SUPREME COURT OF NEW JERSEY
A-8-08 September Term 2008

STATE OF NEW JERSEY,

Plaintiff- Appellant

v.

LARRY R. HENDERSON,

Defendant-Respondent

Paula T. Dow, Attorney General, attorney for appellant (John McNamara, Jr., Special Deputy Attorney General, and Deborah Bartolomey, Deputy Attorney General, of counsel)

Yvonne Smith Segars, Public Defender, attorney for respondent (Joseph E. Krakora, Assistant Public Defender, and Joshua D. Sanders, Assistant Deputy Public Defender, of counsel)

Barry C. Scheck, Ezekiel R. Edwards and Jessica M. McNamara, attorneys for amicus curiae Innocence Project

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Stephen A. Saltzberg, George C. Thomas III and D. Michael Risinger filed an amicus curiae brief pro se

REPORT OF THE SPECIAL MASTER

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Format of the Hearing and the Record

In its remand orders of February 26 and May 4, 2009, the Supreme Court declared that the trial court record in this matter is inadequate to "test the current validity of our state

law standards on the admissibility of eyewitness identification" and directed that a plenary hearing be held

> to consider and decide whether the assumptions and other factors reflected in the two-part Manson/Madison test, as well as the five factors outlined in those cases to determine reliability, remain valid and appropriate in light of recent scientific and other evidence.

As the Court ordered, the State, the defendant and amici Innocence Project and Association of Criminal Defense Lawyers of New Jersey (ACDL) participated in the remand proceedings. Given the nature of the inquiry, the proceedings were conducted more as a seminar than an adversarial litigation. At an initial conference, it was agreed that all participants would submit and exchange whatever published scientific materials they chose and would also disclose the names and areas of proposed testimony of all expert witnesses. More than 200 published scientific studies, articles and books were ultimately made part of the record. At the evidentiary hearings, which extended over ten days, seven expert witnesses testified:

> Gary L. Wells, Distinguished Professor of Liberal Arts and Sciences, Department of Psychology, Iowa State University, called by the Innocence Project. IP2.
>
> James M. Doyle, Director, Center for Modern Forensic Practice, John Jay College of Criminal Justice, CUNY, called by the Innocence Project. IP50.

John Monahan, John S. Shannon Distinguished Professor of Law, University of Virginia School of Law, called by the Innocence Project. IP86.

Steven Penrod, Distinguished Professor of Psychology, John Jay College of Criminal Justice, CUNY, called by defendant. D2.

Jules Epstein, Associate Professor of Law, Widener University School of Law, called by defendant. D100.

Roy Malpass, Professor of Psychology, University of Texas, El Paso, called by the State. S28.

James M. Gannon, former Deputy Chief of Investigations, Office of the Morris County Prosecutor, called by the State. S34.

At the conclusion of the hearings, the parties prepared extensive proposed findings of fact and conclusions of law, which were thoroughly argued on the record. The tentative findings and conclusions of the Special Master were later distributed to counsel and discussed in final on-the-record conferences. The findings and conclusions set forth below are those of the Special Master alone.

Because of the nature and size of the record thus developed, it is presented, with the approval of the Supreme Court Clerk, on a single DVD. A guide to the record and the manner in which it can be accessed is attached at the end of this Report.

The Manson/Madison Test and Related New Jersey Caselaw

In State v. Madison, 109 N.J. 223 (1988), this Court addressed the question of "whether the out-of-court photographic identification procedures used by the police were 'so impermissibly suggestive as to give rise to a very substantial likelihood of irreparable misidentification.'" Id. at 225. Reciting that "[w]e have consistently followed the [United States] Supreme Court's analysis on whether out-of-court and in-court identifications are admissible," the Court adopted the "two-prong" admissibility test set forth in Manson v. Brathwaite, 432 U.S. 98, 97 S. Ct. 2243, 53 L .Ed. 2d. 140 (1977). Id. at 233. Justice Garibaldi described that test as follows:

> [A] court must first decide whether the procedure in question was in fact impermissibly suggestive. If the court does find the procedure impermissibly suggestive, it must then decide whether the objectionable procedure resulted in a "very substantial likelihood of irreparable misidentification." [Citations omitted.] In carrying out the second part of the analysis, the court will focus on the reliability of the identification. If the court finds that the identification is reliable despite the impermissibly suggestive nature of the procedure, the identification may be admitted into evidence. "Reliability is the linchpin in determining the admissibility of identification testimony." [Citations omitted.]
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> The United States Supreme Court has established that the reliability determination is

> to be made from the totality of the circumstances in the particular case. This involves considering the facts of each case and weighing the corruptive influence of the suggestive identification against the "opportunity of the witness to view the criminal at the time of the crime, the witness's degree of attention, the accuracy of his prior description of the criminal, the level of certainty demonstrated at the time of the confrontation and the time between the crime and the confrontation." [Citations omitted.]
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> [109 N.J. at 232-33, 239-40.]

In applying that rule, the defendant bears the burden of proving by a preponderance of the evidence that a pretrial identification procedure was so suggestive as to result in a substantial likelihood of misidentification; in the absence of such a showing, no evidentiary hearing as to reliability is required. State v. Hurd, 86 N.J. 525, 548 (1981), abrogated on other grounds by State v. Moore, 188 N.J. 182 (2006); State v. Ortiz, 203 N.J. Super. 518, 522 (App. Div. 1985). If the defendant makes a sufficient showing of undue suggestiveness, the State has the burden of proving by clear and convincing evidence that the identification has a source independent of the police-conducted identification procedures. Madison, 109 N.J. at 245.

That remains the core New Jersey test of admissibility of an eyewitness identification. See, e.g., State v. Adams, 194 N.J. 186 (2008); State v. Herrera, 187 N.J. 493 (2006). However,

this Court and the Appellate Division have ruled on several related matters concerning the procedural handling and substantive assessment of eyewitness testimony:

> State v. Delgado, 188 N.J. 48 (2006), ordered that, as a condition to the admissibility of out-of-court identifications, the police preserve a record, to the extent feasible, of all dialogue between witnesses and police during any identification procedure.
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> State v. Herrera, supra, 187 N.J. at 509, recommended that, in appropriate cases, the trial court consider, in addition to the five Manson reliability factors, "the nature of the event being observed and the likelihood that the witness would perceive, remember and relate it correctly."
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> State v. Robinson, 165 N.J. 32 (2000), reaffirmed the obligation of the trial court under State v. Green, 86 N.J. 281 (1981), to explain the Manson/Madison identification factors to the jury in the context of the facts of the case.
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> State v. Cromedy, 158 N.J. 112 (1999), reviewing the scientific and legal findings that eyewitnesses suffer "cross-racial impairment" when identifying members of another race, ordered that, in certain circumstances, a jury be specially instructed as to the unreliability of cross-racial identifications.
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> State v. Romero, 191 N.J. 59 (2007), declined to require a special jury instruction with respect to "cross-ethnic" identifications, but ordered the drafting of a model jury charge cautioning that a witness's level of confidence, standing alone, may not be an indication of reliability of the identification.
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> State v. Michaels, 136 N.J. 299 (1994), finding that the State's conduct in interrogating alleged victims of child sexual abuse undermined

> the reliability of the children's recollections of the alleged crimes, ordered that an evidentiary hearing be held to determine whether their testimony was sufficiently reliable to warrant admission at trial, and instructed that expert testimony be allowed regarding the capacity of the interrogations to skew the children's memories.
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> State v. Earle, 60 N.J. 550 (1972), directed that law enforcement agencies retain the photo array employed in every photo identification procedure; State v. Janowski, 375 N.J. Super. 1 (App. Div. 2005), held that Earle does not require recording or preserving all photographs in mug-shot books used to develop a suspect.
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> State v. Chen, 402 N.J. Super. 62 (App. Div. 2008), certif. granted 197 N.J. 477 (2009) (argued September 29, 2009), held that although Manson provides no constitutional basis for exclusion of identification evidence influenced by suggestive procedures in which the government played no part, the Manson/Madison test should nevertheless be applied to determine the admissibility of identifications impacted by the conduct of private actors.
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> State v. Gunter, 231 N.J. Super. 34 (App. Div. 1989), held that inquiry into the reliability of an eyewitness identification can encompass all factors that affect perception and memory, not just suggestive police procedures, and that expert testimony is appropriate as to all such matters.

Foundations and Methodologies of the Scientific Studies

While it has long been recognized, both in New Jersey and elsewhere, that eyewitness identifications are inherently suspect and criminal convictions are all too frequently based on misidentifications (see, e.g., Romero, 191 N.J. at 72-75; Delgado, 188 N.J. at 61; Herrera, 187 N.J. at 501), intensive

research into the causes and extent of misidentification did not commence until the 1970s, just before the United States Supreme Court decided Manson. 16T 59; D4. The volume of that research has been remarkable: over two thousand studies on eyewitness memory have been published in a variety of professional journals over the past 30 years. 14T 40-41; 16T 60; 22T 44-45; IP6 at 581-82. Indeed, Monahan testified that of "all the substantive uses social science in law . . . nowhere is there a larger body of research than in the area of eyewitness identification." 29T 39-40. Even more remarkable is the high degree of consensus that the researchers report in their findings.

The study of eyewitness identification relies in the first instance on precepts drawn from the broader studies of human memory. Those studies, pioneered by Dr. Elizabeth Loftus, demonstrate that eyewitness performance depends on many variables. 18T 10-11; IP52 at 93. See generally IP114; IP115; IP117;IP135; IP141. The central precept is that memory does not function like a videotape, accurately and thoroughly capturing and reproducing a person, scene or event. 15T 5-6; 26T 14-18; IP143 at 171. Memory is, rather, a constructive, dynamic and selective process. 15T 7; 26T 14-15.

Memory is comprised of three successive mental processes: encoding, which occurs when the witness perceives the event; storage, which is the period between the event and the witness's

attempt to recall it; and retrieval, which is the process through which the witness attempts to reconstruct the event. IP51 at 13; IP141 at 21. At each of those stages, the information ultimately offered as "memory" can be distorted, contaminated and even falsely imagined. 20T 52; 26T 15-18; IP141 at 21-22. The witness does not perceive all that a videotape would disclose, but rather "get[s] the gist of things" and constructs a "memory" on "bits of information ... and what seems plausible." 15T 7-8. The witness does not encode all the information that a videotape does (26T 14-15; 28T 21, 50; IP141 at 22); memory rapidly and continuously decays (15T 13; 17T 45-46; 26T 17; D4 at 102-04; IP91; D48); retained memory can be unknowingly contaminated by post-event information (IP141 at 22; D65 at 134; see also IP114: IP115; IP117: IP135); the witness's retrieval of stored "memory" can be impaired and distorted by a variety of factors, including suggestive interviewing and identification procedures conducted by law enforcement personnel. 22T 9-10; 23T 92; IP91 at 5; S6b at 230-31; IP93/D50.

Because the reliability of any reported "memory" is subject to so many influences, the researchers commonly recommend that eyewitness identifications be regarded as a form of trace evidence: a fragment collected at the scene of a crime, like a fingerprint or blood smear, whose integrity and reliability need

to be monitored and assessed from the point of its recovery to its ultimate presentation at trial. 15T 3-4; 18T 31-32, 51; 20T 51-52; 26T 16-17; IP23 at 2; IP51 at 243; IP146 at 622-23; IP52 at 98-99; IP154 at 726-28. Professor Hugo Munsterberg stated the reasoning as far back as 1907:

> [W]hile the court makes the fullest use of all the modern scientific methods when . . . a drop of dried blood is to be examined . . ., the same court is completely satisfied with the most unscientific and haphazard methods . . . when . . . the memory report of a witness[ ] is to be examined. No juryman would be expected to follow his general impressions . . . as to whether the blood on the murderer's shirt is human or animal. But he is expected to make up his mind as to whether . . . [witness] memor[ies] . . . are objective reproductions of earlier experience or are mixed up with associations and suggestions.
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> [IP124 at 36-37.]

Although suggestive police procedures are not the only contributors to misidentifications, they have been the principal object of the research studies, largely for pragmatic reasons: "real-life" mistaken identifications are difficult to verify or analyze (in the absence of exculpatory DNA evidence), but the incidence of mistaken identifications can be reduced before they occur by implementing improved police procedures. 14T 44-48; 22T 20. The researchers thus distinguish between "system variables" and "estimator variables," the former being variables that affect eyewitness identification accuracy over which the justice system has control (e.g., lineup procedures) and the

latter being those that inhere in the witness, the perpetrator and the witnessed event and are beyond control of the justice system (e.g., the witness's eyesight, the perpetrator's brandishing of a gun, the lighting conditions). 14T 46-47, 60-61; 17T 21-22, 52; IP5/D109. The researchers agree, however, that both system and estimator variables must be considered in assessing the reliability of any identification. 14T 60-61; 17T 74; 23T 88.

The published scientific literature identifying and analyzing those variables is of three kinds. First, archival studies, which are relatively few in number, examine police and court records of past investigations and prosecutions. Second, field experiments and studies, also relatively few, are based on direct observation of "real life" events as they occur. Third, and the vast majority (14T 61-62), are "laboratory" studies that report controlled experiments designed and conducted by academic researchers to isolate and manipulate particular variables for study. See 16T 22-66; 28T 60-62; IP161 at 27-35. An important and much cited subset of the literature is comprised of meta-analyses, which evaluate the methodologies and findings of multiple published reports of experiments in a given area of inquiry. 14T 27-28; 16T 61; 21T 120-23; IP111 at 15-16; IP161 at 35-36; D31 at 535-51. The strength of meta-analyses is dependent, of course, on the strength of the underlying studies,

but because of their breadth, meta-analyses are generally regarded as offering the most reliable statements of the scientific findings. 14T 26-27; 16T 61-62; 21T 120-23; D31 at 535-56; S3 at 200; S4 at 2; S6a; IP111 at 15-16; IP161 at 35-36; see also IP223 (listing meta-analytic studies included in the present record).

