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Eyewitness Testimony: A Psychological And Legal Perspective

Anjali Nandan

Assistant Professor, Department of Psychology, Jharkhand Raksha Shakti University, Ranchi.

Abstract

Eyewitness testimony is very powerful and convincing to jurors, even though it is not particularly reliable. Identification errors occur, and these errors can lead to people being falsely accused and even convicted. Likewise, eyewitness memory can be corrupted by leading questions, misinterpretations of events, conversations with co-witnesses, and their own expectations for what should have happened. People can even come to remember whole events that never occurred. The problems with memory in the legal system are real. A number of specific recommendations have already been made, and many of these are in the process of being implemented. Eyewitness testimony can be of great value to the legal system, but decade of research now argues that this testimony is often given far more weight than its accuracy justifies. The present study consists of 100 subjects were selected between the age range 20–30-year-old. Almost from every profession. Their education level was graduate and post graduate. In this study disproportionate stratified random sampling technique was used for data collection. The calculation depicts that 41.17% subject's response matched with their own response when asked for the first time. Whereas 58.82% subject's response didn't match with their own response due to many external factors like reconstructive memory, anxiety, stress or leading questions. The claim that eyewitness testimony is reliable and accurate is testable, and the research is clear that eyewitness identification is vulnerable to distortion without the witness's awareness. More specifically, the assumption that memory provides an accurate recording of experience, much like a video camera is incorrect. Memory evolved to give us a personal sense of identity and to guide our actions. We are biased to notice and exaggerate and to minimize or overlook others. Memory is malleable.

Key Words: Eyewitness , Memory, Legal.

INTRODUCTION

1.1 OVERVIEW OF EYEWITNESS TESTIMONY

Eyewitness testimony is a legal term. It refers to an account given by people of an event they have witnessed.

For example, they may be required to give a description at a trail of a robbery or a road accident someone has seen. This includes identification of perpetrators, details of the crime scene etc.

Eyewitness testimony is an important area of research in cognitive psychology and human memory.

Juries tend to pay close attention to eyewitness testimony and generally find it reliable source of information. However, research into this area has found that eyewitness testimony can be affected by many psychological factors:

- Anxiety/ Stress
- Reconstructive Memory
- Weapon Focus
- Leading Questions

Anxiety/ Stress

Anxiety or stress is almost always associated with real life crimes of violence. **Deffenbacher** (1983) reviewed 21 studies and found that the stress-performance relationship followed an inverted- U function proposed by the **Yerkes Dodson Curve** (1908)

Clifford and **Scott** (1978) found that people who saw a film of a violent attack remembered fewer of the 40 times of information about the event than a control group who saw a less stressful version. As witnessing a real crime is probably more stressful than taking part in an experiment, memory accuracy may well be even more affected in real life.

However, a study by **Yuille** and **Cutshall** (1986) contradicts the importance of stress in influencing eyewitness memory.

They showed that witnesses of a real-life incident (a gun shooting outside a gun shop in Canada) had remarkable accurate memories of a stressful event involving weapons. A thief stole guns and money, but was shot six times and died.

The police interviewed witnesses, and thirteen of them were re-interviewed five months later. Recall was found to be accurate, even after a long time, and two misleading questions inserted by the research team had no effect on recall accuracy. One weakness of this study was that the witnesses who experienced the highest levels of stress where actually closer to the event, and this may have helped with the accuracy of their memory recall.

The **Yuille** and **Cutshall** study illustrates two important points:

1. There are cases of real-life recall where memory for an anxious/ stressful event is accurate, even some months later.
2. Misleading questions need not have the same effect as has been found in laboratory studies (e.g. **Loftus** & **Palmer)**.

Reconstructive Memory

Bartlett's theory of reconstructive memory is crucial to an understanding of the reliability of eyewitness testimony as he suggested that recall is subject to personal interpretation dependent on our learnt or cultural norms and values, and the way we make sense of our world.

Many people believe that memory works something like a videotape. Storing information is like recording and remembering is like playing back what was recorded. With information being retrieved in much the same form as it was encoded.

However, memory does not work in this way. It is a feature of human memory that we do not store information exactly as it is presented to us. Rather, people extract from information the gist, or underlying meaning.

In other words, people store information in the way that makes the most sense to them. We make sense of information by trying to fit it into schemas, which are a way of organizing information.

Schemas are mental 'units' of knowledge that correspond to frequently encountered people, objects or situations. They allow us to make sense of what we encounter in order that we can predict what is going to happen and what we should do in any given situation. These schemas may, in part, be determined by social values and therefore prejudice.

Schemas are therefore capable of distorting unfamiliar or unconsciously 'unacceptable' information in order to 'fit in' with our existing knowledge or schemas. This can, therefore, result in unreliable eyewitness testimony.

