

ABSTRACT

In this research paper, the psychological factors that affect an eyewitness's ability to accurately testify in court will be analysed. This includes the psychological factors that affect the human memory as well as feelings of stress and anxiety experienced by the witness during a particular event. This will be done with the help of several theories put forward by renowned psychologists as well as the relevant Indian case laws and statutes.

This paper will help us in understanding the shortcomings that are present in the Indian Judicial system, for which appropriate reforms will be suggested at the end. This topic is of great importance as mistakes made by eyewitnesses can lead to the unlawful convictions of innocent people, thereby causing a miscarriage of justice¹.

¹ Cara Laney & Elizabeth F. Loftus, *Eyewitness Testimony and Memory Biases*, 1,2 (2014), https://www.researchgate.net/publication/327108738_Eyewitness_testimony_and_memory_biases (last visited Jun 8, 2020).

Jeremy Bentham, a renowned English philosopher had stated that “witnesses are the eyes and ears of justice”². A witness testifies to certain facts that he/she knows or has observed during a particular event³. In the case of *Madhu Madhuranatha v. State of Karnataka*, the judges defined a “witness” as a person who has the ability to provide information regarding a certain event through “oral or written depositions” in court⁴. These testimonies are of great importance in resolving disputes between parties in the courts of justice⁵. An eyewitness is a person who has witnessed a crime and later testifies to the details of the event, and can possibly help in identifying the perpetrator⁶. The statements of the witnesses that are taken on oath, are recorded as evidence in the manner prescribed in “Section 164” of the “Code of Criminal Procedure”⁷. Under “Section 3” of the “Indian Evidence Act, 1872”, eyewitness testimonies that are taken under oath are given a high evidentiary value in Indian Courts⁸. Even in the Supreme Court case of *Vikas Kumar Roorkeval v. State of Uttarakhand*, the judges held that “witnesses play an integral role in the criminal justice system”⁹. However, due to the compelling nature of these eyewitness testimonies, judges are likely to give inaccurate credence to them¹⁰. Although these testimonies tend to be very convincing, research has proved that people’s memories are susceptible to several kinds of biases and errors¹¹.

In an ongoing investigation, witnesses are often asked to play the “role of a tape-recorder”¹². The Prosecution tries to establish that the witness’s “recording equipment” is in an impeccable state by analysing all the “stored facts” regarding the event¹³. The Defence on the other hand, “cross-examines” the witness to establish that the recorder is defective due to the presence of “gaps in the tape”, i.e. gaps in their memory¹⁴. However, they are all under the

² Dr. Ch.N.V. Manikyala Rao, *Witness Depositions Evidentiary Value and Protection*, 4 GALGOTIAS JOURNAL OF LEGAL STUDIES 1 (2016), <https://www.galgotiasuniversity.edu.in/pdfs/4-Witness-Deposition-Evidentiary-Value-And-Protection-C-M-Rao-27218.pdf> (last visited Jun 8, 2020).

³ *Id.*

⁴ *Madhu Madhuranatha v. State of Karnataka*, (2011) Criminal Appeal No. 1357-1358 of 2011.

⁵ Rao, *supra* note 2.

⁶ Laney & Loftus, *supra* note 1.

⁷ The Code of Criminal Procedure, 1973, No. 2, Acts of Parliament, 1974.

⁸ The Indian Evidence Act, 1872, No. 1, Acts of Parliament, 1872.

⁹ *Vikas Kumar Roorkeval v. State of Uttarakhand*, (2011) Transfer Petition (Criminal) No. 29 of 2008.

¹⁰ Katherine Puddifoot, *Re-Evaluating The Credibility Of Eyewitness Testimony: The Misinformation Effect And The Overcritical Juror*, EPISTEME 1-25 (2018), https://www.cambridge.org/core/services/aop-cambridge-core/content/view/B8F651467F46D7D1BCA7F73D46C93FE4/S1742360018000424a.pdf/reevaluating_the_credibility_of_eyewitness_testimony_the_misinformation_effect_and_the_overcritical_juror.pdf.