The primary utility of the experimental research is that it permits the researcher to draw cause-and-effect conclusions: "[A] well-conducted experiment can tell us that using a specific identification procedure will cause an improvement [or reduction] in identification accuracy." 16T 24-26; IP51 at 4. The basic method used in laboratory experiments over the past 30 years is to stage and videotape an event, which is shown to large numbers of persons who do not then know that they are about to be "witnesses" to a criminal event. 14T 38-40; IP161 at 28. The "perpetrator" is a stranger to the witnesses; system and estimator variables will have little impact on a witness with a prior "deep" memory of the suspect. 21T 113; 28T 21, 51. Each witness is separately shown a photo lineup, composed of five or more "fillers" (known innocents) and either the perpetrator (target-present array) or a known innocent suspect (target-absent array). The researcher, having staged the event, knows the identity of the perpetrator and thus knows whether a witness's identification is accurate or inaccurate. 14T 38-39.

The researcher accordingly can manipulate and control individual variables to determine their impact on eyewitness accuracy: witness characteristics, instructions given before viewing a lineup, blind or non-blind lineup administration, simultaneous or sequential lineup, nature of the witnessed event, presence of a weapon and the like. 14T 38-40; 16T 24-26; IP22 at 4-6.

While the remand record does not include all of the published literature, it does contain all that the parties have proffered as important, reliable and persuasive. The literature demonstrates a broad consensus as to the variables that can affect the reliability of eyewitness identifications. But it is also uniformly recognized that the studies show only that the variables have the capacity or tendency to affect the reliability of identifications. Other than in the DNA exculpation cases, science cannot say whether any identification in any real-life case is accurate or inaccurate; nor can science know how strongly a given variable may have influenced a particular witness in an actual case or what variable or variables may have caused or contributed to any real-life misidentification. 21T 113; 25T 58-59; 28T 10-21; 29T 50; S5 at 25; S6a. Those realities play a large role in the parties' disagreements as to whether and how the Manson/Madison rule should be revised.

The Incidence of Misidentification

The published studies offer some data as to the frequency with which misidentifications occur in various settings. Their findings are not comprehensive but are fairly consistent. 14T 65-67; 16T 70-71; 28T 48; D23 at 16; D31; D89; IP22 at 69-70. Archival studies conducted in the United Kingdom, using fragmentary data, showed that 39% of some 3100 line-up witnesses identified the person suspected by the police, while 21% identified fillers; since only 60% of the witnesses made an identification, the misidentifications represent at least 35% of the positive identifications. 16T 27-35; D4 at 23-24; IP64/D12; IP66/D13; IP65/D14; D15; D17; IP22 at 69-70. Other compilations of the archival studies similarly indicate that, in real cases, at a minimum almost one-third of witnesses who make identifications are wrong. See 16T 32; IP22 at 69-70 (citing IP 62/D18; IP63/D19; IP64/D12; IP65/D14; IP66/D13; IP19).

Comparable error rates have been shown in field experiments. Examining a group of four field experiments involving over 500 unwitting store clerk and bank teller witnesses who observed staged events, Penrod found that in target-present lineups 42% identified the suspect, 41% identified a foil and 17% made no identification; almost half of the positive identifications thus were mistaken. In target-

absent line-ups, 36% picked a foil. 16T 66-67; D4 at 42; D26; D27; D28; D29.

The laboratory experiments, which report witness errors resulting from the particular variable under investigation, also show similar results. For example, a 2001 meta-analysis of 30 studies involving a total of 4145 witnesses designed to compare error rates arising from simultaneous and sequential photo arrays shows foil identifications of 24% and 19% in target-present arrays, 51% and 28% in target-absent arrays, and no choices ranging from 26% to 72%. 16T 62-65; IP61/D25; D4 at 40. The error rate derived from any given experiment depends, however, on the particular variable under study (14T 68-69) and the literature commonly does not offer any quantification of the probability of identification error resulting from any given variable in actual cases. As Monahan testified, the science supports judgments about the direction and size of contaminating influences, but does not permit a conclusion, for example, that "because this identification was cross-racial, therefore, the witness has a 73% greater chance of being erroneous." 29T 57, 71.

Finally, the compilation of DNA exculpation cases made by the Innocence Project shows that as of May 13, 2010, 254 wrongfully convicted persons had been exculpated by DNA evidence; 75% of those convictions involved erroneous eyewitness

identifications. See Innocence Project, Facts on Post-Conviction DNA Exonerations, www.innocenceproject.org/Content/Facts_on_PostConviction_DNA_Exonerations.php (last visited June 7, 2010). An analysis of the first 239 DNA exonerations found that over 250 witnesses misidentified innocent suspects; in 38% of the misidentification cases, multiple eyewitnesses identified the same innocent person; and in 50% of the misidentification cases, the eyewitness testimony was uncorroborated by confessions, forensic science or informants. See www.innocenceproject.org/Content/2080.php (last visited June 6, 2010); D7; D8; IP157; IP158; IP84/D6; IP153; IP229; Barry Scheck et al., Actual Innocence (2003) (available on request). No overall rate of misidentification can be drawn from DNA exculpation figures, for DNA evidence is recovered, preserved and tested in only a minority of criminal investigations. 16T 24-26.

While the literature does not dispute the data reported by such studies, questions have been raised as to whether the witness error rates reported in the experimental studies may be higher than those in real cases with real witnesses, perpetrators and suspects. The experiments are commonly conducted with college or graduate students who are paid for their participation as "witnesses" and know that the exercise has no real-life consequences to anyone in the line-ups; the suggestion is that students are not good or representative

witnesses, that the greater stress and intensity of feeling of real witnesses leave stronger memory traces, and that real witnesses are likely to be more cautious in making their identifications. See 14T 63; IP22 at 15-17.

Despite those questions, the consensus view appears to be that "perception and memory processes do not work in one way under one [testing setting] and in quite another way [under] ... a different [testing setting]." IP111 at 13. Meta-analyses indicate, in fact, that the impact of system and estimator variables on eyewitness performance is more profound in real-life circumstances than in the laboratory setting. 16T 72-74; D4 at 49; D31 at 550-51. College students are regarded as among the best eyewitnesses; their general health, visual acuity, memory abilities and alertness are exceptional. 14T 63. Studies indicate no significant differences in identification accuracy between witnesses who knew the "crime" and lineup procedure were staged and those who believed otherwise. 14T 64-65; 16T 67-68; D30 at 8-9. The archival studies and the DNA exoneration cases, 75% of which involved at least one mistaken identification, evidence the fact that real-life witnesses are not predictably cautious. 14T 65-69. And memory studies show that stress and intense feelings in fact have a negative impact on memory. See infra, p. 43.

The Scientific Findings

System Variables

Lineup administration. The scientific literature and expert testimony show a broad consensus that the reliability of eyewitness testimony is highly dependent on the police procedures used in conducting lineups. 14T 47.

The lineup – live or photographic – appears to be the most commonly used police identification procedure. A lineup is essentially a memory experiment. 14T 49-60; IP21. Police conducting lineups have been likened to scientists in that they test a hypothesis (the suspect is the perpetrator) by conducting an experiment (placing the suspect among a group of fillers) in which the group is presented to one or more persons (eyewitnesses) in order to gather data to test the validity of their hypothesis. 14T 50-52; IP21; IP22 at 12-13.

Scientific experiments commonly call for double-blind (sometimes called blind) test procedures, a "staple of science." 15T 54-55. Wells characterized double-blind lineup administration as "the single most important characteristic that should apply to eyewitness identification." 15T 74. Double-blind testing requires that the neither the test administrator nor the subject know the "correct" or "desired" answer; the best known example is the testing of new drugs, in which neither the medical administrator nor the patient knows whether the patient

received the experimental drug or a placebo. 15T 55-56, 74; IP30. The purpose of blind testing is to prevent unintentional verbal and non-verbal influence on the test subject; studies have shown that, in the absence of blind testing, the experimenter's expectations tend to influence the outcome of the experiment. 15T 55-56, 69-70; 20T 42. Indeed, a 1978 meta-analysis analyzing 345 studies concluded that there is less than one chance in a million that a non-blind test administrator has no influence on the behavior of the subject. 15T 55-56, 69-70; IP22 at 36; IP30. The studies also report that while the effect of administrator influence is quite strong, neither the administrator nor the witness is ordinarily aware of either the unintentional suggestions or their impact; accordingly, neither is in position to report or dissipate the taint. 15T 55-56, 67-68; 17T 68-72; D4 at 134; IP14; IP22 at 39; IP8/D63/S13; D62.

The means by which a lineup administrator's expectations can be unwittingly communicated are many and diverse: words, gestures, hesitations, smiles and the like can be and are picked up by witnesses as suggesting what the administrator wants or expects to hear. 15T 57-60, 63-66; IP14; IP15; IP16; IP17; IP18/D63/S13. A number of studies demonstrate the influence of lineup administrators on witness choices. See 15T 62-73;17T 68-72; IP8/D63/S13; IP9; IP14; IP15; IP16a/b; IP22 at 39; D4 at 133. Wells testified that the diagnosticity, or probative

value, of identifications produced by a blind procedure – i.e., the ratio of accurate to inaccurate identifications – is twice that of those produced by a non-blind procedure. 15T 66; IP22 at 39. The studies are relatively few, for further study of double-blind experimentation "would be like beating a dead horse." 20T 43.

Wells also noted that, if "blind" police personnel are not available for a needed identification procedure, administrator influence can be minimized by the use of a "blinded" administrator, that is, one who knows who the suspect is but presents to the witness what is, to the administrator, a random and unobserved, i.e., "blind", shuffle of photographs. 15T 53-54; 20T 28-29; D115 at 17-19.

Instructions to the witness. Equally uncontroversial in the literature and testimony is the proposition that the witness should be instructed that the perpetrator may or may not be present in the lineup and that the witness should not feel compelled to make an identification. 15T 20; 17T 55; 22T 25-26; 23T 16; 26T 46-49; D54; IP54; IP225; S22 at 196; S33. The experts also advise that the witness be instructed that the lineup administrator is blind, i.e., does not know who in the array, if anyone, might be a suspect; that instruction is designed to inform the witness not to look for or intuit hints,

suggestions or confirmations in any of the administrator's words or conduct. 15T 60; 28T 27.

Research has shown that the failure to give such a pre-lineup instruction substantially increases the risk of misidentification. 17T 60-61; 22T 25-26; D4 at 118; D54. A study published by Malpass in 1981 reported that, in the absence of such an instruction, 78% of witnesses viewing a target-absent lineup mistakenly identified fillers, while fillers were identified by only 33% of witnesses who had been instructed. 26T 44; S33.

The studies identify two related dangers that such witness instructions mitigate. First, witnesses understandably infer that police would not conduct a lineup without a suspect, that the suspect is in the array, and that it is their job to pick the right person.. 25T 24-25. Second is what the scientists call the relative judgment process: that eyewitnesses tend to select the person who looks most like the perpetrator relative to the other members of the lineup. 15T 15-19; IP29; IP57. Some member of the lineup will always look more like the perpetrator than the other members of the lineup do, even when the actual perpetrator is not in the lineup. 15T 14-21; 16T 17; IP22 at 22-29; IP29.

In illustration of the relative judgment process, Wells described a study in which he videotaped a staged crime that he

showed to 200 “witnesses.” To 100 of those witnesses, he showed a photo lineup including the perpetrator; to the other 100, he showed a lineup absent the perpetrator. In the perpetrator-present lineup, 54% of the witnesses correctly identified the perpetrator, 25% incorrectly identified a filler, and 21% made no identification at all. In the perpetrator-absent lineup, while one might expect that some 75% (i.e., 54% and 21%) would have made no identification, only 32% did so; 68% identified a filler, including 38% who identified a filler resembling the absent perpetrator who had been identified by only 13% of the witnesses shown the perpetrator-present lineup. 15T 16-19; IP22 at 23-28; IP57. The conclusion to be drawn, Wells proffered, is that the increase in incorrect identifications evidenced the witnesses’ resort to relative judgment to inculpate an innocent person. 15T 16-19.

Witness instructions are regarded as one of the most useful techniques for enhancing the reliability of identifications. 26T 49. Meta-analyses confirm that the recommended instructions are effective in deterring the impact of the relative judgment process by directing witnesses to focus not on the “closest resemblance” but on their memory of the perpetrator. 22T 25-26; 26T 44-45; 28T 35-37; D54; IP225. Witness instructions do result in fewer correct identifications as well as misidentifications, which some experts attribute to fewer “lucky

guesses," but the effect is far greater in reducing false identifications. 25T 26; D54. A 1997 meta-analysis showed that in target-present arrays correct identification rates were constant with or without witness instructions, but in target-absent lineups the absence of instructions significantly increased the frequency of misidentifications. 17T 60-61; D4 at 118; D54; IP225.

Construction of the lineup array. The scientific literature supports and explains the common-sense understanding that biased lineups reduce the reliability of eyewitness identifications. 26T 50-51; D92 at 604; IP189. The central finding is that mistaken identifications are more likely to occur when the suspect stands out from other members of a live or photo lineup. 16T 83; 22T 8-9; 26T 50-51; IP129 at 155-56. Lineups can be biased irrespective of the intent of the person constructing the lineup. The most common means by which a suspect can be made to stand out include placing more than a single suspect in the lineup, using an insufficient number of fillers, and using fillers who do not fit the witness's description of the perpetrator. 14T 54-56; 17T 62-63; D92 at 630-35; IP119 at 60-63; IP127 at 287; IP146 at 623. Studies indicate that bias toward the suspect is not unusual in real cases, occurring two to three times above chance levels. 17T 64-66; D56; D113; D58; D59; D4 at127. A biased lineup not only

increases the likelihood that an innocent person will be identified, but also inflates the witness's confidence in his or her identification and memory. 22T 9-10; 26T 30; D92 at 608.

