In 1981, 22-year-old Jerry Miller was arrested and charged with robbing, kidnapping, and raping a woman. Two witnesses identified Miller, in a police lineup, as the perpetrator. The victim provided a more tentative identification at trial. Miller was convicted, served 24 years in prison, and was released on parole as a registered sex offender, requiring him to wear an electronic monitoring device at all times.

Recent DNA tests, however, tell a different story: Semen taken from the victim’s clothing—which could have come only from the perpetrator—did not come from Miller. In fact, when a DNA profile was created from the semen and entered into the Federal Bureau of Investigation’s convicted offender database, another man was implicated in the crime.

On April 23, 2007, Miller became the 200th person in the United States to be exonerated through DNA evidence.1

Eyewitnesses play a vital role in the administration of justice in this country. Their testimony can provide the key to identifying, charging, and convicting a suspect in a criminal case. Indeed, in some cases, eyewitness evidence may be the only evidence available.

Yet cases like Miller’s show that eyewitness evidence is not perfect. Even the most well-intentioned witnesses can identify the wrong person or fail to identify the perpetrator of a crime. According to the American Judicature Society, misidentification by eyewitnesses was the leading cause of wrongful conviction in more than 75 percent of the first 183 DNA exonerations in the United States.2,3
These cases have caused criminal justice professionals to take a closer look at eyewitness evidence, specifically at the effectiveness of identifying suspects from photographic and live lineups. And recent studies on lineup structure and implementation have led to even more questions and disagreement in the field, highlighting the need for more research and dialogue about what works. The National Institute of Justice (NIJ) has initiated a multisite field experiment of eyewitness evidence to examine the effectiveness and accuracy of this crucial and powerful component of the Nation’s criminal justice system as it is used in police departments and courthouses across the country.

**Elements of a Lineup**

At its most basic level, a police lineup involves placing a suspect among people not suspected of committing the crime (fillers) and asking the eyewitness if he or she can identify the perpetrator. This can be done using a live lineup of people or, as more commonly done in U.S. police departments, a lineup of photographs. Live lineups typically use five or six people (a suspect plus four or five fillers) and photo lineups six or more photographs.4

There are two common types of lineups: simultaneous and sequential. In a simultaneous lineup (used most often in police departments around the country),5 the eyewitness views all the people or photos at the same time. In a sequential lineup, people or photographs are presented to the witness one at a time.

Typically, the law enforcement official or lineup administrator knows who the suspect is.6 Experts suggest that lineup administrators might—whether purposefully or inadvertently—give the witness verbal or nonverbal cues as to the identity of the suspect. For instance, if an eyewitness utters the number of a filler, the lineup administrator may say to the witness, “Take your time. . . . Make sure you look at all the photos.” Such a statement may effectively lead the witness away from the filler.7 In a “double-blind” lineup, however, neither the administrator nor the witness knows the identity of the suspect, and so the administrator cannot influence the witness in any way.8 (See graphic on p. 5, “Live Police Lineups: How Do They Work?”)

If continued field research validates the effectiveness of the double-blind sequential model, will police departments be able to smoothly and effectively implement this new procedure?

Additional variables that can affect the outcome of police lineups include:

- **Prelineup instructions given to the witness.** This includes explaining that the suspect may or may not be present in the lineup. Research on prelineup instructions by Nancy Steblay, Ph.D., professor of psychology at Augsburg College in Minneapolis, Minnesota, revealed that a “might or might not be present” instruction reduced mistaken identification rates in lineups where the suspect was absent.9

- **The physical characteristics of fillers.** Fillers who do not resemble the witness’s description of the perpetrator may cause a suspect to stand out.10

- **Similarities or differences between witness and suspect age, race, or ethnicity.** Research suggests that when the offender is present in a lineup, young children and the elderly perform nearly as well as young adults in identifying the perpetrator. When the lineup does not contain the offender, however, young children and the elderly commit mistaken identifications at a rate higher than young adults. Research has also indicated that people are better able to recognize faces of their own race or ethnic group than faces of another race or ethnic group.11

- **Incident characteristics, such as the use of force or weapons.** The presence of a weapon during an incident can draw
PRACTICE GUIDE, TRAINER’S MANUAL ON EYEWITNESS IDENTIFICATION


These recommendations were developed by a technical working group of law enforcement investigators, prosecutors, defense lawyers, and psychology researchers convened by NIJ to explore ways to improve the accuracy, reliability, and availability of information obtained from eyewitnesses. The recommendations included:

- Composing lineups in a way to ensure that the suspect does not stand out unduly.
- Explaining to the witness before the lineup begins that the person who committed the crime may or may not be in the lineup.
- Preserving the outcome of the lineup by documenting any identification or nonidentification by the witness.

Four years later, NIJ published *Eyewitness Evidence: A Trainer’s Manual for Law Enforcement* to assist law enforcement trainers. This 2003 report can be found on NIJ’s Web site: www.ojp.usdoj.gov/nij.

In fall 2007, NIJ plans to convene another advisory panel of researchers and practitioners to help establish protocols for upcoming field experiments on police lineups (see main article).

