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Why Science Tells Us Not to Rely on Eyewitness Accounts

Eyewitness testimony is fickle and, all too often, shockingly inaccurate

Jan 8, 2009 | By [Hal Arkowitz](#) and [Scott O. Lilienfeld](#) |

IN 1984 KIRK BLOODSWORTH was convicted of the rape and murder of a nine-year-old girl and sentenced to the gas chamber—an outcome that rested largely on the testimony of five eyewitnesses. After Bloodsworth served nine years in prison, DNA testing proved him to be innocent. Such devastating mistakes by eyewitnesses are not rare, according to a report by the Innocence Project, an organization affiliated with the Benjamin N. Cardozo School of Law at Yeshiva University that uses DNA testing to exonerate those wrongfully convicted of crimes. Since the 1990s, when DNA testing was first introduced, Innocence Project researchers have reported that 73 percent of the 239 convictions overturned through DNA testing were based on eyewitness testimony. One third of these overturned cases rested on the testimony of two or more mistaken eyewitnesses. How could so many eyewitnesses be wrong?

Eyewitness identification typically involves selecting the alleged perpetrator from a police lineup, but it can also be based on police sketches and other methods. Soon after selecting a suspect, eyewitnesses are asked to make a formal statement confirming the ID and to try to recall any other details about events surrounding the crime. At the trial, which may be years later, eyewitnesses usually testify in court. Because individuals with certain psychological disorders, such as antisocial personality disorder and substance dependence, are at high risk for criminal involvement, they are also at heightened risk for false identifications by eyewitnesses.

Surveys show that most jurors place heavy weight on eyewitness testimony when deciding whether a suspect is guilty. But although eyewitness reports are sometimes accurate, jurors should not accept them uncritically because of the many factors that can bias such reports. For example, jurors tend to give more weight to the testimony of eyewitnesses who report that they are very sure about their identifications even though most studies indicate that highly confident eyewitnesses are generally only slightly more accurate—and sometimes no more so—than those who are less confident. In addition to educating jurors about the uncertainties surrounding eyewitness testimony, adhering to specific rules for the process of identifying suspects can make that testimony more accurate.

Reconstructing Memories

The uncritical acceptance of eyewitness accounts may stem from a popular misconception of how memory works. Many people believe that human memory works like a video recorder: the mind records events and then, on cue, plays back an exact replica of them. On the contrary, psychologists have found that memories are reconstructed rather than played back each time we recall them. The act of



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remembering, says eminent memory researcher and psychologist Elizabeth F. Loftus of the University of California, Irvine, is “more akin to putting puzzle pieces together than retrieving a video recording.” Even questioning by a lawyer can alter the witness’s testimony because fragments of the memory may unknowingly be combined with information provided by the questioner, leading to inaccurate recall.

Many researchers have created false memories in normal individuals; what is more, many of these subjects are certain that the memories are real. In one well-known study, Loftus and her colleague Jacqueline Pickrell gave subjects written accounts of four events, three of which they had actually experienced. The fourth story was fiction; it centered on the subject being lost in a mall or another public place when he or she was between four and six years old. A relative provided realistic details for the false story, such as a description of the mall at which the subject’s parents shopped. After reading each story, subjects were asked to write down what else they remembered about the incident or to indicate that they did not remember it at all. Remarkably about one third of the subjects reported partially or fully remembering the false event. In two follow-up interviews, 25 percent still claimed that they remembered the untrue story, a figure consistent with the findings of similar studies.

Given the dangers of mistaken convictions based on faulty eyewitness testimony, how can we minimize such errors? The Innocence Project has proposed legislation to improve the accuracy of eyewitness IDs. These proposals include videotaping the identification procedure so that juries can determine if it was conducted properly, putting individuals in the lineup who resemble the witness’s description of the perpetrator, informing the viewer of the lineup that the perpetrator may or may not be in it, and ensuring that the person administering the lineup or other identification procedure does not know who the suspect is. Although only a few cities and states have adopted laws to improve the accuracy of eyewitness identifications, there seems to be a growing interest in doing so.

Expert Testimony

In addition, allowing experts on eyewitness identification to testify in court could educate juries and perhaps lead to more measured evaluation of the testimony. Most U.S. jurisdictions disallow such experts in courtrooms on the grounds that laboratory-based eyewitness research does not apply to the courtroom and that, in any case, its conclusions are mostly common sense and therefore not very enlightening. Yet psychologist Gary Wells of Iowa State University and his colleague Lisa Hasel have amassed considerable evidence showing that the experimental findings do apply to courtroom testimony and that they are often counterintuitive.

Science can and should inform judicial processes to improve the accuracy and assessment of eyewitness accounts. We are seeing some small steps in this direction, but our courts still have a long way to go to better ensure that innocent people are not punished because of flaws in this very influential type of evidence.

Error-Prone IDs

A number of factors can reduce the accuracy of eyewitness identifications. Here are some of them:

- Extreme witness stress at the crime scene or during the identification process.
- Presence of weapons at the crime (because they can intensify stress and distract witnesses).
- Use of a disguise by the perpetrator such as a mask or wig.
- A racial disparity between the witness and the suspect.
- Brief viewing times at the lineup or during other identification procedures.
- A lack of distinctive characteristics of the suspect such as tattoos or extreme height.

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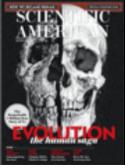
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(Further Reading)

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