¹¹ Laney & Loftus, *supra* note 1.

¹² Robert Buckhout, *Eyewitness Testimony*, 15 JURIMETRICS JOURNAL 171 (1975), <https://www.jstor.org/stable/29761486>.

¹³ *Id.*

¹⁴ *Id.*

misconception that everything was accurately “recorded and can be played back later” in court¹⁵. Eyewitnesses can make errors in remembering the exact details of an event and sometimes even remember events that did not actually take place¹⁶. Scientific research shows us that an eyewitness’s testimony can be inaccurate even if he/she “believes” it to be correct¹⁷. Thus, they end up giving erroneous testimonies without even knowing it. These mistaken identifications can lead to false convictions of innocent people, consequently leading to the non-identification of the guilty¹⁸. However, the unlawful conviction of an innocent person is known to be much costlier than the false acquittal of the guilty¹⁹.

Although eyewitness testimonies have proven to be reliable in several cases, research shows us that these testimonies can be influenced by various psychological factors, including stress, anxiety, memory distortion and reconstruction, etc. Due to this, eyewitness testimonies form an important field of research in “cognitive psychology and human memory”²⁰. Scientific research has proved that there are some variables that have an effect on the eyewitness’s ability to testify in court²¹. These variables affect the ability of the eyewitness to “perceive, encode, retain or retrieve” the information, “make distinctions between the genuinely acquired information and those acquired later from other sources” and lastly, their ability to later disclose the relevant information regarding the target event²². Judges need to be extremely careful while dealing with such testimonies, especially when there is an absence of any corroborative evidence to support or contradict the statements of the witness²³. They need to take these factors into consideration while accepting eyewitness testimonies as the primary or sole evidence in a case.

¹⁵ Buckhout, *supra* note 12.

¹⁶ Laney & Loftus, *supra* note 1.

¹⁷ Martine Powell, Maryanne Garry & Neil Brewer, *Eyewitness testimony*, (2013), <https://www.agd.sa.gov.au/sites/default/files/powellgarrybrewer13eyewitnesstestimony.pdf?v=1490676272> (last visited Jun 8, 2020).

¹⁸ Steven E. Clark et al., *Eyewitness Identification and the Accuracy of the Criminal Justice System*, 2 POLICY INSIGHTS FROM THE BEHAVIORAL AND BRAIN SCIENCES 175-186 (2015),

<https://shareok.org/bitstream/handle/11244/49353/10.1177.2372732215602267.pdf?sequence=1&isAllowed=y>.

¹⁹ *Id.*

²⁰ Saul McLeod, *Eyewitness Testimony*, 1-3 (2009), <https://www.simplypsychology.org/eyewitness-testimony.html> (last visited Jun 8, 2020).

²¹ Powell, Garry & Brewer, *supra* note 17.

²² *Id.*

²³ *Id.*

Scientists often divide the “process of memory” into three distinct stages²⁴. First comes the “encoding stage”, where an individual witnesses an event and is exposed to some particular information²⁵. Next comes the “retention stage”, where the individual stores the information²⁶. Last comes the “retrieval stage”, where the eyewitness has to recall the relevant information from the event and identify the people or objects involved²⁷. It has been proved that over time, human memory starts to decline or “decay” during the “retention stage”²⁸. The longer the time period is from the “encoding” to the “retrieval stage”, the less reliable the information tends to be. In the case of *Daya Singh v. State of Haryana*, the identification by witnesses took place 8 years after the actual event²⁹. Such delays can cause serious distortions in the minds of the witnesses, which can lead to mistaken identifications³⁰. With the passage of time, there is often the “filling in of spurious details”, leading to erroneous testimonies³¹. Although this process helps the witness to retain the information, the testimony becomes unreliable as the witness subconsciously tries to distort their memory to fit the available suspects³². With the passage of time, there is also a possibility of increased interferences, where the witness receives additional information regarding the event through other people³³. This “Post-event information” may not be accurate at all times, which can distort the memory of the eyewitnesses³⁴. Such distortions are usually minor and do not severely impact the evidentiary value of the eyewitness testimony³⁵. But there can be certain situations where these distortions are so major, that they severely affect the reliability of the testimonies³⁶. Authorities must record the statements of these eyewitnesses immediately after the occurrence of the event or after a short period of time, to ensure that such distortions of their memory does not take place. Their memory would then be free from external influences and can be used as a reliable source of evidence in courts.

