

Yeshiva University, Cardozo School of Law

LARC @ Cardozo Law

Articles

Faculty

2003

The Admissibility of Expert Testimony About Cognitive Science Research on Eyewitness Identification

Edward Stein

Benjamin N. Cardozo School of Law, estein2@yu.edu

Follow this and additional works at: <https://larc.cardozo.yu.edu/faculty-articles>



Part of the [Law Commons](#)

Recommended Citation

Edward Stein, *The Admissibility of Expert Testimony About Cognitive Science Research on Eyewitness Identification*, 2 *Law, Probability and Risk* 295 (2003).

Available at: <https://larc.cardozo.yu.edu/faculty-articles/403>

This Article is brought to you for free and open access by the Faculty at LARC @ Cardozo Law. It has been accepted for inclusion in Articles by an authorized administrator of LARC @ Cardozo Law. For more information, please contact christine.george@yu.edu, ingrid.mattson@yu.edu.

The admissibility of expert testimony about cognitive science research on eyewitness identification

EDWARD STEIN

Associate Professor of Law, Cardozo School of Law, Yeshiva University, 55 Fifth Ave.,
New York, NY, USA

[Received on 8 June 2003; revised on 20 August 2003; accepted on 3 October 2003]

Eyewitness identifications are important to jurors, especially in criminal trials. Psychological research has shown, however, that eyewitness testimony is systematically fallible in ways that undermine the goals of the rules of evidence. This article assesses the arguments for and against admitting expert testimony concerning cognitive science research about eyewitness identification. The article concludes that experts should in many instances be allowed to testify about the problems with eyewitness identification testimony.

Keywords: eyewitness identification; expert testimony; admissibility; evidence; psychological research.

1. Introduction

Insights about human psychology that stem from research in cognitive science have been considered in many areas of law.¹ Such insights are especially relevant to the law of evidence. Since the overarching goal of the rules of evidence is to determine the truth, insofar as human memory and cognition do not lead to truth, the law of evidence should take such systematic fallibility into account. If human memory and cognition systematically fail to be 'truth-tropic'² (that is, if they fail to get at the truth), then the law of evidence should deal with this by creating safeguards against these cognitive defects. Such safeguards would help triers of fact to be appropriately sceptical of evidence that results from systematically fallible cognitive processes.

In this short article, I focus on one way of safeguarding against testimony that relies on cognitive processes that are not truth-tropic, namely allowing scientific experts to testify about memory and cognition problems relating to eyewitnesses identification. This is an especially important topic for several reasons. First, it is well established that juries put great weight on eyewitness testimony.³ Second, particularly in criminal cases, eyewitness

¹ See, e.g., BEHAVIORAL LAW AND ECONOMICS (Cass Sunstein ed., 2000); Jeffery Rachlinski, *Behavioral Economics Law and Psychology: Heuristics And Biases in the Courts: Ignorance or Adaptation?*, 79 OR. L. REV. 61 (2000); D. Michael Risinger & Jeffrey L. Loop, *Three Card Monte, Monty Hall, Modus Operandi and 'Offender Profiling': Some Lessons of Modern Cognitive Science for the Law of Evidence*, 24 CARDOZO L. REV. 193 (2000); Cass Sunstein et al., *Assessing Putative Damages (with Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071 (1998).

² See EDWARD STEIN, *WITHOUT GOOD REASON: THE RATIONALITY DEBATE IN PHILOSOPHY AND COGNITIVE SCIENCE* 26 (1996) (introducing term 'truth-tropic').

³ See, e.g., *Watkins v. Sowders*, 449 U.S. 341, 352 (1981) ('[D]espite its inherent unreliability, much eyewitness

testimony is crucial to the trier of fact's deliberations.⁴ Third, cognitive science research has, over the past several decades, established with a high degree of certainty that, in various ways and contexts, humans make systematic mistakes involving eyewitness testimony.⁵ In light of these reasons, the project of trying to safeguard against biases in memory and cognition is important for our legal system. This is especially borne out by the significant role that eyewitness testimony has played in a substantial number of wrongful convictions.⁶

In this short article, rather than provide a detailed survey of cognitive science research on the systematic biases and errors involved in eyewitness testimony, I will just mention two specific results of this research. It has been scientifically well established that, in general, an eyewitness is less reliable when attempting to identify a specific individual of a different race.⁷ Another well-established cognitive science result concerning eyewitness testimony is that an eyewitness's degree of certainty about an identification is, at best, weakly correlated with the accuracy of the identification.⁸

