

How reliable is eyewitness testimony? Scientists weigh in

By John Bohannon Oct. 3, 2014 , 5:00 PM

The victim peers across the courtroom, points at a man sitting next to a defense lawyer, and confidently says, "That's him!"

Such moments have a powerful sway on jurors who decide the fate of thousands of people every day in criminal cases. But how reliable is eyewitness testimony? A new report concludes that the use of eyewitness accounts need tighter control, and among its recommendations is a call for a more scientific approach to how eyewitnesses identify suspects during the classic police lineup.

For decades, researchers have been trying to nail down what influences eyewitness testimony and how much confidence to place in it. After a year of sifting through the scientific evidence, a committee of psychologists and criminologists organized by the U.S. National Research Council (NRC) has now gingerly weighed in. "This is a serious issue with major implications for our

justice system," says committee member Elizabeth Phelps, a psychologist at New York University in New York City. Their 2 October report, *Identifying the Culprit: Assessing Eyewitness Identification*, is likely to change the way that criminal cases are prosecuted, says Elizabeth Loftus, a psychologist at the University of California, Irvine, who was an external reviewer of the report.

As Loftus puts it, "just because someone says something confidently doesn't mean it's true." Jurors can't help but find an eyewitness's confidence compelling, even though experiments have shown that a person's confidence in their own memory is sometimes undiminished even in the face of evidence that their memory of an event is false.

The procedures of a criminal investigation can even distort eyewitness recall. The classic example is the lineup: The witness is asked to pick out the perpetrator from a group of similar-looking people. But the police detectives who organize the lineup are usually the same ones who have identified or caught the prime suspect, making them invested in the eyewitness selecting their

choice. "They can't help but drop little cues," Loftus says. A detective might smile, grunt, or nod approvingly when a suspect is chosen. "Witnesses pick up on it." More insidiously, police interrogators can unconsciously coach people into having false memories, **a problem revealed in the 1990s in research by Loftus and others.**

So why is NRC weighing in now? For one thing, the Laura and John Arnold Foundation provided the National Academies a \$333,000 grant last year to undertake the study. But it would have happened sooner or later, Loftus says, given the increasing number of people convicted with eyewitness testimony who have been subsequently exonerated by DNA evidence. Some 75% of the wrongful convictions for rape and murder, including a number that led to people being scheduled for execution, were based on eyewitness testimony.

For some of the scientific controversies surrounding eyewitness accounts, the new report withholds judgment. For example, the traditional police lineup can be performed in one of two ways: The witness can be shown people sequentially, or all of them at once. The

goal is to minimize bias, but scientists disagree on which approach is better—or if it matters at all. The report calls this debate "unresolved."

One thing the report comes out solidly in favor of is treating the lineup as a double-blind scientific experiment—neither the witness nor the presiding officer should know in advance whether the suspect is in the lineup. "Double-blinding is central to the scientific method because it minimizes the risk that experimenters might inadvertently bias the outcome of their research, finding only what they expected to find," the report concludes. But it leaves the question of exactly how police departments should implement double-blind lineups unanswered.

"The best way is with a computer system," Loftus says, with no police officers present to influence the witness. The computer would run the lineup all on its own, choosing similar-looking people from a large database of photos. Computerizing lineups may be expensive and complicated, but considering "the damage to those innocent people's lives, and the huge cost of compensations," Loftus says, "that's the future."