People’s beliefs and expectations can also have a huge impact on their memories³⁷. Frederick Barlett’s theory of “reconstructive memory” is important to understand the

²⁴ Powell, Garry & Brewer, *supra* note 17.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Daya Singh v. State of Haryana*, (2001), Criminal Appeal No. 416 of 1998.

³⁰ *Id.*

³¹ Buckhout, *supra* note 12.

³² *Id.*

³³ Powell, Garry & Brewer, *supra* note 17.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ Laney & Loftus, *supra* note 1.

evidentiary value of eyewitness testimonies³⁸. He says that a person's ability to recall information depends on their "cultural norms and values, and the way they make sense of the world"³⁹. The human memory does not store information in the exact form that it receives it⁴⁰. People tend to retain information in the form of a "gist", in a way that makes most sense to them⁴¹. People organise the information in their mind and try to fit them into "schemas"⁴². These schemas are "mental units of knowledge" that allow people to make sense of the objects and situations that they encounter in their life, so that they know how to act in a particular situation⁴³. These schemas are determined by "social values" and are therefore able to distort "unfamiliar" or "unacceptable" information so as to "fit in" with a person's existing pool of knowledge⁴⁴. Such eyewitness testimonies can turn out to be unreliable due to the existing "prejudices"⁴⁵. Everyone has their own set of personal biases that can have a severe impact on the genuineness of the statements made by them regarding a particular event. Such factors need to be considered by judges before placing reliance on eyewitness testimonies.

Researchers have proved that at times, people even remember events that never actually occurred⁴⁶. Such memory errors form a category of their own, i.e. "False Memories"⁴⁷. People can remember "false details from genuine events" or sometimes even remember "wholly false events"⁴⁸. Such false memories are not intentional and are not due to any fault of the witness. Some experiments have also demonstrated that people tend to only see what they internally want or need to see⁴⁹. The witness's expectations or prior knowledge regarding a particular event also plays an important role in the formation of false memories⁵⁰. Their memories can also be affected due to "competing information" that they receive from other sources regarding the same event⁵¹. This could be in the form of discussions with others, media reports, dreams, etc. Such factors have the potential to replace or change the original memory of the witness⁵².

³⁸ McLeod, *supra* note 20.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ Laney & Loftus, *supra* note 1.

⁴⁷ *Id.*

⁴⁸ Powell, Garry & Brewer, *supra* note 17.

⁴⁹ Buckhout, *supra* note 12.

⁵⁰ Powell, Garry & Brewer, *supra* note 17.

⁵¹ *Id.*

⁵² *Id.*

Authorities must also be careful while investigating witnesses as their questions can also cause fabrication of memories⁵³. The manner in which they conduct their interrogation is of great significance. Thus, we can clearly see that the human memory is subjective in nature and can be affected by various factors. Such memory distortions can lead to incorrect identifications and this can have severe consequences in the lives of innocent people. The legal system must take into account the psychological factors that affect the human memory, so that they can prevent injustice from taking place.