Calling a scientist who does research on eyewitness identification as an expert witness

identification evidence has a powerful impact on juries. Juries seem most receptive to, and not inclined to discredit, testimony of a witness who states that he saw the defendant commit the crime . . . [T]here is almost *nothing more convincing* than a live human being who takes the stand, points a finger at the defendant, and says "That's the one!" (Brennan, J., dissenting) (quotations and footnote omitted); *Manson v. Brathwaite*, 432 U.S. 98, 120 (1977) ('juries unfortunately are often unduly receptive to [eyewitness identification] evidence.') (Marshall, J., dissenting); BRIAN CUTLER & STEVEN D. PENROD, *MISTAKEN IDENTIFICATION: THE EYEWITNESS, PSYCHOLOGY AND THE LAW* 179 (1995) (concluding, after summarizing relevant scientific research, that 'jurors overestimate the accuracy of eyewitness identifications'); ELIZABETH LOFTUS & JAMES DOYLE, *EYEWITNESS TESTIMONY: CIVIL AND CRIMINAL* 1-8 (1997) (discussing juror misconceptions about and overconfidence in eyewitness testimony); LAWRENCE WRIGHTMAN *et al.*, *PSYCHOLOGY AND THE LEGAL SYSTEM* 171 (5th ed. 2002) ('Eyewitness testimony may be the least reliable but most persuasive form of evidence presented in court.');

Gary Wells, *Eyewitness Identifications: Scientific Status*, in *SCIENCE IN THE LAW: SOCIAL AND BEHAVIORAL SCIENCE ISSUES* 397-416 (David Faigman *et al.* eds., 2002) (discussing research on eyewitness testimony and noting that such research suggests juries are often persuaded by eyewitness testimony even when it is mistaken).

⁴ See, e.g., U.S. DEP'T OF JUSTICE, *EYEWITNESS EVIDENCE: A GUIDE FOR LAW ENFORCEMENT* 1 (1999) ('The legal system has always relied on the testimony of eyewitnesses, nowhere more than in criminal cases.').

⁵ See, e.g., LOFTUS & DOYLE, *supra* note 3, at 9-93; Wells, *supra* note 3, at 402-413.

⁶ See, e.g., E.T. CONNORS *et al.*, *CONVICTED BY JURIES, EXONERATED BY SCIENCE: CASE STUDIES IN THE USE OF DNA EVIDENCE TO ESTABLISH INNOCENCE AFTER TRIAL* (1996) (finding that 24 out of 28 cases of post-conviction exoneration based on DNA testing were due in great part to mistaken eyewitness identifications); BARRY SCHECK *et al.*, *ACTUAL INNOCENCE* 246 (2000) (52 out of 62 post-conviction exonerations based on DNA testing involved mistaken eyewitness identification). Roger Park, who commented on this paper, correctly noted that the subject pools for these studies constitute samples in which it is more likely to find mistaken eyewitness identifications than in criminal cases involving eyewitness testimony generally.

⁷ See, e.g., *United States v. Stevens*, 935 F.2d 1380, 1392 (3d Cir. 1991) ('Scholarly literature attacking the trustworthiness of cross-racial identification is now legion.');

United States v. Smith, 736 F.2d 1103, 1106 (6th Cir. 1984) (finding scientific research on cross-racial identification to be reliable); LOFTUS & DOYLE, *supra* note 3, at 86 ('It is well established that there exists a comparative difficulty in recognizing individual members of a race different from one's own [race].');

Wells, *supra* note 3, at 404 ('There is little debate over the fact that people have more difficulty recognizing people of another race than they do people of their own race.')

(citing Chris Meissner & John Brigham, *A Meta-analysis of the Other-Race Effect in Eyewitness Identification*, 7 *PSYCHOL. PUB. POL'Y & L.* 3 (2001)); Jennifer L. Devenport *et al.*, *Eyewitness Identification Evidence: Evaluating Commonsense Evaluations*, 3 *PSYCH. PUB. POL'Y & L.* 338 (1997); J. P. Rutledge, *They All Look Alike: The Inaccuracy of Cross-Racial Identifications*, 28 *AM. J. CRIM. L.* 207 (2001).