Embedding only a single suspect among known innocent fillers is essential to a scientifically sound test: if multiple suspects are in the lineup, the reliability of a positive identification is difficult to assess, for the possibility of "lucky" guesses is magnified. 22T 6-8. The ordinary and accepted practice among law enforcement agencies is to present an array embedding the suspect among at least five fillers. 22T 7; S20; IP23 at 29. However, "mock witness" experiments conducted by a variety of researchers demonstrate that the "functional" or "effective" size of the array may be substantially smaller than its numerical size. 22T 12-17; 17T 62-65; IP22 at 33; IP109; IP118 at S1-S3; IP129 at 157-58; IP130; IP151; D4 at 120-25; D17; D56; D57; D58. In those experiments, "mock witnesses" are provided only with the verbal description of the perpetrator given by the real eyewitness; they are then shown photos of the lineup that the real eyewitness had seen and are asked to report, based on the eyewitness description, which person they think is the suspect. 22T 12. If the lineup is entirely unbiased, the mock witness identifications will tend to be equally spread among all members of the lineup. 22T 13. But if, say, of 120 mock witnesses, 60

identify the suspect and the other 60 spread their choices among the five fillers, the researchers, dividing the number of mock witnesses by the number of suspect identifications, calculate the "functional size" of the array as reduced from 6 to 2. Ibid. If mock witnesses correctly guess the suspect at a rate greater than chance on the basis of the description alone, the reliability of the lineup as a scientific test is impugned. See generally 22T 12-23; 26T 51-52; IP22 at 30-33; IP109; IP129 at 161; IP130; IP151; D17 at S65.

The calculation of "effective size," a somewhat different statistical construct later devised by Malpass, leads to similar conclusions. 22T 12-16; IP109; IP22 at 33. Both Wells and Malpass testified that, if photo or videotape records are preserved, the functional and effective sizes of a lineup can later be readily (and inexpensively) evaluated to assist the court and jury in assessing the fairness of the array. 22T 18-22; 26T 50-55.

Although little research has been done on the issue (S3 at 212), the consensus view appears to be that the fairness of a lineup, and the reliability of a resultant identification, are also diminished if the array is not composed of fillers who fit the description given by the witness prior to the lineup and are sufficiently similar to the suspect so that the suspect does not otherwise stand out. 22T 8; 26T 58-59; IP22 at 55; IP85; S3.

Selecting fillers who fit the witness's description lessens the likelihood that the suspect will more closely resemble the perpetrator than any of the fillers. 15T 20; IP22 at 29; D83 at 212. A witness is likely to disregard any filler who does not meet the witness's own description, thus effectively reducing the size and fairness of the array. 17T 55, 62-64. The experts also agree that if a significant feature of a suspect's appearance, e.g., a mustache, does not match the witness's description, bias in the array is reduced if the fillers match the suspect, not the description, in that respect. 22T 8.

The pre-lineup description is also needed in order to evaluate the reliability of an identification: does the description reasonably match the person identified? 22T 8-9; IP160 at 20-22; IP170. If the lineup is composed without first obtaining the witness's description, the post-lineup description will commonly begin to fit the person identified in the lineup rather than the one observed at the scene. 15T 10-12, 97-98.

Multiple identification procedures. The administration of multiple lineup procedures to a single witness also can undermine the reliability of any resulting identifications. See 17T 52-58; 22T 67-74; 26T 61-64; IP85 at 217-20; D51. The problem is that successive views of the same person create uncertainty as to whether an ultimate identification is based on memory of the original observation or memory from an earlier

identification procedure. 17T 52-56; 22T 41, 68-69; 26T 61-63; IP85 at 217-18. If, on a first lineup, the witness makes no identification and the police present the subject in a second lineup with a different set of fillers, the subject stands out as familiar to the witness and thus is more likely to be remembered as the perpetrator. 17T 52; 22T 67-68; 26T 61-63; IP85 at 218. The danger of misidentification is heightened if the suspect is the only person common in the procedures, for he will be the only person familiar to the witness. 22T 68.

Research has shown that innocent persons misidentified in an initial procedure are more likely to be misidentified in a later procedure. 17T 56-67; 22T 68-69; D4 at 114; D51. Among the empirical studies is a 2006 meta-analysis of 32 experiments, which reported that 15% of witnesses made mistaken identifications upon an initial photo viewing, but 37% made misidentifications if they had previously seen a mug shot of the innocent person. 17T 57-58; D51; D3 at 114. The psychological processes at play are known as “mug shot exposure” and “mug shot commitment.” Mug shot exposure occurs when a witness initially reviews a collection of photographs without making an identification; the reliability of a positive identification made at a second procedure is undermined. 17T 57-58; 22T 67-72; D4 at 114; D96. Mug shot commitment occurs when the witness has made an identification from a photograph and that person or

photograph is included in a lineup procedure: the likelihood is enhanced that the witness will remain committed to that identification. Ibid.

Showup procedures. A showup is an identification procedure in which just a single suspect is presented to the witness. 15T 77. There appears to be no dispute within either the law enforcement or scientific communities that the showup is a useful -- and necessary -- technique when used in appropriate circumstances. But it does carry its own risks of misidentification.

The most obvious concern is that a one-person display is inevitably suggestive. See 17T 17; 22T 59-60. The research shows, in fact, that the risk of misidentification is not heightened if a showup is conducted immediately after the witnessed event, ideally within two hours: the benefits of a fresh memory seem to balance the risks of undue suggestion. 23T 39-40; IP67. The likelihood of misidentification of innocent persons substantially increases thereafter. Ibid. Data reported in a 1996 study shows that an immediate showup produced 18% misidentifications and an immediate lineup a comparable 16%, while a 24-hour delay produced misidentification rates of 53% for showups and 14% for lineups. 23T 39-40; IP22 at 74; IP67/D34. Some researchers accordingly recommend that, if a showup cannot be conducted within two hours but probable cause

to arrest exists, the suspect be arrested and a lineup thereupon be conducted. 23T 40-41; IP22 at 75; IP23; IP76.

A 2003 meta-analysis comparing lineups and showups across 3013 witnesses (without regard to the timing of the procedures) found that lineups produce half as many false identifications as showups. 16T 99; D4 at 65; D36. While both procedures produced comparable correct identification rates in target-present conditions (45% for lineups, 47% for showups), showups produced more false identifications of similar-looking innocent suspects (23%) than fair lineups (17%). 16T 99-100; D4 at 66; D36 at 532-33. A further factor noted but not assessable by the scientists is that their experiments cannot simulate real-life showup conditions -– the presence of police officers, squad cars, a handcuffed suspect, and the like -- that can make the showup peculiarly suggestive. 17T 12-13, 17; D36; D37 at 283; D4 at 66, 71-74. In showups there is also a particular danger that witnesses will base identifications more on similarity of the clothing worn by the perpetrator and the suspect than similarity of facial features. 17T 7; D4 at 68; IP145; IP67/D34; IP176.

Feedback to witnesses. An extensive body of studies demonstrates that the memories of witnesses for events and faces, and witnesses' confidence in their memories, are highly malleable and can readily be altered by information received by

witnesses both before and after an identification procedure. See generally 15T 34-43; 17T 93; 18T 53; 26T 26; IP7; IP19; IP35; IP36; IP37/D76; IP138; IP39; IP40; IP41; IP42; IP43; IP44; IP45; IP46/D59; IP47; IP114; IP115; IP117; IP135; IP141; D4 at 151; S5 at 25.

(i) Pre-identification feedback. In one of a series of early experiments of memory malleability, Elizabeth Loftus showed students films of a simulated automobile accident on a country road. Half of the group was asked simply to estimate the speed of the car; the other half was asked the speed when the car passed "the barn." The film did not show any barn along the road, but almost 20% of the students who had been asked the false "barn" question reported that they had seen a barn. IP114 at 566. In another experiment involving a staged automobile accident, Loftus asked for speed estimates, but varied her language in questioning individual witnesses: what were the speeds when the cars "contacted," "bumped," "hit," "collided" or "smashed." The witnesses asked about the "smashed" cars estimated higher speeds than those who were given the other descriptors. IP115 at 586. Similarly, to the extent police thus ask leading or suggestive questions during an interview, there is a risk that eyewitness memories will be contaminated. IP211 at 54-55; IP212 at 740.

Following upon studies showing that “police make systematic, avoidable errors that limit the amount of information they elicit” (IP6 at 582) and “lead[ ] to ineffective communication and poor memory performance” (IP119 at 55), researchers have developed and tested a hypothesis that a witness’s ability to recall encoded memory can be enhanced by so-called “cognitive interview” techniques. 21T 91-92; 28T 66-76; IP119 at 55; IP213. Designed for use before any identification procedure, those techniques consist of a relatively specific set of rules representing the best ways to interrogate persons about their memories, e.g., tell the witness the type and detail of information necessary for the investigation, ask no leading or suggestive questions, volunteer no information, ask open-ended questions, instruct the witness not to guess and to report any doubt or uncertainty, avoid interrupting the witness, reinstate the context of the witnessed event, develop rapport with the witness, have the witness recall in both forward and backward directions, and the like. 28T 76; IP6 at 582-84; IP119 at 55-57; IP211 at 58-63; IP214. Cognitive interview techniques are now widely used by law enforcement agencies. IP119 at 59; IP211 at 55-57.

Experimental and field studies generally show that cognitive interviews elicit significantly more correct detail with no increase in proportion of incorrect detail (IP211 at 65,

IP119 at 57; IP215 at 726; IP222 at 193-96), although some studies report some increase in incorrect recall. IP169 at 22. The studies also indicate that cognitive interview techniques enhance accurate recall of details of the event but not recognition of participants in the event. 28T 41-42; IP119; IP169; IP211; IP215. Enhanced recall of details through a cognitive interview is nevertheless important and useful: the witness's description of the perpetrator and his actions, the duration of the observation, the viewing conditions, the degree of attention paid and similar matters all aid a full evaluation of the reliability of any identification. 28T 79; IP23 at 13-16, 21-26; IP152 at 7-23, 53-54. A cognitive interview, moreover, may protect an eyewitness from potentially contaminating information acquired after the interview. IP211 at 69.

(ii) Post-identification feedback. A number of studies have demonstrated that witnesses' confidence in their identifications, and their memories of events and faces, are readily tainted by information that they receive after the identification procedure. See 26T 26-28; 15T 25-36; IP7; IP19; IP22 at 47-48; IP35; IP36; IP37/D76; IP38; IP39; IP40; IP41; IP42; IP 43; IP44; IP45; IP46/D59; IP47. Witness confidence is of concern because the research shows that the persuasiveness of an eyewitness identification is closely linked to the certainty

expressed by the witness in his or her identification. 15T 22-24; IP25; IP26; IP27. As Wells put it:

> Mistaken identifications per se do not result in the conviction of innocent people. Convictions of the innocent occur when eyewitnesses are both mistaken and certain.
>
> [IP22 at 42; see 15T 23-24.]

The Manson/Madison test explicitly adopts "the level of certainty demonstrated at the time of the confrontation" as one of the five factors determining whether an identification is reliable notwithstanding the use of suggestive police procedures. Madison, 109 N. J. at 239-40. (In his Manson dissent, Justice Marshall argued that "the witness's degree of certainty ... is worthless as an indicator that he is correct." 432 U.S. at 130, 97 S.Ct. at 2261, 53 L.Ed. 2d at 164.) A number of meta-analyses show, however, that witnesses' pre-identification confidence in their ability to make an identification has no correlation to the accuracy of the identifications they then make (17T 76-77; D4 at 140; D64) and that confidence expressed immediately after making an identification has only a low correlation to the accuracy of the identification. 17T 77; 20T 8; 25T 59-69; 26T 35-36; D4 at 141; D65; D66; D67; S7/D68. The studies do show that witnesses expressing post-identification high confidence (e.g., 90-100%) are in fact highly accurate (e.g., 90%), but only a small

fraction of witnesses report such levels of confidence and even 10% of them make incorrect identifications. 17T 81-90; 26T 36; D4 at 144; D73; D74; IP62/D18; D94. The studies conclude, in short, that a witness's self-report of confidence, whether given before or after the identification, is not a reliable indicator of accuracy. A more reliable indicator, experimental studies suggest, is the speed with which the witness makes an identification: Wells testified that true recognition is "an automatic, rapid process" and an identification made within 10 to 12 seconds is more likely reliable, but beyond that time the witness is "struggling" and perhaps resorting to relative judgment. 23T 70-72; see also IP81/D81; IP128.

The methodology and findings of the studies of confirming feedback are exemplified in a 1998 Wells and Bradfield report of one of the original laboratory experiments. 15T 27-34; IP7; IP22 at 44-47. Participant "witnesses" were shown a staged and videotaped criminal event and then were presented with a photo lineup that, unbeknownst to them, did not include the "perpetrator." 15T 27-28; IP7 at 363. All identifications made by the witnesses thus were mistaken. Ibid. The control group of witnesses who made identifications got no feedback from the lineup administrator, but the others were given some form of confirmatory feedback, e.g., "Good, you identified the suspect." 15T 28; IP22 at 44; IP7 at 363. The participants were then

individually asked not only about their certainty as to the accuracy of their identifications, but also about their view of the videotaped event and perpetrator, the attention they paid to the perpetrator, the details of the perpetrator's face, the ease or difficulty of their identification and the soundness of the basis they had for making an identification. 15T 29; IP22 at 45; IP7 at 366. Only 15% of the control group reported high confidence in their identifications while 43% of the witnesses receiving confirmatory feedback reported high confidence; the effect of the feedback was even more magnified in the witness self-reports concerning their viewing conditions and level of attention. 15T 29-32; IP22 at 46; IP7 at 374. Comparable findings concerning the creation and impact of false certainty are consistently reported in the literature. See 15T 11-12, 36; IP22 at 48.