Another factor that critically affects the reliability of a testimony is the amount of stress and anxiety experienced by the eyewitness during the event. Stress refers to a “negative emotional state which is associated with both psychological changes and a subjective set of cognitions”⁵⁴. This is linked with the increased levels of “arousal” experienced during a particular event, leading to increased blood pressure and heart rate, along with the perception of threat and anxiety⁵⁵. The accuracy of the testimony is said to be dependent on the amount of stress that the eyewitness experiences during the event⁵⁶. The “Yerkes-Dodson Law” states that the relationship between “performance and arousal” follows an “inverted U” graph⁵⁷. This graph shows us that with a slight increase in arousal during an event, the performance of an individual tends to improve up to an “optimal point”⁵⁸. However, with the increase in arousal, beyond the “optimal point”, the performance begins to decline⁵⁹. This implies that the witness’s ability to recollect details regarding the event declines with the increase in stress beyond a certain point. It is also very difficult to measure and compare the “degree of stress” that people experience during an event⁶⁰. Thus, it is difficult to realistically apply this law in the case of all eyewitness testimonies.

Competing theories say that an observer’s attention becomes more focused with the increase in the emotional stress levels⁶¹. People tend to remember the central details that they

⁵³ Buckhout, *supra* note 12.

⁵⁴ Ani A. Aharonian & Brian H. Bornstein, *Stress and Eyewitness Memory*, *ENCYCLOPEDIA OF PSYCHOLOGY AND LAW* 1,2 (2008), <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1482&context=psychfacpub> (last visited Jun 8, 2020).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Aharonian & Bornstein, *supra* note 54.

⁵⁸ *Id.*

⁵⁹ McLeod, *supra* note 20.

⁶⁰ Aharonian & Bornstein, *supra* note 54.

⁶¹ *Id.*

paid attention to, while their memory for peripheral details declines⁶². This leads to selective retention of information by the eyewitness. For example, it is a proven fact that if there is a weapon involved in a particular crime, eyewitnesses tend to focus only on the weapon⁶³. Thus, although they would be able to perfectly describe the weapon involved, they may not be able to identify the person who was holding it⁶⁴. When there is a weapon such as a gun or knife involved in a crime scene, it is likely to heighten the stress and arousal levels of witnesses. Thus, although they can correctly recall details regarding the weapon, they may not be able to accurately identify the perpetrator. Thus, solely relying on their testimony may lead to the incorrect identification of the culprit. Many researchers also say that extremely traumatic events can be completely forgotten by people, even after a very short period of time⁶⁵. Although it is not conclusive, it is believed that increased stress has a higher “negative impact” on an eyewitness’s memory, rather than a positive one⁶⁶. Eyewitnesses may have difficulty in remembering details due to the high level of stress and anxiety that they experienced during the event. This can have severe repercussions on their ability to recall information, leading to unreliable testimonies. Thus, factors such as the stress and trauma experienced by an eyewitness must be appropriately considered by courts while administering their testimonies as evidence.

When an eyewitness is asked to give a testimony, they may be influenced by certain “social and motivational” factors⁶⁷. There can be situations where the eyewitness deliberately conceals some important details or delivers false information regarding an event⁶⁸. Our Indian society has certain societal norms according to which people perceive one another. People are susceptible to getting influenced due to the opinions of others⁶⁹. Due to the societal pressure to comply with these norms, eyewitnesses may alter their testimony to avoid embarrassment in society⁷⁰. Every experience which is familiar to an eyewitness is evaluated with the elements of “bias, illusion or suggestibility”⁷¹. This means that they unconsciously accept the opinions

⁶² Aharonian & Bornstein, *supra* note 54.

⁶³ McLeod, *supra* note 20.

⁶⁴ *Id.*

⁶⁵ Powell, Garry & Brewer, *supra* note 17.

⁶⁶ Aharonian & Bornstein, *supra* note 54.

⁶⁷ Powell, Garry & Brewer, *supra* note 17.

⁶⁸ *Id.*

⁶⁹ Emory Smith, *The Fallibility of Eyewitness Testimony*, 1 THE AMERICAN JOURNAL OF POLICE SCIENCE 487-495 (1930), <https://www.jstor.org/stable/1147227>.

⁷⁰ Powell, Garry & Brewer, *supra* note 17.

