Sources of Contamination in Lineup Identifications

Brian L. Cutler, Ph.D.
University of Ontario institute of Technology

Eyewitness identification can provide key evidence that the suspect is the perpetrator. Countless crimes have been solved through eyewitness identification. Eyewitness identification, however, is not infallible. Indeed, in about half of known cases of wrongful conviction, the innocent suspect was mistakenly identified as the perpetrator by at least one – and sometimes more than one – eyewitness. Scientific research on human memory, social influence, and eyewitness identification has informed our understanding of the factors that increase risk of mistaken identification, and these factors are summarized in articles and books about the psychology of eyewitness identification. In this article I focus on the meaning of lineup identifications. Specifically, I address the question of when the inculpatory value of lineup identifications can be reasonably questioned and end with an explanation of when lineup identifications do provide strong inculpatory evidence.

Let us assume that a crime has been committed, an eyewitness saw the perpetrator commit the crime, and an investigator focused on a suspect through means other than eyewitness identification. The investigator reasonably believes that a lineup identification of the suspect by the eyewitness would provide evidence that the suspect is indeed the perpetrator. The investigator develops a photoarray, shows the photoarray to the eyewitness, and the eyewitness positively identifies the suspect as the perpetrator.

If the eyewitness identification by the eyewitness can be attributed only to the eyewitness’s memory for the perpetrator, then the eyewitness identification provides strong inculpatory evidence against the suspect. Sometimes, however, the eyewitness identification can be explained in other ways, thus casting doubt on whether the identification was a product of the eyewitness’s memory for the perpetrator. In this article I discuss two general situations in which the lineup identification might not be compelling inculpatory evidence: (1) when the lineup is not the first time the eyewitness identified the suspect and (2) when the eyewitness is able to guess the suspect’s identity.

The Lineup is Not the First Time the Eyewitness Identified the Suspect

Lineups are most informative when the eyewitness has identified a stranger, not known before the crime, and not seen since the crime. Prior identifications of the suspect by the eyewitness can explain subsequent identifications, regardless of the accuracy of the prior identifications. Prior identifications arise in at least four ways: (1) when the eyewitness spontaneously identifies the suspect as a known or familiar other at or near the time of the crime, (2) when the eyewitness spontaneously identifies the suspect at a second sighting, (3) when the eyewitness on his own seeks a photo of the suspect and finds it in social media, (4) when the police conduct a prior identification procedure, such as through mugshot searches or
a showup. I review each of these situations below but note the common theme here. In each of these four situations the eyewitness has identified a suspect. The eyewitness saw the suspect and said that’s him. This prior identification might be accurate or inaccurate, and the prior identification offers a viable alternative explanation for the subsequent identification. The subsequent lineup identification, however, in each case can be explained by the prior identification. Put another way, there is no way to know whether the subsequent lineup identification is due to the eyewitness’s original memory for the perpetrator or to the eyewitness’s memory for the suspect identified prior (who may or may not have been the perpetrator).

The Eyewitness Identifies the Suspect as a Familiar of Known Other

Sometimes the eyewitness claims to know the suspect at some level or have seen him around prior to the crime. In other words, the suspect is familiar to the eyewitness. Familiarity is a matter of degree. An eyewitness might be vaguely familiar with a person from the neighborhood whom she thinks committed the crime, or she might have known the alleged perpetrator for years. Clearly, familiarity is an important factor in eyewitness identification, and clearly, we are more accurate at identifying familiar persons than strangers. But what does a lineup identification of a known other tell us? Let’s consider an example. Suppose Roger looks outside his house and believes he sees his next-door neighbor’s son, Sean, breaking into his car in broad daylight. Roger and Sean’s family have been neighbors for 15 years, and Roger watched Sean grow up. Clearly he knows Sean. Roger looks out and says to himself, that’s Sean breaking into my car!

