

The Intractability of Inaccurate Eyewitness Identification

Jed S. Rakoff & Elizabeth F. Loftus

Abstract: Inaccurate eyewitness testimony is a leading cause of wrongful convictions. As early as 1967, the U.S. Supreme Court recognized this danger, but the tests it promulgated to distinguish reliable from unreliable eyewitness testimony were based largely on surmise. More recently, substantial research has demonstrated that, while significant improvements can be made in the manner in which lineups, photo arrays, and other identification procedures are conducted, inherent limitations of human perception, memory, and psychology raise, in many cases, intractable barriers to accurate eyewitness testimony. Where barriers to accurate eyewitness testimony exist, one response is to sensitize jurors to the limitations of eyewitness identifications, but studies to date have not shown that special jury instructions can accomplish that purpose. Moreover, research on expert testimony has produced mixed results, with some studies showing that it helps jurors discriminate between good and bad eyewitness evidence, and other studies showing that it merely creates overall skepticism.

JED S. RAKOFF, a Fellow of the American Academy since 2013, is a United States District Judge for the Southern District of New York and a Professor at Columbia Law School.

ELIZABETH F. LOFTUS, a Fellow of the American Academy since 2003, is Distinguished Professor at the University of California, Irvine. She holds faculty positions in Psychological Science; Criminology, Law & Society; and the School of Law. She is the author of *Eyewitness Testimony: Civil & Criminal* (5th ed., with James M. Doyle and Jennifer E. Dysert, 2013), *Psychology* (5th ed., with Camille B. Wortman and Charles A. Weaver, 1999), and *The Myth of Repressed Memory: False Memories and Allegations of Sexual Abuse* (with Katherine Ketcham, 1994).

Most people have never heard of Kirk Bloodsworth. We have. In 1984, Bloodsworth was convicted and sentenced to death for the rape and murder of a nine-year-old girl in Baltimore. No physical or circumstantial evidence linked Bloodsworth to the crime, but no fewer than five eyewitnesses placed him with the victim and/or at the scene of the crime at about the time that the rape and murder were thought to have occurred. Bloodsworth was, in fact, innocent, as DNA evidence later established. The five eyewitnesses had each “fingered” the wrong guy. After nine years on death row, Bloodsworth was set free. Several years later, the actual murderer confessed, and Bloodsworth was formally exonerated. Bloodsworth’s plight is more common than many might think.

Since 1989, more than two thousand wrongly convicted persons have been exonerated in state and federal courts. Commonly contributing to and sometimes clearly causing these wrongful convictions are inaccurate eyewitness identifications. Thus, the In-

© 2018 by Jed S. Rakoff & Elizabeth F. Loftus
doi:10.1162/DAED_a_00522

nocence Project, through DNA testing, has now achieved the legal exoneration of more than 340 persons wrongly convicted of very serious crimes, mostly murder and rape. In roughly three-quarters of those cases, inaccurate eyewitness identifications were a material part of the evidence leading to the convictions. In the words of the Innocence Project, eyewitness identification “is the greatest contributing factor to wrongful convictions proven by DNA testing.”¹

This leads to three questions: Why does eyewitness identification evidence play such an important role in our criminal justice system? Why is such evidence so often inaccurate? What can be done about it?

In the United States, the police are called upon to investigate several million crimes each year. Despite improvements in police techniques, an estimated eighty thousand of these crimes are “solved” each year by strangers who witnessed the crimes, known as “eyewitnesses.” (We exclude from the term “eyewitness” those who witness crimes committed by people they already know, such as friends or family members.) These identifications sometimes lead implicated suspects to confess and plead guilty. When this does not happen and guilt is contested, these stranger identifications often are key to convincing the police and prosecutors that they have caught the culprit, and they are crucial in persuading judges and juries to convict. Even in the many criminal cases that never make it to trial, the existence of an eyewitness identification of a defendant typically increases both the severity of what the prosecutor will offer by way of a plea bargain and the pressure the defendant’s own attorney will bring to bear in urging his client to accept a plea bargain rather than risk a trial.

Why is this so? To begin with, eyewitness testimony is generally simple, straightforward, and powerful. It usually goes something like this:

Prosecutor: “Do you see anywhere in this courtroom the man you saw assault your neighbor?” *Jed S. Rakoff & Elizabeth F. Loftus*

Eyewitness: “Yes – it is that man [pointing to the defendant].”

