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Eyewitness Identification Expert Report of Dr. Nancy K. Steblay

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State of Minnesota vs. Marvin Haynes

Nancy K Stobly

I am prepared to testify to the following points. I reserve the right to supplement this report if additional materials and new information become available.

Nancy K. Steblay, Ph.D.

I. Introduction

I am Nancy K. Steblay, Ph.D., Professor Emeritus of Psychology at Augsburg University in Minneapolis, Minnesota, where I have been teaching and doing research on eyewitness topics since 1988. I am an expert on topics of social influence, memory, decision-making, and jury decision processes, with specific expertise in eyewitness identification evidence collection procedures. My research has contributed to scientific recommendations regarding procedures of collecting and documenting eyewitness identification evidence that can help to prevent mistaken eyewitness identifications. I have authored over 45 publications, including peer-reviewed research, chapters, and law review articles on topics of eyewitness memory, identification procedures in lab and field tests, police eyewitness evidence practice and policy (including lineups and showups), and jury decisions. Many of my publications involve the review of bodies of literature, a quantitative method called meta-analysis. Other publications involve the analysis of empirical data from the lab and from real witnesses to crime in the field. The National Science Foundation and the National Institute of Justice have funded my research studies on eyewitness identification evidence and police procedures. I have given workshops, information sessions, and lectures on eyewitness identification evidence to attorneys, prosecutors, police, and judges in the United States and Canada, and I have worked with prosecutors, law enforcement, and other public officials and policy makers to help reform eyewitness identification procedures. The content of my training sessions for legal professionals and law enforcement includes science-based memory principles, science-supported recommendations for conducting eyewitness interviews and identification procedures (for lineups, show-ups, and related identification practices), and current knowledge regarding the limitations of triers-of-fact in their understanding and appreciation of eyewitness science findings. I have served on the editorial boards of four major scientific journals that publish research on eyewitness identification, and I have reviewed manuscripts on eyewitness identification for 16 journals. I am the Associate Editor for the American Psychological Association journal Psychology, Public Policy and Law, a forum for critical evaluation of public policy and legal issues in light of the scientific knowledge base in psychology.

My curriculum vitae is attached to this report.

Purpose of report

The Great North Innocence Project requested my report on scientific knowledge relevant to the reliability of the eyewitness evidence and police practices in the case of *State of Minnesota vs. Marvin Haynes*.

II. A brief summary of scientific framework principles for eyewitness memory

Jurors are often presented with eyewitness identification evidence (lineup results) and with witness testimony that may include an in-court identification of the defendant. Jurors may pose two questions: 1) Why would the eyewitness identify *this* person if he's not guilty? And 2) Why would the eyewitness be so confident, if this defendant is not the guilty person?

The basic principles of eyewitness science can help to illuminate these issues.

Over 40 years of research, from laboratory tests, field data, and legal cases, has provided a sound scientific basis for understanding the experience of an eyewitness to crime, the problems that may occur with eyewitness memory for events and for offenders, and the best practices for eyewitness identification procedures that can significantly reduce the likelihood of mistaken identification. The scientific findings have a strong record of acceptance by experts in the field (e.g., Kassin, et al., 2001; Wells, et al., 2020) and in the broader scientific community (e.g., Garrett, 2011).

The National Academy of Sciences (2014) has confirmed the strong merits of eyewitness science. The NAS recommended strengthening the value of eyewitness identification evidence through police training in reformed lineup procedures and through scientific framework expert testimony in court on relevant precepts of eyewitness memory and identification.

Eyewitness research employs the scientific method. The scientific method involves generating hypotheses about variables that may influence eyewitness accuracy or testimony, testing those hypotheses by conducting experiments in which those variables are systematically manipulated while holding all other variables constant, collecting data to observe the effect of the manipulated variables, analyzing those data using statistical methods, and evaluating whether the hypotheses were supported. Experiments are the primary method used by scientists (whether they are physicists, chemists, biologists, or eyewitness scientists) to isolate the causal effects of one variable upon another.

Eyewitness research includes experiments conducted in the laboratory under controlled conditions, but also field studies involving real eyewitnesses in real investigations.

When a sufficient number of experiments have been conducted to test the effects of a particular variable on eyewitness accuracy or testimony, it is possible to statistically combine the data across multiple experiments into a single meta-analysis, which allows for the detection of persistent effects occurring across labs, across researchers, across participant samples, and across variations in study design. In short, meta-analyses enable researchers to detect reliable patterns in the data and strengthen conclusions about factors that affect eyewitness identification accuracy. This current case report relies on principles from published meta-analyses and uses specific studies to illustrate and expand on those principles.

Eyewitness unreliability is revealed in real cases.

DNA exoneration cases have revealed that mistaken eyewitness identification is a leading cause of wrongful convictions (https://innocenceproject.org/). University of Virginia law professor Brandon L. Garrett's (2008) systematic examination of the first 200 DNA-exoneration cases found that the leading cause of wrongful convictions was mistaken eyewitness identification, which was present in 79% of the cases. Moreover, in a quarter of the cases, eyewitness testimony was the only direct evidence against the defendant. In these cases, the actual guilty person was not in the lineup, yet the witness nonetheless made a lineup selection and picked the police suspect. Even when factoring in non-DNA exonerations, eyewitness misidentification remains one of the leading causes of wrongful convictions. Of the 2908 total cases of exoneration listed in the National Registry of Exonerations (as of December, 2021), 30% involved unintentional eyewitness misidentification.

Field studies of real eyewitnesses in real cases have also demonstrated that witnesses make identification errors at a strikingly high rate (Wells, et al., 2020). In real cases, we cannot know whether a witness's identification of a police suspect is of a guilty or an innocent person. But we do know that a filler pick is an identification error. Field studies show that, of real witnesses in real investigations who make a lineup pick, an average 36.8% choose an innocent filler. Of course, this fuels concern that some (unknown) percentage of innocent suspect selections are also likely from witnesses who are making lineup picks despite unreliable memory. One reason for this may be that witnesses, even those with only vague or poor memories, will feel pressure to make a positive identification to help the investigation.

Memory is malleable.

Memory is not like a video recorder. Instead, our memory of an event or a person is very malleable (can easily change) and is often unreliable (see e.g. Loftus, 2005; Wells, Steblay, & Dysart, 2015). Even a very confident and well-intentioned eyewitness can misremember and misreport the events of a crime scene and who was involved.

Eyewitnesses and crime victims often feel pressure to make sense of the event in order to develop a narrative of what happened and who is responsible. Witness "memory" reports become a patchwork of memory fragments, speculation, guessing, and intrusions of new information as witnesses fill in gaps in the story of the event. Such problems extend to eyewitness identification decisions. Moreover, witness confidence is a feeling and a judgment that reflects the coherence of the information and the "cognitive ease" of processing it.

Otherwise stated, high confidence mainly reveals that "an individual has constructed a coherent story in his mind, not necessarily that the story is true" (Kahneman, 2011).

Many factors can lead to mistaken identifications.

Mistaken identification may be due to a number of factors that include conditions of the *crime* (e.g., witness view, duration of event, distance, illumination), factors related to the *witness* (e.g., stress, attention, visual acuity), and attributes of the *perpetrator* (e.g., disguise or head/facial cover, prior relationship between witness and offender, distinctive appearance, race). The witness's memory of the crime and perpetrator is likely to degrade very quickly and to change as the witness gets additional information from media, police, and co-witnesses or through other experiences (e.g., social media). Finally, the police procedures used to interview the witness and secure an identification (e.g., mugshots, composites, show-ups, lineups), and the timing of such procedures, may affect the quality of the eyewitness memory evidence (see, in general, Steblay, 2015).

Early identification based on unbiased procedures is the one that counts because this retrieval is more likely to be reliable.

Solid scientific facts about human memory and memory contamination dictate that the *first* eyewitness identification attempt via unbiased lineup procedures is the one that counts, whether the witness makes a positive identification or not, and an identification *must* have been conducted with an unbiased fair procedure (Steblay & Dysart, 2016; Wells, et al., 2020). Any identification made from repeated procedures—beyond the first identification procedure—should not be considered reliable eyewitness evidence.

Hence, an in-court identification is inherently suggestive, tantamount to a high-pressure show-up. The in-court identification is of little informational value. It is true that a witness *could* identify the defendant in court from original memory of the crime, but it is also possible that the in-court identification is the result of an error of familiarity (source confusion), commitment to a prior identification decision, and/or simple deduction on the part of the witness (who else will the witness point to, other than the defendant?).

Witness confidence will inflate across time.

Witness confidence will inflate across time for a number of reasons. Witnesses often become more confident about their identification and memory reports as time goes by, even if their reports are inaccurate. This is because the witness feels more confident once it is learned, for example, that the suspect has been arrested, that there is a criminal history, or that other witnesses or authorities implicated the same suspect. Hence, accuracy of witness reports and identifications are not necessarily related to confidence—unless measured at the time of first identification under pristine conditions (Steblay, Wells, & Douglass, 2014; Wixted & Wells, 2017).

Moreover, the "post-identification feedback effect," one of the most dramatic and well-supported eyewitness memory principles, must be considered for its effect on witness confidence. Simply

put, witnesses who are given feedback from authorities about the identity of the culprit ("that's the guy") display significantly inflated confidence about their identification of the suspect and in their retrospective memory of how good their view and attention to the culprit was at the time of the crime (Steblay, Wells, & Douglass, 2014).

Witnesses are usually unaware of how their memory has changed over time or what has influenced their reports and their confidence. They are not able to separate out what they knew at the time of the crime from what they learned or surmised from external sources. For this reason, a witness's confidence at trial (such as an in-court identification) is not necessarily a good indicator of witness memory accuracy (Smalarz & Wells, 2014, 2015).

Best practices for identification evidence should be followed.

A catalyst for the examination of police practices has been the now-360+ DNA exoneration cases (the Innocence Project), in which eyewitness error was a contributing factor to the wrongful conviction—the most common error among these wrongful convictions.

The purpose of current best practice guidelines (Wells, et al., 2020) is to decrease the suggestiveness of identification procedures and to increase the reliability of identification evidence—and to fully document the identification procedure for the benefit of investigators and triers-of-fact. When best practices are not employed, the reliability of eyewitness evidence can be significantly undermined, and failure to document the procedure substantially inhibits the effective evaluation of the identification evidence.

A police lineup is inherently dangerous for an innocent suspect. Eyewitnesses have a very difficult time recognizing when the guilty culprit is not in the lineup; that is, when the police have a suspect but the suspect is not the actual guilty offender. When the eyewitness cannot immediately recognize a lineup member, the witness may subsequently make a lineup selection based not on recognition of a culprit, but on a process of elimination and a determination of which member is *closest* to memory relative to the other lineup members. When the true culprit is not in the lineup, the result can be a false identification (Wells, 1993). The likelihood of false identification is elevated when the witness's memory for the culprit is limited or poor and/or when police identification procedures are suggestive and biased against a suspect (Wells, Memon, & Penrod, 2006; Smith, et al., 2019).

An enormous amount of scientific literature details the problems of eyewitness identification that are likely when police fail to follow recommended best practices (see, e.g., Wells, Steblay, & Dysart, 2015; Wells, Memon, & Penrod, 2006; NIJ Guide, 1999; Steblay, 2015; Wells, et al. 2020). The United States National Institute of Justice (NIJ Guide, 1999; U.S. Department of Justice, 2017) recommends methods for minimizing suggestive procedures and mistaken eyewitness identification when collecting eyewitness evidence. In addition, recommendations are prescribed in policy in numerous U.S. jurisdictions and supported by the International Association of Chiefs of Police.

The primary features of a good lineup procedure are that a lineup—photo or live—must have *only one suspect*; there should be at least five viable *fillers* for every suspect (who match the

description of the culprit); the suspect should not stand out in the lineup; witnesses should be warned that the perpetrator *may or may not be in the lineup* and that they do not have to make a pick; lineup administrators should avoid influencing the witness (a *double-blind* procedure should be used); comparison between photos should not be allowed (*sequential presentation* of photos is preferable) and a *clear statement of certainty* should be taken at the time of the identification. Multiple presentations of the same suspect to a witness should be avoided and full documentation of the lineup procedure and outcomes is recommended (NIJ Guide, 1999; Wells, et al., 2020).

The danger of misidentification increases as violations of good lineup practice cumulate. A combination of biased lineup instructions, non-blind procedure, and a simultaneous presentation of photos results in an increased level of suspect identification—even when the suspect is innocent (Greathouse & Kovera, 2009).

Finally, failure to document the procedure may substantially inhibit the effective evaluation of identification evidence. For example, evaluators need to determine how quickly the decision was made and whether comments from the lineup administrator may have led the witness to a decision, and the comments made by an eyewitness *during the lineup procedure* (qualifiers and confidence statement) can reveal decision processes such as automatic recognition versus deliberative reasoning or guessing (Steblay & Wells 2022, under review).

Layperson knowledge of scientific principles.