⁸ See, e.g., LOFTUS & DOYLE, *supra* note 3, at 67 ('The consensus of the literature that deals with [whether eyewitness confidence is an indication of eyewitness accuracy] seems to indicate that eyewitness confidence is

for the purpose of assisting jurors in putting eyewitness testimony into appropriate perspective has a long pedigree. The first appellate case that discusses expert testimony on the cognitive limitations of eyewitnesses seems to be *Criglow v. State*, a 1931 Arkansas state court case in which the trial court excluded expert testimony on a hypothetical question about the powers of observation and recollection of eyewitnesses who were frightened and were not acquainted with the alleged perpetrator.⁹ Many courts have, like the *Criglow* court, viewed expert testimony on eyewitness identification with suspicion and, historically, most have excluded such expert testimony.¹⁰ Recently, however, some courts have become more willing to admit such evidence.¹¹ In this paper, I evaluate the arguments for and against the admissibility of expert testimony concerning eyewitness identification and sketch a defence of the admissibility of such testimony.

2. *Prima facie* argument for admissibility of expert testimony on the cognitive science research on problems with eyewitness identification

In this paragraph, I present (but do not defend) a *prima facie* plausible argument for the admissibility of expert testimony about eyewitness identification. Among the goals of the Federal Rules of Evidence are truth and fairness.¹² Given the importance of eyewitness testimony to jurors, the importance of eyewitness testimony in criminal cases, and the dramatic scientific evidence that eyewitness testimony is systematically fallible in ways that lead away from truth and towards unjust verdicts, something should be done to protect against such errors. In particular, experts who understand the systematic problems in memory and cognition can explain the effects of these problems on eyewitness testimony. The rules of evidence are liberal in what they admit,¹³ and expert testimony is admissible under the rules of evidence.¹⁴ Therefore, cognitive science experts should, all else being equal, be able to testify about problems with eyewitness identification in order to safeguard against triers of fact relying on mistaken identifications. This argument has, in effect, been rejected by some courts and accepted by others.¹⁵

not a very good indicator of eyewitness accuracy'); Wells, *supra* note 3, at 412 ('[T]he certainty an eyewitness expresses in his identification can be a misleading indicator of the identification's accuracy.')

⁹ *Criglow v. State*, 183 Ark. 407 (1931).

¹⁰ See *infra* notes 16–27.

¹¹ See *infra* notes 28–47.

¹² Fed. R. Evid. 102 ('These rules shall be construed to secure fairness in administration, elimination of unjustifiable expense and delay, and promotion of growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined.')

¹³ Fed. R. Evid. 402 ('All relevant evidence is admissible, except as otherwise provided.'). See also *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 587 (1993) ('The Rules' basic standard of relevance . . . is a liberal one').

¹⁴ Fed. R. Evid. 702 ('If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.'). See also *Daubert*, 509 U.S. 579 (interpreting Fed. R. Evid. 702 with respect to admissibility of scientific expert testimony); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999) (extending *Daubert* to expert testimony about technical and other specialized knowledge).

¹⁵ Compare *United States v. Hall*, 165 F.3d 1095, 1106 (7th Cir. 1999) (excluding expert testimony on eyewitness identification), with *United States v. Downing*, 753 F.2d 1224, 1232 (3d Cir. 1985) ('The logic of

3. Arguments against admitting such expert testimony

In this section, I discuss arguments in support of the view that expert testimony on eyewitness identification is not admissible, drawing on the position of the Court of Appeals for the Seventh Circuit that expert testimony on eyewitness identification is 'strong[ly] disfavored'¹⁶ and the position of the Eleventh Circuit that such testimony is per se inadmissible.¹⁷

Many courts considering the admissibility of expert testimony on eyewitness identification have, in applying Rule 702, found that such expert testimony does not assist the trier of fact. However, courts have given different—often contradictory—reasons for why expert testimony does not assist the trier of fact. First, some courts have found that jurors already know, as a matter of common sense, that eyewitness testimony is fallible and, based on this, they are appropriately sceptical of eyewitness testimony.¹⁸ The second reason (which is in tension with the first) that courts give for excluding expert testimony under Rule 702 is that juries will be confused by such testimony.¹⁹ Third, various courts have found that cognitive science research on human memory and cognition is too general to be useful to triers of fact.²⁰ Fourth, some courts have found that expert testimony on eyewitness identification is not admissible under Rule 702 because the scientific evidence about eyewitness identification is neither reliable nor does it satisfy the test for admissibility laid out by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).²¹ Relatedly, some courts have found that allowing expert testimony

Fed. R. Evid. 702 is inexorable . . . and requires . . . that expert testimony on eyewitness perception and memory be admitted at least in some circumstances.').

