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IDENTIFYING THE CULPRIT IN WRONGFUL CONVICTIONS

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IDENTIFYING THE CULPRIT IN WRONGFUL CONVICTIONS

VALENA ELIZABETH BEETY*

INTRODUCTION.....	975
I. STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD.....	981
A. <i>The Use of Forensic Techniques in the Criminal Courtroom</i>	981
B. <i>Developments Since the Release of A Path Forward</i>	984
1. Executive and Legislative Branches: Federal Recommendations and Responses	984
2. The Judicial Branch and State Responses.....	987
II. EYEWITNESS MISIDENTIFICATIONS AND THE NATIONAL ACADEMY OF SCIENCES.....	990
A. <i>The Problem: Memory and Identifications</i>	991
B. <i>The Supreme Court's Non-Solution: The Manson Test</i> ...	994
C. <i>The NAS Solution: State-Level Reform</i>	996
1. New Jersey	996
2. Oregon.....	997
3. Massachusetts	998
III. MOVING AHEAD OF THE SUPREME COURT WITH EYEWITNESS IDENTIFICATION RELIABILITY: NEXT STEPS FOR ALL COURTROOM ACTORS	1000
A. <i>NAS Recommendations for Law Enforcement and Courts</i>	1000
B. <i>NAS Recommendations for Juries</i>	1002
C. <i>Prosecutors and Eliciting Accurate Testimony</i>	1003
CONCLUSION	1004

INTRODUCTION

*"[R]eliability is the linchpin in determining
the admissibility of identification testimony."¹*

* Associate Professor of Law, West Virginia University; Director, West Virginia Innocence Project. Many thanks for comments from Charles DiSalvo and Marjorie McDiarmid, for excellent research assistance provided by Jared Dodson, and for inspiration from Brandon Garrett and the members of both NAS report committees, whose work is transforming our courtrooms.

1. *Manson v. Brathwaite*, 432 U.S. 98, 114 (1977).

How do we correctly identify the culprit of a crime? DNA testing exposes wrongful convictions, and scientific studies increasingly examine and evaluate evidence as data: either accurate or inaccurate.² In the past five years, the National Academy of Sciences (“NAS”) has produced two seemingly divergent reports examining courtroom evidence and accuracy.³ One report concerns forensic science, the other eyewitness identifications; one on science and one on humans.⁴

Their separation is not so simple; indeed, the eyewitness who saw the culprit is often compared to the analyst examining trace forensic evidence. Both put forward vital evidence in a criminal trial, and prosecutors subject both the testifying eyewitness and the lab technician to the pressure of “getting it right.” Yet their binding connection in the NAS reports is of getting it wrong: presenting unreliable evidence in court that leads to wrongful convictions. Forensic fraud and eyewitness misidentification are the two leading causes of wrongful conviction in DNA exonerations.⁵ The NAS reports on each arise from the groundwork of the innocence movement and the reports criticize the current practices on gathering and using eyewitness testimony and forensic evidence in criminal cases.⁶

Over five years have passed since the National Academy of Sciences released *Strengthening Forensic Science in the United*

2. See, e.g., JON B. GOULD ET AL., PREDICTING ERRONEOUS CONVICTIONS: A SOCIAL SCIENCE APPROACH TO MISCARRIAGE OF JUSTICE xi–xvii (2012) (an empirical study conducted by researchers at American University, under a grant from the United States Department of Justice utilizing a “logistic regression” model of 460 cases to identify ten key factors involved in wrongful convictions). The results of this study are also available in Jon B. Gould, et al., *Predicting Erroneous Convictions*, 99 IOWA L. REV. 471 (2014).

3. NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., IDENTIFYING THE CULPRIT: ASSESSING EYE WITNESS IDENTIFICATION (2014) [hereinafter IDENTIFYING THE CULPRIT], available at <http://www.nap.edu/catalog/18891/identifying-the-culprit-assessing-eyewitness-identification>; NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009) [hereinafter A PATH FORWARD], available at <http://www.nap.edu/catalog/12589/strengthening-forensic-science-in-the-united-states-a-path-forward>.

4. See IDENTIFYING THE CULPRIT, *supra* note 3; A PATH FORWARD, *supra* note 3.

5. See *The Causes of Wrongful Conviction*, INNOCENCE PROJECT, <http://www.innocenceproject.org/causes-wrongful-conviction> (last visited Dec. 15, 2015) (finding that out of 325 DNA exoneration cases, 235 cases involved eyewitness misidentification and 154 cases involved unvalidated/improper forensics).

6. See IDENTIFYING THE CULPRIT, *supra* note 3, at 1, 11; A PATH FORWARD, *supra* note 3, at 45.

States: A Path Forward (“*A Path Forward*”). The criticisms at the core of *A Path Forward* have dynamically changed the relationship between law and forensic sciences.⁷ Due to the findings of this critical report, the Department of Justice has now established broad oversight of forensic crime labs.⁸ In addition, some states are removing crime labs from police control.⁹ The Federal Bureau of Investigation (“FBI”) is leading a national reopening of closed cases involving hair analysis—admitting to misleading testimony by agents.¹⁰ Most important, exonerations due to these changes continue to expose false findings in forensic science disciplines.¹¹

A Path Forward questioned whether forensic science results are reliable or even valid when used in criminal trials.¹² Indeed the report, questioning even fingerprint evidence, found only DNA evidence to be completely infallible.¹³ *A Path Forward* garnered the attention of the legal community to the importance of the forensic sciences, particularly in innocence litigation.¹⁴ Now, will similar reform be implemented in regard to eyewitness identification?

7. A PATH FORWARD, *supra* note 3.

8. See, e.g., *National Commission on Forensic Science*, U.S. DEPT OF JUSTICE, <http://www.justice.gov/ncfs> (last visited Nov. 9, 2015).

9. SANDRA GUERRA THOMPSON, COPS IN LAB COATS: CURBING WRONGFUL CONVICTIONS THROUGH INDEPENDENT FORENSIC LABORATORIES 183–87 (2015).

10. See, e.g., Press Release, Innocence Project, Innocence Project and NADCL Announce Historic Partnership with the FBI and Department of Justice on Microscopic Hair Analysis Cases (July 18, 2013), <http://www.innocenceproject.org/news-events-exonerations/press-releases/innocence-project-and-nadcl-announce-historic-partnership-with-the-fbi-and-department-of-justice-on-microscopic-hair-analysis-cases>.

11. See Press Release, Innocence Project, National Academy of Sciences Urges Comprehensive Reform of U.S. Forensic Sciences (Feb. 18, 2009), <http://www.innocenceproject.org/news-events-exonerations/press-releases/national-academy-of-sciences-urges-comprehensive-reform-of-u-s-forensic-sciences>. To date, approximately 50% of all wrongful convictions overturned by post-conviction DNA evidence involved invalidated or improper forensic science. See *Unvalidated or Improper Forensic Science*, INNOCENCE PROJECT, <http://www.innocenceproject.org/understand/Unreliable-Limited-Science.php> (last visited Nov. 9, 2015).

12. A PATH FORWARD, *supra* note 3, at 3.

13. *Id.* at 7–8 (providing “[w]ith the exception of nuclear DNA analysis . . . no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source”).

14. The Report even spawned a new degree program that analyzes the intersection between forensic science and law. See *L.L.M. in Forensic Justice*, W. VA. UNIV. C. OF L., <http://law.wvu.edu/forensic-llm> (last visited Nov. 9, 2015).

In *Manson v. Brathwaite*, the United States Supreme Court created a test to determine whether eyewitness identifications should be admitted as evidence. The Court held that the *reliability* of an eyewitness identification was the most important factor in determining its admissibility.¹⁵ That was in 1977. Almost forty years later, hundreds of research projects and papers have shown exactly how *unreliable* the Court's admissibility test is.¹⁶

The ineffectiveness of the *Manson* test may be due to the Supreme Court's willingness to remain "content to rely upon the good sense and judgment of American juries."¹⁷ In its opinion, "[j]uries are not so susceptible that they cannot measure intelligently the weight of identification testimony that has some questionable feature."¹⁸ Unfortunately, the current admissibility test provides little guidance to jurors. The *Manson* test's five factors—the witness's opportunity to view the criminal during the crime, degree of attention, accuracy of prior description, level of certainty, and the length of time between incident and identification—are poor indicators of a witness's reliability.¹⁹

The National Academy of Sciences' new report, *Identifying the Culprit: Assessing Eyewitness Identification* ("*Identifying the Culprit*"), may be the impetus needed to change the national governing standard.²⁰ The report takes readers above and beyond the current *Manson* test.²¹ *Identifying the Culprit* may have a national impact on our executive, judicial, and legislative branches similar to that of *A Path Forward*. The Supreme Court could wisely use the NAS findings to completely overhaul the current test for admissibility of eyewitness testimony.

Will the changes recommended by *Identifying the Culprit* endanger what could potentially be the most powerful evidence presented in a case? A confident victim who identifies a perpetrator can often convince a jury to convict, even without corroborating physical evidence.²² As prominent eyewitness scholar Dr. Elizabeth

15. *Manson v. Brathwaite*, 432 U.S. 98, 114 (1977).

16. See *A PATH FORWARD*, *supra* note 3, at 31.

17. *Manson*, 432 U.S. at 116.

18. *Id.*

19. See *Neil v. Biggers*, 409 U.S. 188, 199–200 (1972).

20. See *IDENTIFYING THE CULPRIT*, *supra* note 3, at 13–14.

21. See *id.* at 18–19 (discussing the test established in *Manson v. Brathwaite* for determining the reliability of eyewitness identification).

22. See, e.g., *id.* at 10 (detailing the case of Jennifer Thompson misidentifying Ronald Cotton as the man that raped her, which resulted in him serving ten and a half years before DNA evidence exonerated him).