An ancillary line of research since 2000 has shown that few laypersons have a correct understanding of how memory actually works and of how specific factors affect eyewitnesses. Instead, many laypersons adhere to myths about memory that have been firmly contradicted by scientific research. For example, laypersons misconstrue the nature of eyewitness evidence. In one study, 42% of research participants (incorrectly) held that the witness on the stand is effectively narrating a video recording of events in "mind's eye." These laypersons are seemingly unaware that memory of a crime is fragmented and highly malleable across time, and that a period of time beyond even 10 hours will significantly erode memory quality and yet may also increase witness confidence in that memory (Schmechel, et al., 2006).

Layperson "common sense" knowledge of eyewitness topics is often wrong. On topics such as weapon focus (divided attention), stress, and cross-race crimes, only 3 out of 10 participants arrive at correct answers; they often are very wrong in their intuitive judgments (see, e.g., Demairas & Read, 2011; Kovera & Levitt, 2014; Schmechel, et al. 2006). Additional research shows that gaps in knowledge about eyewitness memory is apparent in many attorneys, law enforcement, and judges as well (Wise, et al., 2003, 2004, 2009, 2011).

Most alarmingly, the key factor that laypersons may use to evaluate eyewitness evidence—witness confidence on the stand—is often not a reliable basis for judging memory accuracy (Wixted & Wells, 2017). In the Schmechel, et al. (2006) survey of 1,000 potential jurors (citizens), nearly 40% agreed that "an eyewitness' level of confidence in his or her identification is an excellent indicator of that eyewitness' reliability," and a majority had a fundamental misunderstanding about the relationship between witness confidence and accuracy. Jurors may

rely on a positive stereotype about memory credibility, (erroneously) expecting that a confident and honest eyewitness will be accurate. Jurors may assume that eyewitness testimony is a reflection of only memory quality, rather than the way witnesses were questioned, the police procedures used to get the identification, or other sources of post-event memory contamination (e.g., Semmler, Brewer, & Douglass, 2012). The inflation of witness confidence due to non-memory influences is discussed below (the post-identification feedback effect; Steblay, Wells, & Douglass, 2014).

III. Materials reviewed

Mugshots (2) of Marvin Haynes: (1) short hair, dated 8-22-2002, 5'4", 130 lbs, DOB

1987/12/06 no facial hair, black hair, brown eyes (14 yoa)

(2) long hair, mustache, dated 5/19/2004, 5'7", 130, (16 yoa)

*Witnesses selected Mr. Haynes (the 2002 photo) from a

lineup.

Minneapolis Police Department Case Supplement 6, 30 (5-16-04)

Minneapolis Police Department Case Supplement 17, 18 (5/17/04)

Minneapolis Police Department Case Supplements 31, 34 (5/17/04)

Minneapolis Police Department Case Supplements 23, 32 (5/19/04)

State of Minnesota Affidavit of Ravi Seeley (10/11/22)

Trial Transcript (8/29/2005) Cynthia McDermid and Ravi Seeley

Video of live lineup

Klobuchar, A., Steblay, N., & Caligiuri, H. (2006). (HC evidence collection procedures)

Key persons

Victim: Harry Sherer

Eyewitnesses: Cynthia McDermid (sister of victim) (female, White)

Ravi Seeley 14-year-old bystander (male, South Asian)

Detectives: Officers Rollins and Smelter (on scene)

Sgts. Mattson and Keefe (case detectives)

Lineup administrators: Photo array 1: Sgt. Zimmerman (Witness McDermid)

Photo array 2: Sgt. Folkens

Photo array 3: Sgts. Mattson and Keefe (Witness McDermid)

Photo array 4: Sgts. King and Wehr (Witness Seeley) Live lineup 1: Sgts. Mattson and Keefe (Witness Seeley) Live lineup 2: Sgts. Mattson and Keefe (Witness McDermid)

IV. Timeline of eyewitness events

Location: Minneapolis, Hennepin County, State of Minnesota

May 16, 2004 (approximately 11:40 a.m.)

911 call (from Witness McDermid) described a Black male shooter in his early 20s, thin, 5'10" or 5'11", 180 pounds, wearing a gray hoodie.

Officers were dispatched to a flower shop at 3300 Lyndale Avenue; the victim was DOA.

At the scene, Witness McDermid provided a description of the suspect: Black male, 22 years old, dark-complected, with short, cropped hair. He was wearing a grey hooded sweatshirt but may have had a jacket over this sweatshirt. She remembers seeing a hood (Officer Rollins, MPD Supplement 6).

A photo array was shown to Ms. McDermid) by Sgt. Zimmerman (Exhibit 49; MPD Supplement 30). Mr. Haynes was not included in the lineup. McDermid identified two photos as looking familiar, but she could not rule them in or rule them out.

May 17, 2004 (1 day after the murder)

Cynthia McDermid was interviewed by Sgt. Mattson (Supplement 17).

The offender was described as: Black male, 19-20 years old, close-cropped hair. "It wouldn't be bald, natural." No facial hair, medium skin tone, "seemed to be thin" No other distinctive features. A sweatshirt with a jacket over it and the hood part was sticking out over his jacket. The hood when he was in the shop "was never over his head." When he was in the alley, he had the hood up.

Pants: "Don't think they were real loose pants."

The offender had a distinctive speech: "not a hip-hop type speaking. He spoke with clarity." [As if he had education?] "Absolutely."

McDermid viewed the same photo array as a day earlier (Supp. 18). McDermid identified a filler, Max Bolden (#4), with 75%-80% confidence.

May 18 (2 days after the murder)

A second witness (Witness B, Ravi Seeley) reported to police that he had been walking near the flower shop when he heard a shot and saw a person run out of the shop. This person was described as a slender Black male, a natural haircut possibly faded on the sides, some sort of a light blue (possibly zip-up) sweatshirt (Supp. 31). Seeley estimated that he was 30-40 feet away.

Investigators Keefe and Mattson talked to suspect David Neil, noting a large gap between his teeth.

May 19 (3 days after the murder)

Ms. McDermid viewed a photo array (lineup) with two suspects: Neal and Haynes. This was reported as booking photos that include a side and front view. The lineup was conducted by Sgts. Keefe and Mattson, the case detectives (non-blind). McDermid identified Haynes (#5) and said "Oh my God. That's him." She noted that the suspect is wearing his hair longer than shown in the picture (Supplement 32).

MR. Seeley viewed the same photo array (lineup). The lineup was blind; conducted by Sgts. King and Wehr (Supp. 32). Seeley identified Haynes (#5) as "the one I saw at the Rose Shop" (Supp. 23).

May 20 (4 days after the murder)

Seeley was shown a live non-blind sequential lineup (same as McDermid.) Seeley saw the lineup first, McDermid second, administered by Sgts. Keefe and Mattson. Seeley reportedly gasped and identified Haynes.

Stated: "Woe [sic] I recognize him [#4], He looks like who I saw." (Supp. 34) [In a 2022 affidavit, Seeley reported that he expressed uncertainty about the identification.]

McDermid was shown the same live sequential lineup.

This lineup was not blind, administered by case detectives Sgts. Keefe and Mattson. McDermid identified Haynes, saying "he looks like him."

At a second viewing with the subjects closer to the glass, she hesitated, saying that she felt she was traumatized and that she was blending them all together (Supp. 34).

August 29, 2005 Trial testimony

October 11, 2022 Affidavit of Ravi Seeley

V. Primary observations of the case

I examined the eyewitness identification evidence, with attention to the circumstances under which the witnesses experienced the incident and the subsequent events that resulted in photo and live lineup identifications of Mr. Haynes by two eyewitnesses. My observations are based on the eyewitness research literature that has developed since the mid-1970s.

A useful way to evaluate the reliability of a witness's report of a crime event and suspect identification is to consider three stages of the eyewitness memory experience: *acquisition*, *retention*, and *retrieval*. A problem at any of these three stages is sufficient to make memory unreliable.

My evaluation of the eyewitness evidence will follow these three stages of memory.

- 1. Acquisition stage. The reliability of an identification first depends on whether the witness had a decent view of the culprit and was paying attention for the time required for a memory to be formed (this memory acquisition process is called *encoding*).
- 2. Retention stage. Images encoded into memory are not stored forever in perfect condition, but instead can be forgotten, revised, and/or distorted with time. Research demonstrates that witnesses not only forget details, but that they also "remember" things that are not so.
- 3. Retrieval stage. Memories are not so much "retrieved" as reconstructed using current knowledge. Every time a witness revisits a memory (thinks again of the events), there is opportunity for revision and distortion. Police interviews and identification procedures are components of this retrieval stage.

Overview of this case

Conditions at the crime scene were limited for eyewitness memory encoding of the gunman's face. The primary witness, Ms. McDermid, experienced a very stressful and horrible crime, in which she was threatened by a man with a gun and heard the gunman fire two shots at her brother as she ran from the shop. Four days after the murder, at the time of the live lineup, Ms. McDermid expressed that she was still traumatized, and that she feared her memory was "blending them all together" (referring, it appears, to the faces seen in lineups). The second witness, Mr. Seeley, heard shots fired and saw a man run from the store.

Both witnesses reported an offender of a different race than their own: a Black man of slender/thin build.

A striking component of this case is the lack of match between the witnesses' additional descriptors of the offender and the appearance of Marvin Haynes during that timeframe of the

crime event. Ms. McDermid, who had the better look at the offender, described close-cropped hair; the second witness described a natural hair style possibly faded on the side.

Witness McDermid, who is 5'6" tall, was in close proximity to the shooter as she helped him (as a customer) in the shop. She stood in front of and/or beside this customer (later claiming that she recognized his lineup photo from the eyes and from a side view). Her claim was that the shooter was 5'10" to 5'11" tall; that is, she estimated that the man was taller than herself by 4-5 inches. She also estimated the shooter's age at 20-22, and his weight at 180 pounds. She noted a dark complexion at first interview but then changed her assessment to "medium" complexion in the next day's interview. She reported that the offender had no facial hair. She reported a distinctive verbal style of the shooter ("clarity," "educated").

Mr. Haynes is a Black male with a dark complexion. At the time of the shooting, Marvin was 16 years old, 5'7" and 130 pounds. He was small in physical size. He had fairly long natural hair and a mustache (see the arrest photo and the live lineup video). His speaking behavior at the live lineup was not distinctive.

The second witness, Ravi Seeley, a 14-year-old boy, reported that he heard shots and saw a slim Black man exit the shop. His position, estimated at 30-40 feet, allowed him to form an impression of gender, race, hair, and body size. His affidavit (2022) states his (retrospective) claim that he did not get a clear view of the face of the man.

McDermid reported the shooter to be wearing a gray sweatshirt; Seeley saw the sweatshirt as light blue.

Despite the poor encoding conditions at the crime scene, the lack of match between the description of the culprit and the suspect, and some delay between crime and lineup (3 days), both eyewitnesses made an identification of the police suspect, Mr. Haynes. If Mr. Haynes was not the shooter, how might misidentifications have happened?

The scientific principles described above (Section II) offer a number of insights into how a mistaken identification may have occurred in this case. I will focus on four primary issues: memory contamination (and distortion), mistaken familiarity, relative judgment, and problematic police evidence collection procedures.

During the time between the crime and the identification procedures, witnesses are likely to ruminate about what they saw and heard. Gaps in memory about what happened and who is responsible can be filled in by new information that may or may not be correct. The source of such information, now woven together in the witness's narrative of the event, can be previous knowledge, expectations and beliefs, comments from external sources (e.g., police, family, friends, and media), and constructive imagination. This "memory" experience is no longer a recollection from the crime.

It is possible in this case that witness narratives were shaped by external (non-memory) information and beliefs about who the culprit might/could be. Both witnesses expressed that the shooter was possibly a person slightly known to them from prior interactions in the area.

There is a risk that this vaguely familiar face began to blend into memory of the culprit's face. In the case of Witness Seeley, he had not seen the culprit's face clearly, hence, memory for the shooter was structured around persons he had seen a week earlier and on the street that same day. For Witness McDermid, the face was familiar to one seen on occasions several weeks earlier. For both witnesses, these faces were of a race other than their own. Scientists refer to "unconscious transference"—the replacement of the culprit's face with another person in memory.

An innocent person who resembles the perpetrator is clearly at risk in a lineup. A lineup image closest to the witness's memory of the criminal may be a person seen before or after the crime—not the perpetrator—and this image may produce an identification decision based on mistaken familiarity. In this case, both witnesses favored a lineup image of a young Black man with short hair—an image of a younger Mr. Haynes that did not match his current appearance in significant ways.

Moreover, there is an inherent risk in any lineup identification procedure. Even a witness with no memory of the perpetrator's face can guess and make a suspect identification one out of six times (with a fair six-person lineup). Witnesses unwittingly often use the process called "relative judgment"—choosing the lineup member who is *closest* to memory, using a process of elimination and comparison.

If the lineup is constructed or conducted in a biased manner (for example, with ineffective fillers or a non-blind administrator), the risks of an identification error increase (see Appendix A).

There were notable problems in the lineup procedures of this case and associated problems with the reliability of these witnesses, as discussed in this report. Most notably, at the first lineup (May 17, a lineup that did not include Mr. Haynes), Witness McDermid expressed her distress and unsettled emotional state, saying that she could not be sure of an identification. Importantly, she did not reject all the lineup members (as would be expected if her memory of the perpetrator was clear and if he was not in the lineup); instead, she chose a filler with 75-80% confidence. In short, she demonstrated an unreliable memory and a willingness to incriminate an innocent lineup member. This was at the time closest to the crime, when memory should be most clear.