¹⁶ *Hall*, 165 F.3d at 1106. See also *United States v. Crotteau*, 218 F.3d 826 (7th Cir. 2000); *United States v. Hudson*, 884 F.2d 1016, 1027 (7th Cir. 1989); *United States v. Watson*, 587 F.2d 365 (7th Cir. 1978); but see *Krist v. Eli Lilly & Co.*, 897 F.2d 293 (7th Cir. 1990) (ruminating about contexts in which expert testimony might be admissible and suggesting a more favorable view than prior and subsequent Seventh Circuit opinions).

¹⁷ See, e.g., *United States v. Smith*, 122 F.3d 1355, 1359 (11th Cir. 1997) ('[T]his court has consistently looked unfavorably on [expert] testimony [regarding eyewitness reliability].'); *United States v. Holloway*, 971 F.2d 675, 679 (11th Cir. 1992) ('The established rule of this circuit is that [expert] testimony [about eyewitness identification] is not admissible.').

¹⁸ See, e.g., *United States v. Larkin*, 978 F.2d 964, 971 (7th Cir. 1992) (finding jury aware of hazards of eyewitness identification without expert testimony); *Hudson*, 884 F.2d at 1024 ('expert testimony [about eyewitness identification] will not aid the jury because it addresses an issue of which the jury is already generally aware . . .'); *United States v. Serna*, 799 F.2d 842, 850 (2d Cir. 1986) (expert testimony on eyewitness testimony consists of mere commonsense claims); *United States v. Purham*, 725 F.2d 450, 454 (8th Cir. 1984); *United States v. Thevis*, 665 F.2d 616, 641 (5th Cir. 1982); *United States v. Fosher*, 590 F.2d 381, 383 (1st Cir. 1979).

¹⁹ See, e.g., *United States v. Lumpkin*, 192 F.3d 280, 289 (2d Cir. 2000) ('proposed testimony and explication of scientific studies would have confused the jury[.]').

²⁰ See, e.g., *United States v. Brien*, 59 F.3d 274, 277 (1st Cir. 1995) ('[cognitive science] experts . . . largely offer rather obvious generalities.').; *Jordan v. DuCharme*, 983 F.2d 933, 939 (9th Cir. 1993) (allowing that expert testimony might be allowed about 'specific identifications in the case, rather than the general reliability of eyewitness testimony.'). Other courts have argued that the more general expert testimony on eyewitness identification is the better the case for its admissibility. For discussion, see, e.g., David Faigman *et al.*, *The Legal Relevance of Research on Eyewitness Identifications*, in *SCIENCE IN THE LAW: SOCIAL AND BEHAVIORAL SCIENCE ISSUES* 369, 378–79 (2000).

²¹ See, e.g., *United States v. Kime*, 99 F.3d 870, 883 (8th Cir. 1996) ('proffered expert testimony and eyewitness identification fails to qualify as 'scientific knowledge' under *Daubert*[.]'); *United States v. Rincon*, 28 F.3d 921, 924–25 (9th Cir. 1994); *United States v. Poole*, 794 F.2d 462, 468 (9th Cir. 1986); *United States v. Watson*, 587 F.2d 365, 369 (7th Cir. 1978).

on eyewitness identification would invade an essential function of juries, namely assessing the reliability of witnesses.²²

Some courts have found expert testimony on eyewitness identification inadmissible under Federal Rule of Evidence 403, which authorizes the exclusion of relevant evidence that, on balance, is not worth a court's time or will likely confuse or mislead the jury.²³ Various courts have provided different accounts of how expert testimony on eyewitness identification should be excluded on the basis of the so-called '403 balancing test.' Some courts have found that such expert testimony should be excluded because it will confuse, mislead, and/or overwhelm juries.²⁴ Other courts have held that such testimony should be excluded under rule 403 because its probative value is outweighed by efficiency considerations relating to the risk of a battle of experts or a 'mini-trial' within a trial about eyewitness testimony.²⁵ Relatedly, some courts have found that, because of concerns related to Rule 403, expert testimony is less preferable than alternative means of protecting triers of fact from the fallibilities of eyewitness testimony, namely educating juries about such fallibilities through cross-examination of eyewitnesses²⁶ or through jury instructions.²⁷