Roger’s identification of Sean as the perpetrator is what I call a spontaneous identification. His spontaneous identification might be correct, or it might be incorrect. Roger’s ability to identify Sean likely depends on his opportunity to view the perpetrator. There was no identification procedure, per se, but rather upon seeing the perpetrator, Roger identified him as Sean, spontaneously. Roger calls the police, but Sean has gone before police arrive. Roger tells the police that Sean is the perpetrator. The police obtain a driver’s licence photo of Sean and put it in a photo lineup with six other driver’s license photos of 17-year-olds, and Roger picks out Sean with 100% confidence.

What does Roger’s lineup identification of Sean tell us about Sean’s culpability? The lineup identification tells us that Roger knows Sean and that the police have found the right Sean. This confirmatory identification might be of some value, but does it provide evidence that Sean was the man who broke into Roger’s car? Probably not. Roger’s spontaneous identification of Sean at the time of the crime might represent strong evidence of Sean’s culpability, but the lineup identification of Sean by Roger adds little by way of additional inculpatory evidence. Think about it this way. Suppose Roger, after drinking a twelve-pack, saw the thief only very briefly, from a great distance, under dark conditions, with an obstructed view. Further suppose that Roger knew that Sean had a criminal record for break-ins. Now suppose that the person who broke into Roger’s car was not Sean but rather some other 17-
year-old male who could pass for Sean under impoverished viewing conditions. Given these circumstances, Roger might still spontaneously — but erroneously — identify the youth as Sean with high confidence. Roger calls the police and tells them that Sean was the perpetrator. An investigator shows Roger a photo lineup with Sean’s picture. Roger will of course pick out Sean because he knows him, but the lineup identification in no way proves that Sean was the perpetrator (though it would certainly be enlightening if Roger could not identify Sean). It would be a mistake to conclude that Roger’s positive lineup identification of Sean provides additional evidence that Sean is guilty — beyond that already provided by Roger’s spontaneous identification of Sean at the time of the crime.

In the example with Roger and Sean, it should be fairly obvious that the lineup identification of Sean by Roger is superfluous. Consider a less obvious but nevertheless analogous situation. Suppose a man on the street gets robbed and believes the perpetrator was a guy he has seen from the neighborhood. In this case, familiarity is lower but present. The victim can picture the suspect in his mind and make a lineup identification of the suspect, but the lineup identification will only confirm his correct spontaneous identification or confirm his mistaken spontaneous identification. The issue is the accuracy of the spontaneous identification. The factors relevant to the evaluation of the spontaneous identification are the conditions under which the eyewitness viewed the perpetrator at the time of the crime, often called the viewing or encoding conditions. The subsequent lineup identification provides little added value (unless it is negative).

While confirmatory identifications, such as Roger’s photo lineup identification of Sean, may be of dubious evidentiary value, they have the potential to distort the value of the initial spontaneous identification. Suppose, for example, that Roger spontaneously identified Sean at the time of the burglary but did so with low confidence, but then later identified Sean from the photo lineup with high confidence. This sequence of identifications might lead a fact finder to give the confirmatory identification more credence than it deserves.

The Second Sighting

When the perpetrator is not immediately apprehended and time passes, sometimes the eyewitness encounters a person whom he or she recognizes as the perpetrator. Suppose, for example, Nathalie is the victim of a purse snatching while exiting the subway station near her home. She describes the perpetrator to the responding officer, but there is no further follow-up by investigators in the short term. Two weeks later, Nathalie is exiting the subway station near her home, and she sees a man whom she recognizes as the man who snatched her purse. She covertly snaps a photo of him. When she gets home, she calls the police. When the responding officer arrives, she hands him a printout of the suspect’s photo and tells him that that is the man who robbed her.

A detective does some investigation and believes he has identified the person in the photo provided by Nathalie. He obtains a booking photo of the suspect, assembles it into a
photo lineup, shows the lineup to Nathalie, and she identifies the suspect with high confidence. What does Nathalie’s lineup identification of the man tell us? Not much. Nathalie has already identified the suspect at the second sighting. Nathalie’s lineup identification could be due to her original memory trace for the perpetrator, but it could also be due to her more recently established memory trace for the suspect in the second sighting, who might or might not be the perpetrator.