Both witnesses selected Mr. Haynes's photo from the photo array on May 19, perhaps under pressure (self-imposed or external) to choose someone from the lineup in order to cooperate with the investigation. The specific selection of Mr. Haynes may have been prompted by a resemblance to the true offender and/or a witness's "best guess" based on mistaken familiarity and relative judgment. It is important to reiterate that these were cross-race identifications.

The identifications from the live lineup the next day, May 20, are confounded with the prior photo arrays. That is, memory of a face in the live lineup can be explained by the selection of the same face just one day earlier. But that photo array showed a short-haired 14-year-old Haynes with no facial hair. When the witnesses saw the 16-year-old Haynes in the live lineup

(just 4 days after the incident), with much longer hair and facial hair, their identifications became shaky. The live lineup appears to have prompted witnesses to doubt their earlier identifications, signals that the police apparently dismissed.

Why would a witness be so confident on the witness stand if she has made an error? The inflation of witness confidence from the time of the identification to the time of testimony is not unexpected. Witnesses may become more convinced of the correctness of their decisions as they receive further information about the case that bolsters their position. They tend to distort their confidence about their identification decision as well as the facts surrounding their experiences at the time of the crime and of the identification. In this case, McDermid moved from an inability to make a firm decision at the live lineup to compete certainty at the trial. The other witness (to his credit, he seemingly did not engage in post-identification confidence inflation) reiterated his confusion and "shaky" identification decision at the live lineup, at trial, and in a 2022 affidavit.

The scientific basis for my observations are included below.

Nine case observations

Eyewitness science can illuminate how witnesses with very limited (if any) memory of a perpetrator's face may end up with confident positive identifications of the police suspect. Science-based findings are noted for each of the nine points below.

- 1) The conditions of the crime event provided a limited foundation for the witnesses' memory of the offender's face.
- 2) The witnesses' initial descriptions of the offender did not match Mr. Haynes. The (outdated) photo of Mr. Haynes in the photo array matched the witnesses' descriptions but not his appearance in that timeframe.
- 3) The cross-race effect is among the factors that may limit witnesses' encoding and identification of the face of a Black assailant.
- 4) The retention interval of 3 days allowed for memory loss and interference.
- 5) Prior familiarity: Witness memory for other somewhat familiar persons (prior exposure) can confound and confuse witness memory of the crime event.
- 6) The witnesses' repeated exposure to the same suspect confounds interpretation of the live lineup outcome.
- 7) Both witnesses' attention to a filler is meaningful as exculpatory evidence.
- 8) The procedures used to collect the eyewitness evidence were problematic.
 - a. Non-blind lineup administration
 - b. Absence of cautionary lineup instructions
 - c. Undocumented details regarding the progression of the sequential procedure

- d. Absence of immediate confidence statements
- e. Poor and limited documentation
- f. Lineup construction weaknesses
- 9) Post-identification feedback and information posed risks for memory distortion and false confidence.

1) The conditions of the crime event provided a limited foundation for witness memory of the offender's face.

Memory is not like a video-recorder. We cannot pay attention to everything at once. The clarity of view and the amount of attention paid to a perpetrator's face will have an impact on what is brought into memory and what subsequently can be recalled.

The events of May 16, 2004, involved conditions that could make it difficult to encode a strong memory of a stranger's face. There were also positive factors, as noted below.

Positive encoding factors for Witness McDermid include the indoor lighting, the close proximity, a single perpetrator who was not masked, and the opportunity for a clear view during the few moments of interaction with the offender prior to the robbery. Witness Seeley saw the offender in daylight from a distance estimated at 40-50 feet.

Witness McDermid

Witness McDermid interacted briefly with the offender (as customer) as he placed a flower order. Then, the witness "looked up and the suspect was pointing a large silver handgun towards her" (Supp. 6). It is unknown as to exactly where the witness was standing or what she was doing during the brief time prior to the robbery. In the May 17 interview, she reported moving about the store, showing the offender a vase in the cooler, bringing the vase to the prep table (while the offender was at the card rack picking out a card), and placing the offender's card stick in the vase of flowers.

She observed that the offender was polite but "talking a lot in a nervous type of way" (Supp. 6).

"I glanced up at him. He had a gun pointed about 4 inches away from my face maybe 6 inches between my eyes is where it was....the gun was silver" (Supp.17). [Q: Would you be able to recognize the suspect?] "I think so."

When the victim entered the front room, the witness ran out the door and then heard two shots fired. She saw the suspect walking in the alley as she jumped the fence on the south side of a neighboring house.

Two aspects are of specific importance. First, when the robbery commenced, the witness's attention was drawn to the threatening gun, a phenomenon known as the "weapon focus effect." The witness described the silver gun and that "It had a chamber where you could see the bullets

in it. A round chamber that was down below the handle." "He was holding the gun with two hands" (Supp. 17).

Second, the witness was very frightened. A "fight or flight" response is typical in threatening and stressful situations, with the result being that limited attention is paid to the face of the perpetrator. The encoded memory is fragmented and often confused.

The witness engaged in a "flight" response, so viewing of the suspect was limited to her time in the flower shop and subsequently her view of the suspect as he departed.

Witness McDermid estimated the time in the store at 5-8 minutes (Supp. 17). However, it must be noted that not all this time involved her eyes on the face of the culprit. And witnesses often overestimate the duration of a crime.

Relevant science:

- Encoding time (duration of the crime). Memory depends on what the witness was looking at and for how long. For facial identification, the time spent with eyes-on-the-face is critical. A statistically reliable association exists between exposure time and identification accuracy (Bornstein, Deffenbacher, Penrod, & McGorty, 2012). The exposure times tested in the lab involve seconds or minutes, similar to the brief exposures that are common to crime events. In the Bornstein, et al. meta-analysis, the median difference between "short" and "long" exposure durations was 4.7 seconds, indicating that even a relatively short reduction in exposure to the culprit can have substantial effects on eyewitness identification accuracy. Memon, Hope, and Bull (2003) exposed participants to a robber's face for 12 versus 45 seconds. At the identification task just 40 minutes later, correct identifications dropped by 58% for the shorter exposure time. Mistaken identifications were high (45%) for both groups under longer exposure, but especially for the short exposure time (85% errors).
- Eyewitnesses tend to overestimate the amount of time they had to view the culprit. Yarmey (2000) found that witnesses to non-routine events overestimated the duration of the event by between 25% (for an event lasting 13 minutes) and more than 100% (events lasting 24 seconds or less). Therefore, it is likely that the exposure duration was even shorter than the time the eyewitnesses reference in their narratives.
- Attention. A witness must pay attention in order to form a memory. As discussed at length by the National Academy of Sciences (NAS, 2014, pg. 53), attention is limited and complicated by competition from all the visual "noise" in the environment; there is far more visual material available than can be paid attention at any point in time. Some events do not draw much attention until the event is suddenly thrust upon the witness. A witness cannot pay attention to everything at the same time. Often action draws more attention than do facial or physical features (Chabris & Simons, 2010). If the crime takes place in a chaotic manner, or if there are multiple distractions for attention (e.g., culprit's face, threatening objects, co-witnesses, or other surrounding visual "noise"), attention to a single visual aspect will be diminished.

- Weapon focus. One of the earliest studies of attentional focus used an eye-tracking device to find that a weapon (vs. a neutral object) during a crime drew the witness's eyes to the weapon and away from the offender's face—and significantly reduced later identification accuracy. This reliable phenomenon is referred to as a "weapon focus effect." (Fawcett, et al., 2011; Steblay, 1992; DeCarlo, 2020).
- Stress and fear. Stress reduces the amount of information that is processed, severely restraining what can be retained and later retrieved—and thereby increasing the chance of a mistaken identification (Deffenbacher, Bornstein, Penrod, & McGorty, 2004; Hope, et al., 2012; Valentine & Mesout, 2009). For example, Morgan, et al. (2004) found that correct identifications dropped by 35% under high-stress conditions (vs. low-stress), and errors increased by 35%.
- Distance. At increasing distance there is less ability to detect the details of a face, and the facial details are coarser (Loftus & Harley, 2005). Research has shown that the proportion of correct responses to errors is too great at distances over 15 meters (49 feet) for an identification to be probative or reliable, even in good lighting conditions (Wagenaar and van der Schrier, 1996). This has resulted in the Rule of 15 (meters) as a guideline for assessing witness reliability.
- Stranger vs. known faces. Faces that are strangers or that are only vaguely familiar from prior interactions are likely to have been encoded only superficially, without the level of detail that will lead to an accurate identification. In general, we encode and store the "gist" of what is in view (typically size, race, gender, hair color) but we are less likely to capture detailed facial features (Bornstein, Deffenbacher, Penrod & McGorty, 2012; Memon, Hope, & Bull, 2003; Steblay, Dietrich, et al., 2011)
- 2) The witnesses' initial descriptions of the offender did not match Mr. Haynes in substantial ways. Subsequently, an outdated photo of Mr. Haynes in the photo array matched the witnesses' descriptions, but not his appearance in that timeframe.

The witnesses' description of the culprit taken by the police at the time of the crime speaks to what was most salient to the witness and freshest in memory. Typically, only the "gist" of what is in view (e.g., size, race, gender, hair color) is encoded when a stranger is encountered only briefly.

As might be expected given the short and chaotic nature of this event and the constraints of the view, the eyewitnesses' descriptions of the gunman were limited, sometimes inconsistent, and importantly, not a match to Mr. Haynes on a number of features. There was a common description of the shooter across the two eyewitnesses for only three features: Black male and slender (thin).

Mr. Haynes is a Black male with a dark complexion. At the time of the shooting, Marvin was 16 years old, 5'7" and 130 pounds, small in physical size. He had fairly long natural hair and a

mustache (see the arrest photo and the live lineup video). His verbal behavior at the live lineup was not distinctive.

The two central witnesses described the shooter as follows:

Cynthia McDermid

Witness McDermid provided three descriptions of the culprit to police. Italics indicates descriptors that differ from Mr. Haynes's appearance at the time: age, height, weight, hair style. Witness McDermid was inconsistent in describing skin tone. Witness McDermid's description of the culprit is substantially at odds with Marvin Haynes' appearance during that timeframe.

- In a 911 call, she described a thin Black male in his <u>early 20s, 5'10" or 5'11", 180</u> <u>pounds</u>, wearing a gray hoodie.
- To police at the scene, she described a Black male with a dark complexion, <u>22 years old</u>, <u>short, cropped hair</u> (Supp. 6).
- To police the next day, she described a Black male, <u>19 to 20 years old</u>, with <u>close-cropped natural hair (but not bald)</u> and <u>medium skin tone</u>. <u>No facial hair</u> (Supp. 17).

Witness McDermid, who is 5'6" tall, was in close proximity to the shooter as she helped him (as a customer) in the shop. She stood in front of and/or beside this customer. Her claim was that the shooter was 5'10" to 5'11" tall; that is, she estimated that the man was taller than herself by 4-5 inches. She also estimated the shooter's age at 19-22, and his weight at 180 pounds. She noted a dark complexion at first interview but then changed her assessment to "medium" skin tone in the next day's interview. She reported a distinctive verbal style of the shooter ("clarity," "educated").

Ravi Seeley

Witness Seeley, a 14-year-old boy, provided a description in a discussion with Sgt. Mattson on May 18. He reported that he heard shots and saw a slim Black man exit the shop. His position near the shop, estimated by the witness (not measured) at 30-40 feet away, allowed him to form an impression of gender, race, hair, and body size. He claimed that he would probably recognize the suspect.

He described the perpetrator as a slender Black male with a natural haircut (possible faded on the sides) and a light blue sweatshirt (possibly zip-up) (Supp. 31). On May 19, Seeley described a "light colored top, possibly white or grey" (Supp 23).

Seeley also reported that he had seen the offender as he and a friend walked to the store, and this man (#5 in the photo array) had "meanmugged them" just prior to the robbery. They saw the man walk in the direction of the Rose Shop.

Importantly, when the two eyewitnesses were presented with the live lineup (Mr. Haynes with a very different appearance than was described by these witnesses), their confident identifications

evaporated. Ms. McDermid claimed trauma and "blending their faces together" preventing a clear decision (Supp. 34). Mr. Seeley reported to the officer that he was "confused between two people and very shaky" on the identification (trial testimony, p. 888).

Relevant Science:

- If there is a discrepancy on some physical feature between the eyewitness's description of the culprit and the appearance of the suspect, the fillers should match the suspect's appearance (rather than the witness's description of the culprit) on that feature. (Wells, et al. 2020).
- Low similarity fillers increase the likelihood of a mistaken identification of an innocent suspect (Fitzgerald, el al. 2013). The Fitzgerald paper is a meta-analysis of 17 independent studies providing data from 6,650 participants.

3) The cross-race effect is among the factors that may limit witnesses' encoding and identification of the face of a Black assailant.

McDermid is white. Seeley is South Asian. The offender is described as Black. Mr. Haynes is Black.

Memory *encoding* is particularly difficult with faces of another race. Humans have learned to pay attention to facial features that help us discern between faces within our same race, but these cues do not work equally well for encoding and recognizing faces of another race/ethnicity.