Bartlett tested this theory using a variety of stories to illustrate that memory is an active process and subject to individual interpretation or construction.

In his famous study **'War of the Ghosts', Bartlett** (1932) showed that memory is not just a factual recording of what has occurred, but that we make "effort after meaning". By this, **Bartlett** meant that we try to fit what we remember with what we really know and understand about the world. As a result, we quite often change our memories so they become more sensible to us.

His participants heard a story and had to tell the story to another person and so on, like a game of "Chinese Whispers".

The story was a North American folk tale called "The War of the Ghosts". When asked to recall it in their own individual way.

With repeating telling, the passage became shorter, puzzling ideas were rationalized or omitted altogether and details changed to become more familiar or conventional.

For example, the information about the ghosts was omitted as it was difficult to explain, whilst participants frequently recalled the idea of "not going because he hadn't told his parents where he was going" because that situation was more familiar to them. For this research **Bartlett** concluded that memory is not exact and is distorted by existing schema, or what we already know about world.

It seems, therefore, that each of us 'reconstructs' our memories to conform to our personal beliefs about the expectations etc.

The implications of this can be seen even more clearly in a study of Allport and **Postman** (1947).

When asked to recall details of the picture opposite, participants tented to report that it was the black man who was holding the razor.

Clearly this is not correct and shows that memory is an active process and can be changed to 'fit in' with what we expect to happen based on your knowledge and understanding of society (eg. Our schemas).

Weapon Focus

This refers to an eyewitness's concentration on a weapon to the exclusion of other details of a crime. In a crime where a weapon is involved, it is not unusual for a witness to be able to describe the weapon in much more detail than the person holding it.

Loftus et al. (1987) showed participants a series of slides of a customer in a restaurant. In one version the customer was holding a gun, in the other the same customer held a checkbook. Participants who saw the gun version tended to focus on the gun. As a result, they were less likely to identify the customer in an identity parade those who had seen the checkbook version.

However, a study by **Yuille and Cutshall** (1986) contradicts the importance of weapon focus in influencing eyewitness memory.

REVIEW OF LITERATURE

1. **Howells (1938):** There is little evidence that intelligence is related to eyewitness identification performance. An early study by him indicated a significant relation between face recognition accuracy and intelligence.
2. **Easterbrook (1959):** Emotional response causes a narrowing of attention with loss of peripheral details.
3. **Fleishman et al. (1976):** Faces that are highly attractive or highly unattractive are easier to recognize than are faces that are average in attractiveness, but what makes a face distinctive is not entirely clear.
4. **Brown et al. (1977):** Their study showed that there is no relation between intelligence and eyewitness identification performance or between face recognition accuracy and intelligence.
5. **Ellis et al. (1977):** The amount of time a culprit's face is in view affects the chances that the eyewitness can identify the person later.
6. **Wells (1978):** The distinction between estimator and system variables has assumed great significance in the eyewitness identification literature since it was introduced in the late 1970s.
7. **Leippe et al. (1978):** The amount of time a culprit's face is in view is not as critical for eyewitness identification accuracy as the type or amount of attention given by the witness. E.g., exposed unsuspecting people to a staged theft of a package.
8. **Wells et al. (1979):** A lineup's functional size is the number of lineup members who are "viable" choices for the eyewitness. Functional size was introduced as a specific measure.
9. **Powers et al. (1979):** Males and females might take an interest in different aspects of a scene and thereby remember somewhat

different details, overall abilities of males and females in eyewitness identification appear to be largely indistinguishable.