Visual attention away from other things, such as the perpetrator’s face, and thus affect an eyewitness’s ability to identify the holder of the weapon.\(^{12}\)

**Simultaneous vs. Sequential**

Recent DNA exonerations have ignited heated debate among law enforcement officials, prosecutors, defense attorneys, and researchers over the best way to obtain reliable eyewitness evidence using police lineups.

The most common lineup procedure in use by law enforcement is the simultaneous lineup.\(^{13}\) Researchers like Gary Wells, Ph.D., from Iowa State University, claim, however, that during simultaneous lineups, witnesses use “relative judgment,” meaning that they compare lineup photographs or members to each other, rather than to their memory of the offender. This is a problem when the perpetrator is not present in the lineup because often the witness will choose the lineup member who most closely resembles the perpetrator.\(^{14}\)

During sequential lineups, on the other hand, witnesses must make a decision about each photograph or member before moving on to the next, prompting them to use “absolute judgment.” In other words, witnesses compare each photograph or person only to their memory of what the offender looked like.\(^{15}\)

As the body of research into simultaneous versus sequential methods continued to grow, some researchers working in the lab discovered that the double-blind sequential method—in which the administrator does not know the identity of the suspect—produced fewer false identifications than the traditional simultaneous method.\(^{16}\) In 2003, the Illinois legislature put this research to the test. Lawmakers charged the Illinois State Police with conducting a yearlong examination of the double-blind sequential
Live Police Lineups: How Do They Work?*

* Most U.S. police departments use photo lineups. The same concepts depicted in this graphic—simultaneous and sequential, blind and nonblind—apply in photo lineups.
versus the simultaneous (commonly used) eyewitness identification procedure to determine which produced fewer false identifications.

The results, published in March 2006, surprised many. Although the double-blind sequential lineup had produced more reliable outcomes in the laboratory, this was not the case in the field. Data collected from approximately 700 photo arrays and live lineups from urban, suburban, and semi-rural Illinois police departments revealed that the double-blind sequential procedure resulted in an overall higher rate of false identifications and a lower rate of “suspect picks” than the simultaneous lineup.17

The stunning implications of the Illinois Pilot Program have since been marred, however, by questions about the methodology used. Wells, for instance, has noted that the study used double-blind procedures in the sequential lineups but not in the simultaneous lineups. This, he argues, left open the potential for lineup administrators to influence witnesses during the simultaneous lineups.18 In July, a panel of social scientists expressed similar concerns about the field test’s design (see sidebar above, “Panel Calls Design of Illinois Study ‘Flawed’”).

Also in 2003, around the same time as the Illinois Pilot Program, officials at the Hennepin County, Minnesota, Attorney’s Office became convinced by the growing body of scientific laboratory evidence that the double-blind sequential procedure was essential to reduce the risk of misidentification.19 They instituted a new photographic double-blind sequential lineup protocol in several county police departments. Over a 12-month period, the project involved 280 lineups with

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**PANEL CALLS DESIGN OF ILLINOIS STUDY ‘FLAWED’**

A panel of social scientists recently said that the design of the Illinois Pilot Program—which compared double-blind sequential lineup procedures to traditional nonblind simultaneous procedures—has “devastating consequences for assessing the real-world implications.”

Writing in the July 2007 issue of *Law and Human Behavior*, the panel said that the design of the Illinois field study “guaranteed that most outcomes would be difficult or impossible to interpret.”

The panel was convened by the Center for Modern Forensic Practice of the John Jay College of Criminal Justice and included Daniel Schacter of Harvard University and Nobel Laureate Daniel Kahneman of Princeton University. Also on the panel were Robyn Dawes of Carnegie Mellon University; Henry L. “Roddy” Roediger and Larry L. Jacoby of Washington University in St. Louis; Richard Lempert of the University of Michigan Law School; and Robert Rosenthal of the University of California, Riverside.

“The only way to sort this out [that is, which lineup methods produce the most reliable results] is by conducting further studies,” the panelists said. (See main article for information on NIJ’s recent funding of the Urban Institute to test simultaneous and sequential, blind and nonblind police lineups in the field.)

“The design of these studies, however, will be crucial,” they added. “A well-designed field study that avoids the flaw built into the Illinois effort can be an important first step toward learning what we need to know about the best practices in identification procedures.”

To read the full article, see www.jjay.cuny.edu/extra/policyforum.pdf.
206 eyewitnesses. An NIJ-funded analysis of the project found that although these field tests produced suspect identification rates similar to those in other jurisdictions that used traditional simultaneous lineups, witnesses in Hennepin County chose fillers at a lower rate. The Hennepin County data also revealed that additional viewings (or laps) of the sequential lineup reduced eyewitness accuracy.  

**Will Double-Blind Sequential Lineups Work in the Field?**

Implementation is a crucial factor when examining the reliability of the sequential lineup model versus the simultaneous model. If continued field research validates the effectiveness of the double-blind sequential model, will police departments—most of which currently use simultaneous lineups in which the administrator knows which person is the suspect—be able to smoothly and effectively implement this new procedure?