The witnesses viewed the stranger's face for only a short time. Research suggests that the face of the offender would not be encoded with detail, and that the risk for subsequent identification error is substantial. Cross-race problems of identifications are increased with limited exposure at the time of the crime, as was the case here.

Relevant science:

- Cross-race effect. The inherent difficulty of *encoding* a stranger's facial features plays out at the time of lineup identification when the witness is asked to *retrieve* a memory of the perpetrator's face. Witnesses are 1.56 times more likely to misidentify a stranger of a different race than a stranger of their own race (Meissner & Brigham, 2001; Brigham, Bennett, Meissner, & Mitchell, 2007). This reliable finding is based on 39 studies, with 5000 participants. Of note is that Platz & Hosch (1988) demonstrated the cross-race effect in a natural field setting and with a diverse sample (convenience store clerks in El Paso, Texas); the results confirmed superior identification recognition for own race/ethnic group among all three groups tested: White, Black, and Hispanic.
- There is an interaction between cross-race bias and the duration of viewing exposure. Reducing the amount of time allowed for viewing of the face significantly increases the magnitude of the bias, largely manifested as an increase in the proportion of false alarm responses to other-race faces (Meissner & Brigham, 2001).

4) The retention interval of 3-4 days allowed for memory loss and interference.

It is challenging for a witness who glimpses a stranger to retain a memory image over time because eyewitness memory is vulnerable to very rapid decay. The greatest loss of memory is within the first 24 hours after an event. The drop in memory for details is precipitous within the first 9 hours, and then levels off across time.

Retention depends on the initial strength of memory. But, even when acquisition conditions are good, we often retain only fragments and forget details over time—such as what the face of the offender actually looked like. Memory will not improve over time.

The retention interval (delay) prior to the first lineup (photo array) that included Mr. Haynes was three days. For those three days, both witnesses would need to hold in memory an image of a stranger seen only briefly. Moreover, these witnesses would need to avoid any contamination of memory images.

During the retention interval, memory is vulnerable to two processes: memory loss and memory interference. Therefore, the best possibility for a correct identification is when memory is fresh and uncontaminated by outside influences. Interview and identification procedures are more likely to yield reliable results if conducted in close time proximity to the crime event.

Memory loss: The combination of a brief view of a stranger of another race and a substantial retention time elevates the risk for mistaken identification. As noted by the NAS (p. 99), "during the retention interval, the ability to accurately identify faces of other races drops off especially quickly, relative to same-race accuracy."

Memory interference: During the retention timeframe, there may have been interference in the form of additional information learned from sources such as the police.

McDermid saw a number of photo arrays (testimony, p. 837):

[How many photo lineups you looked at, photographic lineups as opposed to a standing lineup?] "Three."

[With respect to the first lineup, an officer showed you these smaller pictures that were in Exhibit 45, correct?] "Yes."

[And then the second lineup that you had, and I think and hopefully you can remember now, you were shown the identical lineup, but you were shown larger photographs, is that correct?] "I believe you are right. I don't know for sure if they showed me the same or what, I don't know." (p. 864).

Inexplicably, police showed McDermid the same lineup twice on May 16 and 17, thereby allowing her memory to be contaminated by multiple viewings of the same suspects. At the first showing, she reported familiarity with two of the lineup members but *could not rule out* either of these two lineup members as being the culprit (Supp. 30). At the second viewing, she

made an identification (at 75-80% confidence) of a filler. She reported being confused, still in a state of shock and could not be sure (Supp. 18).

At the third photo array, McDermid selected a photo of Mr. Haynes (at 14-years-old) and stated recognition ("Oh my god, that's him"), but also noted that the suspect's hair was longer than in the photo (a point that ran counter to her original description of "close-cropped" hair) (Supp. 32). Finally, at the live lineup, she focused on Mr. Haynes (at 16 years old): "he looks like him," but now saying that she was traumatized and "blending them all together" (Supp. 34). Memory interference due to multiple lineups appears to be present.

For both witnesses, the additional problem of memory interference due to repeated identification attempts with the same suspect is noted point #6 below.

Relevant science:

- Memory of the witness for the crime and perpetrator is likely to degrade very quickly (Deffenbacher, Bornstein, McGorty, & Penrod, 2008). Mistaken identification is more likely as time passes. This research is based primarily on retention intervals that typically cover a few minutes to a few weeks.
- Researchers refer to a forgetting function that is Ebbinghausian in nature" (Deffenbacher, et al., 2008, p. 148), meaning that memory for an unfamiliar face drops off steeply right after the encounter and then levels off over time. Thus, a delay of even a few hours can be detrimental to accuracy.
- Recent research indicates that as retention interval (delay) lengths, accuracy decreases. But also, the confidence-accuracy relationship is impaired. That is, witnesses may become overconfident in the accuracy of their memories (Spearing & Wade, 2022).
- Memory loss. The greatest loss of memory is within the first 24 hours after an event. The drop in memory for details is precipitous within the first 9 hours, and then levels off across time. The memory of the witness for the crime and perpetrator is likely to degrade very quickly (Deffenbacher, Bornstein, McGorty, & Penrod, 2008), with a linear decline in the correct identification of previously-seen faces after a delay (Shapiro & Penrod, 1986). Valentine, et al. (2003) found in a set of 314 real lineups that suspect identifications dropped by half (66% to 34%) and filler picks more than doubled (10% to 25%) when delay increased from one week to one month.
- Memory corruption. Memory of an offender may be corrupted across time as new information is learned and incorporated into the "memory experience." Each time the memory is recalled, changes are likely. As the NAS explained (p. 62): a "threat to the stability of long-term memories is, ironically, our life-long ability to learn new things. Because memory mechanisms are inherently plastic throughout life, content stored for the long term is surprisingly labile in the face of new information. Our memories are thus an ever-evolving account of our experiences."

- Memory contamination. Information from external (non-memory) sources will become a part of the witness's "memory story," especially when it can be tied into the witness's assumptions about how the event makes sense. The effects of external intrusions and suggestion are not easily separated from a person's memory of the original event (Loftus, 2005). That is, the witness often cannot discern the source of a memory detail.
- Co-witness and authority effects. Influences on memory are more likely when the sources are confident acquaintances and/or credible authority figures (Skagerberg & Wright, 2008, 2009; Hope, et al. 2008). Gabbert, Memon, & Allen (2003) found that 71% of witnesses absorbed erroneous details from discussion with co-witnesses ("memory conformity"). Interference is likely as the witness gets additional information from media, police, and co-witnesses or through other experiences.

5) Prior familiarity: Witness memory for other somewhat familiar persons (prior exposure) can confound and confuse witness memory of the crime event.

Identifications of familiar persons are not as reliable as they might intuitively seem. This is because the circumstances of the crime event may limit a clear view and attention to the culprit's face—and thereby produce a mistaken assumption (conclusion) that the culprit is the same person as was seen at the prior time.

That is, the memory error is made at the time of the crime (assuming a familiar person when the culprit is actually a stranger) and that error is carried over to the lineup. Recognition at the lineup is confounded—we cannot know if the lineup selection is based on memory of the crime or of the prior event. There is the distinct possibility of a memory error, and that processes of "unconscious transference" and "proactive interference" account for the lineup identification decisions. Therefore, selection of Mr. Haynes from the lineup may not be reliable memory evidence original to the crime.

In the interview on May 17 (Supp. 17), Witness McDermid first reported that she had seen the suspect on prior occasions.

How many times? "At least three or four."

Has he come in to purchase? "I think a couple of times he came in to make change. Valentine's day week [3 months ago] I think he purchased. The other times I seen him going south on Lyndale to the grocery store area." "3-4 weeks [ago] walking up Lyndale."

Mr. Seeley also indicated that the person he saw leave the shop was familiar from a week ago (testimony, p. 880). The May 19 report (Supp. 23) indicates that Seeley told Sgt. King that he and a friend had seen this same male on Mother's Day. Later in the day (Mother's Day) Seeley stated that he and his friend saw this male with a second male, who looked similar to the person in photograph #6 of the photo array, from across the street (Supp. 23).

The same principles that apply to eyewitness memory encoding and retention for crime events (and effects on memory) apply to memory of persons encountered briefly in non-crime events. That is, view and attention are critical factors, as is the retention over time of a memory.

Moreover, if memory of the person from a prior event is sharp and strong, then there should be both an ability to recognize that face and to reject others. That is, one has to clearly remember a face in order to reject similar but incorrect faces. In this case, Witness McDermid could not clearly reject similar but incorrect faces. At the lineup (May 17), she identified two photos (#2 and #4) who looked similar to the suspect: [You didn't absolutely identify nor eliminate number 2 or number 4?] "correct".

Relevant science:

- Familiar identifications can be very accurate, especially when an eyewitness has had extensive and/or meaningful prior exposure to a personally familiar perpetrator they can clearly view during the crime. Such identifications often occur when an eyewitness immediately informs law enforcement of the perpetrator's identity, and may involve a subsequent confirmatory identification (e.g., "Is this is the person who shot you?").
- Although familiar-perpetrator identifications can be of high accuracy, they are far from infallible, particularly in cases of minimal prior exposure and poor viewing conditions during the crime (Vallano, et al., 2017). First, an eyewitness who states that they know who the perpetrator is does not necessarily mean that the familiar person she identified is the perpetrator. Second, familiar identifications are not all created equal. Familiar identifications involving minimal prior exposure to the perpetrator may operate similarly to stranger identifications, with similarly high error rates.
- Even with good view of the culprit and short retention times, faces are forgotten such that correct identifications decrease and identification errors increase, based on the level of prior familiarity. In one study, previously-encountered culprits were not always identified (60%) even when in the lineup; when the culprit was missing from the lineup, 12% of the witnesses identified a filler. More specifically, for witnesses who claimed the culprit just "looked familiar," errors were also as frequent as were correct IDs (29% and 35%, respectively) (Steblay et al., 2011).
- In the field, familiar-suspect identifications are similarly high (65%) but errors do occur even with real eyewitnesses who claim to know the perpetrator (filler picks of 7%; Wells, Steblay, & Dysart, 2015). The concern is that eyewitness recognition errors for persons seen prior to the crime are not limited to filler picks but can extend to innocent suspect identifications.
- Across field studies, the pattern of the data is remarkably consistent. When exclusively
 focusing on familiar identifications, a large majority of eyewitnesses identified the
 suspect. A small minority of eyewitnesses either did not select any lineup member or
 selected a filler, the latter a known incorrect decision. Klobuchar, et al.'s (2006) study
 coded for the extent of familiarity, revealing that increased familiarity—that is,

perpetrators who were "known well" relative to "regular customers"— resulted in more suspect identifications and fewer filler identifications.

- A witness may become confused between a person seen in another context and the alleged suspect seen at the time of a crime event (*unconscious transference*). The emotion attached to this recognition can feel very real to the witness; however, the witness is failing to discern the correct source of the recognition (a *source-monitoring error*) (Brown, et al., 1977; Loftus, 1976; Ross, et al., 1994; Read, et al., 1990). People tend to more quickly forget the source of the information than the information itself (e.g., a face is familiar but correct context is lost). Although emotional memories can be inaccurate in detail, one important corollary of their vividness is that they are frequently held with high confidence (Phelps and Sharot, 2008).
- Proactive and retroactive interference. Witnesses can have trouble remembering crime details and faces because of experiences both *before* the crime event (e.g., a cashier who recalls the face of a customer who visited the store prior to a robbery instead of the face of the robber) and *after* the crime event (e.g., a cashier who confuses the face of a shopper who arrived after the crime with that of the robber). Correct recall of the crime can be impeded because of what was learned earlier (*proactive interference*) or later (*retroactive interference*) (Loftus, 2005).

6) The witnesses' repeated exposure to the same suspect confounds interpretation of the live lineup outcome.

Both witnesses viewed the same suspect in at least two procedures: a photo array and then a live lineup. All of the fillers changed from the photo array to the live lineup; otherwise stated, Mr. Haynes was the only lineup member who was shown twice.

Witness exposure to a suspect across multiple points in time after the crime (e.g., mugshots, lineups, social media, news media, courtroom) creates a risk for misidentification and false confidence. Memory for the actual culprit can be clouded or even replaced with the new image and features of the suspect who is the target of the investigation, even if the suspect is innocent. All exposures to the suspect become part of and taint the witness's memory of the crime.

The witness's decision at a second task (or beyond) is fraught with at least four serious confounds, each one challenging the fidelity of the witness's memory with an alternate reasonable explanation (Deffenbacher, et al., 2006; Steblay & Dysart, 2017).

Confound 1: The second identification is based on the witness's familiarity with the suspect, but that familiarity unwittingly stems from exposure to the suspect at the first lineup rather than at the crime scene—a memory failure for the circumstances of the previous encounter (source confusion).

Confound 2: The second identification is based on the witness's sincere belief that she remembers the face of the perpetrator—but the face of the perpetrator in her memory has been

supplanted with that of the suspect from the first lineup (unconscious transference; Loftus, 1976; 2005).

Confound 3: The witness is committed to the decision made at the first lineup, and she will stick with this prior choice, presumably to reduce her anxiety and to help the investigation (commitment).