10. **Light et al. (1979):** Distinctive faces are much more likely to be accurately recognized than non-distinctive faces.
11. **Malpass's (1981):** Competing measures have been proposed, such as "effective size". Today functional size is used generically to mean the number of lineup members who fit the eyewitness's description of the culprit.
12. **Clifford and Hollin (1981):** Some research show that increased levels of violence in filmed events reduces eyewitness identification accuracy.
13. **Deffenbacher (1983):** He suggested that the effect is likely to follow the Yerkes Dodson Law where only very high and very low levels of arousal will impair memory.
14. **Hosch et al. (1984):** They found that high self monitors (individuals who adapt their behavior to cues regarding what is socially appropriate) are more susceptible to biased lineup procedures than are low self monitors.
15. **Hosch and Platz (1984):** They found a relationship between self monitoring and correct identifications.
16. **Wells and Hryciw (1984):** The abstract inferences require holistic processing of the face whereas the9 physical judgements require feature processing.
17. **Shapiro and Penrod (1986):** A meta-analysis by them indicated that females might be slightly more likely to make accurate identifications but also slightly more likely to make mistaken identifications than are males (due to females being more likely to attempt an identification), thereby yielding an overall equivalent diagnostic for males and females.
18. **Shapiro and Penrod (1986):** A meta-analysis by them indicated that individuals high in chronic trait anxiety (a general attitude of apprehension) made fewer mistaken identifications than individuals low in chronic trait anxiety.
19. **Cutler et al. (1987):** Simple disguises, even those as minor as covering the hair, result in significant impairment of eyewitness identification.
20. **Loftus et al. (1987):** They monitored eyewitness's eye movement and found that the weapons draw attention away from other things such as culprit's face.
21. **Bothwell et al. (1987):** When accuracy is low (e.g., from poor witnessing conditions), the certainty accuracy relationship suffers.
22. **Langois and Roggman (1990):** The arithmetic mean (averaged at the pixel level) of several faces (a prototype) is judged to be more attractive than the individual faces that were averaged, the distinctiveness recognition relation is probably not due to a simple deviation from the arithmetic mean of individual facial features.
23. **Read et al. (1990):** They found that photos of the same people taken two years apart were less likely to be recognized as the same people when their appearance had naturally changed (via aging, facial hair) than when their appearance had remained largely the same.
24. **Steblay (1992):** A meta-analysis of these studies indicates that the presence of a weapon reduces the chances that the eyewitness can identify the holder of the weapon.
25. **Christianson's (1992):** His review of the evidence relating emotional stress to memory suggests that emotional events receive preferential processing.
26. **Pozzulo and Lindsay (1998):** The eyewitness identification errors of young children and the elderly are highly patterned. When the lineup contains the actual culprit, young children and the elderly perform nearly as well as young adults in identifying the culprit, but when the lineup does not contain the culprit the young children and the elderly commit mistaken identifications at a higher rate than do young adults.
27. **Wells et al. (1998), Scheck et al. (2000):** More than 100 people who were convicted prior to the advent of forensic DNA have now been exonerated by DNA tests, and more than 75% of these people were victims of mistaken eyewitness identification.
28. **Hockley et al. (1999):** Sunglasses also impair identification, although the degree of impairment can be reduced by having the targets wear sunglasses at the time of recognition test.

29. **Wells et al. (2000):** The apparent prescience of the psychological literature regarding problems with eyewitness identification has created a rising prominence of eyewitness identification research in the criminal justice system.
30. **Meissner and Brigham (2001):** People are better able to recognize faces of their own race or ethnic group than faces of another race or ethnic group. A recent meta-analysis by them shows that this effect is robust across more than 25 years of research.

Hypothesis:

H_1 The eyewitness reliability decreases as time span increases between the incident and courtroom trial.

Objective:

1. To study how reliable can an eyewitness testimony be.
2. To observe how duration affect eyewitness testimony.
3. To study how malleable eyewitness testimony memory is.
4. To observe the importance of eyewitness testimony under Indian Evidence Act.

METHODOLOGY

In any discipline whether it is social science, science of commerce, methodology plays a leading role in carrying out the research study systematically and objectively. Research refers to a scientific and systematic investigation especially through search for new facts in any branch of knowledge. It is a systematized effort to find out the solution of the problem. These efforts require certain methods to be followed properly. Methodology is a total sum of these steps/techniques being carried out by researchers in order to find out the real dynamics operating for any problem and behavioral outcome.

SAMPLE OF THE STUDY:

The present study consists of 100 subjects were selected between the age range 20–30-year-old. Almost from every profession. Their education level was graduate and post graduate. In this study disproportionate stratified random sampling technique was used for data collection.

PROCEDURE

The experiment was administered on small group. For the purpose of data collection permission from the department of Psychology of University was taken in order to conduct experiment on the subjects. Then rapport was established with the subjects so that there will be no hesitation while asking for doubts regarding the experiment. At first introduction was given regarding the experiment, purpose of the experiment was properly explained.

A video was shown to the subjects, instructions regarding how they have to summarize what they saw in the video was properly explained in both the languages Hindi and English so that they can easily understand, and it was asked, them not to write their names but only their gender and age on the answer sheet so that they won't be conscious while writing the description. In order to obtain adequate responses, it was assured them that their responses would be kept strictly confidential and would only be used for the research purpose.

The subjects were shown the video. There was no time limit, but it was found that the subject took approximately 15-20 minutes to describe what they saw in the video. Responses were taken in handwritten format. After all the subjects completed their writing, the data were collected carefully.