The research also shows the effect of confirming feedback on witness memories of the observed event. Thus, in the 1998 Wells and Bradfield study, where the "witnesses" had intentionally been given a poor view of the perpetrator, over 25% of those who had been told they had correctly identified the suspect reported that they had a clear view, 20% said they were able to make out facial details, 35% said the identification was easy, and 33% said they had a strong basis for making their identification; the reports of the witnesses without feedback

were, respectively, 4%, 3%, 4% and 5%. 15T 31-33;IP7 at 374; IP22 at 46. A 2006 meta-analysis reported similar results. See 15T 18-41; IP19; IP37/D76; IP38; IP39; IP40; IP41; IP42; IP43; IP44; IP45; IP46/D59; IP47.

The studies offer a number of other significant findings concerning feedback. Neither witnesses nor lineup administrators are generally aware of either the occurrence or the effect of confirming feedback (15T 35-36, 55, 67; 22T 34; 19T 35; IP7 at 373; IP22 at 47); disconfirming feedback tends to lower witness self-reports of certainty and opportunity to view (15T 35); contaminating feedback can come from non-state actors (15T 32, 22T 34; 19T 35; 26T 32-33); information can be planted in a witness's memory by speaking with or in the presence of another witness (22T 43; 26T 74-75; IP 44; IP 92; IP93; IP94/D50; IP95; IP122; IP226; D4 at 149-50; D75); information about the evidence against, or the prior record of, the suspect is particularly influential on witness certainty (15T 27-34; 22T 33-34); a witness who knows another witness's identification is more likely to make the same identification (22T 43-47; IP44; IP92; IP94; IP 95; IP122); feedback can inflate confidence whether given immediately or days later and is a lasting effect (15T 31-35; IP41; IP47).

In light of all those findings, the scientists commonly recommend that, immediately upon the conclusion of the

identification procedure -- and whether or not the witness makes an identification, or identifies a known foil -- the law enforcement personnel make a full record, on tape or otherwise but in the witness's own words, of the witness's self-reports concerning confidence, ability to view, and degree of attention. Such a record would not only be uncontaminated by post-identification feedback but would also mitigate the effects of any later feedback, as well as provide court and counsel with information essential to test the reliability of any identification in a future prosecution. 15T 39-42; 17T 93-94; 22T 32-33; 26T 34-38; IP22 at 55; IP23 at 38; IP37/D76 at 865; IP96 at 69; IP46 at 631; D68/S7 at 324; D92 at 635. Blind administration of the lineup goes far to avoid the feedback problem, for the blind administrator does not have the information that could elicit unwitting feedback. 22T 30-31; 26T 30-32.

Use of composites. The research on composites has addressed both traditional hand-produced systems (PhotoFit) and computer-based systems (Identi-Kit, FACES) that present on a screen a great variety of foreheads, hairstyles, eyes, noses, chins, lips and the like, from which a technician, with input from the witness, undertakes to compose a likeness of the perpetrator. See IP98. The broad consensus within the scientific community is that composites produce poor results.

23T 22-47; 26T 68-70; IP22 at 77-84; IP98 at 7-8; IP209 at 894; IP227 at 64; D52 at 235-36, 244-45. The studies show that different witnesses create quite different, and often unrecognizable, pictures of the same person. Ibid. In one study, in which students prepared composites of their teachers and fellow students, only 3 of the 500 composites were correctly identified by other students of the same schools. D4 at 116; D52; 17T 50. The problem, the researchers suggest, is that people recognize others holistically, not feature-by-feature in the manner composites are constructed. 23T 51-52; 26T 69-70; IP98 at 9; IP99 at 194. In addition, a composite tends to contaminate the witness's memory: the memory becomes more like the composite, which sets the stage for a later misidentification. 23T 54-55; 26T 71; IP75a at 26; IP100. A few studies suggesting that preparing a composite can solidify a witness's memory are regarded as statistical outliers. 17T 58-59; IP100 at 148. The literature does show, however, that composites constructed by multiple witnesses can be "morphed" or averaged to produce a composite that is a better representation than any of the individual composites. 23T 44-54; IP22 at 85-88, IP98 at 8; IP99; IP209.

Simultaneous/sequential lineups. The traditional lineup presented all members of the array to the witness simultaneously. 22T 63-64; IP22 at 58; IP59. A substantial

amount of research has been, and continues to be, conducted to determine the impact on identification reliability, if any, of showing the members of the array individually and sequentially. See IP11; IP59/D95; IP61/D25; IP77; IP78; D23; D60; D61/S24; S4; S26. The research broadly confirms the research hypothesis that an innocent person is at greater risk of being misidentified in a simultaneous lineup than in a sequential lineup. 22T 77-78; 16T 65, 81; 23T 28; D4 at 40; IP22 at 65-66. The consensus explanation appears to be that sequential viewing of the lineup inhibits the witness's resort to relative judgment, i.e., choosing the person who looks most like the perpetrator. 16T 81-85; 22T 63-65; IP61/D25 at 459-60.

The studies show that a sequential procedure reduces both accurate and inaccurate identifications, but there is dispute as to the rate of reduction of accurate identifications as compared to the well-established rate of reduction in inaccurate identifications. 16T 83-85; 23T 28; 28T 3; D4 at 55. A 2001 meta-analysis reviewing 30 studies with a total of 4145 witnesses concluded that while accurate identifications fell from 50% in simultaneous lineups to 35% in sequential lineups, foil identifications in target-absent arrays fell to a greater extent, from 51% in simultaneous lineups to 28% in sequential lineups. 16T 62-65, 87; 22T 84-85; IP61/D25; IP22 at 65.

The scientists have also raised questions as to the effect of particular elements of a sequential procedure: Where does the suspect appear in the sequence? Does the witness know the number of persons available for viewing? Does the sequential showing terminate upon a positive identification, tentative or firm? Is the witnesses allowed to go back over the array? Questions have also been asked as to whether a reduction of correct identifications in sequential lineups can be attributed to fewer "lucky guesses" by witnesses properly applying more cautious standards for choosing. 16T 83-85; 21T 109-11; 22T 75-76; 25T 87-89; 28T 3; S17; D4 at 55.

The simultaneous/sequential debate intensified following the 2006 report of a field study conducted in Chicago, Joliet and Evanston, Illinois (the "Mecklenburg study"), which concluded that simultaneous (but not double-blind) procedures produced both more suspect picks and fewer filler picks than did sequential procedures. 23T 3-5; D22/S9; IP22 at 67. The methodology of that study, which was never published in a peer-reviewed professional journal, has been widely criticized and its conclusions have been given little credence by the scientists. See, e.g., 16T 41-45; 23T 3-28; IP22 at 68; IP48; IP49; D22/S9; S26. The simultaneous/sequential controversy continues (see, e.g., S3; S4; S5; S17), focusing on whether and to what extent accurate identifications might be sacrificed by

using the more conservative sequential procedure. 28T 3-4. A series of field studies concerning the issue are presently being conducted in Tucson AZ, San Diego CA and Austin TX by a consortium including the American Judicature Society, John Jay College of Criminal Justice, Cardozo School of Law, the Police Foundation and the Innocence Project. 23T 29-35.

In-court identifications. Wells testified, without contradiction, that an in-court identification will simply repeat any error that infected a pretrial identification procedure. 28T 63-64; S15 at 880. The social scientists find it a "schizophrenic kind of notion" and "bizarre" that an unfairly suggestive pretrial identification might be allowed to be replicated in an in-court confrontation: "The residual of that suggestion just simply carries over to the in-court identification." 28T 64.

Estimator variables

The literature defines estimator variables as factors that can undermine the accuracy of eyewitness identifications but derive from the particular characteristics of the events, witnesses and perpetrators and are beyond the control of law enforcement personnel and procedures. IP22 at 11; IP5/D109. Estimator variables are as significant as system variables in their effects on the reliability of an identification. 14T 46-47; 17T 74; 23T 64-65; D4 at 171.

Eyewitness stress level. The scientific literature reports that, while moderate levels of stress improve cognitive processing and might improve accuracy (IP161 at 40), an eyewitness under high stress is less likely to make a reliable identification of the perpetrator. 14T 69-71; 17T 22-27; 26T 89-92; D4 at 80; D38; D44; S15 at 878; IP60/D43. Stress and fear ensure that the witness will not forget the event, but they interfere with the ability to encode reliable details. 14T 70. A 2004 meta-analysis of 27 independent studies involving a total of 1727 participants showed that 59% of witnesses in low-stress settings made correct identifications while only 39% of high-stress witnesses did so. 17T 26-28; 26T 90-91; D38; D4 at 84.

The effect of stress is illustrated in a 2004 field study involving 500 active-duty military personnel in a survival-school program, who were subjected to 12 hours of confinement followed by two 40-minute interrogations, one under high stress with physical confrontation and the other under low stress, conducted by different interrogators. 17T 27-28; IP60/D43 at 267-69. When asked the following day to identify their interrogators, the participants correctly identified the high-stress interrogator at only half the rate they identified the low-stress interrogator; some, indeed, were even unable to identify the high-stress interrogator’s gender. 14T 70-71; 17T 27-28; 26T 92; IP60/D43; S32.

Weapon focus effect. Similarly, the presence of a weapon at the observed event has been demonstrated to impair eyewitness memory and identification accuracy. 17T 22-25; 23T 81-83; 26T 83-84; IP69/D41. The studies find that the visible presence of a weapon diverts a witness's attention away from the face of the perpetrator and reduces the witness's ability to encode, describe and identify the face. 23T 82; 17T 22-24, 32; 26T 84; S15 at 878; D41; D42; D80; IP159. A 1992 meta-analysis reviewing 19 studies involving 2082 participants shows an average difference in accuracy of approximately 10%. 17T 24; IP69/D41. The effect is particularly strong during crimes of short duration (23T 83; IP69/D41 at 421) and when combined with the effects of stress. 26T 86-88; D38.

Duration of the witnessed event. The scientific studies demonstrate that the reliability of an identification is related to the duration of the witness's exposure to the perpetrator: while there is no minimum time required to make an accurate identification, a brief or fleeting contact is less likely to produce an accurate identification than a more prolonged exposure. 17T 22-23; 26T 104; 18T 39-40; 28T 49; D4 at 80; S15 at 877. In their self-reports, however, witnesses consistently tend to overestimate short durations, particularly where much was going on or the event was particularly stressful. 18T 39-40; 23T 57-58; 26T 105; IP79; IP80; IP97.

Distance and lighting. Vision researchers have long known that clarity of vision decreases with distance and poor lighting conditions. 23T 62; 26T 93-99; IP20 at 43; IP123; IP160 at 8; IP220; S33 at 485. More recent studies specifically addressing the ability to identify faces at particular distances have demonstrated that, even with 20/20 vision and excellent lighting conditions, face perception begins to diminish at 25 feet, nears zero at about 110 feet, and faces are essentially unrecognizable at 134 feet. 23T 61-66; 26T 96-99; IP4 at 9-10; IP20 at 63; IP22 at 88-94. Witness self-reports of distances are not highly reliable. 23T 57-58; 26T 93-94; IP22 at 88; IP81; IP123; IP131; IP132. Low levels of illumination also decrease recall and identification accuracy. IP220 at 354; IP60 at 8-9; IP166 at 368.

Memory decay. Researchers have long studied the process of memory decay and in recent years have examined the association of retention intervals and forgetting once-seen faces. A 2008 meta-analysis examining 53 of those studies shows that memory quality declines by 20% after two hours, by 30% within the first day and by 50% one month after the observation. 17T 45-46; D4 at 101-04; D49. Longer retention intervals are associated with fewer correct identifications. 15T 13; D40. As memory decays, the impact of suggestive procedures and other memory-

contaminating variables grows. 28T 22. Memory decay is irreversible: memory never improves. 15T 13; 22T 34.

Unconscious transference. A positive identification indicates that the person identified is familiar to the witness, but the familiar person may not be the culprit. As discussed above(p. 27), multiple identification procedures can produce a misleading familiarity with a face. 17T 53-56; 26T 61-62; D4 at 115; D38. That process, known as "unconscious transference," can also occur when a witness confuses a person seen at or near the crime scene with the actual perpetrator. 17T 53-58; D4 at 115; D51 at 289, 306. The familiar person is at greater risk of being identified as the perpetrator simply because of his or her presence at the scene. Ibid. This "bystander error" most commonly occurs when the observed event is complex, i.e., involving multiple persons and actions, but can also occur when the familiarity arises from an entirely unrelated exposure. 17T 52-58; D4 at 115; D51; D96.

Age. A witness's age also bears on the reliability of an identification. 17T 38-39; 28T 74; D4 at 94; D45; IP127 at 280; IP138; IP175. Studies show that witness accuracy is at its height at ages 18-19, that it declines consistently over time, that between ages 60 and 72 witness accuracy is only half of what it was at 18-19 (17T 37-38; 28T 74; D45; D4 at 94) and that memory for crime-related information is generally worse in

persons over 70. IP175 at 332. On the other hand, identifications made by witnesses below the age of 18 have been found to be less reliable than those made above 18; the younger the child, the less reliable the identification. 17T 8; 28T 74; D4 at 70; D34; IP138.

Alcohol. Studies of the effects of alcohol on identification accuracy show that high levels of alcohol promote false identifications; low alcohol intake produces fewer misidentifications than high alcohol intake. 17T 40-41; D46; D4 at 95; IP160; IP221.

Distinctive faces, disguises, facial changes. Experimental studies demonstrate that distinctive faces are more readily remembered and accurately identified. 17T 42; D57. Disguises (e.g., hats, sunglasses, masks) are confounding to witnesses and reduce the accuracy of identifications. 17T 42-43; 26T 100-01; D4 at 97-98; D47. Changes to perpetrators' facial appearance (e.g., appearance or disappearance of facial hair) between initial exposure and identification procedure also impair identification accuracy: one study found that correct identifications dropped by 50% (to almost the equivalence of chance) with such changes of facial appearance. IP207 at 410; 17T 42. Dissimilarity between a perpetrator's appearance in the event and in a later lineup reduces the positive effects of longer initial exposures during the event. IP207; IP208; D40.