F. Loftus²³ put it, “[E]yewitness testimony is likely to be believed by jurors, especially when it is offered with a high level of confidence, *even though the accuracy of an eyewitness and the confidence of that witness may not be related to one another at all.*”²⁴

Identifying the Culprit calls into question the human capacity to accurately remember events. The report challenges “the malleable nature of human visual perception, memory, and confidence; the imperfect ability to recognize individuals.”²⁵ More damning, the report identifies and disparages the current law enforcement policies and procedures that “can result in mistaken identifications with significant consequences.”²⁶ *Identifying the Culprit* bluntly “recommends” that state police and prosecutors overhaul their eyewitness identification protocols and procedures.²⁷

Identifying the Culprit also presciently suggests actions that are now being taken to reform police protocol.²⁸ One of the report’s recommendations is to video record witness identifications.²⁹ Had *Identifying the Culprit* been released a few months later, perhaps it would have incorporated the growing reality of body cameras for law enforcement,³⁰ discussing how body cameras facilitate recording far

23. Dr. Loftus is a Distinguished Professor of Social Ecology and Professor of Law and Cognitive Science at the University of California, Irvine. *Elizabeth F. Loftus*, U.C. IRVINE SCH. OF SOC. ECOLOGY, <http://socialecology.uci.edu/faculty/eloftus> (last visited Nov. 9, 2015).

24. *Watkins v. Sowders*, 449 U.S. 341, 352 (1981) (Brennan, J., dissenting) (alteration in original) (emphasis added) (quoting ELIZABETH F. LOFTUS, EYEWITNESS TESTIMONY 19 (1979)).

25. IDENTIFYING THE CULPRIT, *supra* note 3, at 7.

26. *Id.* at 7.

27. *Id.* at 5–7 (such recommendations include, for example, training law enforcement officers in eyewitness identification, implementing double-blind lineups and photo array procedures, standardized witness instructions, and related procedures).

28. *Id.* at 5–7.

29. *Id.* at 108–09.

30. See, e.g., Dominic Yobbi, *Illinois Governor Signs Police Body Camera Bill Into Law*, JURIST (Aug. 13, 2015), <http://jurist.org/paperchase/2015/08/illinois-governor-signs-police-body-camera-bill-into-law.php> (discussing Illinois SB 1304, which implements body cameras for police officers, establishes a database of officers fired or who resigned due to misconduct, requires an independent investigation for a police-related death, and expands training for law enforcement). The White House has also signaled body cameras for police officers as a pivotal component in “enhancing the fairness and effectiveness of the criminal justice system,” noting a funding initiative by the Department of Justice to purchase cameras and train officers on their use. *Fact Sheet: Enhancing the Fairness and Effectiveness of the Criminal Justice System*, White House, Office of the Press Secretary, July 14, 2015.

more interactions with witnesses than was possible before. The police shootings and brutal treatment of African-American men³¹ emphasize the importance of recording interactions with civilians, rather than relying solely on the only eyewitnesses often present: the officer and the person detained.

These recommendations for reform are uncomfortable, and yet *Identifying the Culprit* was drafted using the input of a committee composed of law enforcement officers, prosecutors, defense attorneys, professors, and scientists.³² This diverse committee adopted the same purpose as articulated by the Forensics NAS Report Committee in *A Path Forward*: to protect the innocent from wrongful conviction and to protect society from true perpetrators of crimes.³³ Both reports seek to bring together the scientific, legal, and law enforcement communities to pursue these noble goals.

Finally, the overarching issue of prosecutorial pressure for specific testimony must be addressed with both eyewitness and forensic evidence. Prosecutors may encourage witnesses to testify with absolute confidence that the defendant is the perpetrator. Yet, forensic science is often not capable of an exact match to a defendant,³⁴ and eyewitness identification can be influenced by suggestive techniques that create false confidence.³⁵

Both NAS reports ultimately concern themselves with reliability and accuracy. Forensic findings and eyewitness testimony are both incredibly influential in the courtroom. However, errors have inculpated many innocent men and women.³⁶ Both reports address

("The Department of Justice announced earlier this year a \$263 million initiative to expand funding and training to law enforcement agencies to advance community policing initiatives. The proposal includes a \$75 million investment over three years that could help purchase 50,000 body-worn cameras. In May 2015, the Office of Justice Programs announced a \$20 million solicitation to help law enforcement agencies purchase body-worn cameras, and its Bureau of Justice Assistance released an online toolkit to help communities implement body-worn camera programs.").

31. See, e.g., Sandhya Somashekhar, Wesley Lowery & Keith L. Alexander, *Black and Unarmed: A year after Michael Brown's fatal shooting, unarmed black men are seven times more likely than whites to die by police gunfire*, WASH. POST, Aug. 9, 2015, at A1, available at <http://www.washingtonpost.com/sf/national/2015/08/08/black-and-unarmed/>.

32. See IDENTIFYING THE CULPRIT, *supra* note 3, at v-x.

33. *Id.* at 11-12; see A PATH FORWARD, *supra* note 3, at 17.

34. See A PATH FORWARD, *supra* note 3, at 43.

35. Brandon L. Garrett, *Eyewitnesses and Exclusion*, 65 VAND. L. REV. 451, 452 (2012) (finding that 78% of exonerations with eyewitness misidentification involved suggestive techniques).

36. See The Nat'l Registry of Exonerations, *Number of Exonerations by Contributing Factor*, UNIV. MICH. L. SCH., <https://www.law.umich.edu/special/>

the potency of these types of evidence.³⁷ The committee that was appointed to draft *Identifying the Culprit* looked to scientific studies spanning 30 years—most of which had been completed since the last authoritative ruling by the Supreme Court on eyewitness identifications.³⁸ The committee also heard presentations from fellow scientists, police officers, and members of the legal community.³⁹ *Identifying the Culprit* is useful both for its amalgamation of data as well as for its projection of change for criminal justice, inside and outside of the courtroom.

This piece begins with a sketch of *A Path Forward* and the impact it has had on all branches of government. My discussion of the growing influence of that report and the resulting reform of the fields of forensic science then leads to questions about the reliability of eyewitness evidence. After discussing *Identifying the Culprit*, this article culminates in addressing the impact these reports have had in cases of innocence, and discussing the problem of prosecutorial pressure in shaping and distorting forensic and eyewitness testimony. Both reports can influence the criminal justice system and thereby attain their joint goal of identifying the true perpetrator.

I. STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD

A. *The Use of Forensic Techniques in the Criminal Courtroom*

On February 18, 2009, the National Academy of Sciences released its groundbreaking report, *A Path Forward*.⁴⁰ The Committee, which was composed of scientific and legal experts, spent two years holding public hearings at the request of Congress.⁴¹ The report that resulted electrified the field of forensics.

A Path Forward found that forensic sciences were failing in the courtroom.⁴² In court, analysts were routinely over-representing the

exoneration/Pages/ExonerationsContribFactorsByCrime.aspx (last visited Nov. 9, 2015) (tracking wrongful convictions and exonerations based on forensic fraud and eyewitness misidentification).

37. IDENTIFYING THE CULPRIT, *supra* note 3, at 9; A PATH FORWARD, *supra* note 3, at 4.

38. IDENTIFYING THE CULPRIT, *supra* note 3, at 71–102.

39. *Id.* at 135.

40. A PATH FORWARD, *supra* note 3.

41. *See id.*

42. *See id.* at 4.

accuracy of their findings.⁴³ Analysts testified to perfect “matches” of crime scene evidence to defendants, when such a match—“individualization”—was impossible.⁴⁴ Chastising decades of courtroom representations of exact matches, the report found that no forensic discipline was capable of individualization, save DNA analysis.⁴⁵

Outside of the courtroom, analysts needed increased oversight, forensic disciplines needed heightened research, and crime labs needed financial support.⁴⁶ The majority of crime labs are located within police departments.⁴⁷ When police departments underfund the scientific work of their labs, problems of fraud, incompetence, cheating, backlogged tests, and drug theft become rampant.⁴⁸ Indeed, one study shows at least fifty national laboratories reported destruction of evidence, analyst fraud, failed proficiency tests, misleading testimony, or drug tampering between 2005–2011.⁴⁹ *A Path Forward* demanded a reckoning of these issues.

A Path Forward also spotlighted the lack of rigorous scientific evaluation of hair microscopy, bite mark comparison, firearms, tool marks, and shoe print analysis.⁵⁰ This historical lack of scientific

43. *Id.* at 45.

44. *See generally* THOMPSON, *supra* note 9, at 92–109.

45. A PATH FORWARD, *supra* note 3, at 7; *see also* NIST Tech Beat, *New NIST Center of Excellence to Improve Statistical Analysis of Forensic Evidence* (May 26, 2015), <http://www.nist.gov/forensics/center-excellence-forensic052615.cfm> (“At present, only DNA forensics has a strong, science-based statistical foundation for accuracy, reliability and data interpretation that supports its use as evidence in criminal court cases.”).

46. *See* A PATH FORWARD, *supra* note 3, at 79, 226–30.

47. *Id.* at 183.

48. *See* THOMPSON, *supra* note 9, at 37–51 (discussing the problems caused by forensic labs in police departments being underfunded); *see also* Valena E. Beety, *Cops in Lab Coats and Forensics in the Courtroom*, OHIO J. CRIM. JUST. (forthcoming 2016) (reviewing SANDRA GUERRA THOMPSON, *COPS IN LAB COATS: CURBING WRONGFUL CONVICTIONS THROUGH INDEPENDENT FORENSIC LABORATORIES* (2015)).

49. THOMPSON, *supra* note 9, at 194; Memorandum from Marvin E. Schechter to the N.Y. State Comm’n of Forensic Sci. (Mar. 25, 2011), *available at* <http://njdc.info/wp-content/uploads/2013/12/Memo-Re-ASCLD-Lab-and-Forensic-Lab-Accreditation.pdf>.