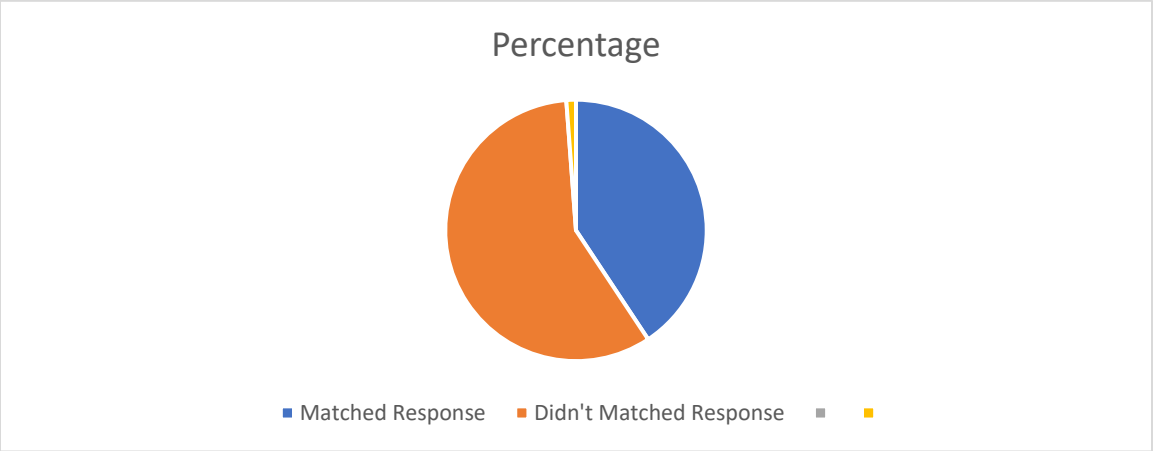
Then nearly after two weeks, same subjects were again asked to describe the video that they saw on the first day but no video was shown this day. This time also there were no time limit, but it was found that this time subjects took more time to recall what they saw two weeks earlier. Then similarly after all the students completed writing, the data were collected carefully.

OBSERVATION

The experiment was conducted on 100 subjects and then analyzed by obtaining percentage.

H_1 The eyewitness reliability decreases as time span increases between the incident and courtroom trial.

The calculation and analysis of data shows that the eyewitness reliability is low.



(58.82% subjects whose response didn't match, whereas 41.17% subjects whose response matched)

RESULT AND DISCUSSION

The calculation and analysis of data done by percentage calculation, shows that the percentage of subjects whose response didn't match were higher i.e., 58.82% whereas as percentage of subjects whose responses do match was 41.17%. This depict that the Hypothesis (H_1) that reliability of eyewitness is less with increase in time, which conclude that the alternate hypothesis is accepted for the given present study.

The calculation depicts that 41.17% subject's response matched with their own response when asked for the first time. Whereas 58.82% subject's response didn't match with their own response due to many external factors like reconstructive memory, anxiety, stress or leading questions.

Eyewitness testimony is historically among the most convincing forms of evidence in criminal trails. Probably only a suspect's signed confession can further convince a jury about that individual's guilt. That iconic moment when a testifying witness points to the defendant as the perpetrator of the crime is iconic, and has been dramatized often on television and movies. It is easy to understand why it is so convincing. We trust our own perception and experience. "I'll believe it when I see it" isn't just a cliché, it is a statement of the most persuasive form of evidence we allow.

But being convincing isn't the same as being accurate. Eyewitness testimony is more fallible than many people assume. The advent of DNA analysis in the late 1980s revolutionized forensic science, providing an unprecedented level of accuracy about the identity of actual perpetrators versus innocent people falsely accused of crime. DNA testing led to the review of many settled cases. According to the Innocence_Project, 358 people who had been convicted and sentenced to death since 1989 have been exonerated through DNA evidence. Of these, 71% had been convicted through eyewitness misidentification and had served an average of 14 years in prison before exoneration. Of those false identifications, 41% involved cross racial misidentifications (221 of the 358 people were African American). And 28% of the cases involved a false confession.

The claim that eyewitness testimony is reliable and accurate is testable, and the research is clear that eyewitness identification is vulnerable to distortion without the witness's awareness. More specifically, the assumption that memory provides an accurate recording of experience, much like a video camera is incorrect. Memory evolved to give us a personal sense of identity and to guide our actions. We are biased to notice and exaggerate and to minimize or overlook others. Memory is malleable.

Conclusion:

To conclude, eyewitness testimony is very powerful and convincing to jurors, even though it is not particularly reliable. Identification errors occur, and these errors can lead to people being falsely accused and even convicted. Likewise, eyewitness memory can be corrupted by leading questions, misinterpretations of events, conversations with co witnesses, and their own expectations for what should have happened. People can even come to remember whole events that never occurred.

The problems with memory in the legal system are real. A number of specific recommendations have already been made, and many of these are in the process of being implemented (e.g., Steblay and Loftus, 2012; Technical Working Group for Eyewitness Evidence, 1999; Wells et al., 1998). Some of these recommendations are aimed at specific legal procedures, including when and how witnesses should be interviewed, and how lineups should be constructed and conducted. Other recommendations call for appropriate education (often in the form of expert witness testimony) to be provided to jury members and others tasked with assessing eyewitness memory. Eyewitness testimony can be of great value to the legal system, but decade of research now argues that this testimony is often given far more weight than its accuracy justifies.

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