Own-race bias. Several meta-analyses published over the past 20 years consistently show that other-race recognition is poorer than same-race recognition. IP68; IP120; IP133; IP134; IP216. One of those studies, reviewing 39 research articles involving 5000 witness/participants, found that a mistaken identification was 1.56 times more likely in other-race conditions, and participants were 2.2 times as likely to accurately identify own-race faces as other-race faces. IP68/D39 at 15. The reality and impact of own-race bias were recognized by this Court in State v. Cromedy, supra, 158 N.J. 112, which mandates that, in certain circumstances, a jury be specially instructed as to the unreliability of cross-racial identifications.

Lay Knowledge and Intuitions

Studies examining whether and to what extent jurors (or potential jurors) know or correctly intuit the findings reported in the eyewitness identification literature report that laypersons are largely unfamiliar with those findings and often hold beliefs to the contrary. 24T 13-14; IP10; IP51; IP112; IP136; IP137; IP138; IP155; D77; D85; D103; D104.

One such study, published by Benton et al. in 2006 (D104), drew on the 2001 Kassin survey (D78; see discussion below at pp. 50-51) which reported the level of expert acceptance of the research findings concerning system and estimator variables.

The 2006 study, comparing juror acceptance of the same research findings (24T 57-62), found that jurors were substantially less receptive to such concepts as cross-race bias (90% acceptance by experts, 47% by jurors), weapons focus (87% by experts, 39% by jurors), weak correlation between confidence and accuracy (87% by experts, 38% by jurors), and memory decay (83% by experts, 33% by jurors). 24T 57-58; D104 at 120-22. The Benton study also compared the acceptance rates of a small group of volunteer judges, with comparable but less dramatic results. Id.; 24T 77-78.

Similar findings of juror beliefs have been reported in other surveys. See, e.g., D102; D103. In a 2007 article Benton et al. described the literature as showing that jurors underestimate the importance of proven indicators of accuracy (e.g., lineup instructions, memory retention interval, lighting conditions, cross-race identification, weapon presence), tend to rely heavily on factors that the research finds are not good indicators of accuracy (e.g., witness confidence), and tend to overestimate witness accuracy rates. 24T 40-45; 26T 16-29; IP136 at 475-87; IP10. Penrod reported that his studies indicated that expert testimony tended to sensitize mock jurors to the variables that affect eyewitness reliability. 20T 23-30.

The scientists agree that jurors are not able to distinguish accurate eyewitnesses from inaccurate witnesses.

14T 44-45; 24T 69-75; D106; IP25; IP26; IP27. Indeed, Wells testified that neither he nor any other expert in the field can separate accurate from inaccurate witnesses simply by watching them testify: "[T]here's just no good markers for the error." 14T 45. That inability flows in part from the fact that mistaken eyewitnesses are not lying but are honestly reporting, often with great confidence, what they believe they saw. IP25; IP26; IP27. For that same reason, Epstein testified, cross-examination is of limited utility to either the jury or the defendant. 24T 10-23. What jurors primarily rely on in assessing identification accuracy is the confidence expressed by the witness in the identification, although, as previously discussed, the literature demonstrates that the confidence/accuracy correlation is weak at best and that confidence is highly malleable. See 15T 22-24; 20T 15-18; 26T 38-39; IP22 at 41; D4 at 158; D77; IP119 at 65; IP25, IP26, IP27.

Responses of Interested Communities to the Scientific Findings

A wide variety of interested communities and agencies have expressed themselves and taken action in response to the scientific findings reported by the researchers.

Expert witnesses. In 2001, Kassin et al. published a survey of 64 experts, mostly cognitive or social psychologists and university professors, who previously had been asked to

testify concerning eyewitness identification on a total of 3370 occasions and actually testified in 960 cases. 20T 32-33; D4 at 162-63; D78. With respect to the scope and content of their proposed and actual testimony, 90% or more reported that they found reliable the scientific findings concerning suggestive wording, lineup instruction bias, own-race bias, confidence malleability, alcohol intoxication, mugshot-induced bias and child suggestibility; 70% to 87% of the experts found reliable the scientific findings as to weapon focus, showups, biased lineups, memory decay, the accuracy/confidence corrrelation, child-witness accuracy, description-matched lineups and sequential presentation. 20T 33-35; D4 at 164-65; D78. Penrod reported similar findings resulting from an unpublished survey he conducted with two graduate students of 71 expert witnesses who had testified at least 2719 times. 20T 35-37; D4 at 166; D79.

Law enforcement and reform agencies. In recent years, a number of national, state and local entities have organized working groups and task forces to examine the accumulating scientific findings concerning eyewitness identifications and to devise ameliorative procedures. The reports issued by those groups vary in scope and detail, but all substantially accept the scientific studies as reliable.

United States Department of Justice

Nat'l Inst. of Justice, U.S. Dep't of Justice, Convicted by Juries, Exonerated by Science: Case Studies in the Use of DNA Evidence to Establish Innocence After Trial (1996). IP153.

> In 1996 the National Institute of Justice (NIJ), a research and development arm of the Department of Justice, appointed a Technical Working Group on Eyewitness Evidence to establish national guidelines for law enforcement regarding the best ways to collect and preserve eyewitness identification evidence. The group included law enforcement officers from across the nation, prosecutors, defense attorneys (including James Doyle), and social scientists (including Gary Wells and Roy Malpass).

Nat'l Inst. of Justice, U.S. Dep't of Justice, Eyewitness Evidence: A Guide for Law Enforcement (1999); Nat'l Inst. of Justice, U.S. Dep't of Justice, Eyewitness Evidence: A Trainer's Manual for Law Enforcement (2003). IP23; IP152.

> In 1999, based on the work of the Technical Working Group, the NIJ published its Guide of best practice recommendations for law enforcement, which was followed in 2003 by the Training Manual. Both Guide and Manual were distributed to law enforcement agencies nationwide. Wells co-chaired the Eyewitness Identification Police Training Manual Writing Committee.

American Bar Association

Am. Bar Ass'n, Adopted by the House of Delegates (2004); Ad Hoc Innocence Comm. to Ensure the Integrity of the Criminal Process, Am. Bar Ass'n, Achieving Justice: Freeing the Innocent, Convicting the Guilty (2006). IP12; IP167.

> In 2004, the American Bar Association House of Delegates adopted a Statement of Best Practices for Promoting the Accuracy of Eyewitness Identification Procedures, which set forth guidelines for administering lineups and photo arrays. In a report of its Ad Hoc Innocence Committee, the ABA resolved that federal, state and local governments should be urged to adopt a series of principles consistent with those contained in its resolution, incorporating scientific advances in research.

New Jersey

Office of the Attorney Gen., N.J. Dep't of Law and Pub. Safety, Attorney General Guidelines for Preparing and Conducting Photo and Live Lineup Identification Procedures (2001). S20.

> New Jersey was the first state to officially adopt the NIJ recommendations when the Attorney General promulgated the Guidelines for use by all law enforcement agencies statewide.

California

Cal. Comm'n on the Fair Admin. of Justice, Report and Recommendations Regarding Eyewitness Identification Procedures (2006). IP13.

> The Commission, comprised of key criminal justice stakeholders from across California, offered numerous recommendations including double-blind and sequential identification procedures, videotaping or audiotaping lineup procedures and photo displays, providing cautionary instructions to witnesses, documenting witnesses' statements of certainty, and not providing confirming feedback to witnesses prior to obtaining witnesses' certainty assessments.

New York

Task Force on Wrongful Convictions, N.Y. State Bar Ass'n, Final Report of the New York State Bar Association's Task Force on Wrongful Convictions (2009). IP185.

> The Task Force, comprised of judges, prosecutors, defense counsel, legal scholars and criminal justice experts, proposed the adoption of double-blind administration, cautioning witnesses that the perpetrator may or may not be present, choosing fillers who fit the witnesses' descriptions of the perpetrator, and recording witnesses' assessments of certainty.

Illinois

Governor's Comm'n on Capital Punishment, State of Ill., Report of the Governor's Commission on Capital Punishment (2002). IP165.

> The Report recommended reforms including double-blind and sequential procedures, warnings to witnesses that the perpetrator might not be in the array and instructions that they should not feel compelled to make an identification. In 2003, the Death Penalty Reform Bill was enacted, requiring that witnesses be warned that the suspect may not be in the lineup. IP106.

North Carolina

N.C. Actual Innocence Comm'n, Recommendations for Eyewitness Identification (2003). IP74.

> The Actual Innocence Commission, established by the North Carolina Chief Justice, recommended eyewitness identification procedures, including blind administration. The recommendations became statutory law in 2008. IP105.

Wisconsin

Office of the Attorney Gen., Wis. Dep't of Justice, Model Policy and Procedure for Eyewitness Identification (2005). IP75a.

> In 2005, the Wisconsin Attorney General's Office followed New Jersey's lead and issued this similar set of policies for statewide use, which also mandated the "blind-sequential" reform package.

Santa Clara, CA

Police Chiefs' Ass'n of Santa Clara County, Line-up Protocol for Law Enforcement (2002). IP172.

> The Police Chiefs' Association here amended its lineup procedures, calling for double-blind and sequential administration, warnings to witnesses prior to identification procedures, recording witnesses' certainty assessments in the witnesses' own words, and documenting any non-identifications.

Denver, CO

Denver Police Dep't, Operations Manual § 104.44 (2006); Denver Police Dep't, Photographic Lineup Admonition/Photo Identification Report (2009). IP108; IP186.

> The Denver Police Department here issued lineup procedures calling for double-blind and sequential administration, warnings to witnesses prior to identification procedures and documentation of any non-identifications.

Boston, MA

District Attorney's Office, Suffolk County, Report of the Task Force on Eyewitness Evidence (2004). IP24.

> The Boston Police Department and the Suffolk County District Attorney's Office formed the Task Force to reform the county's eyewitness identification procedures. The Task Force produced a set of guidelines -- now followed by the county, including Boston -- on how to obtain and preserve eyewitness identification evidence, which included double-blind and sequential administration and admonitions to witnesses prior to an identification procedure.

Boston Bar Assoc. Task Force, Boston Bar Assoc., Getting It Right: Improving the Accuracy and Reliability of the Criminal Justice System in Massachusetts (2009). IP181.

> The Task Force, charged with identifying reforms to reduce the risk of convicting innocent people, recommended procedures in the areas of eyewitness identifications and suspect/witness interviews including double-blind lineups, witness warnings, sequential lineups and taking certainty statements following any identification procedure.

Northampton, MA

Ken Patenaude, Improving Eyewitness Identification, Law Enforcement Tech., Oct. 2003, at 178; Kenneth Patenaude, Police Identification Procedures: A Time for Change, 4 Cardozo Pub. L. Pol'y & Ethics J. 415 (2006). IP148; IP147.

> Patenaude, Captain of the Northampton Police Department (now retired), was a member of the National Institute of Justice's Technical Working Group that authored Eyewitness Evidence: A Guide for Law Enforcement in 1999. See IP23. In 2005, the Northampton department adopted enhanced

identification procedures, requiring double-blind and sequential administration, warnings to witnesses prior to identification procedures, selecting fillers who match the witnesses' descriptions, recording witnesses' certainty assessments in the witnesses' own words, and documenting any non-identifications. Northampton Police Dep't, Administration & Operations Manual ch. O-408 (2005). IP107.

St. Paul and Minneapolis, MN

Amy Klobuchar & Hilary Lindell Caligiuri, Protecting the Innocent/Convicting the Guilty: Hennepin County's Pilot Project in Blind Sequential Eyewitness Identification, 32 Wm. Mitchell L. Rev. 1 (2005); Amy Klobuchar et al., Improving Eyewitness Identifications: Hennepin County's Blind Sequential Lineup Pilot Project, 4 Cardozo Pub. Pol'y & Ethics J. 381 (2006). IP78; IP77.

Under the directive of then County Attorney Klobuchar, the Hennepin County Attorney's Office adopted a new lineup protocol including double-blind and sequential presentation, warnings to witnesses that the perpetrator may or may not be in the lineup, the documentation of witness confidence statements, and improved lineup composition. Hennepin County then partnered with Dr. Nancy Steblay on a pilot project to assess the efficacy of the new protocol as compared with prior procedures. These two publications conclude that the new procedures "will help improve police investigations, strengthen prosecutions and better protect the rights of innocent people while convicting those who are guilty." IP78 at 14.

Susan Gaertner & John Harrington, Successful Eyewitness Identification Reform: Ramsey County's Blind Sequential Lineup Protocol, Police Chief, Apr. 2009, at 130. IP11.

After reviewing the social scientific research, as well as other "best practices" embraced throughout the country, Ramsey County adopted double-blind and sequential lineup procedures and participated in a pilot project comparing the procedures with the earlier non-blind and simultaneous formats. Susan Gaertner, Ramsey County Attorney, published this article endorsing the procedures.

Letter from Office of the Ramsey County Attorney to Conference Participants (October 26, 2009). IP180.

This conference, titled "Improving Eyewitness Identification Procedures: Bringing Together the Best in Science, Technology and Practice," was presented by the Office of the Ramsey County Attorney, the Minnesota Bureau of Criminal Apprehension, and the Minnesota County Attorneys for law enforcement professionals to provide practical, policy, and scientific perspectives on the existence and implementation of improved eyewitness identification procedures in Minnesota.

Dallas, TX

Dallas Police Dep't, Dallas Police Department General Order § 304.01 (2009); Dallas Police Acad., Roll Call Training Bulletin No. 2009-04, Blind Sequential Photographic Line-up (2009); Dallas Police Dep't, Photographic Line-up Admonition Form (n.d.); Dallas Police Acad., Roll Call Training Bulletin No. 2008-27, One Person Show-up (2008). IP182; IP183; IP184; IP76.