The Social Media Identification

Closely related to the second sighting is the social media identification. Crime victims and eyewitnesses are not always passive. The availability of social networking sites populated with photos provides great opportunity for the victim to find the perpetrator on her own, and that happens sometimes. For example, suppose Dillon is beat up and robbed by three youth in the park on his way home from high school. Dillon goes home and tells his older brother about the crime. Before Dillon’s parents call the police, his brother has gone on the social networking sites, identified people connected to people known for committing bad acts in the neighborhood, and starts showing pictures to Dillon. Dillon recognizes a photo of one of the three. When Dillon’s mother calls the police to the house, Dillon’s brother has already printed out a photo of the suspect for the officer. Now the case starts to look like the second sighting case discussed above. Any subsequent lineup identification of the suspect could be due to Dillon’s memory for the person he identified on social media – which may or may not be one of the actual perpetrators -- rather than on his original memory trace for the perpetrators.

Prior Identification Procedures

Occasionally, police conduct more than one identification procedure with the same eyewitness and the same suspect. A responding officer might ask an eyewitness to identify a suspect detained close to the crime in time and space using a showup procedure. Later, a detective might ask the same eyewitness to identify the same suspect from a photo or live lineup. In jurisdictions in which photo lineup identifications are not admissible but live lineup identifications are admissible, an investigator might first show an eyewitness a photo lineup to see if she can identify the perpetrator before conducting a more labor-intensive live lineup. Yet another example of the use of multiple identification procedures is the in-court identification preceded by any other form of identification test.

Psychological research on the “commitment effect” shows that false identifications from prior identification tests often carry forward to subsequent identification tests. Put another way, an innocent suspect has a greater chance of being identified from a lineup if he was first identified in another identification test than if he was not part of a previous identification test. Eyewitnesses often remain committed to their prior identifications – and remember them – even when the prior identifications are incorrect.
The prior identification test can be evaluated on its own merit and may be indicative of the suspect’s guilt. The subsequent identification tests, however, are contaminated by the results of the first identification test. The subsequent identification tests are not completely uninformative. It is possible that an eyewitness who mistakenly identifies an innocent suspect from a prior identification test may see the suspect in a subsequent identification test and say hey, that’s not him. But in evaluating the value of the second identification test, one should take into consideration the commitment effect and discount the value of the subsequent identification. The second identification certainly does not provide new, independent evidence of the suspect’s guilt.

It should be evident that the spontaneous identification of a familiar other, the second-sighting identification, the social media identification, and the prior identification procedure situations have much in common. In each case the eyewitness makes an identification (on his own or in a police procedure) and then attempts a second identification. When the first identification is correct, then the second identification is a form of memory rehearsal and should strengthen memory for the perpetrator. When the first identification is mistaken, however, it can confuse the eyewitness’s memory for the perpetrator. Thirty years of research in human memory in general and eyewitness memory in particular shows that misleading information can distort human memory and sometimes lead to wholly false memories.

When an eyewitness mistakenly identifies an innocent suspect as the perpetrator, that innocent suspect could become the eyewitness’s memory for the perpetrator going forward. The Ronald Cotton exoneration case provides an example of how a mistaken eyewitness identification from a lineup can create a false memory for a perpetrator.

The Innocence Project website provides the following description of the Cotton case. In July, 1984 Jennifer Thompson (now Thompson-Cannino) was sexually assaulted by a man who broke into her apartment. Thompson identified Cotton from a photoarray as her assailant. Based largely on her eyewitness identification, Cotton was convicted of rape and burglary and was later convicted of another rape. He was sentenced to life in prison plus 54 years.

In the Spring of 1995, the Burlington Police Department turned over all of its evidence against Cotton, including semen from the assailant. DNA tests excluded Cotton and implicated Bobby Poole as the assailant. In June of 1995, after 10 years in prison, all charges against Cotton were dismissed and Cotton was released from prison. The Ronald Cotton case provides an example of how a mistaken eyewitness identification from a lineup can create a false memory for a perpetrator.

