LETTER TO THE EDITOR

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Eyewitness testimony: probative value in criminal justice system

Biswa Prakash Nayak[*] and Himanshu Khajuria

Abstract

This article reveals the problems and issues related to reliability of eyewitness testimony in the criminal justice system. The article also discusses various internal and external factors affecting the accuracy of eyewitness identification, such as attention, stress level, prejudice, prior experience, cognitive state, degree of certainty, biased lineups, and racial or personal bias, with an emphasis on the need to sensitize the law enforcement agency and jurors regarding the reliability of eyewitness testimony to prevent injustices.

Keywords: Eyewitness, Forensic science, Innocence project

Main text

Despite enormous scientific rather technological advancements, "Eyewitness Testimony" is still considered an integral part of criminal justice system. Eyewitness testimony is based on human discernment, which is malleable and can be easily distorted without consciousness leading to erroneous identification. It is one of the major causes for wrongful convictions. An eyewitness may be helpful in criminal investigation and prosecution as he/she may recall criminal activities, identify the perpetrator, or provide useful information related to a crime (Morgan 3rd et al. 2011). But several studies conducted by renowned psychologists in the last three decades and recent cases of exoneration by DNA analysis has made eyewitness testimony a questionable investigation tool per se that aids the criminal justice system.

Eyewitness testimony is a form of direct evidence which may be regarded as valuable for the forensic purposes. In the absence of any other crucial evidence, the testimony of an eyewitness is considered putative by the law enforcement agencies. Therefore, the criminal justice system faithfully relies on an eyewitness testimony to ascertain facts relating to a crime or an event of miss happening. Recalling the events of crime is primarily a cognitive process which is influenced by many factors, and sometimes, we may have little control over the internal and external factors (Safer et al. 2016).

Several psychologists have studied human memory since the early nineteenth century. And the results of such studies are quite surprising which suggests that human memory can be flawed due to errors in different stages of memory. There are three main stages in memory where an error may occur, i.e., encode (occurrence of event), storage (event is stored for a specific duration), or recall (retrieval of event). Though human memory is more often assumed to be indelible (sometimes considered as veridical) in nature, it has been proven to be distorted time and again by various neuroscientists through different memory models (McClelland et al. 1995; Lacy and Stark 2013).

Moreover, various internal and external factors also affect the accuracy of eyewitness identification. Internal factors may be described as psychological and/or biological which involves age, attention, motivation, skill, stress level, health conditions, prejudice, prior experience, cognitive state, confidence or degree of certainty, gender, contextual information or suggestive questioning, biased lineups, racial or personal bias, etc. Among all these factors, contextual information and confidence have been observed to have profound impact on decision-making on the part of an eyewitness. Confidence tends to intensify over time in a decision, sometimes referred to as "confidence hardening." Though previous experience and outlying information may influence decision-making, contextual information can result in biased confirmation (Albright 2017). External factors sometimes termed as environmental ones can be defined

* Correspondence: biswa.nayak@gmail.com
Amity institute of Forensic Sciences (AIFS), Amity University Sec 125, Noida,
Uttar Pradesh 201313, India

as time or duration of exposure, event timings (day/night), lighting conditions, distance, weapons, loud noise, peripheral information, etc. (Fitzgerald et al. 2018).

Many of the highly controlled laboratory experiments have resulted in demonstration of human memory failure or human predilection in case of reporting previous events. Even human perception related to color, size, and shape are easily distorted with passage of time without conscious awareness. Perceptual distortions may have little effect in day to day life, but in the case of an eyewitness testimony, this may result in misidentification of victim or perpetrator ultimately leading to egregious failure on the part of judiciary system in delivery of justice (Garrett 2011; Fitzgerald et al. 2018).

As per the data provided by "The Innocence Project," more than 356 people have been exonerated by DNA testing who were wrongly convicted in USA alone. It is estimated that, out of all these cases, more than 72% were due to eyewitness misidentification (Innocence Project 2018). In one of the notable cases, an innocent person (named Ronald Cotton) served 10 years in prison due to an eyewitness testimony provided by the victim, Jennifer Thompson. Several other cases around the globe may be cited where erroneous convictions were discharged due to flawed eyewitness testimony. These outcomes undermine the trust of the public in the criminal justice system by putting a question mark on the investigation process and prosecution. Having limited information on the factors influencing eyewitness testimony, the jurors and legal professionals often make decision as per the demeanor and perception of an eyewitness. To address these issues, the National Academy of Sciences (NAS), USA has constituted a committee of experts from several fields (like psychologists, scientists, statisticians, law enforcement agencies, police, forensic experts) to comprehend various factors that influence eyewitness misidentification (Innocence Project 2018). For the effective safeguard of the legal system, it is necessary to sensitize the law enforcement agency and jurors regarding the testimony of eyewitness and other scientific evidences to prevent future injustices (Safer et al. 2016).

Authors' contributions
BPN has designed the initial draft. HK completed the literature review for the manuscript. Both authors have reviewed the manuscript content and approve its final version for publication.

Authors' information
Dr. Biswa Prakash Nayak currently working as an Asst. Professor at Amity University. Having more than 12 years of teaching and research experience in Forensic Science.

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