50. *See generally* A PATH FORWARD, *supra* note 3. The disciplines analyzed by A PATH FORWARD were biological evidence (DNA analysis), analysis of controlled substances, fingerprints (friction ridge analysis), pattern and impression evidence, tool mark and firearm identification, hair analysis, fiber evidence analysis, questioned document examination, paint and coatings analysis, explosives and fire analysis, forensic odontology (bite marks), bloodstain and pattern analysis, and digital and multimedia analysis.

evaluation is rooted in the creation of forensic sciences, which occurred at crime scenes rather than in laboratories.⁵¹ Such forensic disciplines relied on subjective assessments without objective standards and protocols.⁵² For example, the general analysis for fingerprints relies on a subjective interpretation of markings and on finding “that sufficient quantity and quality of friction ridge detail is in agreement between the latent print and the known print.”⁵³ What constitutes “sufficient” varies from analyst to analyst.⁵⁴ The subsequent use and representation of these subjective forensic findings in criminal cases compounded the concerns of the Forensics NAS Report Committee.⁵⁵ *A Path Forward* questioned how forensic techniques could lack scientific validity yet be used freely in a courtroom.⁵⁶

The use of these forensic techniques has directly led to the criminal convictions of innocent individuals.⁵⁷ For example, Kennedy Brewer, a man from Mississippi, was exonerated a year before the report was released.⁵⁸ Brewer was wrongfully convicted based in part on the testimony of a forensic odontologist, Dr. Michael West.⁵⁹ Dr. West testified that Brewer’s top two teeth matched marks on the victim’s body, a three-year-old girl.⁶⁰ In Mr. Brewer’s words:

A dentist at my trial said that I bit the victim, and those were my teeth marks on her body. I knew they couldn’t have

51. See THOMPSON, *supra* note 9, at 85–87.

52. See A PATH FORWARD, *supra* note 3, at 14.

53. *Id.* at 138. The standard analysis process for fingerprints is ACE-V (Analysis, Comparison, Evaluation, and Verification), which “does not specify particular measurements or a standard test protocol, and examiners must make subjective assessments throughout.” *Id.* at 138–39.

54. *Id.* at 155 (finding “sufficient agreement” is not a measureable standard and cannot be precisely replicated).

55. See *id.* at 7–9.

56. See *id.* at 52–53 (referencing the lack of standards for quality assurance, quality control, and scientific validation; the inadequate assessments of the reliability of forensic testing methods and evidence presented without a proper scientific basis).

57. See, e.g., Kennedy Brewer, INNOCENCE PROJECT, http://www.innocenceproject.org/Content/Kennedy_Brewer.php (last visited Nov. 9, 2015).

58. See *id.*

59. See *Two Innocent Men Cleared Today in Separate Murder Cases in Mississippi, 15 Years after Wrongful Convictions*, INNOCENCE PROJECT (Feb. 15, 2008), http://www.innocenceproject.org/Content/Two_Innocent_Men_Cleared_Today_in_Separate_Murder_Cases_in_Mississippi_15_Years_after_Wrongful_Convictions.php.

60. *Id.*; Kennedy Brewer, *supra* note 57.

been my teeth; he was wrong. But the jury believed it. He sounded so sure that those were my teeth marks and nobody else's. It was crazy. It wasn't the truth—but it helped send me to death row.⁶¹

Brewer spent seven years on death row and eight years in jail awaiting trial.⁶²

B. Developments Since the Release of A Path Forward

1. Executive and Legislative Branches: Federal Recommendations and Responses

In the six years since *A Path Forward* was published, its recommendations have been adopted on a grand scale.⁶³ Its primary recommendation was that Congress create a federal, independent National Institute of Forensic Science.⁶⁴ This new, independent, science-based federal entity would direct research in forensic sciences and oversee forensic science laboratories and their standards and protocols nationally.⁶⁵

In Fall 2014, a large part of this recommendation was achieved when the National Institute of Standards and Technology ("NIST") announced it would establish a Forensic Science Center of Excellence devoted to collaborative, interdisciplinary research in forensics.⁶⁶ In Spring 2015, the NIST-sponsored Forensic Science Center of Excellence was established at Iowa State University as a partnership between Iowa State, Carnegie Melon University, the

61. *Reactions to Groundbreaking National Academy of Sciences Report Urging Reform in U.S. Forensic Sciences*, INNOCENCE PROJECT (Feb. 18, 2009), http://www.innocenceproject.org/Content/Reactions_to_Groundbreaking_National_Academy_of_Sciences_Report_Urging_Reform_in_US_Forensic_Sciences.php; see Valena Elizabeth Beety, *The Death Penalty: Ethics and Economics*, 81 MISS. L.J. 1437 (2012) (examining the wrongful convictions of Kennedy Brewer and Levon Brooks due to the forensic fraud of Dr. Michael West).

62. See *Kennedy Brewer*, *supra* note 57. Brewer's conviction was reversed after seven years, but the prosecutor immediately re-indicted him, leaving Brewer to languish in jail for eight years awaiting a retrial, which never came. The case was ultimately dismissed in 2008.

63. See Press Release, NIST: Ctrs. of Excellence, NIST to Establish Research Center of Excellence for Forensic Science (Aug. 19, 2014), <http://www.nist.gov/coe/forensics/forensic-081914.cfm>.

64. See *A PATH FORWARD*, *supra* note 3, at 19.

65. See *id.* at 267–68. This governmental entity was to set national standards for forensic sciences and also enforce those standards.

66. Press Release, NIST: Ctrs. of Excellence, *supra* note 63.

University of Virginia, and the University of California, Irvine.⁶⁷ The Center is focused on increasing the reliability of pattern and digital forensic evidence.⁶⁸

To achieve federal oversight of crime labs and establish national standards and protocols as well as to create Scientific Working Groups,⁶⁹ NIST now houses forensic science discipline-specific guidance groups to enhance quality assurance and quality control.⁷⁰ NIST administers and coordinates these twenty-three Organizations of Scientific Area Committees ("OSAC").⁷¹ Each OSAC conducts research on the reliability of forensic science methods as well as validation studies for forensic science techniques and provides technical guidance for forensic science measurements.⁷² Most important, each OSAC is expected to create a standard operating procedure for its specific forensic discipline and then to submit the operating procedure to the Legal Resource Committee for review.⁷³ Experts in their field will create uniform procedures and, once these procedures are implemented, forensic disciplines will be substantially more reliable.⁷⁴

In 2013, NIST and the Department of Justice ("DOJ") signed an agreement to work together to strengthen the validity and reliability of forensic sciences.⁷⁵ The result of this collaboration was the creation of the National Commission on Forensic Science ("NCFS"), co-chaired by members from NIST and DOJ.⁷⁶ The NCFS not only advises the Attorney General specifically on issues of science in the

67. Press Release, NIST: Forensics, New NIST Center of Excellence to Improve Statistical Analysis of Forensic Evidence (May 26, 2015), <http://www.nist.gov/forensics/center-excellence-forensic052615.cfm>.

68. See *id.* ("The work at the center will complement NIST's own multidisciplinary research program in forensic science, as well as collaborative work with the Department of Justice.").

69. See *Scientific Working Groups*, NIST: LAW ENFORCEMENT STANDARDS OFFICE (July 10, 2013), http://www.nist.gov/oles/forensics/scientific_working_groups.cfm.

70. See *Organization of Scientific Area Committees (OSAC)*, NIST: FORENSICS (Aug. 13, 2015), <http://www.nist.gov/forensics/osac.cfm>.

71. OSAC will produce best practices, guidelines, and technical standards to improve quality and consistency of working within forensic science disciplines. See *id.*

72. *OSAC Subcommittees*, NIST: FORENSICS, <http://www.nist.gov/forensics/osac/subs.cfm> (last updated Oct. 26, 2015).

73. See *id.*

74. See *id.*

75. See *National Commission on Forensic Science*, U.S. DEP'T OF JUSTICE, <http://www.justice.gov/ncfs> (last visited Nov. 9, 2015).

76. *Id.*

courtroom, but also recommends standards and policies for federal laboratories.⁷⁷ In 2014, the DOJ announced the appointment of 30 experts to the NCFS.⁷⁸ These appointees “work to improve the practice of forensic science by developing guidance concerning the intersections between forensic science and the criminal justice system,” and formulate policy recommendations for the U.S. Attorney General.⁷⁹

Since its inception, the NCFS has produced several publications on policy recommendations.⁸⁰ These include recommended accreditation standards for forensic science service providers,⁸¹ recommended accreditation standards for medical investigators and coroners,⁸² and recommended procedures for introducing forensic evidence.⁸³ To date, the NCFS has held seven meetings.⁸⁴ These

77. *See id.*; Memorandum of Understanding Between the Department of Justice and The National Institute of Science and Technology (Aug. 5, 2015), *available at* <http://www.justice.gov/ncfs/file/761051/download>. NCFS also has subcommittees in Accreditation and Proficiency Testing, Interim Solutions, Medicolegal Death Investigation, Reporting and Testimony, Scientific Inquiry and Research, and Training on Science and Law. *See Subcommittees*, U.S. DEP’T OF JUSTICE, <http://www.justice.gov/ncfs/subcommittees> (last visited Nov. 9, 2015).

78. Press Release, Justice News: U.S. Departments of Justice and Commerce Name Experts to First-ever National Commission on Forensic Science, U.S. DEP’T OF JUSTICE (Jan. 10, 2014), <http://www.justice.gov/opa/pr/us-departments-justice-and-commerce-name-experts-first-ever-national-commission-forensic>.

79. *Id.*

80. *Work Products Adopted by the Commission*, U.S. DEP’T OF JUSTICE, <http://www.justice.gov/ncfs/work-products-adopted-commission> (The work products adopted by the NCFS are Final Directive Recommendation on Proposal to Survey Forensic Capabilities, Recommendation on Universal Accreditation, Views Document on Defining Forensic Science and Related Terms, Recommendation on AFIS Interoperability, Recommendation on Root Cause Analysis, Views Document on Scientific Literature in Support of Forensic Science and Practice, Policy Recommendation on Certification of Medicolegal Death Investigators, Policy Recommendation on Accreditation of Medical Examiner and Coroner Offices, Recommendation on Electric Networking of Medical Examiner and Coroner Offices, Views Document on Increasing the Supply of Forensic Pathologists, Views Document on Inconsistent Terminology, and Views Document on Pretrial Discovery of Forensic Materials.) (last visited Nov. 9, 2015).