4. Replies to arguments against admitting such testimony

In this section, I reply to these arguments and defend the admissibility of expert testimony concerning eyewitness identification, focusing on the view of the Court of Appeals for the Third Circuit, which strongly favours admissibility of expert testimony on eyewitness identification insofar as such testimony is relevant.²⁸ For the sake of examining the

²² See, e.g., *Lumpkin*, 192 F.3d at 289; *Hall*, 165 F.3d at 1107 ('credibility of eyewitness testimony is generally not an appropriate subject matter for expert testimony because it influences a critical function of the jury—determining the credibility of witnesses'); *Kime*, 99 F.3d at 884 ('[t]he evaluation of eyewitness testimony is for the jury alone. It is the exclusive province of the jury to determine the believability of a witness.') (quotation omitted).

²³ Fed. R. Evid. 403 ('Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.')

²⁴ See, e.g., *Lumpkin*, 192 F.3d 280, 289 (expert testimony on correlation between confidence and accuracy 'would have confused the jury[]'); *Rincon*, 28 F.3d at 926; *Serna*, 799 F.2d at 850 (expert testimony would 'muddy the waters'); *Fosher*, 590 F.2d at 383 (jury would be overwhelmed by expert's 'aura of special reliability and trustworthiness.')

²⁵ See, e.g., *Thevis*, 665 F.2d at 641 (expressing concern about 'open[ing] the door to a barrage of marginally relevant psychological evidence'); *Fosher*, 590 F.2d at 384; *United States v. Brown*, 501 F.2d 146, 150 (9th Cir. 1974) *rev'd on other grounds sub nom United States v. Nobles*, 422 U.S. 225 (1975).

²⁶ See, e.g., *Hall*, 165 F.3d at 1107 ('any weaknesses in eyewitness identification testimony ordinarily can be exposed through careful cross-examination of the eyewitnesses.');

Smith, 122 F.3d at 1358–59; *United States v. Hicks*, 103 F.3d 837, 847 (9th Cir. 1996); *United States v. Harris*, 995 F.2d 532, 536 (4th Cir. 1993); *Larkin*, 978 F.2d at 971; *United States v. Curry*, 977 F.2d 1042, 1051–52 (7th Cir. 1992) ('vigorous cross-examination' of eyewitnesses was sufficient to exclude 'intrusion' of expert testimony on eyewitness identifications); *Thevis*, 665 F.2d at 641; *United States v. Amard*, 488 F.2d 1148, 1153 (9th Cir. 1973).

²⁷ See, e.g., *Hall*, 165 F.3d at 1107; *Hicks*, 103 F.3d at 847; *Rincon*, 28 F.3d at 925 (finding trial judge's jury instructions provided similar information as expert testimony would have).

²⁸ See, e.g., *United States v. Mathis*, 264 F.3d 321, 336 & 340 (3d Cir. 2000) (the Third Circuit has 'disavowed skepticism of [expert] testimony [about eyewitness identifications] as a matter of principle' and embraced the view that 'experts who apply reliable scientific expertise to juridically pertinent aspects of the human mind and body should generally, absent explicable reasons to the contrary, be welcomed by federal courts'); *United States*

principles of evidence rather than the detailed results of scientific research, I will assume that the scientific conclusions about eyewitness testimony are well supported²⁹ and satisfy the 'general acceptance' test of *Daubert*.³⁰

First, the results of scientific research on human memory and cognition, generally, and eyewitness identification, specifically, are quite counterintuitive and hardly commonsensical.³¹ It is hard to accept, for example, that an eyewitness's degree of confidence about an identification is weakly or not at all correlated with the accuracy of such identifications.³² Even when the conclusions of cognitive science research mesh with common sense, the specificity of the results of such research cannot plausibly count as commonsensical. For example, it is somewhat plausible that people are less reliable at identifying people of different races than they are at identifying those of the same race. Scientific evidence confirms this intuition.³³ However, it is also plausible that frequent contact with members of another race would increase the accuracy of identifications of members of that race. This intuition has not been confirmed by scientific evidence.³⁴ In general, jurors are unaware of the results of cognitive science research and, in any event, fail to grasp the significance of what such studies show because their results are counterintuitive and require explanation.³⁵ Introducing expert testimony on eyewitness identification would help the trier of fact appropriately weigh eyewitness testimony.³⁶