In 2009, the Dallas Police Department reformed its identification procedures to require double-blind and sequential administration, warnings to witnesses prior to identification procedures, selecting fillers who match the witnesses' descriptions, and recording witnesses' certainty assessments in the witnesses' own words. The Department also adopted new showup procedures in 2008, which included requiring warnings to the witness that the person shown may or may not be the perpetrator, prohibiting multiple showups in cases involving multiple witnesses after one witness makes an identification from a showup, requiring the police to obtain a detailed description from the witness prior to the identification procedures, ensuring that the suspect fit the witness's detailed description, and requiring law enforcement to avoid making suggestive statements to witnesses.

American Psychology-Law Society

Gary L. Wells et al., Eyewitness Identification Procedures: Recommendations for Lineups and Photospreads, 22 Law & Hum. Behav. 603 (1998). D92.

In 1996, the Executive Committee of the American Psychology-Law Society created a subcommittee to review contemporary scientific research on eyewitness identification and to make recommendations for improving the reliability of identification evidence. The

collaboration produced this first "white paper" ever published by the Society.

International Association of Chiefs of Police

Int'l Ass'n of Chiefs of Police, Training Key No. 600, Eyewitness Identification (2006). IP113.

The Training Key reports that "of all investigative procedures employed by police in criminal cases, probably none is less reliable than the eyewitness identification" (IP113 at 5) and endorses a number of key reforms, including blind administration, recording the procedure, instructing the witness and obtaining a confidence statement.

Police Executive Research Forum

James M. Cronin et al., Promoting Effective Homicide Investigations (2007). IP171.

The Police Executive Research Forum, a national membership organization of police executives from the largest city, county and state law enforcement agencies, here recommends double-blind and sequential lineup administration, warning witnesses that the perpetrator may or may not be present, selecting fillers who fit witnesses' descriptions of the perpetrator, documenting witnesses' statements of certainty, and recording with specificity the outcome of the identification procedure, including non-identifications and identifications of fillers.

Commission on the Accreditation of Law Enforcement Agencies

Stephen Saloom, Improving Eyewitness Identification Procedures, CALEA Update (Comm'n on Accreditation for Law Enforcement Agencies, Fairfax, Va.), Oct. 2009, at 26. IP168.

The Commission on the Accreditation of Law Enforcement Agencies, a credentialing authority created by national law enforcement membership associations, adopted eyewitness identification standards that require agencies seeking accreditation to create written eyewitness lineup and showup procedures addressing, among other issues, filler selection, lineup instructions to witnesses, complete recordation and documentation of the procedure, including witnesses' confidence statements, and avoiding giving confirming feedback to witnesses.

Legislation. Several states have enacted legislation implementing procedures recommended in the scientific studies.

Georgia

H.R. 352, 149th Gen. Assem., Reg. Sess. (Ga. 2007); Ga. Police Acad., Ga. Pub. Safety Training Ctr., Witness Identification Accuracy Enhancement Act: Participant Guide (2008). IP173; IP187.

> Created a study committee to study best practices for eyewitness identification procedures and evidentiary standards for admissibility of eyewitness identifications. Though the committee failed to recommend further legislation, the Georgia Peace Officers Standards and Training Council instituted statewide training which includes blind administration.

Illinois

725 Ill. Comp. Stat. Ann. 5/107A-5 (West 2009) (enacted 2003). IP106.

> Requires lineups to be photographed or otherwise recorded; that eyewitnesses sign a form acknowledging that the suspect may not be in the lineup, that they are not obligated to make an identification, and that they should not assume that the administrator knows which photograph is that of the suspect; and that suspects in the lineup not appear substantially different from fillers, based on the eyewitness' previous description of the perpetrator, or on other factors that would draw attention to the suspect.

Maryland

Md. Code Ann., Pub. Safety § 3-506 (LexisNexis 2009) (enacted 2007). IP104.

> Requires each law enforcement agency in the state to adopt written policies related to eyewitness identification that "comply with the United States Department of Justice standards on obtaining accurate eyewitness identification."

North Carolina

N.C. Gen Stat. § 15A-284.50-.53 (2009). IP105.

Mandates blind administration, specific instructions to the witness, appropriate filler selection, obtaining confidence statements, sequential presentation, recording the procedure when practicable, and necessary training. The legislation also fixes legal remedies for law enforcement's noncompliance with the statute.

Ohio

S. Sub. S.B. No. 77, 128th Gen. Assembly (2010). D115.

Mandates blind or blinded lineup administration, sequential displays of the array, witness warnings, recording of all identification and nonidentification results and confidence statements made immediately upon an identification; requires trial courts to consider any failure to fulfill statutory mandates in adjudicating any suppression motion; requires that juries be instructed that they may consider noncompliance with mandated procedures in determining reliability of an identification.

Vermont

2007-60 Vt. Adv. Legis. Serv. (LexisNexis). IP174.

Established a committee to study best practices relating to eyewitness identification procedures and audio and audiovisual recording of custodial interrogations. Matters to be addressed include: federal and state models and developing best practices; whether other statewide policies on eyewitness procedures should be adopted in Vermont; current policies in local jurisdictions.

West Virginia

W. Va. Code § 62-1E-1 to -3 (2008) (enacted 2007). IP103.

Mandates several reforms, including providing lineup instructions to witnesses, obtaining confidence statements, and creating a written record of the entire procedure, and creates a task force to study and identify additional best practices for eyewitness identification.

Wisconsin

Wis. Stat. §175.50 (2007-08) (enacted 2005). IP75b.

> Requires law enforcement agencies to adopt written policies for eyewitness identification. The Attorney General's office offers a series of best practices for agencies to follow, including blind administration, specific instructions to the witness, appropriate filler photo usage, obtaining a confidence statement from witnesses, and sequential presentation.

Courts. Those state and federal appellate courts that have taken note of the post-Manson scientific findings have commonly acknowledged their authority and have incorporated them in rulings as to police procedures, record-keeping, allowance of expert testimony, necessity and propriety of jury instructions and like matters.

> **United States v. Bartlett**, 567 F.3d 901 (7th Cir. 2009), cert. denied, ___U.S.___, 130 S.Ct. 1137, ___L.Ed.2d.____(2010).

In reviewing a trial court's rejection of proffered identification expert testimony, the Court of Appeals for the Seventh Circuit said:

> "An important body of psychological research undermines the lay intuition that confident memories of salient experiences ... are accurate and do not fade with time unless a person's memory has some pathological impairment. … The basic problem about testimony from memory is that most of our recollections are not verifiable. The only warrant for them is our certitude, and certitude is not a reliable test of certainty." Id. at 906.
>
> The question that social science can address is how fallible, and thus how deeply any given identification should be discounted. That jurors have beliefs about this does not make expert evidence irrelevant; to the

contrary, it may make such evidence vital, for if jurors' beliefs are mistaken then they may reach incorrect conclusions. Expert evidence can help jurors evaluate whether their beliefs about the reliability of eyewitness testimony are correct. Many people believe that identifications expressed with certainty are more likely to be correct; evidence that there is no relation between certitude and accuracy may have a powerful effect." Ibid.

United States v. Brownlee, 454 F.3d 131 (3d Cir. 2006). IP56.

The Third Circuit Court of Appeals held that the district court erred in excluding expert testimony on confidence/accuracy, time delay, postevent suggestion, and showups.

"The recent availability of post-conviction DNA tests demonstrate that there have been an overwhelming number of false convictions stemming from uninformed reliance on eyewitness misidentifications. ... Even more problematic, 'jurors seldom enter a courtroom with the knowledge that eyewitness identifications are unreliable.' Thus, while science has firmly established the 'inherent unreliability of human perception and memory,' this reality is outside 'the jury's common knowledge,' and often contradicts jurors' 'commonsense' understandings." Id. at 141-42.

Newsome v. McCabe, 319 F.3d 301 (7th Cir. 2003), cert. denied, 539 U.S. 943, 123 S.Ct. 2621, 156 L.Ed.2d 630 (2003). IP31b

In sustaining the admission of expert testimony regarding eyewitness reliability, the Seventh Circuit Court of Appeals credited functional size tests conducted by Gary Wells on the lineup arrays used in the prosecution.

"[Wells's] testimony was based on sufficient data, [ ] his methods were reliable by the standards of the field, and [ ] he applied these methods reliably to the facts of Newsome's case. Experiments of the kind that Wells performed are the norm in this branch of science and have met the standard for scholarly publication and acceptance." Id. at 306.

United States v. Hall, 165 F.3d 1095 (7th Cir. 1999), cert. denied, 527 U.S. 1029, 119 S. Ct. 2381, 144 L.Ed.2d 784 (1999).

The Seventh Circuit Court of Appeals upheld the district court rejection of defendant's proffered expert testimony on reliability of eyewitness identifications. In a concurring opinion, Judge Easterbrook suggested that courts utilize social science research to draft instructions that inform jurors about social science findings and to prohibit prosecutors from arguing that witness certainty suggests witness accuracy.

"Jurors who *think* they understand how memory works may be mistaken, and if these mistakes influence their evaluation of testimony then they may convict innocent persons. A court should not dismiss scientific knowledge about everyday subjects. Science investigates the mundane as well as the exotic. That a subject is within daily experience
does not mean that jurors know it *correctly.* A major conclusion of the social sciences is that many beliefs based on personal experience are mistaken. The lessons of social science thus may be especially valuable when jurors are sure that they understand something, for these beliefs may be hard for lawyers to overcome with mere argument and assertion." Id. at 1118.

"[A] judge, recognizing the main conclusions of the scholarly study of memory--that 'accuracy of recollection decreases at a geometric rather than arithmetic rate (so passage of time has a *highly* distorting effect on recollection); accuracy of recollection is *not* highly correlated with the recollector's confidence; and memory is highly suggestible --people are easily 'reminded' of events that never happened, and having been 'reminded' may thereafter hold the false recollection as tenaciously as they would a true one',--could block a lawyer from arguing that a given witness is *sure* of his recollection, and therefore is more likely to be right. The judge could inform jurors of the rapid decrease of accurate recollection, and the problem of suggestibility, without encountering the delay and pitfalls of expert testimony. Jurors are more likely to accept that information coming from a judge than from a scholar, whose skills do not lie in the ability to persuade lay jurors (and whose fidgeting on the stand, an unusual place for a genuine scholar, is

apt to be misunderstood). Altogether it is much better for judges to incorporate scientific knowledge about the trial process *into* that process, rather than to make the subject a debatable issue in every case. … [T]he subject is vital to a judicial system that seeks to improve the accuracy of the trial process, and thus as time passes more of the findings of modern social science research should be incorporated into legal rules about proper trial tactics and arguments." Id. at 1120 (citation omitted)(Easterbrook, J., concurring).

State v. Chapple, 660 P.2d 1208 (Ariz. 1983). IP194.

The Arizona Supreme Court held that the trial court erred in barring expert testimony regarding the forgetting curve, the effects of stress upon perception, the phenomenon of unconscious transference, and the effects of exposure to inaccurate information on a witness's memory.

"[I]t is difficult to tell whether the ordinary juror shares the law's inherent caution of eyewitness identification. Experimental data indicates that many jurors 'may reach intuitive conclusions about the reliability of [such] testimony that psychological research would show are misguided.'" Id. at 1220.

People v. McDonald, 690 P.2d 709 (Cal. 1984), overruled on other grounds, 4 P.3d 23 (Cal. 2000). IP193.

Holding that the trial court abused its discretion in excluding expert testimony on psychological factors affecting the accuracy of eyewitness testimony, the California Supreme Court noted:

"[Ninth Circuit] Judge Hufstedler has declared that [the] premise [that eyewitness identification is generally reliable is] 'at best, highly dubious, given the extensive empirical evidence that eyewitness identifications are not reliable.' And with his characteristic vigor, [D.C. Circuit] Chief Judge Bazelon has called on the courts to face up to the reliability problems of eyewitness identification, to inform themselves of the results of scientific studies of those problems, and to allow juries access to that information in aid of their factfinding tasks." Id. at 717.

"In the dozen years since Judge Bazelon's appeal, empirical studies of the psychological factors affecting eyewitness identification have proliferated, and reports of their results have appeared at an ever-accelerating pace in the professional literature of the behavioral and social sciences. No less than five treaties on the topic have recently been published, citing and discussing literally scores of studies on the pitfalls of such identification. … The consistency of the results of these studies is impressive, and the courts can no longer remain oblivious to their implications for the administration of justice." Id. at 718.

"It is doubtless true that from personal experience and intuition all jurors know that an eyewitness identification can be mistaken, and also know the more obvious factors that can affect its accuracy, such as lighting, distance, and duration. It appears from the professional literature, however, that other factors bearing on eyewitness identification may be known only to some jurors, or may be imperfectly understood by many, or may be contrary to the intuitive beliefs of most." Id. at 720.

State v. Marquez, 967 A. 2d 56 (Conn.), cert. denied, ___U.S.___, 130 S. Ct. 237, 175 L.Ed.2d 163 (2009). S19.

While declining to condition admissibility of eyewitness identifications on the use of particular police procedures, the Connecticut Supreme Court stated that "we believe that the scientific research and common sense suggest that the employment of double-blind procedures, whenever reasonably practicable . . . ." Id. at 85.

State v. Ledbetter, 881 A.2d 290 (Conn. 2005), cert. denied, 547 U.S. 1082, 126 S. Ct. 1798, 164 L. Ed. 2d 537 (2006). IP54.

Under its supervisory authority, the Supreme Court of Connecticut mandated that trial judges instruct juries on the risks of misidentification in cases where the administrator of an identification procedure fails to tell the witness that the suspect may or may not be included in the array or the line-up.

"'There is good empirical evidence to indicate that eyewitnesses tend to identify the person from the lineup who, in the opinion of the eyewitness, looks most like the

culprit relative to the other members of the lineup. ...' G. Wells, M. Small & S. Penrod et al., supra, 22 Law & Hum. Behav. 613. ... There are numerous empirical observations that lead to the conclusion that the relative judgment process exerts a significant influence in eyewitness identifications. ...