Confound 4: The witness can detect that the common denominator across the two identification procedures is the suspect. This common denominator influence is especially suggestive when all fillers have changed from photo to live lineup. Whatever her decision at the time of the first array, she can be fairly certain who the police suspect is when she sees the second lineup (common denominator; Steblay, et al., 2013).

Despite these very strong reasons to avoid repeated identifications, some police departments allow a live lineup to follow a photo array, using the rationale that the live lineup may offer an opportunity for the witness to correct a previous error (Steblay & Dysart, 2016). That is, the witness may realize, based on physical cues that were not available in the photograph, that this suspect is not the perpetrator. It appears that this is what happened in this case.

Both witnesses identified Mr. Haynes from a photo array on the previous day. Importantly, the photo in that array was a 2-year-old photo of Mr. Haynes, at age 14 with short hair and no mustache. This photo met the description (in part) provided by the witnesses. However, his appearance at that time and in the live lineup was quite different.

At the live lineup, both witnesses focused on Mr. Haynes (arguably because they had just seen and selected this face in the photo array the day before), but now, both were no longer certain of the identification. Ms. McDermid was unable to make a final decision, citing trauma and the (unsurprising) sense that she was now blending faces together. Mr. Seeley reported to the police (according to court testimony) that "he wasn't too sure with all the people that were there lineup up" (p. 888). This was also reported in his 2022 affidavit. At trial, when asked about the certainty of his identification, Seeley reported that he was "shaky on it. I couldn't really remember;" "I was very confused I think between two people." (p. 888).. In short, the witnesses adjusted their previous statements toward uncertainty.

In general, a repeated lineup is a very bad idea for reasons discussed above. The identification procedures recommended by eyewitness scientists have been developed for the *first* identification attempt of an eyewitness who views a lineup (photo or live)—and in fact, these recommendations include that a witness's memory should be tested only once—and from a proper procedure. The reason is that the witness's decision at the first test can best determine whether an eyewitness's recognition memory supports police suspicions about the identity of the perpetrator. The demonstration of potential error from repeated identification tasks dates back over 40 years (Brown, Deffenbacher, & Sturgill, 1977), and 25 years of prior research support for the concept of memory contamination in repeated identifications was first reviewed by Deffenbacher, et al., in 2006, and more recently by Steblay & Dysart (2016), Wells, et al., 2020 in the White Paper, and Wixted, et al., (2021).

In this case, it should be noted that the photo array was poorly constructed, with an outdated photo of the suspect (discussed below). The live lineup illuminated that problem.

Relevant science:

- Witness memory can be contaminated, and confidence can be bolstered by repeated viewing of a suspect even if the identification was inaccurate (Steblay & Dysart, 2016; Steblay, Tix, & Benson, 2013).
- The National Academy of Sciences (2014) has recommended that jurors be made aware of all identification tasks (p. 110). The recent consensus document of eyewitness scientists also warns against repeated identification tasks with the same witness (Wells, et al., 2020). Witness memory can be contaminated, and confidence can be bolstered by repeated viewing of a suspect even if the identification was inaccurate (Steblay & Dysart, 2016).
- Memory of an offender may be corrupted across time as new information is learned and incorporated into the "memory experience." Each time the memory is recalled, changes are likely. As the NAS explained (p. 62): a "threat to the stability of long-term memories is, ironically, our life-long ability to learn new things. Because memory mechanisms are inherently plastic throughout life, content stored for the long term is surprisingly labile in the face of new information. Our memories are thus an ever- evolving account of our experiences."
- The National Academy of Sciences (2014) has recommended that jurors be madeaware of all identification tasks (p. 110). The recent consensus document of eyewitness scientists also warns against repeated identification tasks with the same witness (Wells, et al., 2020).

7) Both witnesses' attention to a filler is meaningful as exculpatory evidence.

Witness McDermid was shown a series of six photos on May 16 (Supp. 30) by Sgt. Zimmerman. She identified two photos of persons whom she said looked familiar. She was "unable to make positive ID or rule them out at that time." #2 was a suspect, Jerry Hare; #4 was Max Bolden, whom she stated, "also looked very similar to the suspect." (Bolden was 20 years old).

The next day, she was shown enlarged photos of the same photospread by Sgt. Folkens (Supp. 18), and she picked the same two individuals, but stated she was not sure. Witness McDermid selected a filler (Bolden) again from this second photo array and now reported 75%-80% certainty. (Note also the possibly bolstered confidence from seeing the same suspects again.)

The importance of these decisions is threefold.

First, the witness was unable to rule out these persons. If a witness has a good memory of the culprit, she should be able to recognize him (if he's in the lineup) and to reject persons who are not the culprit. That is, one must clearly remember a face in order to reject wrong faces.

Second, when there is not a clear match to memory (such as when the culprit is not in the lineup or his appearance has changed dramatically), a witness will often rely on relative judgment. This means that the witness will find the lineup member *closest* to memory, relative to the other lineup members. This process often manifests with comments that a lineup member is closest or similar to the culprit. Relative judgment is dangerous when the true culprit is not in the lineup and an innocent person looks like the culprit.

Third, selection of a filler (even at less than 100% confidence) indicates that the witness is willing to rely on relative judgment to select an innocent filler.

Witness Seeley's identification of a filler is also significant, for the same reasons. Seeley identified Devon Mapp (photograph 6) as a person who he had seen with the shooter on Mother's Day (Supp. 23). Mapp was a filler who has no association with Haynes. In fact, per the LocatePlus database, Mapp was likely living in Chicago in May 2004. Seeley's identification of a filler casts additional doubt on his identification of Mr. Haynes, as he may have felt pressured to identify others in the lineup as being involved in the crime.

In short, a filler identification should not be considered a "non-event." Filler identifications are a form of exculpatory evidence for the suspect in the lineup and reflect poorly on the witness's ability to take on future identification tasks.

Relevant science:

• A large number of studies provide evidence that filler identifications offer exculpatory evidence for the police suspect (see e.g., Wells & Lindsay, 1980; Wells & Olson, 2002; Wells & Turtle (1986); Wells, Yang, & Smalarz, 2015).

8) The procedures used for collection of eyewitness evidence were problematic (See Appendix A for detail per lineup).

Best-practices decrease the suggestiveness of police procedures, increase the reliability of identification evidence, and prompt full documentation of the identification procedure for the benefit of investigators and triers of fact. When best practices are not employed, the reliability of eyewitness evidence can be significantly undermined.

At the time of this investigation, Hennepin County was involved in a year-long pilot project (from Fall 2003-November 2004) that trained and mandated new procedures for collection of eyewitness lineup identification evidence.

The mandate included three principles that were already part of the police department procedures: A six-member lineup included one suspect and at least five fillers; the witness was instructed that the perpetrator "may or may not be in the lineup"; and a statement of witness confidence, in the witness's own words, was recorded at the time of the identification and before

any feedback (see Klobuchar, et al., 2006). In addition, the new protocol mandated double-blind administration of the lineup (the lineup administrator did not know who the suspect is, and the witness was instructed that the administrator did not know which lineup member was the suspect) and sequential presentation (the lineup photos were presented one at a time).

Hennepin County trained officers for a "blinded" lineup presentation of the sequential lineup when necessary. This "folder shuffle" method is well-known as a means to reduce lineup administrator influence. There was also an option for a detective to disregard the blind administration: "The blind examination requirement may be disregarded if necessary. Officers should document why an uninformed officer was not available (e.g., it is 3:00 a.m. and no uninformed officer is available)" (Klobuchar, et al. 2006, p. 395). I am not aware of any paperwork that documented the reason for not employing a blind procedure. The procedure was at 1:15 p.m. in the afternoon.

The detectives in this case were apparently aware of the double-blind sequential procedures that were mandated for the pilot program (and used with the first photo array). But they abandoned the double-blind procedure that protects against detective influence for the identification procedures that incriminated Mr. Haynes.

a) Non-blind identification procedures were used for three lineups. This included one photo array (McDermid) and both live lineups (McDermid and Seeley).

Best-practice guidelines for collecting eyewitness identification evidence recommend that lineups be conducted by administrators who do not know which lineup member is the suspect and which lineup members are fillers—that is, double-blind procedure (National Institute of Justice, 1999: NAS, 2014, Wells, et al., 2020; Klobuchar, et al., 2005, 2006).

All eyewitness interviews and all identification procedures involve a social interaction between the officer (detective or lineup administrator) and the witness. Officer influence on the witness's identification decision is always a risk when the officer knows which lineup member is the suspect (non-blind). The officer may intentionally or inadvertently steer the witness with verbal and nonverbal cues.

A non-blind procedure induces the witness to feel that they made a good lineup decision, even when that decision was heavily directed by the non-blind police officer. The risk of false confidence in a mistaken identification is therefore significantly increased with non-blind lineup administration.

Two types of administrator bias (influence) must be avoided: (1) influence that leads the witness to a specific suspect (suspect-bias) and (2) influence that prompts the witness to pick *someone* from the lineup (choosing-bias).

The 2022 affidavit of Ravi Seeley provides some (admittedly retrospective) insight into how his identification of Mr. Haynes occurred. Seeley was a 14-year-old boy, self-described as young and impressionable, who viewed first a photo array and then a live lineup. There is limited documentation about what transpired during the photo array (only a police report of the identification of Mr. Haynes) or of the conversation between witness and officer during

the live lineup. Seeley claimed (2022) that he identified one of the individuals in the photo lineup as the person "I thought I may have seen running from the flower store." He goes on to say that "after I indicated I thought it might be the photo, I remember feeling like the officer wanted me to stick with that selection. He emphasized how important it was to solve this crime and put a dangerous criminal away."

Seeley reported in 2022 that, in fact, he did not get a clear view of the face of the person running from the flower shop (Affidavit, 2022), and that he had expressed doubts at the time of the live lineup to one of the officers. And, that he has no confidence in the identifications made back in 2004.

Mr. Seeley reported in his 2022 affidavit that the police officers "pressured me to make an identification both times." They led him to "believe that this person was dangerous, that I needed to help them solve the case, and that I could get in trouble if I was not helpful." "I was terrified about what could happen to me if I was not cooperative."

Relevant science:

- Research demonstrates that the odds of identifying an innocent suspect double with a non-blind administrator, compared to a blind administrator. The increase in errors occurs because non-blind administrators emit behavioral cues that lead eyewitnesses away from lineup fillers and towards the suspect, even the innocent suspect (Kovera & Evelo, 2017).
- Research has clearly demonstrated the impact on witness identification decisions of an administrator's verbal and non-verbal behavior. These influences are often subtle, unintentional, well-meaning, but deceptively powerful because they appear at face-value to be innocent or helpful (Greathouse & Kovera, 2009).
- Importantly, recent research indicates that seemingly helpful comments from a lineup administrator, such as "take your time," or "Does anyone else look familiar?" can induce the witness to choose, increase error and inflate confidence even in wrong decisions (Clark, et al. 2013; Eisen, et al, 2018). Nonblind administrators are more likely than "blind" administrators to tell witnesses to examine the lineup carefully, tell witnesses to take another look at the lineup after the failing to make an identification, remove a picture from consideration slowly if the witness rejected it as the suspect, draw witnesses' attention to the suspect's photo, and smile when the witness identifies the suspect (Charman & Quiroz, 2016; Greathouse & Kovera, 2009; Zimmerman et al., 2017).
- Influences on memory are more likely when the sources are confident acquaintances and/or authority figures of credibility (Skagerberg & Wright, 2009; Loftus, 2005).
- The potential for non-blind administrators to influence eyewitness decision-making is exacerbated when eyewitness memory for the culprit is weak. Zimmerman and colleagues (2017) manipulated the retention interval between the time of the witnessed event and the identification procedure (30 minutes or 1 week) and whether the lineup administrator knew which lineup member was the suspect. Because memory decays with

time, eyewitnesses who completed the lineup after a 1-week retention interval presumably had weaker memories of the culprit compared to eyewitnesses who completed the lineup after a 30-minute retention interval. The effect of non-blind administration was significantly larger following the 1-week retention interval than following the 30-minute retention interval: the effect of non-blind administration on false identifications increased false identifications from 8% (at 30-minutes) to 33% following a 1-week retention interval.