Prosecutor: “How confident are you that that is the man who assaulted your neighbor?”

Eyewitness: “Absolutely confident – I’ll never forget that face.”

Unlike accomplice witnesses, the typical eyewitness to a crime is a passerby who has no motive to lie. Unlike circumstantial evidence, eyewitness testimony is directly probative of guilt and frequently expressed with a high degree of certainty. Unlike expert testimony, eyewitness testimony is immediately understood by even the most confused, inattentive, or ignorant juror. And unlike many other kinds of evidence, eyewitness testimony is rarely the subject of any special cautionary instructions from the judge (though, as discussed below, this is beginning to change).

Put differently, the typical eyewitness is someone with whom the typical juror – or for that matter, the typical police person, prosecutor, and judicial officer – can easily identify: an unfortunate passerby who happened to witness a horrific incident that riveted the passerby’s attention and that the passerby, perhaps not without some trepidation, comes forward to report like any good citizen. Who can doubt that she is telling the truth?

Indeed, while there are occasional eyewitnesses (such as accomplices) who have motives to lie, the truthfulness of the typical eyewitness is rarely seriously in doubt. So why are eyewitnesses so often wrong? Until recently, this was largely a matter of speculation. Thus, while the fact of erroneous eyewitness identifications was sufficiently evident that it became the “driving force” behind a series of Supreme Court decisions beginning in 1967, the most the

Court could offer a decade later in summarizing the causes of such errors was that “[t]he witness’ recollection of the stranger can be distorted easily by the circumstances [of the viewing] or by later actions of the police.”²

Nevertheless, the Supreme Court laid out a five-factor test for courts to use in assessing the reliability of eyewitness testimony: 1) the opportunity of the eyewitness to view the suspect at the time of the crime; 2) the witness’s degree of attention at the time of the viewing; 3) the amount of time between the witness’s viewing of the crime and her first identification of the suspect at the time of a lineup or other identification procedure; 4) the witness’s “level of certainty” in the accuracy of her identification at the time of the lineup; and 5) the consistency of the witness’s pretrial identifications. These are still the federal standards, though, as we shall shortly see, several of these factors have now been called into question.

This is because we are now the beneficiaries of several decades of serious study on eyewitness identifications and why they are often inaccurate. The results of these efforts present a substantially different picture from the “common sense” assumptions underlying the Supreme Court’s earlier tests. To begin with, research has isolated those factors that relate to the eyewitness’s own perception, memory, and psychology (so-called estimator variables) and those that relate to the impact on the witness of police and prosecutorial actions (so-called system variables). The distinction is important, because one can change and improve police procedures, but there is little one can do about improving an ordinary human being’s ability to accurately perceive and remember.

Turning first to police procedures, sometimes the police investigating a crime will cruise around a neighborhood with an eye-

witness, usually shortly after the crime, asking the eyewitness if she sees anyone who resembles the perpetrator. Other times, the police will show the eyewitness a single photo (often a mugshot) of a suspect and ask if that resembles the person she saw commit the crime. Such techniques – loosely grouped together under such rubrics as “show-ups” – have all sorts of problems, but since they are mainly used to advance an investigation, rather than to form the basis of an in-court identification, we will largely put them aside for purposes of this essay. Note, however, that a show-up eyewitness who is later asked to be an eyewitness at trial is subject not only to the problems discussed below, but also to such additional problems as “confirmation bias,” by which the very fact of the show-up identification predisposes the eyewitness to making the same identification at a lineup or thereafter.

When the police are seeking not just to advance their investigation, but also to obtain identification evidence that can be used in court, they typically make use of a lineup or photo array. In a lineup, a number of individuals (often six or seven) stand side by side, and the eyewitness, who views them from behind a one-way screen, is asked whether any of them is the person whom the witness saw commit the crime. In a photo array (which is much more easily arranged than a lineup and hence is increasingly the technique of choice), the eyewitness is shown a number of photos and again asked (in various formulations) whether any of them is the person whom the witness saw commit the crime.