81. Policy Recommendation, Universal Accreditation, NAT’L INST. OF STANDARDS & TECH. (Apr. 10, 2015), <http://www.justice.gov/ncfs/file/477851/download>.

82. Policy Recommendation, Accreditation of Medicolegal Death Investigation Offices, NAT’L INST. OF STANDARDS & TECH. (Jan. 30, 2015) <http://www.justice.gov/ncfs/file/787236/download>.

83. Policy Recommendation, Pretrial Discovery of Forensic Materials, NAT’L INST. OF STANDARDS & TECH. (Aug. 11, 2015), <http://www.justice.gov/ncfs/file/>

meetings are open to public comment.⁸⁵ In April 2015, the NCFS was re-chartered for another two years.⁸⁶

Finally, the White House has also shown its support of these changes by releasing *Strengthening Forensic Science: A Progress Report* through its Office of Science and Technology Policy ("OSTP").⁸⁷ The Director of OSTP, John Holdren, spoke at the inaugural NCFS meeting in February 2014.⁸⁸ In July 2015, the Associate Director of OSTP gave the opening address at the first ever symposium on Forensic Science Error Management, which was sponsored by NIST.⁸⁹

These actions show combined legislative and executive support for forensic reform. These actions would have been unthinkable before the publication of *A Path Forward*. Now, not only are multiple branches of government involved, but forensic analysts feel compelled to self-regulate, self-evaluate, and provide stricter, more effective guidelines for conducting their own work.

2. The Judicial Branch and State Responses

In the courtroom, *A Path Forward* is used in habeas petitions and in pretrial motions for Daubert hearings.⁹⁰ *A Path Forward* is slowly bringing rigor to the process of qualifying forensic experts and has provided an opening to challenge faulty forensics and free

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84. See *Term 1 – Meetings 1-7*, U.S. DEPT OF JUSTICE, <http://www.justice.gov/ncfs/term-1-meetings-1-7> (last visited Nov. 9, 2015).

85. *Written Public Comments*, U.S. DEPT OF JUSTICE, <http://www.justice.gov/ncfs/written-public-comments> (last visited Nov. 9, 2015).

86. *U.S. Departments of Justice and Commerce Name Six Experts as New Members of National Commission on Forensic Science*, NAT'L INST. OF STANDARDS & TECH. (Aug. 6, 2015), http://www.nist.gov/forensics/new_members_national_commission_forensic.cfm.

87. See EXEC. OFFICE OF THE PRESIDENT OF THE U.S., *STRENGTHENING FORENSIC SCIENCE: A PROGRESS REPORT* (2014), available at http://www.whitehouse.gov/sites/default/files/microsites/ostp/forensic_science_progress_2-14-14.pdf.

88. See John Holdren, Dir., OSTP, Remarks delivered before the DOJ-NIST Commission on Forensic Science (Feb. 3, 2014), available at http://www.whitehouse.gov/sites/default/files/microsites/ostp/holdren_forensics_02-03-14_asdelivered.pdf.

89. See Jo Handelsman, Assoc. Dir. Sci., White House Office of Sci. and Tech. Policy, Opening Remarks at the International Forensics Symposium on Forensic Science Error Management (July 21, 2015).

90. See, e.g., *United States v. Stone*, 848 F. Supp. 2d 714, 716–17 (E.D. Mich. 2012); *United States v. Otero*, 849 F. Supp. 2d 425, 430 (D.N.J. 2012), *aff'd*, 557 F. App'x 146 (3d Cir. 2014); *United States v. Willock*, 696 F. Supp. 2d 536, 555 (D. Md. 2010); *Coronado v. Texas*, 384 S.W.3d 919, 922 (Tex. App. 2012).

wrongfully convicted individuals.⁹¹ Most courtroom challenges, however, have been spurred on by legislative action on the state level.⁹²

In 2013, the Texas Legislature passed a “Junk Science Writ,” as it is colloquially known.⁹³ The bill allowed state inmates to challenge their convictions on the basis of faulty forensic science evidence and to seek a new trial.⁹⁴ In January 2015, the California legislature established a similar avenue for state inmates to challenge forensic fraud.⁹⁵

Nationally, state cases are being reopened due to forensic fraud that occurred at the highest level: the FBI.⁹⁶ In 2013, the FBI—after its own internal investigation—publicly stated that its hair examiners regularly gave exaggerated, scientifically invalid testimony about matches between strands of hair.⁹⁷ Exemplifying the challenges facing forensic sciences described by *A Path Forward*, hair microscopy is the unregulated comparison of hairs under a microscope by the naked eye, largely variable according to the examiner, with no national standards and an eminent danger of confirmation bias. And yet for decades, forensic experts compared hair samples known to be from a suspect with hair samples found at the crime scene and claimed exact “matches.”⁹⁸ These claims rest on the assumptions that a hair examiner can associate two samples, and also provide a scientifically valid estimate of the rareness or

91. *But see* Beety, *supra* note 48.

92. *See, e.g.*, TEX. CODE CRIM. PROC. ANN. art. 11.073 (West 2015).

93. *Id.*

94. *See* Maurice Chammah, *Old Convictions, New Science*, MARSHALL PROJECT (May 28, 2015), <https://www.themarshallproject.org/2015/05/28/old-convictions-new-science>.

95. *See* CAL. PENAL CODE § 1473 (West Supp. 2015); *California Man's Murder Case Prompts New State Law*, COURIER (Feb. 15, 2015), <http://thecourier.com/national-news/2015/02/15/california-mans-murder-case-prompts-new-state-law/>.

96. Spencer S. Hsu, *FBI Admits Flaws in Hair Analysis Over Decades*, WASH. POST, Apr. 19, 2015, at A1, A20.

97. *See* Press Release, FBI, FBI Testimony on Microscopic Hair Analysis Contained Errors in at Least 90 Percent of Cases in Ongoing Review (Apr. 20, 2015), <https://www.fbi.gov/news/pressrel/press-releases/fbi-testimony-on-microscopic-hair-analysis-contained-errors-in-at-least-90-percent-of-cases-in-ongoing-review>; *see also* Press Release, Innocence Project, Innocence Project and NACDL Announce Historic Partnership with the FBI and Department of Justice on Microscopic Hair Analysis Cases (July 18, 2013), <http://www.innocenceproject.org/news-events/exonerations/press-releases/innocence-project-and-nacdl-announce-historic-partnership-with-the-fbi-and-department-of-justice-on-microscopic-hair-analysis-cases>.

98. *See* Press Release, FBI, *supra* note 97; Press Release, Innocence Project, *supra* note 97.

frequency of said association. Again, and as noted by *A Path Forward*, mitochondrial hair analysis was, and still is, incapable of such individualization.⁹⁹

Of the first 200 cold cases internally reviewed by the FBI, 95% contained false testimony.¹⁰⁰ The FBI recognized and acknowledged the harmful effects of such misleading testimony,¹⁰¹ categorizing testimony as committing one of three errors: stating an exact match, stating the statistical probability or likelihood of a match, or citing a number of others cases to add to the predictive value of finding a match in this case.¹⁰² The FBI now says “the only appropriate conclusion” by FBI hair examiners is “that a contributor of a known sample could be included in a pool of people of unknown size, as a possible source of the hair evidence (without in any way giving probabilities, as an opinion to the likelihood or rareness of the positive association, or the size of the class).”¹⁰³

99. See *A PATH FORWARD*, *supra* note 3, at 47.

100. The FBI has now stated that “the only appropriate conclusion” by FBI hair examiners is “that a contributor of a known sample could be included in a pool of people of unknown size, as a possible source of the hair evidence (without in any way giving probabilities, as an opinion to the likelihood or rareness of the positive association, or the size of the class.)” Norman L. Reimer, *The Hair Microscopy Review Project: An Historic Breakthrough for Law Enforcement and a Daunting Challenge for the Defense Bar*, *CHAMPION* (July 2013), <http://www.nacdl.org/Champion.aspx?id=29488> (last visited Nov. 13, 2015).

101. See Press Release, FBI, *supra*, note 97. The DOJ is currently working with the FBI to identify the cases where these errors were made by FBI hair examiners. *Id.*

102. A Type 1 error occurred if the FBI analyst implied that the hair sample could be associated with a specific individual; as noted above, hair microscopy is too unreliable to make such a “match.” See *A PATH FORWARD*, *supra* note 3, at 47. See also Christina Sterbenz, *Prosecutors Around the US are Relying on Shady Science—and It’s a ‘Mass Disaster’*, *BUSINESS INSIDER* (May 7, 2015, 2:57 PM), <http://www.businessinsider.com/its-terrifying-that-prosecutors-are-relying-on-hair-microscopy-2015-5?op=1> (“When it comes down to it, it’s one human being eyeballing one hair compared to another hair,” Lindsay Herf, post-conviction project counsel at the National Association of Criminal Defense Lawyers (NACDL), told Business Insider.”). A Type 2 error occurred if the examiner opined on a statistical probability of a “match,” describing the likelihood or rareness of the samples matching. See Reimer, *supra* note 100. Finally, a Type 3 error involved the analyst citing the number of cases in which an individual could not be identified to imply a predictive value to the conclusion that there was a “match” in the present case. See *id.*

103. Chris Fabricant, *Memorandum of Potential Post-Conviction Arguments and Authority Based on Discredited Hair Microscopy Analysis*, *INNOCENCE PROJECT*, at 1 (2015), http://www.americanbar.org/content/dam/aba/events/criminal_justice/Forensics_Update_Post_Conviction_Discredited_Science.authcheckdam.pdf; see also Beety, *supra* note 48.