⁷¹ Smith, *supra* note 69.

of others due to their emotional state⁷². Such societal biases may reduce the reliability of eyewitness testimonies. Certain eyewitnesses could intentionally fabricate the information in order to receive rewards and benefits⁷³. There could be situations where they are bribed by the guilty party with financial incentives to withhold some crucial information. They can also be motivated to protect the perpetrator, if they happen to be related to him/her⁷⁴. The fear of punishment or penalty is another factor which could lead to fabrication or withholding of information by the witness⁷⁵. Therefore, due to these external factors, it is dangerous to blindly trust the statements of eyewitnesses without corroborating their information with other evidence. Some of them may have ulterior motives behind their testimonies, leading to the wrongful conviction of people.

We can clearly see that statements of eyewitnesses can become unreliable due to the abovementioned factors. The courts and police authorities have to take all the necessary steps required to test the authenticity of the eyewitness testimonies. One of the ways of establishing the identity of the perpetrator is through the “Test Identification Parade” (TIP) conducted under “Section 9” of the “Indian Evidence Act”⁷⁶. “Section 9” deals with “facts that are necessary to explain or introduce a fact in issue or a relevant fact, and even those that are required to establish the identity of any person or thing” in a particular case⁷⁷. The main purpose of conducting these identification parades is to check the “veracity” of the eyewitness testimony⁷⁸. The idea is to check whether the eyewitness can recognize the perpetrator from amidst other individuals without any external aid⁷⁹. Identification of the accused during the TIP does not constitute “substantive evidence” on its own as it can only be used to verify the testimony made by the eyewitness in the court of law⁸⁰. In the Supreme Court case of *State of A.P. v. V.K. Venkata Reddy*, the judges held that the identification made by eyewitnesses during TIP merely corroborates the testimony made by them in the courts of law⁸¹.

⁷² Smith, *supra* note 69.

⁷³ Powell, Garry & Brewer, *supra* note 17.

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Smt. L.Devi Rathna Kumari, TEST IDENTIFICATION PARADE 1,2, <https://districts.ecourts.gov.in/sites/default/files/mct.pdf> (last visited Jun 8, 2020).

⁷⁷ The Indian Evidence Act, 1872, No. 1, Acts of Parliament, 1872.

⁷⁸ Kumari, *supra* note 76.

⁷⁹ Shivam Goel, Test Identification Parade of the Accused: Law, Practice and Safeguards Tilak Marg (2017), https://tilakmarg.com/opinion/test-identification-parade-of-the-accused-law-practice-and-safeguards/#_ftn2 (last visited Jun 8, 2020).

⁸⁰ *Id.*

⁸¹ *State of A.P. v. V.K. Venkata Reddy*, (1976) 1976 AIR 2207.

It is to be noted that a TIP cannot be conducted by the police authorities as statements of identification made to the police would be inadmissible as evidence as per “Section 162” of the “Code of Criminal Procedure”⁸². For the TIP to be admissible, it must be conducted by a Magistrate⁸³. However, at times, due to the unavailability of the Magistrates, there can be delays in conducting the TIP⁸⁴. In *Rajesh Govind Jagesha v. State of Maharashtra*, the Supreme Court held that the unavailability of the magistrate in Bombay was an unsatisfactory reason to conduct a delayed TIP⁸⁵. Such delays can reduce the credibility of the identification that takes place through the TIP⁸⁶. The TIP must be conducted as a matter of “priority and prudence” as soon as the offence is committed in order to get the most reliable statement by the witness⁸⁷. However, in the case of *Asha v. State of Rajasthan*, it was held that the complainant knew the culprits and the F.I.R. was lodged soon after the offence took place⁸⁸. Thus, there was no need for a TIP as the witness was already familiar with the accused⁸⁹. Conducting a TIP is not considered to be a “*sin qua non*” in every case⁹⁰. There is no need to conduct a TIP if the guilt of the perpetrator can conclusively be established by the facts and circumstances of the case⁹¹. However, if there is even a slight doubt of uncertainty regarding the witness not knowing the culprits, it is always advisable to conduct a TIP to ensure that the Prosecution does not lose the case over this issue⁹².