Both of these techniques have been the subject of considerable study, much of which has centered on how the form of the procedure, or the way in which it is administered, may suggest to the eyewitness that she should select a particular person. Most obviously, it was established early on that a lineup or photo array in which one of the

individuals or photos stood out from the rest often led to misidentifications. Similarly obvious was the biasing that occurred when the police person administering the test said things like “take a hard look at the third photo.” But less overt cues can also influence eyewitness choice. Studies strongly suggest that because many eyewitnesses deeply desire to give the “right” answer, even very subtle feedback or other cues from the police person administering the test, such as nods of approval or body language, can substantially influence whether the eyewitness makes an identification and whom the eyewitness selects.

Although less well developed, there is also some indication that prosecutorial suggestiveness occurring subsequent to a lineup or photo array identification – such as when a witness is in the prosecutor’s office being prepared for testifying – may increase the witness’s level of confidence in her identification. Somewhat ironically, while defense counsel are often present when the police conduct a lineup or photo array, or, even if not present, can obtain at least some record of what occurred, eyewitness preparation in a prosecutor’s office is a largely secret, *ex parte* affair, about which a defense lawyer can only inquire speculatively.

We suggest below some ways in which these system variables can be controlled in order to minimize suggestiveness. But far less tractable are the “estimator variables.” To begin with the obvious, an eyewitness’s ability to perceive accurately the people and circumstances surrounding the commission of a crime is materially affected by lighting, by distance and angle, by the eyewitness’s eyesight, and by the amount of time the eyewitness had the opportunity to view the perpetrator, among other factors. Judges and jurors, as well as police and prosecutors, are generally familiar, through their own experience, with such conditions, and have at least some ability to weigh them.

However, many studies indicate that most people regard their own ability to perceive things accurately as much better than it really is, and this may lead them to place greater confidence in an eyewitness’s similar ability than is warranted.

Somewhat less obvious is the fact that, as several studies have shown, an eyewitness who encounters a criminal carrying a weapon will often focus more on the weapon than on the face of the perpetrator. Even less obvious are studies (not wholly consistent with each other) suggesting that an eyewitness feeling a modest level of stress at the time of the encounter will perceive it with greater focus, while an eyewitness feeling extreme stress may experience more difficulty in remembering the incident, particularly the peripheral details.

All of this, however, is just the tip of the iceberg. For example, there are now many studies that show that most people are considerably less accurate in recognizing faces of persons of a different race than they are at recognizing faces of persons of their own race. Although there is some debate over the causes of this cross-racial deficit, there is general agreement that it is real and material.

Turning to memory, there is a wealth of data indicating that a person’s memory for faces never seen before fades rapidly, and while the pace of the forgetting varies considerably across individuals, there is little doubt that identifications first made in lineups or photo arrays conducted weeks after the crime in question are particularly problematic. Moreover, memory is notoriously plastic. A person who picked a photo out of a photo array a few hours after witnessing the crime will often tend, when later called to testify, to merge the crime scene and photo array memories, so that what the witness thinks are facial features she observed at the scene of the crime are actually features she had the opportunity to study, much more carefully, when viewing the photo array.

Psychological factors also influence eyewitness identifications. For example, although the Supreme Court's test suggests a strong association between accuracy and an eyewitness's "degree of certainty" at the time of the lineup or photo array, the eyewitness's assessment of how confident she is in her choice is likely to be influenced by her basic personality: some people are much more sure of their perception and memory abilities than others. ("I've always had a good memory for faces.") Thus, the Supreme Court's focus on the eyewitness's "level of certainty" at the time of initial identification appears misguided. Even if there is a relationship between eyewitness confidence and eyewitness accuracy (and the evidence for this is mixed), the association is not nearly as strong as most people (including, it would seem, Supreme Court justices) tend to think.

Moreover, in court, an eyewitness is usually asked not how confident she was when she first picked the defendant out of a lineup, but how confident she is now; and many studies have shown that, once an eyewitness has identified a particular suspect as the perpetrator, the level of her confidence will often increase over time. It is thus common for an eyewitness who said at the time of the lineup that she was "somewhat confident" in her identification of the perpetrator to later testify at trial that she is "absolutely sure" the defendant was the person she saw commit the crime.

Numerous examples of research that has revealed the complexities and limitations of eyewitness identification could be given, but let us turn to what can be done to improve the accuracy of identifications.

