory was required to conduct the experiment; the laboratory was a concealed isolated room with a computer monitor (20inch). A consent form was presented to all participants before they conducted the experiment (presented in Appendix A). A short three minute video clip of a car excursion along a rural road was employed and exposed on a computer monitor; the video clip demonstrated the car passing certain objects and buildings. The researcher collected data by distributing one of two questionnaires with ten questions to each participant. The questionnaires included two critical questions and eight insignificant questions. Both questionnaires had identical questions with the exception of the two, which are defined as critical. The critical questions proposed in the misled condition were “ Did you see the red delivery truck?” and “ Was the car travelling fast when it passed the church?” (presented in Appendix B) whilst the critical questions projected in <https://assignbuster.com/the-influence-of-misleading-information-psychology-essay/>

the not-misled condition were “ Were there any religious buildings?” and “ Was there a red delivery truck?” (presented in Appendix C). When in fact, there was no red truck or church in the video clip. A red pen was given to each participant to finalise the questionnaire. Lastly, a debrief form was assigned to all participants, illustrating the purpose of the research and why they were deceived (presented in Appendix D).

Procedure:

Participants at Swansea Metropolitan University applied to participate in the experiment through the EMS; each participant was assigned to one of two conditions. Once the participants arrived at the laboratory, they read and signed a consent form, permitting adequate consent to participate in the study. The participants were informed that the intention of the study was memory recall of a car excursion, testing was carried out individually. All participants were exposed to an identical video clip of a car excursion on a computer monitor. Immediately after watching the video clip, all participants were supplied with an independent questionnaire associated to the car excursion, and were instructed to answer the questions provided by circling the appropriate answer. On completion of the experiment, all participants were thanked and thoroughly de-briefed.

Ethical Considerations:

All ethical considerations for this study conformed to the ethical guidelines provided by the British Psychological Society (BPS, 2010) (ethics approval form presented in Appendix E). Full written consent was obtained before the

study commenced to guarantee the participants understood their rights within the study. They were likewise informed of their right to withdraw f