The Innocence Project website provides the following description of the Cotton case. In July, 1984 Jennifer Thompson (now Thompson-Cannino) was sexually assaulted by a man who broke into her apartment. Thompson identified Cotton from a photoarray as her assailant. Based largely on her eyewitness identification, Cotton was convicted of rape and burglary and was later convicted of another rape. He was sentenced to life in prison plus 54 years.

In the Spring of 1995, the Burlington Police Department turned over all of its evidence against Cotton, including semen from the assailant. DNA tests excluded Cotton and implicated Bobby Poole as the assailant. In June of 1995, after 10 years in prison, all charges against Cotton were dismissed and Cotton was released from prison. He was pardoned in July of 1995.

In an interview on the PBS Frontline documentary entitled “What Jennifer Saw,” Thompson gave the following exchange:

Q: Talk about that.

A: When I first saw the photo of him and I saw the pictures of the men that were in front of me. Ronald Cotton—he just looked exactly like the man who raped me. And not a lot of time had elapsed between the crime and me looking at the pictures, so my memory was still very fresh. And then when I saw him in the physical line up and I was actually able to see him as a person
and his demeanor and his postures—it just further convinced me that Ronald Cotton was the man. He looked exactly like the man. He looked like the sketch that I had given to the police. His mannerisms, his voice, his height, his weight—it all just added up in my mind. And as the evidence started to come in, it was almost just conclusive to me that this had been the rapist. And so as time goes on, I think that my mind would always see Ronald Cotton. . . .

Q: And when you think of the rapist, who do you see?

A: I still see Ronald Cotton. And I am not saying that to point a finger. I am just saying that is who I see. And I would love to erase that face out of my mind. I would do anything to erase that face out of my mind, but I can’t. It is just in my head. Sometimes it is more fuzzy than others because my mind now says “Well, it’s Bobby Poole,” but it is still the face I see.

The Eyewitness is Able to Guess or Figure Out Which Suspect is the Lineup

When an eyewitness is asked by police to participate in an identification test, the eyewitness’s inclination is toward a positive identification. The inclination toward a positive identification may be the result of wanting to appear cooperative with police, or wanting to catch the criminal. The pressure to make a positive identification, even if internal, can result in guessing rather than attempting to make an identification based on memory. When the suspect is in fact not the perpetrator, the eyewitness’ inclination toward a positive identification increases the risk of false identification. Even when the suspect is the perpetrator, we should not be satisfied with the eyewitness (who may have had an impoverished view of the perpetrator at the time of the crime) is able to make a positive identification from guessing his identity in the lineup. A meaningful lineup identification is one that is based solely on the eyewitness’s memory for the perpetrator. Thus, a good lineup procedure is one that limits alternative interpretations for a suspect identification and allows the fact finder to be more confident that the suspect was identified because he is the perpetrator.

How do we know that witnesses sometimes guess in lineup identifications? While we cannot know with any certainty when the suspect in a lineup is guilty or innocent, eyewitness researchers frequently estimate error rates based on the frequency with which known-innocent fillers are fingered. Of course, fillers are persons whom police know are innocent of the crime in question and are included in lineups to protect potentially innocent suspects from eyewitnesses who might be tempted to guess or infer that the suspect is the culprit. Research on lineup identifications in actual crimes shows that known-innocent fillers are identified at substantial rates. For example, Gary Wells and colleagues recently authored an article describing a field experiment involving 494 lineups in actual cases conducted by police in Charlotte-Mecklenburg, NC, Tucson, AZ, San Diego, CA, and Austin, TX. Using both simultaneously- and sequentially-presented lineups, Wells and colleagues found that about one out of every three positive identifications made by eyewitnesses were filler identifications, suggesting that a significant portion of eyewitnesses are guessing or attempting to figure whom the suspect is rather than
making identifications from their memories of the perpetrators. Importantly, in Wells et al.’s field experiment, filler identification rates were significantly higher in simultaneous lineups than in sequential lineups. This means that there was a lot of guessing going on, and even some of the suspect identifications in the experiment were likely due to guessing.