With respect to police procedures, it is important to distinguish between what studies have firmly established and what they simply suggest. For example, about a decade ago, some research indicated that photo arrays that were shown to an eye-

witness sequentially (that is, one photo at a time) instead of simultaneously (that is, laying out all seven photos at once) led to fewer misidentifications. This, in turn, led three states (Connecticut, North Carolina, and Maryland) to pass laws requiring the sequential approach. However, some later research, as well as some statistical reanalyses of the original studies, has led some commentators to question whether the sequential approach is really better. There is also ambiguity regarding what "better" means in this context. The sequential approach may simply lead to fewer identifications period, reducing both accurate and inaccurate identifications. At present, the debate and research designed to inform it continue, suggesting that it is not yet established that one approach is superior to the other.

Nonetheless, virtually all of the most careful research done to date would support the following changes:

First, lineups and photo arrays should be blindly administered: that is, the police person administering the test should know nothing about the evidence implicating the suspect and should not know which person in the lineup or photo array is suspected of the crime (thus eliminating conscious or unconscious suggestiveness). At least nine states – Connecticut, Colorado, Illinois, Ohio, Nebraska, North Carolina, Texas, Vermont, and West Virginia – now require this.

Second, the eyewitness should be instructed that the perpetrator may or may not be in the lineup or photo array, and that the investigation will continue regardless of whether an identification is made (thus reducing any subtle pressure on the eyewitness to make an identification). A number of local law enforcement agencies have promulgated rules requiring this.

Third, the identification procedure should be videotaped in its entirety or, if this is not practical, the eyewitness's

statements should be recorded verbatim and made available to the defense. Eleven states presently require the latter.

Fourth, not just police but also prosecutors should be trained in how to avoid inadvertently influencing an eyewitness's testimony. Only a few states currently offer such training.

It must be conceded, however, that even if these and other improvements are made in police procedures affecting eyewitness identifications, the problems with eyewitnesses' own abilities to accurately perceive, retain, and recall what they saw at the time of the crime will still mean that many eyewitness identifications will to some greater or lesser degree contain inaccuracies, ranging from misidentifying the role played by someone at the scene of the crime ("I saw him fire the shot") to placing at the scene someone who was never there at all ("I know he was there because I saw him with my own eyes"). What can be done about this? Probably very little.

So far as we are aware, no one seriously suggests eliminating eyewitness testimony altogether, for many eyewitness identifications do accurately identify the culprit and get many of the details surrounding a crime correct. Without such testimony, serious crimes would go unpunished. It might be helpful, therefore, simply to inform the jury of the inherent limitations of eyewitness identifications, so that they would not let it overwhelm all other evidence or the lack of evidence. Indeed, not just judges and juries but also police and prosecutors should be trained in the limitations of eyewitness testimony and how best to evaluate its reliability.

In 2013, the Arnold Foundation asked the National Academy of Sciences to undertake a major assessment of scientific research on eyewitness performance. In response, the National Research Council (an arm of the National Academies) formed a committee

to do the assessment, and it published a report in 2014 entitled *Identifying the Culprit: Assessing Eyewitness Identification*.³ The report offers many concrete suggestions for the handling of eyewitness evidence in legal cases. Among other things, it recommends using double-blind lineups and standardized witness instructions, and it also emphasizes the need for better training of law enforcement on the potential problems of eyewitness memory. Several of the recommendations involve methods of educating the triers of fact about eyewitness memory. The information might be conveyed via expert testimony, and the authors favor giving judges the discretion to allow such expert testimony. Alternatively, information about pitfalls in eyewitness identification might be conveyed in jury instructions.

This is easier suggested than done. In a few states, notably New Jersey, judges are required to give juries detailed instructions on the many pitfalls and limitations that can threaten accurate eyewitness identification.⁴ But recent studies, described below, hint that the "instruction solution" may be a form of overkill, making jurors who receive such an instruction more skeptical of all eyewitness identifications, no matter what their quality. Another alternative is to allow the parties to call experts to describe problems with eyewitness identification that might be present in the case at bar. Since expert witnesses are subject to cross-examination, their opinions might come across as less definitive than a judge's instructions. Furthermore, the other side could also call rebuttal experts. Research to date does not, however, tell us whether this use of experts would result in a better educated jury, more aware of the limitations of eyewitness identification, or simply a more confused one.