Departments involved in the Illinois study experienced challenges when implementing the double-blind sequential model. Although the model was relatively easy for them to use with photo arrays, it was more difficult in live lineups, particularly in cases with multiple perpetrators. In these cases, officers often had to place more than one suspect in a lineup because they lacked enough fillers for separate lineups. Conducting sequential lineups with more than one suspect was determined to be difficult and confusing, and therefore the use of sequential lineups in multiple-perpetrator cases was discontinued.

Finding administrators blind to the suspect’s identity was also challenging, particularly during photo lineups that took place outside the police station, such as in the witnesses’ homes or places of work. This created delays in investigations and inconveniences to witnesses.

After the Illinois Pilot Program had ended, the majority of officers who had participated said they did not think that the sequential lineup was superior; instead, they said that witnesses who can identify the offender can do so under either procedure. Officers also expressed concerns that using a blind administrator disrupts the relationship that an investigator tries to build with a witness.  

When Hennepin County tested the double-blind sequential model, police officers initially expressed similar concerns about using blind administrators. To deal with shortages of blind administrators, the Hennepin County investigators turned to other department staff, such as patrol officers, captains, and sergeants, to serve as blind administrators. Overall, the double-blind sequential procedure involved minimal cost to implement, and officials—both chiefs and investigators—found it easier to do so than originally anticipated.

**Continuing the Discussion**

The current state of research on simultaneous versus sequential lineups—including the limited amount of field testing and the dispute over test designs and methodology—has generated more questions than answers. The results of the Illinois and Hennepin County studies highlight the need for more research on what works in police lineups and how police departments can easily and effectively implement them.

To continue the important discussion of eyewitness evidence and, particularly, to help identify areas for further research, NIJ and the Government Innovators Network at Harvard University’s John F. Kennedy School of Government recently sponsored a discussion—a Web chat—among experts. (Hear the Web chat at www.innovations.harvard.edu/xchat.html.)

“At the present time, [when comparing simultaneous and sequential lineup presentations,] there is no definitive sense that one form of lineup presentation is superior to the other,” Roy S. Malpass, Ph.D., professor of psychology at the University of Texas at El Paso, said during the Web chat.
“This is the time for academics and law enforcement to come together, have a dialogue, use each other’s resources, and move on with a program of research.”

—Roy S. Malpass, Ph.D.
University of Texas at El Paso

Malpass noted that certain practices typically used in sequential lineups—such as asking witnesses to make a separate decision on each photograph or individual—have not been examined in simultaneous lineups. Thus, it is unclear whether differences in the effectiveness of the two lineup models are due to method of presentation (simultaneous or sequential) or the presence of these other variables.

Nancy Steblay, also a panelist on the Web chat, noted that, as with many other criminal justice procedures and protocols, there are two sources of information on eyewitness identification: the laboratory and the field. According to James Doyle, director of the Center for Modern Forensic Practice at John Jay College of Criminal Justice in New York City and the third panelist on the Web chat, both field research and lab research have limitations. Lab studies are limited by a lack of real-world, operational challenges. Field studies are limited by uncertainty about who is really the perpetrator.

According to Steblay, the field has gone past the lab and made decisions about certain elements of eyewitness identification, adapting recommended lab-based protocol to the logistics of street practice and to concerns about later courtroom challenges. It is now time for labs to follow up and see if these field decisions make a difference in eyewitness accuracy, she said.

Malpass added that because U.S. academic researchers work outside of law enforcement, law enforcement investigators, who are on the front lines, are not as familiar as they might be with research results and researchers are generally not as familiar as they might be with in-the-field police practices.

“This is the time for academics and law enforcement to come together, have a dialogue, use each other’s resources, and move on with a program of research,” he said.

Committed to fostering collaboration between researchers and practitioners, NIJ recently funded the Urban Institute to test the reliability of using simultaneous versus sequential and blind versus nonblind lineups in the field. This important research will be guided by an NIJ-sponsored study group of law enforcement officials, defense attorneys, prosecutors, victim/witness advocates, and other stakeholders from across the Nation.

During the recent NIJ-Harvard Web chat, Doyle offered guidance as the criminal justice community continues to grapple with the issue of eyewitness identification. “There are people on the one hand who would like to strangle this double-blind sequential thing and end it right here and now, and there are other people who would like to legislate it down people’s throats,” he said. “We have to try to avoid the two extremes.”

He added, “What we have to do is recognize that we are dealing with a very unusual, complex kind of trace evidence here . . . . It’s difficult to recover, easy to contaminate, and very hard to handle.”

“All that police want from eyewitness identification is a true and accurate eyewitness identification,” said Philip J. Cline, superintendent of the Chicago Police Department, during the Web chat. “We can do better—and we welcome collaboration and guidance from researchers and lawyers, whichever side of the table they sit on.”

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Notes


3. See www.dna.gov/uses/postconviction for more information on using DNA evidence to exonerate the innocent.


12. Ibid., 282.

13. Ibid., 279.


16. Ibid., 4.

17. Ibid., iv.