- Lineup administrators and witnesses are generally unaware of subtle behavioral cues emitted by non-blind administrators, even when those cues have a demonstrable impact on witnesses' identification decisions (Clark et al., 2009; Greathouse & Kovera, 2009; Phillips et al., 1999). Thus, asking lineup administrators or eyewitnesses about whether the lineup administrator engaged in suggestive behaviors or whether those behaviors could have affected eyewitnesses' decisions is often an ineffective way to gauge the presence and effects of administrator influence.
- This witness who testifies on the stand appears sincere and confident to triers-of-fact, even when the witness is wrong (Smalarz & Wells, 2015). The witness feels as if he/she made the identification decision, but the lineup administrator has in fact steered the witness to that decision.
- Knowledge of the police suspect not only influences lineup administrators' behaviors during a lineup procedure but also influences administrators' interpretations of eyewitnesses' reactions to a lineup.
- Charman and colleagues (2019) had research participants act in the role of a lineup administrator who administered a lineup to an eyewitness who made an ambiguous statement about one of the lineup members (e.g., "If I had to pick someone, I'd go with number three...but I really don't know..."). The lineup administrators had been either informed or uninformed regarding which lineup member was the suspect. Administrators who had no knowledge of which lineup member was the suspect classified these ambiguous statements as affirmative identifications only 56% of the time, but this number jumped to 78% when the ambiguous statement confirmed administrators' expectations about who was the suspect. Furthermore, when the ambiguous statement matched administrators' expectations, it inflated their perceptions of the reliability of the eyewitness (e.g., that the witness had a better view, made the identification easily, etc.). Administrators were also less likely to make comments that could steer witnesses away from identifying the person the eyewitness was considering (i.e., that they should consider another face or that they can say 'not sure') when the ambiguous comment matched administrators' expectations.
- Administrators' knowledge about which lineup member is the suspect also leads to make different records of eyewitnesses' identification decisions depending on whom the eyewitness identifies. In a study in which lineup administrators had to determine whether to record an eyewitness's decision as an affirmative identification, "blind" administrators classified an eyewitness's decision as an affirmative identification 70% to 76% of the time, regardless of whether the witness had picked the suspect or a filler. Non-blind

administrators, however, classified the decision as an affirmative identification 82% of the time when the eyewitness picked the suspect but only 57% of the time when the eyewitness picked a filler (Rodriguez & Berry, 2014).

• Non-blind lineup administrators prompt the witness to express greater confidence in their lineup decision, a false inflation of confidence.

Important to this case is that the problems of a non-blind lineup administration are exacerbated when combined with an absence of proper (unbiased) instructions, and a biased lineup structure.

b. Absence of cautionary lineup instructions

Cautionary instructions are reminders to the witness that the perpetrator may not be in the lineup, that the witness does not have to make a decision, that it is just as important to exclude innocent persons as to identify a perpetrator, and that the investigation will continue whether or not an identification is made.

Relevant science:

• Eyewitnesses should be told explicitly that the person in question might not be in the photo array and that they should not feel compelled to make an identification. Failure to provide this instruction implies to the witness that the perpetrator is in the array and that the task is to find him. This mindset encourages the witness to make a selection from the array even in the absence of recognition memory, and a "best guess" places an innocent suspect at risk when the guilty party is not in the lineup (Steblay, 1997; 2013; Wells, 1993; Wells, et al. 2020).

c. Sequential display of lineup members

MPD policy mandates a sequential (one-at-a-time) presentation of lineup members.

As noted above, facial recognition is holistic, automatic, and fast. When no lineup member matches memory, witnesses may engage in what are called "secondary processes": attempts to figure out which lineup member is the suspect. These processes may involve relative judgment (deciding which member is closest to memory), elimination (ruling out members of the lineup who are not plausible), and seeking help from the detective.

A sequential procedure significantly reduces the risk of misidentification that might be incurred when a witness uses secondary processes rather than making an absolute judgment of recognition. The danger to an innocent suspect who looks most like the culprit/description is significantly increased when a witness uses relative judgment or a process of elimination (see points below). Relative judgment is made more likely a witness is allowed to make multiple laps through the lineup.

A principal benefit of the sequential (one-at-a-time) procedure is to allow investigators (and triers-of-fact) to see how the witness responded to the suspect alone, without comparing to other lineup members. For just this explicit purpose, the sequential procedure requires that for each lineup member, the witness must voice a decision (yes, no, or not-sure) before moving on to the

next. The documentation of a witness's immediate reaction to a lineup member is important to ascertain.

Best practices require that the witness's response to *each* photo be recorded, and that a second lap through the lineup be only allowed at the witness's request. This is to discourage relative judgement once the witness knows how many options there are (backloading has been undermined; see below). A non-blind lineup administrator who encourages a second lap through the lineup after the witness does not make a confident selection during the first lap has influenced the witness.

For the critical live lineup, Witness McDermid, as per testimony (p. 844), stated that she got "right up off the chair" and said "that's him" when she viewed Mr. Haynes. She also reported that she asked to see the lineup again, and she recalls on the stand that she important "to be positive."

However, the two laps through the lineup gave her the opportunity to compare the lineup members (she recalled that she wanted to view the first three —or possibly the last three) and to engage in relative judgment. It was at this point that she voiced her trauma and that she was blending faces (Supp. 34).

Relevant science:

- A large body of scientific research demonstrates that sequential lineups, in which a witness views lineup members one at a time and makes a judgment about each face as it is presented, is generally superior to simultaneous lineups. The sequential lineup can cut the rate of false identification in half (Steblay, Dysart, & Wells, 2011).
- The dominant explanation for this difference is that witnesses who view simultaneous lineups can easily engage in a relative judgment process—to choose the lineup member who most closely resembles their memory for the perpetrator relative to the other lineup members. If the culprit is not in the lineup, this process results in an identification error (Wells, 1993).
- Sequential lineups should be back-loaded (the witness unaware of how many photos are
 to be seen), so as to reduce guessing and identification errors (Horry, Palmer, & Brewer,
 2012).
- Properly employed, the lineup administrator must control the process, handing each of
 the photos to the eyewitness individually. For each photo, the eyewitness will indicate
 whether the photo is the person the eyewitness saw, the degree of the eyewitness's
 confidence if an identification is made, and then either return the photo to the lineup
 administrator or place the photo otherwise out of view.
- There is research evidence from both lab and field that sequential lineup presentation offers some (although not complete) protection from lineup structural bias compared to a simultaneous presentation of the lineup (Lindsay, et al., 1991; Steblay & Wells, 2020).

d. Absence of a confidence statement at the time of the identification.

MPD requires a confidence statement to be taken from an eyewitness at the time of identification. The reporting of confidence was erratic for these lineups.

Relevant research.

• Confidence can be a good indicator of accuracy when measured from a pristine lineup procedure at the time of identification (Wixted & Wells, 2017). However, these researchers also caution that low confidence should be seriously considered to be a marker and alarm regarding low accuracy.

e. Poor documentation

Scientists recommend a fully recorded interview that captures police conversation with the witness prior to, during, and after the lineup. The reason is that even a simple police comment upfront such as "we have the guy" is a powerful suggestion to the witness that he should select from the lineup. Similarly, police conversation with the witnesses after the lineup can alter confidence and memory (the post-identification feedback effect, discussed below).

Comments and verbal exchanges can indicate witness indecision, qualifiers to the decision, or investigator influence. Proper documentation in real time can illuminate how the witness arrived at their statement of certainty and the time elapsed during the lineup procedure.

The failure to fully document the procedure in this case—absence of a transcript, audio or video record of the verbal exchange during the lineup procedure—does not meet current best practices. This failure also makes it difficult to fully evaluate the quality of the identification results.

The live lineup was videotaped; however, there was no video of the exchange between investigator and witness (behind the glass partition).

Relevant science:

- Scientists recommend that all interviews with witnesses be video-recorded (Wells, et al. 2020). An objective record of the interview will allow both investigators and fact finders the opportunity to review the information provided the witness and evaluate its evidential value. Importantly, studies suggest that investigators fail to accurately record or recall key details of statements provided in interviews (Kassin, Kukucka, Lawson, & DeCarlo, 2017; Lamb, Orbach, Sternberg, Hershkowitz, & Horowitz, 2000); thus, recording the interview with a witness provides an objective record of the information elicited, absent omissions or errors that may be introduced via the investigators' recollection of the interview.
- Humans recognize the configuration of a face (holistic) rather than a set of individual features. That is, recognition is based on overall appearance of a lineup photo rather than specific features that seem familiar (Bornstein, et al., 2012; Wells & Hasel, 2007). Lab eyewitnesses who make accurate identifications report having engaged in automatic

processes ("I just recognized him, I cannot explain why," "His face just popped out") compared to inaccurate witnesses, who report more deliberative processes (Kneller, Memon, & Stevenage, 2001; Lindsay & Bellinger, 1999). This same principle is apparent in recent analyses of eyewitness decisions from field (real) police lineups (Steblay & Wells, 2021).

• Witness identification decision time ("response latency") is related to identification accuracy. Although a specific decision time cutoff has not been determined, there is a robust research literature to indicate that accurate identification decisions tend to be made more quickly (e.g., 10-12 seconds). The reasoning is that recognition happens automatically and fast; a slower deliberative process is less likely to be based on a strong memory and therefore to produce more errors (Dunning & Stern, 1994; Wells, Memon, & Penrod, 2006).

f. Lineup construction weaknesses

The witness's description of the offender will become the basis for lineup structure, wherein all lineup members must meet that description.

Fair lineup construction first requires that the suspect matches the witness's description of the culprit. The suspect should be surrounded by at least five fillers who share similar characteristics and who match the description of the offender as provided by the witness who will view the lineup.

Second, the suspect should not stand out among lineup members on the basis of physical characteristics, photo quality, or context.

Finally, a lineup photo must match the appearance of the suspect on the date of the crime event. This is where the case detective here ran into difficulty. The important point is this: if there is a discrepancy on some physical feature between the eyewitness's description of the culprit and the appearance of the suspect, *the fillers should match the suspect's appearance* (rather than the witness's description of the culprit) on that feature.

• Once the police decided that Haynes was the suspect, his photo should have determined the descriptors used to match lineup members on key attributes.

The May 19 photo array included a photo of Mr. Haynes from two years earlier (when he was 14 years old, with short hair, no mustache). This matches the witnesses' description of the perpetrator's hair ("short cropped"), but not age ("20s"). Mr. Haynes was 16 years old during the timeframe of the incident and had full head of hair (not close cropped) and a mustache (as evident in the second available photo and in the live lineup video).

An appropriate procedure would be for the detectives to use the up-to-date photo and then build the lineup around that appearance. This would have provided an opportunity for witnesses to reject his photo ("not him, the hair was short") or to qualify their comments ("looks like him, but the hair was short"). Instead, the lineup presented a biased presentation for witnesses who were seeking specific features (close cropped hair).

This photo array was conducted with two witnesses in the afternoon (1410 hours for McDermid; somewhat later for Seeley). This was AFTER Mr. Haynes was located and booked at 1240 hours. The officers had the opportunity to use an updated photo of Haynes, as is best practice, but they opted to use the older photo.

• The live lineup in this case did not follow recommended practice. Instead, the lineup appears to be a mix-up of various strategies that together put Mr. Haynes at risk.

Four points illustrate the problems.

- 1. Once the police decided that Mr. Haynes was the suspect, his key attributes must be replicated across lineup members. All six lineup members were Black males. Yet, there are some salient differences.
 - Mr. Haynes was 16 years old, 5'7", 130 pounds. Mr. Haynes appeared to be the smallest in size of the lineup members, and he had a darker complexion among the lineup members. Mr. Haynes's long hair length and style was not matched by any of the other lineup members. It is possible that he was also the youngest among the lineup members.
- 2. There was a clear discrepancy between Ms. McDermid's description of the culprit's hair (close-cropped) and Mr. Haynes's hair (long) at the time of that incident.
- 3. Ms. McDermid described (and was likely expecting) a 20-22 year old Black male, dark-complexion (or perhaps medium), slim, with close-cropped hair, no facial hair, and distinctive speech, 5'10-5'11", 180 pounds. Just three of the lineup members had short hair (#2, #5, #6), three had dark complexions (#4,#5,#6), two were noticeably slim (#2, #4, perhaps #5).

Ms. McDermid expressed confusion at the live lineup, concern that she was "blending them together." Although she focused on Mr. Haynes, she could not provide a definitive identification.

Note that Ms. McDermid had previously identified two fillers that looked similar (in the first two photo arrays), one with 75% to 80% confidence. Then she identified an old photo of Mr. Haynes (at 14 years old) in which he had short hair and no mustache (contrary to how he appeared in October of 2004). At the live lineup, she viewed six Black men, all with mustaches, some with long hair, of many different physical sizes. Her confidence was not strong and recognition memory is questionable.

4. Mr. Seeley described a slim Black man with natural hair, perhaps faded on the sides. His view had been of a man leaving the scene, hence body size may have been more clear than other features, hence drawing attention to the smaller size of #2 and #4.

• The lineup members did not replicate significant features of Mr. Haynes.

All live lineup members were young Black males (no record of the ages), with black hair and a light mustache. Other attributes varied.

Behind the lineup members, plastic document bins on the wall allowed comparison of height/size.

Complexion was somewhat difficult to determine via this video. However, it appears that #4, #5, #6 were of darker complexion.

• The lineup

- #1 Hair in braids; height below bin; not slim; substantial limp.

 Confused about the verbal message to be repeated: [No tell]: "Huh?" (for first witness, Seeley)
- #2 Short hair; slim; taller than bins.
- #3 Long hair one side of face; taller than bins; not slim
 Confused about the verbal message to be repeated: [No tell]: "Huh?" (for first witness, Seeley)
- #4 Marvin Haynes
 Long natural hair; small and slim; shorter than the bin
 Dark complexion
 Detective called him (twice) by name, as "Marvin" (for first witness, Seeley)
- #5 Short hair; stood about at bin-level Moderate build Dark complexion
- #6 Short hair; stood to bin-level Moderate build, not slim Dark complexion

The lineup procedure required each member to repeat the lines reportedly spoken by the perpetrator to Witness McDermid. This supposedly was to offer a voice identification. This was apparently not helpful to the witness (no comment made about the voice).

However, the witness's prior statement about how the perpetrator spoke in a distinctive manner, with clarity as if he "had education" was not evident in this lineup procedure.