Research on the impact on jurors of court instructions and expert testimony is often problematic, since, among other difficul-

Jed S. Rakoff
& Elizabeth F.
Loftus

ties, the subjects are often mock jurors rather than real ones, or else they are real jurors offering post-trial self-reports that may be heavily affected by the context in which the reports are given. Indeed, one of the few studies of actual jury deliberations concluded that jurors pay greater attention to court instructions than mock-juror and post-trial self-report studies had suggested.⁵ Nonetheless, relevant research has been published with respect to how specialized jury instructions and expert testimony may impact jurors' assessments of eyewitness testimony. Some such studies were precipitated by the 2011 decision of the New Jersey Supreme Court in *New Jersey v. Henderson*.⁶ The underlying case involved a man named Larry Henderson who was implicated in a murder in a New Jersey apartment back in 2003. The key evidence against Henderson was the eyewitness testimony of James Womble, who had identified Henderson from a photo array. But serious problems with Womble's confident account arose later on, and when the case reached the New Jersey Supreme Court, it promulgated new rules for dealing with eyewitness testimony. Briefly, if the defendant can show any evidence of suggestive influences surrounding an eyewitness account, the court must hold a hearing in which all factors that might have a bearing on the eyewitness evidence are explored. If, after this exploration, the judge decides to admit the eyewitness evidence, the judge must provide tailored instructions that will guide jurors on how to evaluate the eyewitness evidence in the case.

These special instructions were drafted over the next year and made public in 2012. They are meant to "educate" jurors on the limits of eyewitness identification. They tell jurors, for example, that human memory does not work like a video recording that an eyewitness can replay when he wants to remember a face. The instructions also educate jurors about factors influencing eyewitness testimony that are generally accept-

ed in the scientific literature. For example, if an identification is one in which a member of one race has identified a stranger of a different race, the instructions inform the jury that people may have a greater difficulty in accurately identifying members of races different from their own. The *Henderson* instructions have been celebrated for going further than prior instructions in providing scientific information that may aid the jury in making decisions that can have such a profound effect on someone's liberty.

But "the jury is still out" on how well these instructions achieve their intended purpose. So far, there have been only a few efforts to study what impact they might have on potential jurors who hear them. In one study, mock jurors watched a thirty-five-minute murder trial video that had either strong evidence or weak evidence of the accused's guilt, and they heard either a standard instruction or the new *Henderson* instructions.⁷ A major finding was that the jurors were more than twice as likely to convict the defendant of murder when the standard instructions were used than when the *Henderson* instructions were used. However, the reduction in conviction rate when the *Henderson* instructions were used occurred regardless of whether the case was weak or strong, leading the investigators to conclude that the *Henderson* instructions do not raise doubts specific to likely inaccurate identifications, but rather induce skepticism of all eyewitness identifications.

A more recent effort examined the impact of the *Henderson* instructions in a mock jury case heard by adult community members.⁸ The case was loosely based on an actual trial in which the defendant was convicted but the verdict was later overturned. Some mock jurors received the *Henderson* instructions before hearing the eyewitness testimony, while others received the *Henderson* instructions after the testimony. A major finding was that both the "before" and "after" jurors were less likely to convict the

defendant than mock jurors who heard no *Henderson* instructions. As in the previous study, however, *Henderson* instructions appeared to induce skepticism to eyewitness identifications across the board.

Neither of these studies is remotely conclusive, nor purports to be. But these admittedly preliminary studies of the impact of judicial instructions in sensitizing jurors to the limitations of eyewitness testimony at least suggest that such instructions may not adequately serve their intended function of enabling jurors to discriminate more accurately between reliable and unreliable eyewitness testimony.

What about the alternative of allowing the parties to call experts to address such issues? Although more time consuming and expensive, the use of expert testimony as a way to educate jurors can be better tailored to the case at hand than one-size-fits-all jury instructions, and does not carry the potential overweight of an instruction from the court. Numerous studies of such expert testimony have produced mixed results, however, with some studies suggesting that expert testimony does sensitize jurors to factors that affect their assessment of eyewitness testimony, while other studies show the testimony simply induces skepticism or has little impact.