Testimony claiming "matches" led to the conviction of innocent people.¹⁰⁴ Most notably, but far from alone, Santae Tribble was wrongfully convicted for 28 years when FBI forensic analysts confused Tribble's hair with a dog's hair.¹⁰⁵ In partnership with the Innocence Project, the National Association of Criminal Defense Attorneys, and the DOJ, the FBI agreed to provide free DNA testing of any remaining evidence in the acknowledged cases. The DOJ agreed to waive any statute of limitation barriers.¹⁰⁶

The audit of cases has now expanded beyond the FBI. Some states and local innocence organizations are reviewing testimony by state lab analysts in convictions reliant on mitochondrial hair findings. The concern? The same FBI analysts providing fraudulent matches in their own cases trained numerous state hair analysts to testify in the same improper fashion. Thus far, the state initiatives include Texas, New York, Illinois, and North Carolina.¹⁰⁷

II. EYEWITNESS MISIDENTIFICATIONS AND THE NATIONAL ACADEMY OF SCIENCES

Both *A Path Forward* and *Identifying the Culprit* grapple with reforming a system in which innocent people have been falsely convicted of crimes based on unreliable evidence.¹⁰⁸ A common flaw has afflicted courtroom practice regarding both forensic sciences and the treatment of eyewitness identification: both were developed in a bubble divorced from the findings of science. Forensic sciences developed in the criminal justice system rather than in the science lab, gaining reliability in a legal framework rather than in a scientific one.¹⁰⁹ Likewise, courts have bolstered the credibility of eyewitness identification, relying on judicial precedent rather than on scientific research.¹¹⁰ The perceived needs of the courtroom outpaced the findings of relevant disciplines. The Supreme Court even created its own reliability test.¹¹¹ Both eyewitness

104. See Sterbenz, *supra* note 102.

105. *Id.*

106. See also Press Release, FBI, *supra* note 97.

107. Hsu, *supra* note 96, at A20. See also Fabricant, *supra* note 103. The Texas Forensic Science Commission has initiated a state review of forensic hair analysis cases while also notifying defendants that their case is under review and may have inaccurate forensic testimony. See Beety, *supra* note 48.

108. See *A PATH FORWARD*, *supra* note 3, at 37, 188-89; *IDENTIFYING THE CULPRIT*, *supra* note 3, at 11.

109. See THOMPSON, *supra* note 9, at 86.

110. See *IDENTIFYING THE CULPRIT*, *supra* note 3, at 18.

111. See *Manson v. Brathwaite*, 432 U.S. 98, 114 (1977).

identifications and forensic science have been used in the courtroom with no scientifically established measurements or technical standards.¹¹² *A Path Forward* and *Identifying the Culprit* present affirmative steps to review the science of forensics and eyewitness identification. These reports clearly lay out the problems within both of these methodologies as well as the solutions to those problems.

A. The Problem: Memory and Identifications

Jennifer Thompson and Ronald Cotton were the witness and the accused in perhaps the most well-known case of mistaken identification, which they recount in their book *Picking Cotton*.¹¹³ Jennifer, a young, white college student, misidentified Ronald Cotton as her rapist.¹¹⁴ As a result, Ronald Cotton spent years in prison before DNA evidence finally exonerated him.¹¹⁵ Mistaken identification, such as Jennifer's, is the leading contributing factor in wrongful convictions.¹¹⁶

Identifying the Culprit exposes the malleability of memory. Through examining research on eyewitness misidentification in criminal cases, the report clearly details how memory does—and does not—work.¹¹⁷ Memory is an unconscious process that is subject to a variety of influences from the moment of the experience to recollection months or years later.¹¹⁸

Witness recollection can be divided into three stages.¹¹⁹ First, the witness perceives the incident—the encoding stage.¹²⁰ Second, the

112. See *A PATH FORWARD*, *supra* note 3, at 7.

113. See JENNIFER THOMPSON-CANNINO, RONALD COTTON & ERIN TORNEO, *PICKING COTTON* 32–33, 200, 208 (2009).

114. See *IDENTIFYING THE CULPRIT*, *supra* note 3, at 10.

115. *Id.*

116. See *Eyewitness Misidentification*, INNOCENCE PROJECT (Feb. 5, 2015), <http://www.innocenceproject.org/understand/Eyewitness-Misidentification.php>.

117. See *IDENTIFYING THE CULPRIT*, *supra* note 3, at 59–70.

118. See generally Peter N. Shapiro & Steven Penrod, *Meta-Analysis of Facial Identification Studies*, 100 *PSYCHOL. BULL.* 139 (1986) (studying variables influencing the accuracy of memory and facial recognition). It should be noted that the “forgetting curve” indicates that memory is lost and altered the most just after the event. Although a greater lapse in time between event and recollection of that event lessens the accuracy of the memory, the greatest decay of the memory occurs in its immediate aftermath. See *id.* at 150.

119. See ELIZABETH F. LOFTUS, *EYEWITNESS TESTIMONY* 21 (1979); see also Elin M. Skagerberg, *Co-Witness Feedback in Line-Ups*, 21 *APPLIED COGNITIVE PSYCHOL.* 489, 489 (2007).

120. See LOFTUS, *supra* note 119, at 21; see also *IDENTIFYING THE CULPRIT*, *supra* note 3, at 60–61.

witness commits the information to memory during the period of time between the event and its recall—the storage stage.¹²¹ Finally, the witness recalls the stored information—the retrieval stage.¹²² A memory can be tainted or change during any of these three stages.¹²³

In the first stage of memory, the witness creates a narrative through visually determining what is happening around him.¹²⁴ Visual observation can be influenced by “estimator variables”—physical and psychological factors impacting memory accuracy.¹²⁵ Estimator variables range from factors such as lighting conditions, time of day, and weather at the time of the event to psychological influences such as the race of the witness or the suspect.¹²⁶ “Cross-racial identification” is a phenomenon by which people have difficulty identifying members of a different racial group.¹²⁷ In a meta-analysis of nearly 5000 participants, witnesses were 1.4 times more likely to correctly identify a face they had seen before if the person was of the same race as them; however, witnesses were 1.56 times more likely to falsely identify a new face if the person was a race other than their own.¹²⁸

121. See LOFTUS, *supra* note 119, at 21; see also IDENTIFYING THE CULPRIT, *supra* note 3, at 62–65.

122. See LOFTUS, *supra* note 119, at 21; see also IDENTIFYING THE CULPRIT, *supra* note 3, at 65–67.

123. See LOFTUS, *supra* note 119, at 22.

124. See Sarah Anne Mourer, *Reforming Eyewitness Identification Procedures Under the Fourth Amendment*, 3 DUKE J. CONST. L. & PUB. POL’Y 49, 55 (2008).

125. *Id.* at 56. Further estimator variables include eyewitness’s stress level, the duration of the event, conversations with co-witnesses, and exposure to other narratives of what is happening. See, e.g., Judith L. Alpert et al., *Comment on Ornstein, Ceci, and Loftus (1998): Adult Recollections of Childhood Abuse*, 4 PSYCHOL. PUB. POL’Y & L. 1052, 1054–55 (1998) (citations omitted) (“[A] large body of evidence exists to suggest that, in contrast to normal memories, emotional (and, hence, traumatic) memories are encoded differently. Emotional memories have been described as detailed and accurate and not prone to error. . . . [A] review of research on traumatic memories indicates the relative accuracy and persistence of traumatic memories as compared to more ordinary ones.”); see LOFTUS, *supra* note 119, at 20–51; IDENTIFYING THE CULPRIT, *supra* note 3, at 17.

126. See Brian L. Cutler, Steven D. Penrod & Todd K. Martens, *The Reliability of Eyewitness Identification: The Role of System and Estimator Variables*, 11 L. & HUM. BEHAV. 233, 234–35 (1987).

127. John P. Rutledge, *They All Look Alike: The Inaccuracy of Cross-Racial Identifications*, 28 AM. J. CRIM. L. 207, 211 (2001).

128. Christian A. Meissner & John C. Brigham, *Eyewitness Identification: Thirty Years of Investigating the Own-Race Bias in Memory for Faces: A Meta-Analytic Review*, 7 PSYCHOL. PUB. POL’Y & L. 3, 3, 15 (2001); see also Brian L. Cutler, *A Sample of Witness, Crime, and Perpetrator Characteristics Affecting Eyewitness Identification Accuracy*, 4 CARDOZO PUB. L., POL’Y & ETHICS J. 327, 329–30 (2006).

Not only can memory fail or be distorted at the time of the event, but it can also become distorted or decay over time.¹²⁹ For instance, storage, the second stage in the creation of memory, can be influenced by the stress of being a witness to a crime.¹³⁰ This stress can impair a witness's ability to accurately perceive his surroundings.¹³¹ Contrary to the assumption that if one sees or experiences a violent crime he is more likely to vividly remember the details, studies instead reveal that extreme stress has a negative correlation with identification and the accuracy of memory recall.¹³² The high rate of misidentification in studies—and cases—supports the conclusion that stress dramatically impacts a person's sensory perception¹³³ and negatively affects the accuracy of eyewitness identification.¹³⁴

Retrieval, the final stage of memory, involves recalling and reconstructing the event.¹³⁵ At this stage, memory can be influenced by "system variables"—variables "under the direct control of the criminal justice system."¹³⁶ These can include police protocols on instructing a witness before a lineup identification, the composition

129. Richard A. Wise et al., *A Survey of Law Officers and Its Significance for Cross-Examining Witnesses About Eyewitness Accuracy*, 35 CHAMPION 32, 32–33 (2011) ("Although memory works reasonably well in everyday life, it does not operate like a video recorder that captures an event with near perfect fidelity. Some information may never be encoded (i.e., get into memory), and details may be forgotten rapidly.").

130. See IDENTIFYING THE CULPRIT, *supra* note 18, at 63–64.

131. See Charles A. Morgan, III et al., *Accuracy of Eyewitness Memory for Persons Encountered During Exposure to Highly Intense Stress*, 27 INT'L J.L. & PSYCHIATRY 265, 265–66 (2004).