Finally, the showing of teeth was unusual. I am not certain as to why this was part of the practice. Did the witness mention the teeth of the culprit?

Relevant science

- A fair lineup includes only one suspect among a set of known innocent fillers. All lineup members must match the description of the culprit provided by the witness. Fillers protect an innocent suspect by drawing guesses and erroneous positive identifications away from the suspect. The suspect should not stand out as distinctively different from the other lineup members. If there is a discrepancy on some physical feature between the eyewitness's description of the culprit and the appearance of the suspect, the fillers should match the suspect's appearance (rather than the witness's description of the culprit) on that feature. (Wells, et al. 2020).
- Low similarity fillers increase the likelihood of a mistaken identification of an innocent suspect (Fitzgerald, el al. 2013). The Fitzgerald paper is a meta-analysis of 17 independent studies providing data from 6,650 participants.
- A lineup in which fillers can easily be dismissed by the witness is likely to push up witness
 confidence for the selected photo, even if that photo is not the culprit (Charman, Wells, &
 Joy, 2011).
- Live lineups are not superior to photo lineups, for reasons often related to the difficulties of constructing a fair live lineup (equating lineup members on critical features) (Fitzgerald, et al., 2018; Rubinova, at al., in press).

• Additional practice issues to note:

A practice of placing multiple suspects in the same lineup violates what might be termed the First Rule for scientific lineup identification evidence: only one suspect per lineup (Wells & Turtle, 1986) with at least five known innocent fillers. One reason for this is that the police investigation (and the suspect) is somewhat protected from a witness's errant guess (the risk of "lucky guess" landing on an innocent suspect is 1 in 6 in a fair six-person lineup). Also, the investigation is aided by being able to detect an unreliable witness (chances of a guess landing on a filler is substantially higher—5 in 6 in a fair lineup).

In this case, the police developed a number of persons of interest. David Neal was a resident of the building to which the police dog traced a scent. The photo array of May 19 included both Marvin Haynes and David Neal (Supp. 32).

The NIJ Guide (1999) and recommendations since that time have suggested moving the suspect's photo among lineup positions for each of multiple witnesses in the same case. This avoids any possible confounding position effects—that the witnesses may favor a specific location in the lineup, that witnesses may communicate about who they chose, or that blind lineup administrators and personnel cannot become "unblinded" by seeing the decision of a first witness as they then move to the second witness. In this current case, Witnesses McDermid and Seeley saw the suspect in the same position for both of them as they viewed the photo array.

Then, as they viewed the live lineup, again the suspect was in the same position for both witnesses.

9) Post-identification feedback (and information) posed risks for memory distortion and false confidence.

Memory is vulnerable to information from external sources—media, co-witnesses, investigators, and new experience—that will intrude upon the witness's original memory, especially if the original memory is weak. The witness's narrative of the crime event will "smooth out" over time, with embellishment from new information and loss of original memory. The witness's memory is a product of images retained from the original event, but also new information learned after the event and/or beliefs about what must have/should have/might have happened—that is, what makes sense to the witness.

Moreover, these external influences can distort the witness's retrospective memory about details such as how much attention was paid to the event and the quality of the view of the offender's facial features. The witness will mold their narrative to fit what makes sense in hind-sight.

A very powerful impact on witness confidence is the feedback received from the case detective at the time of the identification (what is called a "post-identification feedback effect"). This feedback extends to subsequent case information, such as the suspect being arrested, charged, and brought to trial. Witnesses may show changes in memory that retroactively "explain" their identifications.

Witness McDermid

On May 19, Witness McDermid reportedly gasped, placed her right index finger on Photo #5 (Haynes) and said, "oh my God, that's him." (Supp. 32).

At the live lineup one day later, McDermid was less certain, reporting that Hayes "looks like him." A second viewing, with the subjects closer to the glass, caused her to hesitate and state that she was traumatized and blending them all together (Supp. 34). A final confidence measure was not taken by police at that immediate moment.

At trial, Witness McDermid claimed, seemingly correctly, that she "was very adamant that that was him" at the photo lineup (a photo of Mr. Haynes with short hair two years earlier at age 14).

But her trial testimony about the live lineup shows confidence inflation and distorted memory. "All I said is that's him" (p. 844). [Was there any doubt in your mind?] "No doubt."

[Do you remember if you asked to look at the lineup a second time?] "I did."

[Why did you ask?] "I wanted to be positive on something so I asked them to just let them all go through. I didn't ask for one in particular, I think I asked for the first three or the last three, I can't recall but I wanted to look again and make sure." [Why is that?] "Because I want to be positive. I don't want to be in between."

"I'm positive." "I knew that that's who it was."

Ravi Seeley

Ravi Seeley is reported to have identified Marvin Haynes from a photo array, with no confidence statement reported. At trial, he voiced that he was "kind of" positive about the picture but not about the stand-up lineup (p. 888).

He identified Mr. Haynes from the live lineup, again with no confidence statement reported. At trial, Seeley testified that his stated to the officer next to him that he was uncertain. This witness was consistent, then, in expressing a lack of confidence.

"I told them I was kind of shaky on it." (p.888)

"I couldn't really remember. I could remember but I wasn't too sure with all the people that were there lined up. I was very confused between two people."

Witnesses are usually unaware of how their memory has changed over time or what has influenced their reports and their confidence. They are not able to separate out what they knew at the time of the crime from what they learned or surmised from external sources. Once confidence is tainted, triers-of-fact are unable to discern between accurate and inaccurate witness testimony. Confident witnesses are very compelling on the stand because witnesses truly believe what they are saying.

If witness confidence and retrospective memory reports are to be a useful indicator of accuracy, two conditions must hold: memory and confidence strength must be measured at the time of the initial interview and at first identification procedure, and the identification procedure must be pristine, that is, non-biased. Neither of these conditions are true in this case.

Relevant science:

- Confidence and accuracy can be meaningfully related under two conditions: a) confidence is measured at the time of *first* identification and b) the lineup is conducted under *pristine* identification conditions (Wixted & Wells, 2017). A pristine procedure is one in which a fair lineup is administered by a double-blind administrator, with appropriate cautionary instructions and an immediate measure of confidence.
- The post-identification feedback effect is one of the most dramatic and well-supported eyewitness memory principles. Simply put, witnesses who are given feedback from authorities about the identity of the culprit ("that's the guy") display significantly inflated confidence about their identification of the suspect and in their <u>retrospective</u> memory of how good their view and attention to the culprit was at the time of the crime. This confidence and memory inflation is present even if their identification is wrong. Indeed, the percentage of <u>mistaken</u> witnesses who will display high certainty rises from a mere 6% to 29% when an authority provides confirming feedback (Steblay, et al., 2014).

- In-court testimony, then, is a product of the witness's memory from the time of the crime plus all the information that the witness has learned since, as well as the inherent forgetting processes (Deffenbacher, et al. 2008; Steblay & Dysart, 2016). Moreover, witnesses are usually unaware of how their memory has changed over time or what has influenced their reports and their confidence. They are not able to separate out what they knew at the time of the crime from what they learned or surmised from external sources. Therefore, a witness's false confidence makes triers-of-fact unable to discern between accurate and inaccurate witness testimony (Smalarz & Wells, 2014).
- The NAS states that "Expressions of confidence in the courtroom often deviate substantially from a witness' initial confidence judgment, and confidence levels reported long after the initial identification can be inflated by factors other than the memory of the suspect. Thus, the committee recommends that law enforcement document the witness' level of confidence verbatim at the time when she or he *first* identifies a suspect, as confidence levels expressed at later times are subject to recall bias, enhancements stemming from opinions voiced by law enforcement, counsel and the press, and to a host of other factors that render confidence statements less reliable" (p. 108).
- The NAS further cautions that the "practice of in-court eyewitness identifications can influence juries in ways that cross-examination, expert testimony, or jury instructions are unable to counter effectively. Moreover, as research suggests, the passage of time since the initial identification may mean that a courtroom identification is a less accurate reflection of an eyewitness' memory" (p. 110).

Conclusion

Eyewitness memory and identification evidence are central to this case. Scientifically-supported principles are useful to understand how the limitations imposed on eyewitness memory by the circumstances of the crime event (e.g., brief view, stress, weapon-focus), the aftermath of the event (memory loss and memory interference), and poor identification procedures may have contributed in this case to eyewitness identification error and false eyewitness confidence.

VI. Appendix A

Summary of the lineups. Violations of good practice italicized.

(a) May 16. Photo array for Witness McDermid. (MPD Supplement 30)

Administered by Sgt. Zimmerman.

Double-blind and sequential.

Instructions to the witness are not documented.

Confidence is not documented.

Lineup has two (multiple suspects): David Neil, Jerry Hare.

Witness comments summarized by detective, not verbatim.

Outcome: McDermid "identified two photos of persons who she said looked familiar stating that one of the persons had been in the store as a customer." She reported that the photos looked very similar to each other and to the offender. She was unable to a make a positive ID or rule them out at that time. Photo #2 (Jerry Hare); Photo #4 (Max Bolden). Hare was a suspect; Bolden was a filler.

(b) May 17. Photo array for Witness McDermid. (MPD Supplement 30; 18)

Administered by Sgt. Folkens.

Double-blind and sequential.

Instructions to the witness: "I explained that she was under no obligation to pick a photograph, as I did not know a suspect or witness was included as one of the photographs." [This is a strange instruction that circumvents that point of the required "may or may not be in the lineup."]

Confidence: reported as 75-80% sure.

Lineup is the same as previous day, just enlarged black-and-white photos.

Again, two suspects.

Witness comments: summarized by detective, not verbatim.

Outcome: Witness McDermid picked the same two individuals but she "was not 100% sure." (Supp. 30). For #4 (a filler), she was not sure, but was maybe 75-80% sure. McDermid stated that she was still in a state of shock and could not be sure of an identification at this time. (Supp. 18).

(c) May 19. Photo array for Witness McDermid (Supp. 32).

Administered by Sgts. Keefe and Mattson.

Not blind.

Sequential.

Front and side views of each lineup member.

Two suspects in the lineup (David Neil and Marvin Haynes).

The lineup consisted of young Black men, of similar size (height, weight). All had short hair, five had no facial hair (one a mustache). The ages varied from 14 to 23.

The photo for Mr. Haynes was from two years earlier (14 years old, short hair, no mustache), so it did not match his current appearance. The police had arrested him by this time, so they could (and should) have used the updated photo.

No cautionary instruction to the witness documented.

Confidence: No documentation of confidence at that time.

Outcome: (two laps: "She saw the entire lineup, but she came back and identified #5.")

Witness comments: "Oh my god, that's him" (Supp. 32). Detective paraphrased her comments that the suspect is wearing his hair longer than shown in this photo.

In a reported subsequent taped statement, McDermid stated that she identified Marvin Haynes as the person who came in to rob her (Supp. 24). She claimed that she recognized him from the side and that his eyes were distinctive.

Q. How did you make that identification? R. The side view. Q. You saw the front and the side view? R. Yes I did. Q. What was distinctive about this person that made you recognize him? R. His eyes and the side view I could tell. Q. When this individual was in your store you had an opportunity to see the side view of him Is that correct? R. That's correct. Q. Do you recall which side you would have seen of him? R. I saw two times to the left the left side and coming around the store I saw the right side. Q. And this is a left side view that we are seeing of this individual just for the record. You also pointed out that in this photo the hairstyle is not the same as what he was wearing on that day. Is that correct? R. That's correct. Q. How is the hairstyle different on the day of the robbery? R. I believe it was a little bit longer. Q. When you looked at this photo you had told me that this photo gave you the willies. What was the statement you made to the investigators when you looked at this photo? R. I said, "that's him".

(d) May 19. Photo array for Witness Seeley (Supp. 23).

This is the same procedure as for Witness McDermid.

Administered by Sgts. Wehr and King.

Double-Blind and sequential, 2 laps.

Again, two suspects in the lineup (David Neil and Marvin Haynes).

The photo for Mr. Haynes was from two years earlier (short hair, no mustache), so did not match his current appearance. The police had arrested him at this time (May 19), so could (and should) have used the updated photo.

Cautionary instruction: "informed the witness that the witness was not obligated to pick anyone out of the lineup and that a suspect may or may not be in the lineup." "Sgt. Wehr told the witness that he had no knowledge of this case and would be unable to answer any follow up questions the witness may have."

Outcome: When shown photograph number 5, the witness stated "hold on to that one." Sgt. Wehr showed the final picture (number 6) and the witness stated, "it's not him, but it looks like the guy that was with the other guy (number 5) on Mother's Day."

Sgt. Wehr asked the witness if witness wanted to look at the sequential lineup a second time (he initiated the second lap, against policy). The witness asked to see the lineup a second time, stating "to be sure." When shown photograph number 5, witness stated "that's the one I saw at the Rose Shop." Photograph number 6 was shown and witness stated, "it's not him, but it looks like the guy that was with the other guy (number 5) on Mother's Day."

(e) May 20. Live lineup for Witness Seeley (Supp. 34).

Administered by Sgts. Keefe and Mattson.

Not blind.

Sequential.

No cautionary instruction documented.

No confidence statement.