Second, it is certainly true that whenever scientific evidence is introduced in a trial,

v. *Stevens*, 935 F.2d 1380 (3d Cir. 1991); *Downing*, 753 F.2d at 1243. See also, *United States v. Smithers*, 212 F.3d 306 (6th Cir. 2000).

²⁹ See, e.g., CUTLER & PENROD, *supra* note 3, at 55–136; LOFTUS & DOYLE, *supra* note 3, at 1–93; Wells, *supra* note 3.

³⁰ See, e.g., Saul Kassin *et al.*, *On the 'General Acceptance' of Eyewitness Testimony Research*, 56 AM. PSYCHOL. 405 (2001); Wells, *supra* note 3, at 381.

³¹ See, e.g., CUTLER & PENROD, *supra* note 3, at 171–209.

³² See, e.g., LOFTUS & DOYLE, *supra* note 3, at 66 ('It seems intuitively reasonable to assume that a witness is more likely to be correct if he or she projects certainty rather than doubt.'). Wells, *supra* note 3, at 412 ('the certainty an eyewitness expresses in his identification can be a misleading indicator of the identification's accuracy.').

³³ See, e.g., LOFTUS & DOYLE, *supra* note 3, at 86; Wells, *supra* note 3, at 404; Devenport *et al.*, *supra* note 7; Chris Meissner & John Brigham, *A Meta-Analysis of the Other-Race Effect in Eyewitness Identification*, 7 PSYCHOL. PUB. POL'Y & L. 3 (2001).

³⁴ See, e.g., Daniel Levin, *Race as a Visual Feature: Using Visual Search and Perceptual Discrimination Tasks to Understand Face Categories and the Cross-Race Recognition Deficit*, 129 J. EXPERIMENTAL PSYCHOL.: GEN. 559 (2000); W. Ng & R. C. L. Lindsay, *Cross-race Facial Recognition: Failure of the Contact Hypothesis*, 25 J. CROSS-CULTURAL PSYCHOL. 217 (1994).

³⁵ See, e.g., CUTLER & PENROD, *supra* note 3, at 171–209; LOFTUS & DOYLE, *supra* note 3, 292–294; ELIZABETH LOFTUS & JAMES DOYLE, EYEWITNESS TESTIMONY: CIVIL AND CRIMINAL §11-11 (Supp. 2000); Devenport, *supra* note 7; Saul Kassin & Kimberly Bardollar, *The Psychology of Eyewitness Testimony: A Comparison of Experts and Prospective Jurors*, 22 J. APPLIED PSYCHOL. 1241 (1992). See also Mathis, 264 F.3d at 341 ('testimony of this sort, with its accompanying level of scientific detail, would not simply duplicate jurors' intuitions or common sense'); *Smithers*, 212 F.3d at 313 ('jurors are unaware of several scientific principles affecting eyewitness identifications ... [and], because many of the factors affecting eyewitness impressions are counter-intuitive, many jurors' assumptions about how memories are created are actively wrong') (citation omitted); *United States v. Moore*, 786 F.2d 1308, 1312 (5th Cir. 1986) (finding expert testimony admissible because 'the conclusions of the psychological studies are largely counter-intuitive, and serve to explode common myths about an individual's capacity for perception.') (quotation and citation omitted); *Downing*, 753 F.2d at 1230 ('this type of expert testimony can satisfy the helpfulness test of Rule 702').