132. See *id.*

133. See ALEXIS ARTWOHL & LOREN W. CHRISTENSON, DEADLY FORCE ENCOUNTERS: WHAT COPS NEED TO KNOW TO MENTALLY AND PHYSICALLY PREPARE FOR AND SURVIVE A GUNFIGHT 39 (1997); BRUCE K. SIDDLE, SHARPENING THE WARRIOR'S EDGE 76–77 (1995).

134. See Kenneth A. Deffenbacher et al., *A Meta-Analytic Review of the Effects of High Stress on Eyewitness Memory*, 28 LAW & HUM. BEHAV. 687, 694–700 (2004) (examining the effect of stress on identification in 27 tests involving 1700 participants as witnesses). Participants made correct identifications 59% of the time in low-stress conditions and 39% in high-stress conditions. *Id.* at 700. Also, false identifications in lineups where the target was present were more common with participants in high-stress conditions (34%) than with those in low-stress conditions (19%). *Id.* at 696.

135. See LOFTUS, *supra* note 119, at 21.

136. See Gary Wells, *Applied Eyewitness-Testimony Research: System Variables and Estimator Variables*, 36 J. PERSONALITY & SOC. PSYCHOL. 1546, 1548 (1978); see IDENTIFYING THE CULPRIT, *supra* note 3, at 16–17.

of the lineup, and the presentation of the suspects to the witness.¹³⁷ Recent studies confirm that giving a witness any positive feedback after the witness makes an identification alters how the memory is created and stored.¹³⁸ Indeed, if a witness receives positive feedback, he will repeat the identification with greater certainty the next time and will be more confident in these perceptions, whether they were accurate or not.¹³⁹

Another problematic procedure and system variable is showing a witness a suspect lineup or photos of suspects with no instructions from the lineup administrator.¹⁴⁰ Without any instruction, the eyewitness often assumes the perpetrator of the crime must be present in the lineup or the photos; he assumes one of the individuals is guilty.¹⁴¹ Faulty procedures can reinforce or exacerbate any flaws in the original observation.¹⁴²

B. The Supreme Court's Non-Solution: The Manson Test

The issues discussed above are the modern difficulties with eyewitness identifications. The admissibility standards set by the Supreme Court for eyewitness identifications, however, are anything but modern. The Supreme Court set the current standards in 1977 in *Manson v. Brathwaite*.¹⁴³ Since 1977, over 2000 studies have been

137. Wells, *supra* note 136, at 1553–54.

138. Amy Bradfield Douglass & Nancy Steblay, *Memory Distortion in Eyewitnesses: A Meta-Analysis of the Post-Identification Feedback Effect*, 20 APP. COGNITIVE PSYCHOL. 859, 864–65 (2006); Gary L. Wells & Amy L. Bradfield, “Good, You Identified the Suspect”: Feedback to Eyewitnesses Distorts Their Reports of the Witnessing Experience, 83 J. APP. PSYCHOL. 360, 361 (1998).

139. Douglass & Steblay, *supra* note 138, at 863–64; Wells & Bradfield, *supra* note 138, at 361.

140. See Gary L. Wells et al., *Eyewitness Identification Procedures: Recommendations for Lineups and Photospreads*, 22 LAW & HUM. BEHAV. 603, 625 (1998) (explaining the problems with eyewitness identification and putting forward proposals for reform).

141. *Id.*

142. See *Groundbreaking Study Finds Double-Blind Sequential Lineups More Accurate in Eyewitness Identifications*, CUNY (Sept. 19, 2011), <http://www1.cuny.edu/mu/forum/2011/09/19/groundbreaking-study-finds-double-blind-sequential-lineups-more-accurate-in-eyewitness-identifications/> (observing that study participants demonstrated greater errors in simultaneous lineups rather than in sequential lineups, the former of which influence eyewitnesses in identification by providing them a basis for comparison amongst the members of the lineup).

143. 432 U.S. 98 (1977).

conducted on eyewitnesses.¹⁴⁴ Nonetheless, the admissibility standard of *Manson* remains unchanged.

Identifying the Culprit discusses *Manson* and its five factors for reliability.¹⁴⁵ The factors—all self-reported by the witness—are:

[T]he opportunity of the witness to view the criminal at the time of the crime, the witness's degree of attention, the accuracy of the witness's prior description of the criminal, the level of certainty demonstrated by the witness at confrontation, and the length of time between the crime and the confrontation.¹⁴⁶

The Supreme Court provided a lenient standard for admitting this evidence, believing jurors capable of judging the accuracy and importance of identification testimony.¹⁴⁷

The entire adversarial process breaks down when the prosecution, the defense, and the court accept unreliable, questionable evidence, including forensic findings and eyewitness identifications.¹⁴⁸ There is often no meaningful testing of these types of evidence because all courtroom players generally accept it at face value and without further scrutiny.¹⁴⁹ This results in evidence being presented to the jury as more reliable than it may in fact be.

The absence of any Supreme Court attention to eyewitness identifications between 1977 and 2012 underscores the importance of *Identifying the Culprit*. In 2012, in *Perry v. New Hampshire*, the Court held that “the Due Process Clause does not require a preliminary judicial inquiry into the reliability of an eyewitness identification when the identification was not procured under unnecessarily suggestive circumstances arranged by law

144. See *Perry v. New Hampshire*, 132 S. Ct. 716, 738 (2012) (Sotomayor, J., dissenting).

145. See IDENTIFYING THE CULPRIT, *supra* note 3, at 18.

146. *Neil v. Biggers*, 409 U.S. 188, 199–200 (1972).

147. *Manson v. Brathwaite*, 432 U.S. 98, 112, 116 (1977).

148. See generally *Strickland v. Washington*, 466 U.S. 668, 673 (1984) (discussing the negative effects that unreliable evidence may have on a trial).

149. See, e.g., *United States v. Cronin*, 466 U.S. 648, 657 (1984) (“The right to the effective assistance of counsel is thus the right of the accused to require the prosecution’s case to survive the crucible of meaningful adversarial testing.”); *Strickland*, 466 U.S. at 696 (“The ultimate focus of inquiry must be on the fundamental fairness of the proceeding whose result is being challenged. In every case the court should be concerned with whether, despite the strong presumption of reliability, the result of the particular proceeding is unreliable because of a breakdown in the adversarial process that our system counts on to produce just results.”).

enforcement.”¹⁵⁰ The decision in *Perry* also affirmed that the five factors established in *Manson v. Brathwaite* represented “the approach appropriately used to determine whether the Due Process Clause requires suppression of an eyewitness identification tainted by police arrangement.”¹⁵¹ Justice Sonia Sotomayor, the only former trial judge on the bench, dissented, noting the substantial problems associated with misidentification, regardless of whether the police had organized the identification.¹⁵² Justice Sotomayor was the only Justice to fully acknowledge the depth of scientific research on eyewitness identifications and the need for a reformed standard.¹⁵³

C. The NAS Solution: State-Level Reform

Identifying the Culprit directs us instead to the states that have considered the scientific data and diverged from the Supreme Court by reforming their standards for admitting eyewitness testimony.¹⁵⁴ New Jersey, Oregon, and Massachusetts have each chosen a different path to arrive at the same end: greater reliability of identifications.¹⁵⁵

1. New Jersey

In *State v. Henderson*, the New Jersey Supreme Court created a new framework for evaluating eyewitness evidence.¹⁵⁶ The court appointed a Special Master who interviewed seven experts, evaluated the current scientific evidence on eyewitnesses, and then presented the supreme court with 2000 transcript pages and reports on hundreds of scientific studies.¹⁵⁷ By raising the bar for admitting eyewitness identification evidence, the court acknowledged that the

150. 132 S. Ct. 716, 730 (2012).

151. 132 S. Ct. at 724; see *id.* at 728 (“The fallibility of eyewitness evidence does not, without the taint of improper state conduct, warrant a due process rule requiring a trial court to screen such evidence for reliability . . .”); 432 U.S. 98, 114–116 (1977) (establishing the five factors to determine the reliability of eyewitness identifications).

152. *Id.* at 730–31, 738 (Sotomayor, J., dissenting).

153. *Id.* at 738–39 (Sotomayor, J., dissenting). Justice Sotomayor chastised the majority for adopting an “artificially narrow conception of the dangers of suggestive identifications.” *Id.* at 739.

154. See IDENTIFYING THE CULPRIT, *supra* note 3, at 13–14, 23–24.

155. See *id.*; see also Jared T. Dotson, *The Linchpin of Identification Evidence: The Unreliability of Eyewitnesses and the Need for Reform in West Virginia*, 117 W. VA. L. REV. 775, 788–93 (2014).

156. *State v. Henderson*, 27 A.3d 872, 919–22 (N.J. 2011).

157. *Id.* at 877.

previous approach needed to be updated.¹⁵⁸ The court incorporated empirical evidence into its decision that the then-current admissibility standard was insufficient in light of the due process obligations under the New Jersey Constitution.¹⁵⁹ The new test created for the state courts of New Jersey allows the defendant to establish suggestiveness and for the State to then counter with the reliability of the eyewitness identification, although the ultimate burden falls on the defendant to show a “substantial likelihood of irreparable misidentification.”¹⁶⁰

2. Oregon

In *State v. Lawson*,¹⁶¹ the Supreme Court of Oregon changed its rules of evidence, requiring the State to establish the relevancy of an

158. *See id.* (stating that “the current test for evaluating the trustworthiness of eyewitness identifications should be revised”).

159. *Id.* at 919 n.10 (citing N.J. CONST. art. I, § 1). The Supreme Court of New Jersey granted certification in order to address the “current framework for evaluating the admissibility of [eyewitness identification] evidence,” and it remanded to the trial court for a hearing to determine whether the standing admissibility test was viable “in light of recent scientific and other evidence.” *Id.* at 929–30. The court appointed the retired Honorable Geoffrey Gaulkin to preside as special master of the case. *Id.* at 884. The special master reviewed the scientific literature, the testimony of seven experts, and over 200 published scientific studies. *Id.* His thorough work was influential on the New Jersey Supreme Court’s ultimate opinion. *See id.* at 895. The court in *Henderson* specifically addressed estimator variables, such as visibility, age of the viewer, and lighting, and system variables, such as lineup procedures and police interaction. *Id.* The court focused primarily on the system variables and changing police protocol because they are factors “within the control of the criminal justice system.” *Id.* at 895.