The live lineup was videotaped. But, the conversation on the witness side of the glass was not taped. We do not know the full conversation.

Outcome: Witness stated "woe, I recognize him. He look like who I saw." However, Seeley testified that he state to the officer that he was uncertain.

(f) May 20. Live lineup for Witness McDermid (Supp. 34).

Administered by Sgts. Keefe and Mattson.

Not blind.

Sequential.

Second lap initiated by lineup administrator? Documentation does not explain the closeups at the glass.

No cautionary instruction documented.

No confidence statement.

The live lineup was videotaped. *But, the conversation on the witness side of the glass was not taped.* We do not know the full conversation.

Outcome: McDermid reported that Haynes "looks like him." A second viewing, with the subjects closer to the glass, caused her to hesitate and state that she was traumatized and blending them all together (Supp. 34). A final confidence measure was not taken by police at that immediate moment.

VII. References

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CURRENT: Professor Emeritus of Psychology

EDUCATION Ph.D. (1981) M.A. (1980) Experimental Social Psychology

University of Montana

B.A. Honors (1975) Psychology, Bemidji State University

PREVIOUS APPOINTMENTS (Augsburg faculty since 1988)

1988-2020	Professor, Augsburg University Psychology Department
2005-2020	Director, Psychology and Law Concentration, Augsburg
2000-2006	Assistant to the Provost for Special Projects (in sciences)
1989-2000	Psychology Department Chair
1990-1993	Chair, Augsburg Institutional Review Board
1988-1989	Senior Lecturer, Department of Psychology
	Macalester College, St. Paul, Minnesota
1987-1988	Project Director II, Quantitative Analysis
	Consumer Research Services
	General Mills, Inc., Minneapolis, Minnesota
1981-1987	Assistant Professor (tenured), Department of Psychology
	Concordia College, Moorhead, MN; Department Chair, 1983-1986
1980-1981	Instructor, Department of Management
	School of Business Administration, University of Montana

HONORS Distinguished Contributions for Excellence in Scholarship

(Augsburg, 2011)

Augsburg Research Scholarship (2) Augsburg Teaching Award (2)

COURSES TAUGHT

Introduction to Psychology Social Psychology (Social Behavior)
Personality Psychology and Law

Industrial-Organizational Psychology Individual Differences

Decision-Making/ Behavioral Economics Advanced Topics in Psychology Research Methods I and II Advanced Research Seminar

PROFESSIONAL MEMBERSHIPS

American Psychological Association Association for Psychological Science

American Psychology-Law Society (APA-Division 41)

SCIENTIFIC REVIEW

Associate Editor Psychology Public Policy, and Law

Editorial Board member Law and Human Behavior

Applied Cognitive Psychology Psychology, Public Policy, and Law

Journal of Applied Research Memory & Cognition

Journal manuscript review Occasional reviews for

Psychology, Crime and Law

Legal and Criminological Psychology

Journal of Applied Social Psychology Psychological

Bulletin

Journal of Experimental Criminology

Journal of Experimental Psychology: Applied

<u>Current Directions in Psychological Science Perspectives</u>

on Psychological Science
Journal of Criminal Justice
Philosophical Psychology
Psychological Science

Canadian Journal of Behavioural Science

Police Quarterly

Journal of Police and Criminal Psychology

Journal of Applied Research Memory & Cognition.

<u>Journal of Criminal Justice and Law</u> <u>Journal of Empirical Legal Studies</u>

Memory

Peer Review panel Office of Justice Programs, U.S. Dept. of Justice

Grant review National Science Foundation

National Institute of Justice

GWIS National Fellowship Program (UK) Graduate Scholarship Grants (Canada)

Conference paper review American Psychology-Law Society

SARMAC

Association for Psychological Science

Book and chapter reviews multiple publishers

GRANT SUPPORT (for eyewitness memory research)

Steblay, N. (2014). NSF Grant # 1420181. "Collaborative Research: RUI: Understanding and Predicting Eyewitness Identification Errors: Studies Using a Unique Set of Materials from Actual Lineups," in collaboration with Gary L. Wells, Iowa State University.

Steblay, N. (2007) Grant # 2007-IJ-CX-0046. Reduction of False Convictions through Improved Identification Procedures: Further Refinements for Street Practice and Public Policy. National Institute of Justice.

Steblay, N. K. (2004). Grant # 2004-IJ-CX-0044. Double-Blind/Sequential Police Lineup Procedures: Toward an Integrated Laboratory & Field Practice Perspective. National Institute of Justice. Final Report published (2014) as NIJ Document # 246939. Available at https://www.ncjrs.gov/pdffiles1/nij/grants/246939.pdf

INVITED ADDRESSES/TRAININGS include: (on eyewitness memory)

Pennsylvania Association of Criminal Defense Lawyers

Center for American and International Law, Plano, Texas

International Leadership Institute

Minnesota Public Defenders

Maryland Office of the Public Defender Annual Conference

Minnesota Supreme Court Evidence Committee

Webinar for Minnesota judges

New Orleans Police Department Commanders' Symposium: Best Practices in Major Incident Investigation to Ensure Accurate Convictions

Minnesota Peace Officers Standards and Training Conference

Hennepin County Public Defenders Annual Conference

University of Wisconsin—Platteville Tri-State Psychology Conference

National Academy of Sciences

National Judicial Institute, Supreme Court of British Columbia

Criminal Justice Institute, Minnesota State Bar Association, Minneapolis/St. Paul, MN.

National Association of Appellate Court Attorneys, Washington, D.C.

Police Executive Research Forum, Washington, D.C.

Death Penalty Conference, Law and Inequality Journal, University of Minnesota.

International Association of Chiefs of Police, Chicago, IL.

National Association of Criminal Defense Lawyers, Washington, D.C.

Office of the Ramsey County Attorney, St. Paul, MN

Office of the Hennepin County Attorney, Minneapolis

Minnesota Bureau of Criminal Apprehension

Minnesota County Attorneys Association

University of Cincinnati College of Law, Rosenthal Institute for Justice, Ohio Supreme Court Judicial Education, Columbus, OH.

Creighton University School of Law

University of Minnesota School of Law

John Jay College of Criminal Justice, New York City

University of Arkansas. Fayetteville, AR

Princeton University Woodrow Wilson School of Public and International Affairs Suburban

Peace and Police Officer Association, Minneapolis MN

California Public Defenders' Association

Washington D.C. Public Defender Service

Loyola University Chicago School of Law

Cardozo Law School, New York, NY.

Duquesne University School of Law, Pittsburgh, PA

University of Cincinnati College of Law, Cincinnati

University of Minnesota Psychology Department

Tucson Police Department

San Diego Police Department

Minnesota Public Defenders

Philadelphia Police Department

California State Sheriffs' Association

Georgia Police Accreditation Coalition

National Black Prosecutors Association

Arkansas Association of Criminal Defense Lawyers

American Society of Criminology

PROFESSIONAL CONSULTING

Training for law enforcement & legal professionals in U.S. and Canada

Expert testimony and consulting for legal cases (eyewitness memory and police procedures)

Testimony before legislative and policy committees

SELECTED PUBLICATIONS

REFEREED JOURNAL ARTICLES

Steblay, N. K., & Brooks, W. G. III. (2021). Practical concerns for investigations and courtroom: A commentary on Brewer and Doyle (2021). *Journal of Applied Research in Memory and Cognition*, 10(2), 208–211. https://doi.org/10.1016/j.jarmac.2021.03.005

Steblay, N.K., & Wells, G.L. (2020). Assessment of bias in police lineups. *Psychology, Public Policy, and Law, 26 (4), 393-412.* http://dx.doi.org/10.1037/law0000287

Steblay, N.K. (2018). All is not as it seems: Avoidable pitfalls in the interpretation of lineup field data. *Psychology, Public Policy, and Law, 24,* 292-306. doi: 10.1037/law0000171

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- Wells, G.L., Steblay, N.K., & Dysart, J.E. (2015). Double-Blind Photo-Lineups Using Actual Eyewitnesses: An Experimental Test of the Sequential versus Simultaneous Lineup Procedure. *Law and Human Behavior*, *39* (1), 1-14. http://dx.doi.org/10.1037/lhb0000096
- Steblay, N.K., Wells, G.L., & Douglass, A.B. (2014). The eyewitness post-identification feedback effect 15 years later: Theoretical and policy implications. *Psychology, Public Policy, and Law, 20*, 1-18. doi: 10.1037/law0000001
- Steblay, N.K., Tix, R.W., & Benson, S.L. (2013). Double exposure: The effects of repeated identification lineups on eyewitness accuracy. *Applied Cognitive Psychology*, 27, 644-654. doi: 10.1002/acp.2944
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- Steblay, N.K., & Phillips, J. (2011). The not-sure response option in sequential lineup practice. *Applied Cognitive Psychology*, 25, 768.774. doi: 10.1002/acp.1755
- Steblay, N.K., Dysart, J. E., & Wells, G.L. (2011). Seventy-two tests of the sequential lineup superiority effect: A meta-analysis and policy discussion. *Psychology, Public Policy, and Law,* 17 (1), 99-139. doi: 10.1037/a0021650
- Steblay, N.K. (2011). What we know now: The Evanston Illinois lineups, *Law and Human Behavior*, *35*, *1*, 1-12. doi: 10.1007/s10979-009-9207-7
- Steblay, N.K., Dietrich, H.L., Ryan, S.L., Raczynski, J.L., & James, K.A. (2011). Sequential lineup laps and eyewitness accuracy, *Law and Human Behavior*, *35*, 262-274. doi: 10.1007/s10979-010-9236-2

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Walsh, J.A., Wollersheim, J.P., Bach, P.J., Bridgwater, C.A., Klentz, B.A., & Steblay, N.M. (1985). Program evaluation as applied to the goals of a psychology department clinic. *Professional Psychology: Research and Practice, 16*, 661-670. doi.org/10.1037/0735-7028.16.5.661

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BOOK CHAPTERS

Steblay, N.K. (2019). Translating psychological science into policy and practice. In *Psychology and law: An Empirical Perspective*, N. Brewer and A. Douglass (Eds.). Guilford Publications (New York).

Steblay, N.K. (2018). Scientific advances in eyewitness identification evidence. Reprinted in *Reading Innocence: A Wrongful Convictions Reader*, R. Covey & V. Beety (Eds). Durham, NC: Carolina Academic Press.

Steblay, N.K. (2015). Eyewitness memory. In *APA Handbook of Forensic Psychology, Volume 2: Criminal Investigation, Adjudication, and Sentencing Outcomes*, B. Cutler & P. Zapf (Eds.). Washington DC: American Psychological Association Press, 187-224. http://dx.doi.org/10.1037/14462-007.

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Steblay, N.K. (2013). Lineup Instructions. In *Reform of Eyewitness Identification Procedures*, B. Cutler (Ed.), p. 65-86, APA Press.

Steblay, N.K., & Loftus, E. F. (2012). Eyewitness memory and the legal system. In E. Shafir (Ed.) *The Behavioral Foundations of Public Policy*, p. 145-162. Princeton University Press & Russell Sage Foundation.

Steblay, N., & Loftus, E.F., (2010). Eyewitness memory. In Goldstein, E.B. (Ed.) *Encyclopedia of Perception*. Sage Reference, Sage Publications.

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Steblay, N. (2008). Eyewitness identification, field studies. In Cutler, B.L., (Ed.) *Encyclopedia of Psychology and Law*. Sage Reference, Sage Publications.

Steblay, N. (2008). Juries and inadmissible evidence. In Cutler, B.L., (Ed.) *Encyclopedia of Psychology and Law*. Sage Reference, Sage Publications.

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OTHER PUBLICATIONS

Steblay, N.K. (2016). Meta-analysis as an aid for judicial decision-making. *Court Review: the Journal of American Judges Association*.

Steblay, N.K. (2015). Scientific Advances in Eyewitness Identification Evidence. *William Mitchell Law Review*, 41 (3), 101-137.

Wells, G. L., Steblay, N. M., & Dysart, J. E. (2011). A test of the simultaneous vs. sequential lineup methods: An initial report of the AJS national eyewitness identification field studies. Des Moines, IA: American Judicature Society.

Steblay, N.K. (June, 2011). A Second Look at the Illinois Pilot Program: The Evanston Data. *The Champion*, 10-15. www.nacld.org

Steblay, N.K. (2009). Maintaining the reliability of eyewitness evidence: After the lineup. *Creighton Law Review*, 42 (4), 643-654.

Steblay, N. (2007). A little advice and much encouragement for future field lineup studies. *Promoting Effective Homicide Investigations*. Police Executive Research Forum: Washington D.C.

Klobuchar, A., Steblay, N., & Caligiuri, H. (2006). Improving eyewitness identifications: Hennepin County's Blind Sequential Lineup Pilot Project. *Cardozo Public Law, Policy & Ethics Journal*, 4 (2), 381-413.

Steblay, N., (2006). Reforming eyewitness identification: Lineup identification instructions; weighing the advantages and disadvantages of show-ups versus lineups. *Cardozo Public Law*, *Policy & Ethics Journal*, 4 (2), 341-354.

Steblay, N.M., & Beaman, A.L. (1982). Reduction of fear and arousal in dental offices using reattribution techniques. *Journal of the American Dental Association*, 105, 1006-1009.