For example, one study by psychologist Brian L. Cutler and colleagues concluded that an eyewitness expert does improve the ability of jurors to discriminate accurate witnesses from inaccurate ones.⁹ But other studies suggest that, as in the case of specialized jury instructions, expert testimony about the limitations of eyewitness evidence simply makes jurors more skeptical.¹⁰ So no really firm conclusions can be drawn. A recent effort attempted to compare special instructions to expert testimony more directly.¹¹ In this study, mock jurors watched a videotaped trial in which a defendant was charged with attempted rape.

The trial lasted anywhere from forty to seventy-five minutes, depending on whether *Henderson* instructions were given, expert testimony provided, or neither or both. The authors concluded that, for the most part, neither the *Henderson* instructions nor the expert testimony did much to sensitize jurors to the quality of the eyewitness identification. What is more puzzling is that the *Henderson* instructions did not affect verdicts at all, in contrast to the substantial effect found in the earlier studies on the *Henderson* instructions described above. The authors speculate that this might be due to the specific facts of their case, or the particular eyewitness factors that they manipulated, or even the length of the experiment. In the end, however, they worry that the New Jersey Supreme Court may have been overly optimistic about the likelihood that jury instructions would improve juror evaluations of eyewitness evidence.

Despite their different results, these studies convey a similar message: there are limits on how much we can do to eliminate inaccurate eyewitness identifications. But the ultimate intractability of the problem only means that we must persevere in our efforts to mitigate it as much as possible. We owe it not only to the Kirk Bloodsworths of the world, but also to ourselves to ensure, to the best of our ability, that our criminal justice system is anchored in the truth and not simply in appearances.

Jed S. Rakoff
& Elizabeth F.
Loftus

ENDNOTES

- ¹ The Innocence Project, “Eyewitness Misidentification,” <https://www.innocenceproject.org/causes/eyewitness-misidentification/>.
- ² *Manson v. Braithwaite*, 432 U.S. 98, 97 S. Ct. 2243, 53 L. Ed. 2d 140, 1997, U.S. LEXIS (U.S. June 16, 1997), 12.
- ³ National Research Council, *Identifying the Culprit: Assessing Eyewitness Identification* (Washington, D.C.: The National Academies Press, 2014). Disclosure: coauthor Judge Rakoff was cochair of the committee that wrote the report.
- ⁴ New Jersey Courts, “Supreme Court Releases Eyewitness Identification Criteria for Criminal Cases,” press release, July 19, 2012, <https://www.judiciary.state.nj.us/pressrel/2012/pr120719a.pdf>.
- ⁵ Shari Seidman Diamond, Beth Murphy, and Mary R. Rose, “The ‘Kettleful of Law’ in Real Jury Deliberations: Successes, Failures, and Next Steps,” *Northwestern University Law Review* 106 (4) (2012): 1537–1608.
- ⁶ *State of New Jersey v. Larry R. Henderson*, 208 N.J. 208 (2011).
- ⁷ Athan P. Papailiou, David V. Yokum, and Christopher T. Robertson, “The Novel New Jersey Eyewitness Instruction Induces Skepticism but Not Sensitivity,” *PLoS One* 10 (12) (2015): e0142695.
- ⁸ Marlee Kind Dillon, Angela M. Jones, Amanda N. Bergold, Cora Y. T. Hui, and Steven D. Penrod, “Henderson Instructions: Do They Enhance Evidence Evaluation?” *Journal of Forensic Psychology Research and Practice* 17 (1) (2017).
- ⁹ Brian L. Cutler, Hedy R. Dexter, and Steven D. Penrod, “Expert Testimony and Jury Decision Making: An Empirical Analysis,” *Behavioral Sciences and the Law* 7 (2) (1989): 215–225.
- ¹⁰ Michael R. Leippe, Donna Eisenstadt, Shannon M. Rauch, and Hope M. Seib, “Timing of Eyewitness Expert Testimony, Jurors’ Need for Cognition and Case Strength as Determinants of Trial Verdicts,” *Journal of Applied Psychology* 89 (3) (2004): 524–541.
- ¹¹ Angela M. Jones, Amanda N. Bergold, Marlee Kind Dillon, and Steven D. Penrod, “Comparing the Effectiveness of Henderson Instructions and Expert Testimony: Which Safeguard Improves Jurors’ Evaluations of Eyewitness Evidence,” *Journal of Experimental Criminology* 13 (1) (2017): 29–52.