Research suggests that the administrator of an identification procedure may be able to reinforce the tendency to engage in the relative judgment process. ... Research also suggests that the administrator of an identification procedure may be able to negate, at least to some degree, the tendency to engage in the relative judgment process by warning that the perpetrator might or might not be present in the identification procedure." Id. at 316.

Benn v. United States, 978 A.2d 1257 (D.C. 2009).

The District of Columbia Court of Appeals held that the trial court erred in excluding eyewitness identification expert testimony:

"[A] theory, initially untested, unrecognized, and unsupported by evidence, over time might receive widespread recognition and the support of experts in the respective field of social science research. Courts have taken cognizance of such developments in social science, which has led to changes in the law of evidence. The state of social science research with respect to the reliability of eyewitness testimony has developed in recent years to the point where it can credibly be argued by defense counsel that it has reached that critical juncture. Whereas once we could only speculate as to the inaccuracy of an eyewitness identification, now there is published scientific research that questions its accuracy when made under certain conditions and exonerations, based on DNA evidence, that confirm what previously were only suspicions." Id. at 1278-79.

Brodes v. State, 614 S.E.2d 766 (Ga. 2005). IP70.

The Georgia Supreme Court held that trial courts should not inform jurors that they may consider a witness's level of certainty when instructing them on the factors that may be considered in deciding the reliability of an identification.

"In light of the scientifically-documented lack of correlation between a witness's certainty in his or her identification of someone as the perpetrator of a crime and the accuracy of that identification, and the critical importance of accurate jury instructions as 'the lamp to guide the jury's feet in journeying through the testimony in search of a legal verdict,' we can no longer endorse an instruction authorizing jurors to consider the witness's certainty in his/her identification as a factor to be used in deciding the reliability of that identification." Id. at 771.

State v. Warren, 635 P.2d 1236 (Kan. 1981).

The Kansas Supreme Court concluded that an appropriate instruction on eyewitness identification should have been given in view of the factual circumstances:

"In spite of the great volume of articles on the subject of eyewitness testimony by legal writers and the great deal of scientific research by psychologists in recent years, the courts in this country have been slow to take the problem seriously and, until recently, have not taken effective steps to confront it. The trouble is that many judges have assumed that an 'eyeball' witness, who identifies the accused as the criminal, is the most reliable of witnesses, and, if there are any questions about the identification, the jurors, in their wisdom, are fully capable of determining the credibility of the witness without special instructions from the court. Yet cases of mistaken identification are not infrequent and the problem of misidentification has not been alleviated." Id. at 1241.

Bomas v. State, 987 A.2d 92 (Md. 2010).

The Maryland Court of Appeals held that expert testimony on eyewitness identification should be allowed if it would be of "real appreciable help" to the trier of fact. Id. at 101.

"We appreciate that scientific advances have revealed (and may continue to reveal) a novel or greater understanding of the mechanics of memory that may not be intuitive to a layperson. Thus, it is time to make clear that trial courts should recognize these scientific advances in exercising their discretion whether to admit such expert

testimony in a particular case. Nonetheless, some of the factors of eyewitness identification are not beyond the ken of jurors. For example, the effects of stress or time are generally known to exacerbate memory loss and, barring a specific set of facts, do not require expert testimony for the layperson to understand them in the context of eyewitness testimony. In recognition of this, we believe, consistent with our past holdings, that a flexible standard that can properly gauge the state of the scientific art in relation to the specific facts of the case is best." Id. at 112.

"Indeed, it might be an appropriate time for the Maryland Criminal Pattern Jury Instruction Committee to evaluate whether its current rule on witnesses (MPJICr 3:10) should be modified in light of the studies about eyewitness testimony, and the scientific advances in this area." Id. at 113.

Commonwealth v. Silva-Santiago, 906 N.E.2d 299 (Mass. 2009). S18.

Sustaining the admission of an identification, the Massachusetts Supreme Judicial Court stated that in the future it would "expect" police to employ a protocol "making clear to the eyewitness, at a minimum that: he will be asked to view a set of photographs; the alleged wrongdoer may or may not be in the photographs depicted in the array; it is just as important to clear a person from suspicion as to identify a person as the wrongdoer; individuals depicted in the photographs may not appear exactly as they did on the date of the incident because features such as weight, head, and facial hair are subject to change; regardless of whether an identification is made, the investigation will continue; and the procedure requires the administrator to ask the witness to state, in his or her own words, how certain he or she is of any identification." Id. at 312.

Commonwealth v. Santoli, 680 N.E.2d 1116 (Mass. 1997). IP125.

The Massachusetts Supreme Judicial Court held that jury instructions on eyewitness testimony may no longer include a statement that the jury may take into account the witness's report of certainty in determining accuracy.

"[T]he challenged instruction has merit in so far as it deals with the testimony of a witness who expressed doubt about the accuracy of her identification, whether that identification was made during her testimony, or at a 'showup' or lineup. Where, however, the witness has expressed great confidence in her identification of the defendant, the challenged instruction may pose a problem because … there is significant doubt about whether there is any correlation between a witness's confidence in her identification and the accuracy of her recollection." Id. at 1121.

People v. LeGrand, 867 N.E.2d 374 (N.Y. 2007). IP71.

The New York Court of Appeals held that where the case turns on eyewitness identification and there is little or no corroborating evidence, it is an abuse of discretion to exclude expert testimony on (1) the lack of correlation between confidence and accuracy; (2) the effect of postevent information on accuracy; and (3) confidence malleability, as there was general acceptance of these phenomena. However, the court did not find general acceptance of the scientific findings concerning the effect of weapons focus.

"Although there may be risks associated with allowing an expert to apply research findings from experiments on the reliability of eyewitness identifications to real-life identifications, these findings -- produced through sound, generally accepted experimentation techniques and theories, published in scholarly journals and subjected to peer review -- have over the years gained acceptance within the scientific community." Id. at 377.

State v. Copeland, 226 S.W.3d 287 (Tenn. 2007). IP192.

The Tennessee Supreme Court discarded its per se exclusion of eyewitness identification expert testimony and held that it was an abuse of discretion to exclude testimony of an eyewitness identification expert concerning cross-racial identifications and confirming feedback.

"It is the educational training of the experts and empirical science behind the reliability of eyewitness testimony that persuades us to depart from the Coley rule

[of per se exclusion of expert testimony]. Times have changed. Today, many scholarly articles detail the extensive amount of behavioral science research in this area. There are literally hundreds of articles in scholarly, legal, and scientific journals on the subject of eyewitness testimony. … Scientifically tested studies, subject to peer review, have identified legitimate areas of concern." Id. at 299 (citations omitted).

State v. Clopten, 223 P.3d 1103 (Utah 2009). IP195.

In holding that the trial court erred in excluding eyewitness expert testimony, the Utah Supreme Court found expert testimony more effective than jury instructions or cross-examination in conveying social science findings to jurors.

"The phenomena that eyewitness experts seek to explain have been reviewed and replicated many times in recent decades. In addition, this court recognized in State v. Rimmasch that it was appropriate to take judicial notice of 'general acceptance' of those principles in the community of researchers that specialize in the study of eyewitness identification." Id. at 1114.

"All of these factors were present here [stress, disguises, darkness, length of exposure, weapon focus, cross-racial identification, suggestive comments by the police during the identification procedure, witnesses filling in gaps in their memory with postevent information, and confidence inflation], and thorough testimony by a qualified expert as to their nature would have significantly assisted the jury in evaluating the accuracy of the State's most important witnesses." Id. at 1117.

State v. Long, 721 P.2d 483 (Utah 1986). IP126.

The Utah Supreme Court held that trial courts must give cautionary instructions on eyewitness identifications if requested by the defense.

"The literature is replete with empirical studies documenting the unreliability of eyewitness identification ... . Yet despite judicial recognition of the documented unreliability of eyewitness identification, courts have been slow both to accord the problem the attention it deserves and to fashion ways of minimizing the potentially

unjust effects. The fault probably lies with the narrowness of the vision of most lawyers and judges. We tend to comfortably rely upon settled legal precedent and practice, especially when long-settled technical rules are concerned, and to largely ignore the teachings of other disciplines, especially when they contradict long-accepted legal notions." Id. at 491.

"Even though the United States Supreme Court has recognized the fundamental problem posed by eyewitness testimony, its much-quoted articulation of how one should approach the evaluation of the credibility and admissibility of eyewitness identification is a fair example of the lag between the assumptions embodied in the law and the findings of other disciplines. ... [S]everal of the criteria listed by the Court [in Manson] are based on assumptions that are flatly contradicted by well-respected and essentially unchallenged empirical studies ... . [W]e conclude that in the area of eyewitness identification, the time has come for a more empirically sound approach." Id. at 491.

"[W]e do consider ourselves compelled by the overwhelming weight of the empirical research to take steps to alleviate the difficulties inherent in any use of eyewitness identification testimony ... ." Id. at 492.

State v. Ramirez, 817 P.2d 774 (Utah 1991). IP198.

The Utah Supreme Court crafted its own criteria for assessing the reliability of suggestive identifications, finding "some of [the Manson] criteria to be scientifically unsound." Id. at 780.

The court excised from its reliability criteria the witness's level of certainty, and added the spontaneity and consistency of the identification, whether it was the product of suggestion, the nature of the event being observed and the likelihood that the witness would perceive, remember, and relate it correctly (including whether the event was ordinary in the mind of the observer and whether there was a cross-racial identification). Id. at 781. See also State v. Hunt, 69 P.3d 571 (Kan. 2003), where the Kansas Supreme Court adopted the reliability criteria announced by the Utah Supreme Court. IP203.

State v. Dubose, 699 N.W.2d 582 (Wis. 2005). D91.

> The Wisconsin Supreme Court held that evidence from an out-of-court show-up is not admissible unless, based on the totality of circumstances, the procedure was necessary.
>
> "Over the last decade, there have been extensive studies on the issue of identification evidence, research that is now impossible for us to ignore. … In light of such evidence, we recognize that our current approach to eyewitness identification has significant flaws." Id. at 591-92

Findings and Conclusions

The scientific evidence. The scientific evidence accumulated since Manson was decided in 1977 is voluminous, comprehensive and consistent. It is described in great detail in the testimony of the expert witnesses and reported in the hundreds of peer-reviewed studies and meta-analyses discussed in the record. The soundness and reliability of that evidence are indisputable. As Professor Monahan put it:

> Eyewitness identification is the gold standard in terms of the applicability of social science research to the law. 29T 49.
>
> I think that of all the substantive uses of social science in law, none has been more subjected to scientific scrutiny, none has used more valid research methods, none is more directly generalizable, and nowhere is there a larger body of research than in the area of eyewitness identification. 29T 39-40.

The science abundantly demonstrates the many vagaries of memory encoding, storage and retrieval; the malleability of memory; the contaminating effects of extrinsic information; the

influence of police interview techniques and identification procedures; and the many other factors that bear on the reliability of eyewitness identifications. The expert witnesses all confirmed and endorsed those findings. The wide recognition of the science by the social scientists, forensic experts, law enforcement agencies, law reform groups, legislatures and courts powerfully confirms its soundness. See State v. J.Q., 130 N.J. 554, 572 (1993); State v. Kelly, 97 N.J. 178, 210 (1984). The scientific findings, in short, are reliable, definitive and unquestionably fit for use in the courtroom.

It is equally clear, however, that the impact of the system and estimator variables on eyewitness reliability is only probabilistic (except perhaps for the impact of viewing distance, which, as discussed above at p. 45, can sometimes be subject to scientific proof). Experimental studies can isolate and study particular variables and assess their influence. But in the absence of DNA exculpation, neither science nor scientists can say, at least at present, whether a real-life identification is accurate or not, much less whether or how any system or estimator variable – or combination of variables -- may have affected a real-life identification. Nor can science calculate the degree of enhanced risk of misidentification arising from any given variable. The science has simply identified variables that have an unquantifiable capacity or

tendency to impair or contaminate memory and thus bring into question the reliability of a real-life eyewitness identification.

The State suggests that, for those reasons, the science offers little useful guidance to the judicial system. According to the State, the science surrounding eyewitness identification is not "particularly complex or counterintuitive" (S40 at 69); the only guidance jurors need is provided by voir dire, cross-examination, jury charges and their "life experience." S40 at 71. And, the State says, jurors can adequately educate each other: "Even if only 50% of jurors were aware [e.g.] that a confident witness may be incorrect, that means that six jurors have this information and presumably will share it during deliberation." Ibid.

The science does not deserve to be so dismissed. As explained by Professor Monahan, social science research is widely and productively used in the courts to assist in the resolution of empirical disputes by informing judges and juries about matters they might not know or correcting misimpressions they might have. 29T 33-34; IP53; IP87; IP88. The studies show that distinguishing accurate from inaccurate eyewitnesses is uncertain at best and that laypersons often have little knowledge and mistaken intuitions about eyewitness accuracy. There is no reason to sweep aside the teachings of science

concerning the influences at play as worthless to those who must assess an eyewitness identification. Whether the science confirms commonsense views or dispels preconceived but not necessarily valid intuitions, it can properly and usefully be considered by both judges and jurors in making their assessments of eyewitness reliability. See, e.g., State v. P.H., 178 N.J. 378, 395-98 (2004); Cromedy, 158 N.J. at 133.

The State offers other cautions about judicial reliance on the scientific findings: experimental studies do not capture real-world experience, certain questions have not been asked, certain issues have not been studied adequately or at all. Those doubts, which perhaps could be raised against all social science findings, are not supported by any proofs in the record. Indeed, they were expressly rejected by the expert witnesses, including the State's witness Professor Malpass, all of whom testified that the experimental results were sound and generalizable. In any event, even if indulged, the doubts raised by the State would call for consideration by judge and jury, not wholesale disregard of the science.