When an eyewitness views a crime, the police have no control over the witnessing conditions. They can attempt to ascertain the witnessing conditions and give the conditions consideration when evaluating the eyewitness testimony. In contrast, the police have a great deal of control over the manner in which identification tests are conducted and can contain guessing rates through procedure modifications. Toward this end, I discuss four procedural modifications to lineups below. The first two procedure modifications I discuss, the use of cautionary instructions and sequential presentations, are aimed at reducing guessing by the eyewitness in general. The second two, filler selection and blind administration, are aimed at reducing the likelihood that an eyewitness who does guess will pick the suspect.

**Cautionary Instructions**

If the eyewitness is inclined to make a positive identification even if by guessing and guessing the suspect’s identity is not helpful in a criminal investigation, it makes sense to tell the witness not to guess. This is done through the use of formal instructions to the eyewitness, one of the most common features of modern best practices in identification tests. For the purpose of guessing reduction, the most important element of the instruction is the admonition that the perpetrator might not be present in the lineup – a fact that is implicit but one that needs to be made explicit. Instructions that do not contain this admonition significantly increase the risk of false identification when the perpetrator is not present in the lineup. Instructions are typically more elaborate and may contain statements such as it is important not to implicate innocent people, and appearances may change between the crime and the lineup.

**Simultaneous Presentation**

As noted in the Wells et al. field experiment, fillers were picked at significantly higher rates from simultaneous than from sequential lineups. Sequential presentation is one procedural reform that can be used to discourage eyewitnesses from guessing. With simultaneous presentation, the eyewitness is able to view all of the lineup members at the same time and determine which one best resembles the perpetrator. Inevitably, one lineup member (often the suspect) will look more like the perpetrator than does the others, which pushes the eyewitness toward a positive identification. With sequential presentation, the eyewitness compares each lineup member with his or her memory for the perpetrator and only makes a positive identification if there is a match. The result is fewer positive identifications with the sequential presentation, particularly when the suspect is innocent.
Cautionary instructions and sequential presentation can dampen the eyewitness’s tendency toward making a positive identification in general but do not steer eyewitnesses towards or away from the direction of the suspect. Thus, decreased positive identifications could be of the culprit, innocent suspect, or filler identifications. The next two procedural features, filler selection and blind administration, can affect the likelihood that it is the suspect whom is identified from the lineup.

*Fillers Selection*

When an eyewitness views a suspect in a show-up, the absence of fillers makes it easy to guess which person is the suspect – there is only one person! It is difficult to know whether an eyewitness’s positive identification of a suspect from a showup is due to the eyewitness’s memory for the perpetrator or to an inclination toward a positive identification and the obvious observation that the single person in the showup is the suspect. For this reason, showups (or single-photo identification tests, and many in-court identification tests) are inherently suggestive.

The inclusion of fillers – other non-suspects in the lineup or photos of non-suspects in the photo lineups – in theory makes it more difficult for the eyewitness to guess or figure out which person is the suspect. The use of fillers in the procedure is an important safeguard against guessing. It’s not the case that the addition of fillers necessarily decreases guessing, but good fillers reduce the deleterious impact of guessing, by spreading out positive identifications away from the potentially innocent suspect. And, this spreading effect is more pronounced when the suspect is innocent than when the suspect is guilty, thus increasing the inculpatory value of suspect identifications. Merely including fillers, however, may be insufficient for ruling out guessing. Guessing may still be a viable strategy for identifying the suspect if (1) the fillers could not be reasonably mistaken for the perpetrator or (2) some feature or the lineup draws the eyewitness’s attention to the suspect.