160. *Id.* at 881–82, 920. The test established the following steps: (1) the defendant must present evidence of “suggestiveness” to obtain a pretrial hearing; (2) the State then must establish that the identification reliably accounts for both estimator and system variables; (3) the defendant still has the overall burden to show a “substantial likelihood of irreparable misidentification” through either cross-examining eyewitnesses, presenting expert testimony, or by introducing evidence linked with both types of variables; and (4) the court should suppress the identification if it determines, after weighing the evidence, that the defendant demonstrated an irreparable misidentification. *See id.* If the trial court then admits the identification, the court will provide the jury with specific jury instructions at the conclusion of the trial. *Id.* at 924–26; *see also* Amy D. Trenary, *State v. Henderson: A Model for Admitting Eyewitness Identification Testimony*, 84 U. COLO. L. REV. 1257, 1296 (2013).

161. 291 P.3d 673, 690–91 (Or. 2012) (concluding that the Oregon Evidence Code is the proper way to determine admissibility of eyewitness evidence because the rules “articulate minimum standards of reliability intended to apply broadly to many types

eyewitness identification if a defendant files a motion to exclude it.¹⁶² If the State meets its burden, the defendant must then show that the probative value of the identification is “substantially outweighed” by the prejudicial impact.¹⁶³ The court has a range of remedial procedures for limiting the potentially prejudicial impact of eyewitness identification evidence, which include limiting witness testimony, permitting expert testimony explaining the science behind eyewitness identifications, or excluding the identification all together.¹⁶⁴

3. Massachusetts

The Massachusetts Supreme Judicial Court created a “Study Group on Eyewitness Identification” in 2011 composed of criminal justice leaders and experts, and tasked with reviewing the scientific literature on eyewitness identifications.¹⁶⁵ In 2013, the study group proposed revising the legal framework to deter suggestive procedures through creating uniform police protocols and pre-trial inquiry by the court, encouraging courts to recognize the science of eyewitness memory, adopting new jury instructions based on the scientific studies evaluating eyewitness identification, and finally forming a committee to train attorneys and judges on the new procedures.¹⁶⁶ In 2015, the Massachusetts Supreme Judicial Court

of evidence”).

162. *See id.* at 696–97. *Contra Henderson*, 27 A.3d at 920 (finding that the defendant must first present evidence of “suggestiveness” to earn a hearing).

163. *Lawson*, 291 P.3d at 697.

164. *See, e.g.*, OR. EVID. CODE 104 (Preliminary Questions); OR. EVID. CODE 307 (Allocation of the Burden of Producing Evidence); OR. EVID. CODE 602 (Lack of Personal Knowledge); OR. EVID. CODE 701 (Opinion Testimony by Lay Witnesses); OR. EVID. CODE 402 (Relevant Evidence Generally Admissible); OR. EVID. CODE 403 (Exclusion of Relevant Evidence on Grounds of Prejudice, Confusion or Undue Delay); *see Lawson*, 291 P.3d at 695–97; *see also Henderson*, 27 A.3d at 925 (concluding that judges under the *Henderson* test can also limit parts of identification testimony).

165. COMMONWEALTH OF MASS., SUPREME JUDICIAL COURT STUDY GROUP ON EYEWITNESS EVIDENCE (July 25, 2013), available at <http://www.mass.gov/courts/docs/sjc/docs/eyewitness-evidence-report-2013.pdf>.

166. *Id.* at 41. Massachusetts also recommended four routes a defendant could take to obtain a pretrial hearing on identification evidence:

- (i) [T]he defendant makes a preliminary showing of an unnecessarily suggestive identification procedure []; or (ii) the defendant makes a showing that a witness was involved in a highly suggestive confrontation with the defendant independent of any police involvement[]; or (iii) that the

announced a standing committee on eyewitness identification,¹⁶⁷ and issued an opinion in *Commonwealth v. Gomes* recognizing the scientific advancements challenging eyewitness identifications and including a provisional jury instruction for criminal trials.¹⁶⁸

police failed to follow certain specific best police practices on eyewitness identification in a substantial way in conducting or arranging a pretrial identification procedure; or (iv) when the pretrial eyewitness identification is uncorroborated and the defendant makes a showing of the presence of estimator variables casting doubt on the reliability of the identification.

Id. at 47 (citations omitted). Once granted a pretrial hearing, the identification evidence can be excluded in three different ways. *Id.* at 110–11. First, the out-of-court identification will be excluded if the defendant “proves by a preponderance of the evidence that the out-of-court identification was so unnecessarily suggestive that it was conducive to irreparable misidentification.” *Id.* at 111; *see also* *Stovall v. Denno*, 388 U.S. 293, 301–02 (1967). For the in-court identification to be admissible, the Commonwealth, by clear and convincing evidence, must prove that it “is the product of a source independent of the tainted procedure and is reliable.” COMMONWEALTH OF MASS., *supra* note 165, at 111 (both identifications will be excluded if the Commonwealth cannot prove so); *see also* *United States v. Wade*, 388 U.S. 218, 240 (1967). Second, both the in-court and out-of-court identification will be excluded if the defendant by a preponderance of the evidence proves “the pretrial eyewitness identification is unreliable, taking into account the totality of the circumstances in the case at bar, including system and estimator variables.” COMMONWEALTH OF MASS., *supra* note 165, at 111. Third, both the in-court and out-of-court identifications will be excluded if the “defendant proves by a preponderance of the evidence that the police failed in a substantial way to follow certain specific Best Police Practices.” *Id.* (for a list of Massachusetts’s Best Police Practices, go to pages 85–90 of the report). If the case proceeds to trial, similar to *Henderson* and *Lawson*, the Study Group recommended that the judge be able to issue specific jury instructions, limit witness testimony, and permit introduction of expert testimony at trial. *Id.* at 112–13; *see also* *Henderson*, 27 A.3d at 925; *Lawson*, 291 P.3d at 695–96.

167. Press Release, Massachusetts Court System, Supreme Judicial Court Announces New Standing Committee on Eyewitness Identification (Jan. 12, 2015) <http://www.mass.gov/courts/news-pubs/sjc/sjc-announces-new-standing-committee-on-eyewitness-identification.html>.

168. *Memory and Eyewitness Identification*, MASS. L. UPDATES (Jan. 21, 2015), <http://blog.mass.gov/masslawlib/legal-topics/memory-and-eyewitness-identification/>; *Commonwealth v. Gomes*, 22 N.E.3d 897, 897 (Mass. 2015) (finding (1) human memory does not function like a video recording; (2) witness confidence in an identification does not necessary mean witness accuracy; (3) stress can reduce the accuracy of an eyewitness identification; (4) a witness’s memory and recollection can be influenced by outside information; and (5) a witness cannot identify the same defendant in two different line-ups without calling into question the reliability of the identification).

Identifying the Culprit points to each of these courts as guideposts that other courts can follow to create more reliable identifications.

III. MOVING AHEAD OF THE SUPREME COURT WITH EYEWITNESS IDENTIFICATION RELIABILITY: NEXT STEPS FOR ALL COURTROOM ACTORS

The ultimate goal of *Identifying the Culprit* was to review existing research on eyewitness identifications, and to provide recommendations to ensure the accurate and appropriate use of eyewitness evidence.¹⁶⁹ This multidisciplinary committee of leading experts,¹⁷⁰ co-chaired by an esteemed scientist and a federal district court judge,¹⁷¹ reviewed thirty years of scientific research and literature. After consulting with researchers, the committee constructed a roadmap for lawyers, judges, scientists, and law enforcement.

A. NAS Recommendations for Law Enforcement and Courts

Identifying the Culprit recognized that both police officers and judges are key players in ensuring an accurate identification and avoiding wrongful convictions. Law enforcement can protect the integrity of the initial identification of a suspect through reformed protocols,¹⁷² and the court can then ensure accurate evidence is presented in the courtroom. Although only three states have changed courtroom procedures since *Manson*, the National Academy of Sciences now encourages all to follow suit.

The NAS based its recommendations for law enforcement largely on social science studies that examined influences on memory and eyewitness identifications. These studies provide straightforward protocols for strengthening eyewitness identifications and decreasing outside influences, notably system variables.¹⁷³ The report recommends that law enforcement agencies broadly implement protocols such as (1) training all law enforcement officers in memory and eyewitness identifications; (2) using double-blind lineup and

169. See IDENTIFYING THE CULPRIT, *supra* note 3, at 4.

170. *Id.* at v-x. The committee included representatives from law enforcement and various judiciaries, prosecutors, defense attorneys, and scientific researchers.

171. The Committee was co-chaired by Dr. Thomas D. Albright of the Salk Institute for Biological Studies and Hon. Jed S. Rakoff of the United States District Court for the Southern District of New York. *Id.* at v.

172. *Id.* at 4.

173. *Id.* at 3-5.

photo array procedures; (3) developing and use standardized witness instructions; (4) documenting witness statements; and (5) videotaping the witness identification process.¹⁷⁴

Many of the NAS recommendations for specific police protocols have already been adopted by local departments, by the International Association of the Chiefs of Police, and by state legislatures.¹⁷⁵ The simple “folder shuffle method” uses manila folders to create a double-blind photo lineup;¹⁷⁶ a wallet card for police officers has Miranda questions for defendants on one side and instructions for questioning eyewitnesses on the other.¹⁷⁷ Several states have passed legislation standardizing police interviews of eyewitnesses in line with the recommendations of *Identifying the Culprit*.¹⁷⁸

Courts are not left off the hook—instead, a judge has an equally important role of determining and then maintaining the integrity of an eyewitness identification once presented in court.¹⁷⁹ *Identifying the Culprit* advises courts on how to safeguard against false eyewitness identifications being admitted at trial.¹⁸⁰ The report recommends that courts (1) conduct pretrial judicial inquiries into eyewitness identifications; (2) make juries aware of prior identifications including the confidence level of the eyewitness *at the*

174. See *id.* at 5.

175. *National Academy of Sciences Releases Landmark Report on Memory and Eyewitness Identification, Urges Reform of Police Identification Procedures*, INNOCENCE PROJECT (Oct. 2, 2014), <http://www.innocenceproject.org/news-events-exonerations/national-academy-of-sciences-releases-landmark-report-on-memory-and-eyewitness-identification-urges-reform-of-police-identification-procedures>.