³⁶ See, e.g., CUTLER & PENROD, *supra* note 3, at 213–242; Wells, *supra* note 3, at 416–419. With respect to cross-racial eyewitness identification specifically, see, e.g., Meissner & Brigham, *supra* note 33.

there is a heightened risk of confusion. This is especially true when the evidence introduced is counterintuitive. However, this increased risk of confusion should be outweighed when the proffered expert testimony is especially probative. Given that jurors are unduly receptive to eyewitness identification and are not sufficiently sceptical of it,³⁷ expert testimony about eyewitness identification is an important antidote to the overvaluing of eyewitness testimony even though jurors may be confused by it. Given jurors' receptivity to eyewitness testimony, if a defendant is going to be convicted primarily on the basis of such testimony, then it is surely worth risking confusion in order to provide jurors with a more realistic perspective on eyewitness testimony. Third, and relatedly, the results of cognitive science research are not too general but rather are of the appropriate level of generality for the purpose of assisting jurors to take a realistic view of eyewitness testimony.³⁸

Fourth, expert testimony on eyewitness identification does not invade the role of the jury. Sometimes, when a court refuses to admit expert testimony on eyewitness identification, the refusal seems based on the concern that the expert witness might testify on an ultimate issue of fact, such as whether the defendant was actually the person that the witness saw at a particular time and place.³⁹ The thought is that such issues of fact are for the jury to decide. However, Federal Rule of Evidence 704 explicitly says that opinion testimony should not be excluded simply because it concerns an issue of fact.⁴⁰ In particular, the notes of the advisory committee that proposed the rules of evidence say that Rule 704 'specifically abolished' the 'so-called 'ultimate issue' rule.'⁴¹

Turning to reasons for excluding expert testimony related to Rule 403, expert testimony on eyewitness identification must, like all other evidence, pass the 403 balancing test even if it is relevant and is admissible under Rule 702. If, in a particular case, eyewitness identification is not especially important to the deliberations, then expert testimony about biases and errors related to eyewitness identifications will have little probative value to that case. Under Rule 403, expert testimony should be excluded in such a case. However, many courts that have applied Rule 403 and found expert testimony inadmissible on that basis have done so in cases quite different than the one just imagined. Such courts have found, in effect, that expert testimony on eyewitness identification is inadmissible under Rule 403 because expert testimony is confusing, misleading or likely to lead to a battle of experts.⁴² In many instances, however, expert testimony on eyewitness identification will be important for uncovering the truth and reaching a just verdict. Especially in criminal trials, in which eyewitness identification is an important piece of evidence, expert testimony about the biases and errors involved in eyewitness identification will be relevant, worth the time, and worth the risk of juror confusion.⁴³ Further, concerns about a 'mini-

³⁷ See *supra* note 3.

³⁸ See, e.g., FAIGMAN *et al.*, *supra* note 20, at 378–79.

³⁹ See, e.g., *Kime*, 99 F.3d at 884.

⁴⁰ Fed. R. Evid. 704 ('[T]estimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact.'). This does not mean that experts are permitted to testify about whether a specific witness is reliable—in general, they are not. Rather, Rule 704 means that more general expert testimony is admissible even if it bears on an issue related to a question to be decided by the trier of fact.

⁴¹ Fed. R. Evid. 704(a) advisory committee's note.

⁴² See *supra* notes 24 and 25.

⁴³ See, e.g., *Downing*, 753 F.2d at 1239 & 1240 ('After assessing the reliability of the evidence, the [trial] court must also weigh any danger that the evidence might confuse or mislead the jury. It may seem paradoxical to

trial' within a trial and about battles of experts, while not trivial, arise any time experts testify. The time involved in admitting expert testimony is occasionally warranted by the help that such evidence gives to triers of fact.⁴⁴ Expert testimony about eyewitness identification should be admissible under the rules, especially since research suggests that such expert testimony may improve juror functioning.⁴⁵

With regards to the allegedly more efficient alternatives to expert testimony—cross-examination and jury instructions—expert testimony is surely better than cross-examination of eyewitnesses as a way of educating a jury about problems with eyewitness identification. In general, since most people are unaware of their own cognitive biases and fallibilities,⁴⁶ cross-examination of eyewitnesses will be impotent to bring out the problems with the eyewitnesses' cognitive processes.⁴⁷ Similarly, expert testimony is probably better than jury instructions as a way of educating a jury about problems with eyewitness identification. Being told the results of scientific research in a conclusory manner by a judge is not a more effective way of educating a jury about the cognitive biases and errors involved in eyewitness identification.⁴⁸ Jury instructions come too late in the trial to affect the jury's assessment of witnesses and their testimony. In general, it would

suggest that scientific evidence based on principles bearing substantial indicia of reliability could confuse rather than assist the jury, but . . . this may be so, in some cases The trial court must then balance its assessment of the reliability of [the scientific research on which an expert is testifying] against the danger that the evidence, even though reliable, might nonetheless confuse or mislead the finder of fact, and decide whether the evidence should be admitted.').