The State also questions whether mistaken identifications and wrongful convictions are a significant problem in New Jersey. Although it does not challenge the archival and field studies documenting the frequency of misidentification or the DNA exculpations demonstrating convictions based on mistaken

identifications, the State asserts that recent New Jersey experience is to the contrary. It is undisputed, however, that of five DNA exculpations recorded in New Jersey, three - including Cromedy - are associated with mistaken identifications. While it may be true -- indeed, one would hope -- that the promulgation of the Attorney General Guidelines in 2001 has resulted in fewer wrongful convictions, nothing in the record suggests that New Jersey has thereby solved, or even substantially alleviated, the problem of mistaken identifications. See Romero, 191 N.J. at 72-75.

In sum, the scientific findings can and should be used to assist judges and juries in the difficult task of assessing the reliability of eyewitness identifications.

Inadequacies and flaws of Manson/Madison. The Manson/Madison test does not provide that needed assistance. Designed to make reliability the "linchpin" of judicial examination of eyewitness testimony, Manson/Madison falls well short of attaining that goal, for it neither recognizes nor systematically accommodates the full range of influences shown by science to bear on the reliability of such testimony. Only bits and pieces of the science have found their way into the New Jersey courtrooms. See, e.g., Cromedy, 158 N.J. at 132-33 (mandating, in limited circumstances, a jury instruction concerning cross-racial identifications); Romero, 191 N.J. at 76

(mandating a jury instruction that witness confidence may not indicate reliability). Judges and juries alike are commonly left to make their reliability judgments with insufficient and often incorrect information and intuitions.

The specific inadequacies and flaws of the Manson/Madison test are patent:

- The first prong of the test addresses only suggestive police procedures, i.e., system variables. The existence and impact of estimator variables are ignored unless the court finds "unnecessary suggestion" on the part of state actors.
- Manson/Madison allows a defendant to challenge an identification only upon making an initial showing of unduly suggestive police procedures. That protocol fails to assure that a defendant is able to discover and expose all of the facts and factors that bear on the reliability of an identification.
- Judges must decide whether suggestive police procedures created a "very substantial likelihood of irreparable misidentification" and juries must make their reliability determinations "from the totality of the circumstances," but both are

largely left to their own intuitions to decide what is suggestive, what the impact of any perceived suggestion might be or what "circumstances" are relevant to or probative of reliability. The New Jersey model jury charges are appropriately cautionary but similarly lacking in specifics.

- The sole remedy available under Manson/Madison for improper police procedures is suppression of the proffered eyewitness identification. The available evidence indicates that judges rarely impose that draconian remedy: research of court and counsel reveals only one New Jersey appellate decision (unreported) that applies Manson/Madison to suppress an eyewitness identification. See State v. Harrell, 2006 WL 1028768 (N.J. Super. Ct. App. Div. Apr. 20, 2006). Because the test allows (indeed, invites, see Madison, 109 N.J. at 244-45) a finding of reliability notwithstanding impermissible suggestiveness, it appears to be of little value in weeding out unreliable identifications.
- Manson/Madison sets forth five factors that may be found by a court or jury to demonstrate

> reliability notwithstanding a unfairly suggestive procedure, including the "level of certainty demonstrated" by the witness at the identification and the witness's self-reports of his or her degree of attention and opportunity to view the perpetrator at the time of the crime. But the studies uniformly show, and the experts unanimously agree, that confidence is not closely correlated to accuracy, that confidence is easily enhanced by suggestive procedures and post-identification feedback, and that witness self-reports concerning degree of attention and opportunity to view are inflated in tandem with inflated confidence. Thus the science shows that three of the five "reliability" factors are themselves unreliable, for they are strengthened by the suggestive conduct against which they are to be weighed.

The short answer to the Court's question whether the Manson/Madison test and procedures are "valid and appropriate in light of recent scientific and other evidence" is that they are not.

Remedies. The position of the State is that, notwithstanding the scientific findings, "[a]mple reason exists

to believe that jurors, after voir dire, testimony of prosecution and defense witnesses on direct- and cross-examination, arguments of counsel and jury instructions, can and do assess the shortcomings of identification testimony." S40 at 79. The State suggests but one possible supplementation to existing practice: where an uncorroborated identification of a stranger resulted from a lineup procedure at which the administrator indicated to the witness that a suspect was present or failed to warn that the perpetrator may not be in the array, the State acknowledges that the jury should be charged - if the defendant so requests - that the probability of a misidentification may be increased. S40 at 93.

The Public Defender and amicus ACDL propose that an admissibility hearing be required in every identification case, at which the State would bear the burden of establishing the admissibility of the identification. They urge that law enforcement officers be required to comply with "the minimum affirmative guidelines" incorporated in the Attorney General Guidelines and that failure to so comply "should result in a finding of suggestiveness and require suppression of the identification at issue." D114 at 85. As counsel explained, "we're advocating in essence [that] the Guidelines be turned into rules." 32T 20. The Public Defender and ACDL also propose that showup identifications be inadmissible absent a showing of

exigent circumstances requiring an immediate identification procedure.

Amicus Innocence Project abjures any such bright-line rule of suppression and instead urges that, among other procedures, the State be required to produce evidence, in a pretrial hearing at which the eyewitness would "ordinarily" testify, as to the integrity of the eyewitness's memory "just as if it were trace evidence"; that all of the system and estimator variables be open for exploration at that hearing; that to suppress an identification the defendant be required to prove "a substantial probability of a misidentification"; that, in the absence of suppression, the trial court give "appropriate jury instructions" derived from the scientific findings, including "carefully tailored and strongly worded" instructions about any failure by law enforcement to follow the Attorney General's Guideline procedures. IP237 at 18-19. The Public Defender and ACDL endorse that regimen as a less-favored alternative to their preferred remedy of bright-line mandatory suppression rules.

The State's argument that Manson/Madison should remain essentially unchanged appears to be bottomed on a view that the scientific findings over the past thirty years, being only probabilistic in nature, have nothing useful to contribute to judicial decision-making. That view contrasts, of course, with the State's endorsement of the science in the Attorney General

Guidelines, which expressly "incorporate more than 20 years of scientific research on memory and interview techniques." S20 at 1. The science should similarly be harnessed to assist the judicial system. There is no sound reason or policy why the judicial branch should disregard the scientific evidence, continue to focus exclusively on police suggestiveness, ignore other factors bearing on witness reliability, and seek no innovative means to inform judges and juries about the vagaries of eyewitness memory and identification.

The Public Defender and ACDL offer two rationales in support of a mandatory rule of suppression upon a showing of police suggestiveness. First, since courts and juries cannot reliably distinguish between accurate and inaccurate identifications, bright-line rules are the only effective means to suppress false identifications and reduce the incidence of wrongful convictions. Second, they urge, mandatory suppression would have the prophylactic benefit of deterring police resort to suggestive procedures.

It is indeed reasonable to believe that fewer wrongful convictions would occur if improper police procedures mandated suppression of identifications. However, because the actual impact of improper procedures on a given witness in a real-life setting is unknowable, it is equally likely that such a rule would also suppress an unknown number of accurate

identifications, particularly if suppression were mandated, as argued here, for any and every violation of the Attorney General Guidelines. Those benefits and costs of a bright-line suppression rule are not quantifiable. (Professor Penrod's analysis (apparently neither peer-reviewed nor published) showing just a 6% loss of accurate identifications is interesting, but highly speculative. See 20T 55-72.) Bright-line suppression rules thus avoid, rather than enhance, individual assessments of eyewitness reliability. Manson cited those very concerns in rejecting a mandatory suppression rule. 432 U.S. at 112-13, 97 S. Ct. at 2252, 53 L.Ed.2d at 152-53. Mandatory suppression rules have accordingly been imposed only in a few jurisdictions. See Commonwealth v. Austin, 657 N.E.2d 458 (Mass. 1995); Commonwealth v. Johnson, 650 N.E.2d 1257 (Mass. 1995) (IP197); People v. Adams, 423 N.E.2d 379 (N.Y. 1981); State v. Dubose, 699 N.W.2d 52 (Wis. 2005) (D91).

As for deterrence of improper police conduct, that is a worthy goal, but it does not seem to necessitate the remedy of mandatory suppression. If judges and juries are allowed to learn and apply the science concerning improper police conduct in their assessments of eyewitness testimony, their findings could be equally effective in discouraging law enforcement agencies from using improper procedures.

The remedy proposed by the Innocence Project, entitled "The Renovation of Manson: A Dynamic New Legal Architecture For Assessing and Regulating Eyewitness Evidence", is wide-ranging, multifaceted and highly detailed (see IP237); evaluation of its many elements is beyond the call of the present Report. But its design is sound: to maintain the Manson/Madison principle that reliability is the linchpin of the inquiry, to expand that inquiry to include all the variables unaddressed by Manson/Madison and to assure that judges and jurors are informed of and use the scientific findings that bear on reliability. Two core elements of that design are of critical importance.

First, it would be both appropriate and useful for the courts to handle eyewitness identifications in the same manner they handle physical trace evidence and scientific evidence, by placing at least an initial burden on the prosecution to produce, at a pretrial hearing, evidence of the reliability of the evidence. Such a procedure would broaden the reliability inquiry beyond police misconduct to evaluate memory as fragile, difficult to verify and subject to contamination from initial encoding to ultimate reporting. That would effectively set at naught both the Manson/Madison rule that reliability is to be examined only upon a prior showing of impermissible suggestion on the part of state actors and the Ortiz rule, 203 N.J. Super. at 522, that requires the defendant to make, and the prosecution

to overcome, an initial showing of such suggestion. But New Jersey law has long placed on the proponent of physical trace evidence and scientific evidence at least the initial burden to produce evidence in support of its reliability. See, e.g., State v. Chun, 194 N.J. 54, 92 (2008); State v. Harvey, 151 N.J. 117 (1997); State v. Morton, 155 N.J. 383, 446 (1998), cert. denied, 532 U.S. 931, 121 S.Ct. 1380, 149 L.Ed.2d 306 (2001); State v. Brunson, 132 N.J. 377, 393 (1993); State v. Brown, 99 N.J. Super. 22, 27 (App. Div.), certif. denied, 51 N.J. 468 (1968); N.J.R.E. 104 (a), (b). Application of those accepted evidentiary rules to eyewitness testimony would be scientifically proper and procedurally wise.

Second, it would be appropriate and useful for this Court to take all available steps to assure that judges and juries are informed of and guided by the scientific findings. New Jersey law is familiar and comfortable with what Professor Monahan calls “social framework” evidence: scientific research findings, accepted in the scientific community and generalizable to the question at issue, that judges and juries use to determine specific facts. See, e.g., Cromedy, 158 N.J. at 133 (requiring jury instruction concerning cross-racial identifications); Romero, 191 N.J. at 76 (requiring, in limited circumstances, jury instruction concerning confidence and accuracy of eyewitness identifications); cf. State v. J.Q., 130 N.J. 554,

581-82 (1993) (noting the "vital role" of expert testimony, in sexual abuse prosecution, concerning child sexual abuse accommodation syndrome); State v. Kelly, 97 N.J. 178, 210 (mandating admission of expert testimony concerning battered women's syndrome in domestic abuse prosecution). The judicial system should systematically and explicitly adopt and broadly use the scientific findings: in opinions setting standards and procedures for their use; in deciding admissibility issues; in promulgating jury instructions addressing specific variables; in broadening voir dire questioning; and in allowing appropriate expert testimony in all phases of the litigation.

Those two procedures – mandatory pretrial hearings to evaluate eyewitness identifications as trace evidence and judicial adoption and implementation of the scientific findings – would remedy the flaws and inadequacies of Manson/Madison and would appropriately expand and improve the assessment of eyewitness reliability by judges and jurors alike.

Respectfully submitted,

Geoffrey Gaulkin, P.J.A.D.
(retired and temporarily assigned on recall), Special Master

Dated: June 18, 2010

GUIDE TO THE RECORD

The entire record of the remand proceedings is contained on a single DVD. The folders and subfolders on the DVD are as follows:

Report of the Special Master

Proposed findings submitted by parties.

Note that the Innocence Project's proposed findings are two separate documents, one for the science, one for the law.

Exhibits

Subfolder labeled "Exhibits (all parties by number)" contains all exhibits submitted by all parties, organized by party and exhibit number and, within each party's submissions, by exhibit number. Note that all "D" exhibits were submitted on behalf of both defendant and amicus Association of Criminal Defense Lawyers of New Jersey.

Each party's list of exhibits.

Subfolder labeled "Exhibits (by topic)" contains all of the scientific articles submitted by the Innocence Project and many but not all submitted by defendant/ACDLNJ and the State, organized by topic. Within this folder is IP Exhibit #224, a topical list of these exhibits. Innocence Project exhibits can be searched for specific words or phrases in the document.

A "Cross Listings of Exhibits" document, listing exhibits submitted by more than one party.

Transcripts

Subfolder containing all transcripts organized by date.

Subfolder containing the transcripts organized by witness.

Note that witnesses Wells, Penrod and Epstein used PowerPoint slides in testifying, which are marked as exhibits IP22a (Wells), D4 (Penrod) and D99 (Epstein).

A “Transcript List,” a one-page reference sheet containing the transcript citations with its corresponding witness, date, and time. All transcripts can be searched for specific words or phrases.

Subfolder containing transcripts with clarifying “comments” for Innocence Project witnesses Wells and Doyle. These additional transcripts include clarifying comments regarding the specific PowerPoint slides and exhibits referenced in the testimony. These clarifications are in the form of small, lined yellow comment boxes that appear next to where the slide or exhibit is referred to in the transcript. To view the “comment,” simply place the cursor over the comment and/or click on it.

Meta-Analytic Reviews

Subfolder containing all of the meta-analytic reviews.

Meta-analytic review list.

Courts’ Responses to Social Science

Subfolder containing documents related to the Innocence Project memo on courts response to the social science research.

Innocence Project memo on courts’ responses to the social science.

The State’s fifty-state survey.

National Response to Social Science

Subfolder containing documents related to Innocence Project memo on the national response to social science research on eyewitness identification.

Innocence Project memo on the national response to the social science.