176. For example, see W. VA. CODE § 62-1E-2 for a detailed description of the folder shuffle method, available at <http://www.legis.state.wv.us/WVCODE/ChapterEntire.cfm?chap=62&art=1E§ion=2&year=2013&sessiontype=RS> (last visited Dec. 15, 2015).

177. See Memorandum from Deputy Chief William G. Brooks, Arresting the Right Person; The Role of the Police in Eyewitness Identification Reform (Sept. 1, 2013), available at https://www.cga.ct.gov/jud/tfs/20130901_Eyewitness%20Identification%20Task%20Force/20111102/Memo%20by%20Deputy%20Chief%20Brooks%20of%20Wellesley,%20MA.pdf; see also Instruction Card for Show-up Identification Attempt, available at https://www.cga.ct.gov/jud/tfs/20130901_Eyewitness%20Identification%20Task%20Force/Wellesley%20Police%20Department%20Procedures/Instructions%20for%20Show-up%20Card.pdf. The Wellesley Massachusetts Police Department implemented the instruction cards under Deputy Police Chief William G. Brooks.

178. See *Eyewitness Identification Reform*, INNOCENCE PROJECT (June 10, 2015), http://www.innocenceproject.org/Content/Eyewitness_Identification_Reform.php.

179. *Identifying the Culprit* gives recommendations, in its words, “to strengthen the value of eyewitness identification evidence in courts.” *Id.* at 5.

180. *Id.* at 4–5.

time; (3) allow expert testimony on eyewitness memory and identifications; and (4) use jury instructions as an alternative means to convey information.¹⁸¹ To continue the research of how best to preserve and present eyewitness identifications, the report finally recommends establishing a National Research Initiative on Eyewitness Identification.¹⁸²

B. NAS Recommendations for Juries

Returning for a moment to the Supreme Court's misplaced reliance on jury discernment in eyewitness identifications, the current legal framework makes the NAS recommendations for jury instructions of particular importance. The jury ultimately decides whether evidence is reliable.¹⁸³ Research shows that jurors attribute greater importance to eyewitness testimony than to nearly any other piece of evidence.¹⁸⁴ Yet, jurors also generally show a poor understanding of scientific research on whether and how eyewitness testimony is reliable.¹⁸⁵ Instead, jurors often think of a lineup as a test of someone's memory, rather than as an identification influenced by procedures and behavior. *Identifying the Culprit* attempts to reform how eyewitness identifications are addressed and handled in the courtroom—with or without the adoption by the Supreme Court.

A Path Forward laid the groundwork for discussing jury perception of eyewitness testimony by addressing how jurors often uncritically accept expert conclusions on forensic evidence.¹⁸⁶ Indeed, research shows juries widely accept "exact match" testimony in fingerprint cases, unless experts self-identify the possibility of error in the field.¹⁸⁷ In response to *A Path Forward*, more trial courts now

181. *Id.* at 109–12.

182. *Id.* at 113, 117.

183. *See* *Manson v. Brathwaite*, 431 U.S. 98, 112, 116 (1972).

184. *See* LOFTUS, *supra* note 119, at 9–10 (describing a study in which the conviction rate by mock jurors rose by fifty percentage points when an eyewitness identification was provided, despite the fact that the eyewitness had vision so poor he could not possibly have seen the suspect's face); *see also* Peter J. Smith, *New Legal Fictions*, 95 GEO. L.J. 1435, 1452–55 (2007) (citing numerous sources to support the proposition that "[t]he presumption that jurors can competently assess the reliability of eyewitness testimony . . . is a new legal fiction"); Rutledge, *supra* note 127, at 210.

185. *See* Richard S. Schmechel et al., *Beyond the Ken? Testing Jurors' Understanding of Eyewitness Reliability Evidence*, 46 JURIMETRICS J. 177, 178, 191–92 (2006).

186. *See* A PATH FORWARD, *supra* note 3, at 48–49.

187. *See* Brandon Garrett and Gregory Mitchell, *How Jurors Evaluate*

recognize the need for additional expert qualifications as well as the importance of vetting an expert through Daubert hearings,¹⁸⁸ even without guidance from the Supreme Court.

Identifying the Culprit seeks to play the same role for jurors and eyewitness identification testimony. The additional “vetting” now suggested by *Identifying the Culprit* includes pretrial judicial inquiries and hearings and informing jurors of the witness’s level of confidence at the time of the identification. In addition, the report suggests potential expert witnesses. With such a clear gathering of both data and suggestions, the report may be able to influence the behavior of trial courts even if the Supreme Court remains silent.

C. Prosecutors and Eliciting Accurate Testimony

Although not discussed in either of the NAS reports, the role of prosecutors in eliciting accurate testimony must be addressed. For both forensic analysts and eyewitnesses, a similar danger exists of prosecutors pressuring these witnesses to over-simplify and over-sell their testimony.¹⁸⁹ Prosecutors seek simple, direct, and confident testimony—“this hair matches the defendant” or “the defendant is the man I saw commit the crime”—because it is the most persuasive evidence for the jury.

As noted earlier, juries are more likely to accept these confident statements without question, even though absolute false confidence has been demonstrated in eyewitness testimony.¹⁹⁰ Brandon Garrett found that in 78% of wrongful convictions based on a confident eyewitness at trial, the witness was not certain at the original time of identification.¹⁹¹ Just as an eyewitness can be influenced by suggestion, forensic experts can likewise be influenced by cognitive and confirmation bias, which is why double blind procedures are suggested for both obtaining an identification and examining forensic evidence.¹⁹²

Fingerprint Evidence: The Relative Importance of Match Language, Method Information, and Error Acknowledgment, 10 J. EMPIRICAL LEGAL STUD. 484 (2013).

188. See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 585 (1993) (“Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it.”).

189. Bennett L. Gersham, *Misuse of Scientific Evidence by Prosecutors*, 28 OKLA. CITY U. L. REV. 17, 24 (2003).

190. Garrett, *supra* note 35, at 452.

191. See *id.*

192. While cognitive bias is a concern for what the analyst sees when examining the evidence, confirmation bias can play a role if the analyst believes either another person has examined the forensic evidence and found it matched the defendant, or

When it comes time to present this evidence at trial, the role of the prosecutor in eliciting accurate testimony is paramount. *A Path Forward* found that no forensic discipline, except DNA analysis, could make an exact match and individuate, yet examples of such false testimony abound.¹⁹³ A recent study showed the majority of wrongful DNA matches originated *after* examining the evidence—when the experts were explaining their reports.¹⁹⁴ Likewise, in John Jerome White's case after the eyewitness had identified a perpetrator in a lineup, she was brought in for a second lineup where she identified the same man—even though the true perpetrator of the crime was standing right next to him.¹⁹⁵ Prosecutors, by acknowledging the importance of nuance and protocols to understand eyewitness and forensic testimony, can decrease oversimplified and misleading testimony and also decrease the likelihood of wrongful convictions.

CONCLUSION

Identifying the Culprit incentivizes the Supreme Court to alter the *Manson* standard. The report has gathered together the leading research, analyzed it, and called the Supreme Court's current standard into question. Indeed, the Report has gone so far as to recommend that judges follow the steps and admissibility tests of state courts—rather than the Supreme Court *Manson* standard.

Like the NAS report on forensics, *Identifying the Culprit* calls on state courts and state legislators to continue changing their own

instead, that other evidence supports the conviction of the defendant whether or not the forensic evidence does. In Brandon Mayfield's case, because a number of analysts reached the same conclusion, they all believed the conclusion was correct even if it was circular reliance. Executive Summary, A Review of the FBI's Handling of the Brandon Mayfield Case, U.S. DEPT. OF JUSTICE, (Jan. 2006) available at <https://oig.justice.gov/special/s0601/exec.pdf>. See also Beety, *supra* note 48, at 6. In Stephen Cowan's case the fingerprint recovered did not match Mr. Cowen, but the analyst testified to a match. See *Stephan Cowans*, INNOCENCE PROJECT, <http://www.innocenceproject.org/cases-false-imprisonment/stephan-cowans> (last visited Dec. 15, 2015).

193. For example, see the re-opening of hair analysis cases by the FBI due to fraudulent testimony.

194. Ate Kloostroom, *Framework for Registration, Classification and Evaluation of errors in the Forensic DNA Typing Process*, NEDERLANDS FORENSISCH INSTITUUT (May 2014), available at <http://www.nist.gov/forensics/upload/Kloosterman-DNA.pdf>.

195. See BRANDON L. GARRETT, CONVICTING THE INNOCENT: WHERE CRIMINAL PROSECUTIONS GO WRONG 66 (2011). See also *Understanding Eyewitness Misidentifications*, HARVARD UNIV. PRESS BLOG (Mar. 14, 2011), http://harvardpress.typepad.com/hup_publicity/2011/03/understanding-eyewitness-misidentifications.html.

courtroom protocols and police procedures. Following in the footsteps of *A Path Forward*, the NAS report on eyewitness identifications may lead to a federal national research initiative on eyewitness identification. The immediate change, however, begins on the state level, where reform can prevent more innocent people from being wrongfully convicted—starting now. The report can urge the Supreme Court to either guide reform or to languish—inconsequential—as state courts continue forward.