⁴⁴ See, e.g., *id.* at 1243 n. 27 ('Some courts, concerned with the prospect of creating a new 'cottage industry' of psychological experts who will be asked to testify in every case involving eyewitness testimony, and with the spectre of criminal cases turning into a 'battle of the experts' that misleads the jury and confuses the issues, have excluded this expert testimony on the grounds that its prejudicial effect outweighs its probative value We are sympathetic to these concerns but are not moved by the legal point [T]he district court has the discretionary authority to limit the number of experts who may testify and the length of their testimony. At all events, if the testimony is highly probative and meets the conditions set forth above concerning reliability, the likelihood of misleading the jury, and the requisite specificity in the offer of proof, the parties are entitled to present it, whether or nor it adds to the length of the trial; presumably such evidence will add clarity and enhance the truth-seeking function of the trial, thereby offsetting the disadvantage of delay.')

⁴⁵ See, e.g., CUTLER & PENROD, *supra* note 3, at 268 ('There are now sound reasons to believe that jurors not only need [expert] testimony [on eyewitness identification] but [that they] also benefit from it'); LOFTUS & DOYLE, *supra* note 3, at 296 ('Recent research . . . suggests that while expert testimony is no panacea, it does enhance the quality of jury deliberations').

⁴⁶ See, e.g., STEIN, *supra* note 2 at 159–161 (arguing that, in general, humans are poor at intuiting the character of their own cognitive processes).

⁴⁷ See, e.g., CUTLER & PENROD, *supra* note 3, at 143–168; Wells, *supra* note 3, at 412 (finding that witness's high degrees of confidence in identification is 'no more likely to be shaken by cross-examination' whether identification is accurate or inaccurate). See also *Downing*, 753 F.2d at 1231 n.6 ('To the extent that a mistaken witness may retain great confidence in an inaccurate identification, cross-examination can hardly be seen as an effective way to reveal the weaknesses in a witness' recollection of an event'); *United States v. Hines*, 55 F. Supp. 2d 62, 72 (D. Mass 1999) ('In the absence of an expert, a defence lawyer . . . may try to argue that cross racial identifications are more problematic than identifications between members of the same race . . . , but his voice necessarily lacks the authority of the scientific studies'). Cf. LOFTUS & DOYLE, *supra* note 3, at 226–229 (discussing strategies for cross-examination of eyewitnesses).

⁴⁸ See, e.g., CUTLER & PENROD, *supra* note 3, at 264 ('judges' instructions do not serve as an effective safeguard against mistaken identifications and convictions'). Cf. LOFTUS & DOYLE, *supra* note 3, at 327–344 (discussing strategies for approaching jury instructions concerning eyewitness testimony); Neil Vidmar, *Are Juries Competent to Decide Liability in Tort Cases Involving Scientific/Medical Issues? Some Data from Medical Malpractice*, 43 EMORY L.J. 885 (1994) (suggesting, in a different context, that expert testimony is more effective than jury instructions).

be better for the goals of truth and justice to introduce expert testimony on the fallibility of eyewitness identification and let the parties attempt to make the case for the relevance (or irrelevance) of such scientific evidence to the identifications at issue rather than have the judge, just before the jury begins its deliberations, issue general instructions on the value of and problems with eyewitness testimony.

5. Conclusion

Given that current scientific research suggests that eyewitness testimony is systematically biased or fallible, when eyewitness identification testimony is important to a trial, expert testimony on well-established cognitive science research should be admissible under both Rule 702 and Rule 403. The goals of obtaining truth and justice can be better achieved by having scientific experts assist the jury by putting eyewitness testimony in the appropriate perspective.

Acknowledgement

This article is a revised version of a paper presented at the Inference, Culture and Ordinary Thinking in Dispute Resolution conference, held on April 27–29, 2003 at Cardozo School of Law and organized by Peter Tillers. This paper benefited from the formal comments Roger Park made at the conference and the remarks made by David Faigman. Melanie Leslie also provided helpful comments on an early draft of this article and the participants in the Cardozo Junior Faculty Workshop also provided useful suggestions for revision. Gillian Deutch and Mary Ellen Reilly provided valuable research assistance.