An obvious example of the use of inadequate fillers would be a lineup in which the fillers do not match the gender or race of the suspect. A Black suspect in a lineup with White fillers is no better than a showup when the eyewitness knows that the perpetrator was Black. Fillers that match the general description of the perpetrator make it difficult for the eyewitness who remembers his description to identify the suspect by guessing. For example, if the eyewitness remembers describing the perpetrator as a White man about 6’ tall, 200 lbs, dark hair, beard and no tattoos will have a hard time guessing which lineup member is the suspect if all lineup members possess those features. This “match-to-description” rule serves as a strong safeguard against guessing (provided that the suspect also matches the description of the perpetrator).

Even when good fillers are used, there is a risk that characteristics of the lineup draw the eyewitness’s attention to the suspect and make it easier for the eyewitness to guess the suspect’s identity. A suspect who acts out in a lineup may make his identity known. A photo in a photoarray that is qualitatively different from the other photos or portrays the suspect from
an angle or distance that differs from the other photos may draw the eyewitness’s attention and make it easier for him to guess which photo is that of the suspect.

In recognition of the importance of fillers, modern best practices in identification tests usually recommend (1) the inclusion of a minimum number of fillers, (2) the selection of fillers based on the eyewitness’s description of the perpetrator, and (3) the place of the photos in such a manner that the suspect’s photo does not stand out. Following these procedures makes it more difficult for the eyewitness to guess the suspect’s identity.

**Investigator Influence**

One way in which an eyewitness with a weak memory for the perpetrator may try to figure out which one is the suspect is to look to the behavior of the investigator for clues. An investigator who knows which lineup member is the suspect may inadvertently communicate the suspect’s identity to the eyewitness through verbal or nonverbal means. For example, in a case in which an eyewitness does not make a positive identification at first pass, an investigator might say “I see that you stopped on photo number 3, does that mean anything?” Or the investigator might inadvertently lean in, smile, or nod when the eyewitness is looking at the suspect’s photo. Of course, an eyewitness who wishes to bias an eyewitness might provide more obvious clues during the lineup procedure.

Considerable psychological research over the past few decades has demonstrated that people sometimes, without realizing it, convey their beliefs and expectations through their social interactions with others and sometimes cause people to behave in a manner that confirms their beliefs and expectations. In psychology, this process is called expectancy confirmation or behavioral confirmation. It works with lineups too. Investigators who know the suspect’s identity increase the likelihood that the suspect is identified. When the suspect is innocent, this risk of false identification increases when the investigator knows the identity of the suspect in the lineup. For this reason, modern best practices recommend the use of “blind lineups” (sometimes called “double-blind lineups”), in which the investigator is unaware of the suspect’s identity and therefore cannot advertently or inadvertently provide clues to the eyewitness regarding the suspect’s location in the lineup. Put another way, if the investigator does know which lineup member is the suspect, the eyewitness cannot figure out which one is the suspect by looking to the investigator for clues.

**When Lineups Produce Inculpatory Evidence**

Putting it altogether, lineup identifications do not provide strong evidence that the suspect is the perpetrator when the lineup is not the first tie the eyewitness has identified the suspect, and when the lineup identification can be explained by guessing on the part of the eyewitness. Conversely, there are situations in which lineups can provide strong inculpatory evidence. When (1) the eyewitness has never seen the perpetrator before the crime, (2) the
eyewitness did not see the suspect between the crime and the lineup (so there has been no prior identification), (3) when guessing is discouraged through some combination of lineup instructions and sequential presentation, (4) when the use of good fillers and blind administration prevent identification of the suspect by guessing, then memory for the perpetrator is the best competing explanation for the positive lineup identification. Under these circumstances, it should be difficult to challenge the reliability of a lineup identification.

3 Lampinen supra note 2.
6 http://www.pbs.org/wgbh/pages/frontline/shows/dna/interviews/thompson.html)
11 Smith supra note 7.

Brian L. Cutler, Ph.D., is professor in the Faculty of Social Science and Humanities at the University of Ontario Institute of Technology. Professor Cutler regularly authors articles on forensic psychology and serves as a consultant and expert witness on eyewitness memory and false confessions.

www.drbrioncutler.com; briancutler@mac.com