The police must ensure that the identity of the perpetrator is not exposed to the eyewitnesses before the TIP is conducted⁹³. Such exposure would lead to biases in the mind of the witness, vitiating the TIP itself⁹⁴. In order to make it a “Fair TIP”, the suspect must be paraded among several other people having similar physical characteristics in terms of age, height, weight, etc.⁹⁵ All these “fillers” must match the description given by the eyewitness to

⁸² The Code of Criminal Procedure, 1973, No. 2, Acts of Parliament, 1974.

⁸³ Goel, *supra* note 79.

⁸⁴ *Id.*

⁸⁵ *Rajesh Govind Jagesha v. State of Maharashtra*, (1999) Criminal Appeal No. 737 of 1997.

⁸⁶ Goel, *supra* note 79.

⁸⁷ *Id.*

⁸⁸ *Asha v. State of Rajasthan*, (1997) AIR 1997 SC 2828.

⁸⁹ *Id.*

⁹⁰ Goel, *supra* note 79.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

ensure that none of them “stick out” in the line-up⁹⁶. The investigating authorities must conduct a “high-quality and fair line up” to ensure reliable results⁹⁷. If a particular individual was to stand out from the line up, they would have a higher chance of being picked by the eyewitness, which could result in wrongful convictions. It is also said that during situations of high stress, eyewitnesses are less likely to accurately identify the accused from a line up⁹⁸. Thus, before conducting a TIP, the authorities must first assess the state of mind of the eyewitness to ensure that they can accurately recollect information regarding the perpetrator. If this assessment is not done, the TIP would become a futile exercise, leading to a waste of resources. At times, the authorities can also unknowingly increase the likelihood of errors made by witnesses due to their style of investigating⁹⁹. One solution that can be adopted is the creation of guidelines to help the police authorities understand and assess the witness’s state of mind. There should also be rules and procedures made for the officers to follow during the investigation process to prevent unnecessary influences in the mind of the witness. Leading or suggestive questions could cause the creation of biases for the witness, leading to incorrect identification. These guidelines must be developed not only by competent members of the Legislature, but also with the help of an expert team of psychologists. The authorities must also ensure that the TIP is conducted as soon as the crime is committed to prevent a decline in the memory of the eyewitness so that they do not make any mistakes during the identification process.

In conclusion, we can clearly see that eyewitnesses play an integral role in uncovering the truth regarding the accused in cases. However, the human memory is subjective in nature and can be influenced and distorted due to several reasons. If the time gap between the event and the testimony becomes very long, the witness’s memory starts to decline. This is the primary reason for conducting the test identification parades as soon as the crime has been committed. This way, the memory of the witness will be fresh and devoid of any influence and fabrication. The level of trauma and stress felt by the witness can also have an adverse impact on the statements made by them. Due to the presence of these psychological factors affecting the memory of witnesses, the courts should also be informed about these issues so they can appropriately judge such cases. In exceptional cases of extreme uncertainty, the courts should hire or allow the parties to hire an expert psychologist to help with the proceedings. Judges

⁹⁶ Laney & Loftus, *supra* note 1.

⁹⁷ *Id.*

⁹⁸ Aharonian & Bornstein, *supra* note 54.

⁹⁹ Powell, Garry & Brewer, *supra* note 17.

should be aware of the psychological effects to the human memory, which could lead to unreliable witness testimonies. They should not rely on eyewitness testimonies as the sole basis of conviction, except in exceptional cases. The testimonies must be corroborated with additional evidence to ensure that wrongful convictions do not take place. Even a slight mistake on the part of an eyewitness can completely ruin the life of an innocent person and this is the gravest possible form of injustice. Although the importance of eyewitness testimonies cannot be ignored, legal authorities have to implement several reforms to ensure that the courts understand the subjectivity of the human mind and appropriately apply the law.

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