

TOWARD A NEW STANDARD FOR THE ADMISSION OF EXPERT EVIDENCE IN ILLINOIS: A CRITIQUE OF THE *FRYE* GENERAL ACCEPTANCE TEST AND AN ARGUMENT FOR THE ADOPTION OF *DAUBERT*

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The use of expert testimony in litigation presents an inescapable paradox. Expert witnesses testify about matters beyond the common knowledge of lay people, and lay judges and jurors are asked to assess their testimony.¹ One of the ways courts attempt to combat this potential problem, at least with respect to scientific expert testimony, is to ensure that the testimony is based on good science, not “junk science.” Courts differ, however, on how this assessment is made. Illinois courts, like those in a minority of other jurisdictions, determine the admissibility of expert scientific testimony based on the *Frye* test, which was established in the 1923 case of *Frye v. United States*.² The *Frye* test served as the dominant standard for determining the admissibility of scientific evidence until the United States Supreme Court’s decision in *Daubert v. Merrell Dow Pharmaceutical, Inc.* in 1993.³ *Daubert* established a new standard for the admissibility of scientific evidence in the federal courts that has also been adopted by a majority of state courts.⁴ Illinois has yet to consider whether to adopt *Daubert*, but the Illinois appellate courts have hinted that the issue may be ripe for consideration.⁵

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1. Sanja Kutnjak Ivkovi & Valerie P. Hans, *Jurors’ Evaluations of Expert Testimony: Judging the Messenger and the Message*, 28 LAW & SOC. INQUIRY 441, 441 (quoting Samuel Gross’s essential paradox of expert testimony).
2. *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923); see generally Alice B. Lustre, Annotation, *Post-Daubert Standards for Admissibility of Scientific and Other Expert Evidence in State Courts*, 90 A.L.R. 453 (2009) (gives state-by-state breakdown of *Frye* acceptance).
3. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).
4. Lustre, *supra* note 2.
5. Stephanie Potter, *Adopt U.S. Science Standard, Justices Urged*, CHI. DAILY L. BULL., Sept. 3, 2008, at 1, 24 (discussing a recent petition for leave to appeal to the Illinois Supreme Court, which asks the Court to adopt *Daubert*); see *Donnellan v. First Student Inc.*, 891 N.E.2d 463, 479–81 (Ill. App. Ct. 2008) (stating that the Illinois Supreme Court should consider the viability of *Frye* because *Daubert* provides additional guidance on evidentiary reliability but noting that the facts of the case were not sufficient for a proper challenge because the evidence at issue would have been acceptable under *Frye* and *Daubert*), *appeal denied*, 900 N.E.2d 1117 (Ill. 2008).

Part I of this Article will discuss the standards for the admission of scientific evidence developed in *Frye* and *Daubert*.⁶ Part II will examine Illinois' approach to the admission of scientific evidence, focusing on the Illinois Supreme Court's recent decision in *People v. McKown*.⁷ Part III will analyze the implications of *McKown* for the admissibility of scientific evidence in Illinois.⁸ Finally, Part IV will suggest that Illinois abandon *Frye* in favor of *Daubert*.⁹

I. *FRYE TO DAUBERT: THE ADMISSIBILITY STANDARDS FOR EXPERT EVIDENCE*

A. The *Frye* Test: General Acceptance

In *Frye v. United States*, decided in 1923, the Court of Appeals for the District of Columbia considered whether the trial court erred in denying the defendant's offer of evidence derived from a systolic blood pressure test, a precursor to the polygraph test.¹⁰ Without citation to authority, the court stated:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.¹¹

The court then determined, without analysis, that the systolic blood pressure test had not gained "standing and scientific recognition among physiological and psychological authorities."¹²

Frye prohibits the admission of scientific evidence unless the relevant scientific community generally accepts the underlying methodology or scientific principle of the evidence. It requires a two-part analysis: (1) an

6. See *infra* Part I (discussing *Frye v. United States* and the *Daubert* trilogy).

7. See *infra* Part II (discussing the Illinois cases that established the admissibility standard for scientific evidence).

8. See *infra* Part III (critiquing the admissibility standard in Illinois).

9. See *infra* Part IV (arguing that Illinois should adopt the *Daubert* standard to assess the admissibility of expert evidence).

10. *Frye v. United States*, 293 F. 1013, 1013–14 (D.C. Cir. 1923).

11. *Id.*

12. *Id.*

identification of the relevant scientific community; and (2) a determination of whether that community has generally accepted the methodology or scientific principle.¹³ But *Frye* offers no insight into how to identify the relevant scientific community or how to determine when a methodology or scientific principle has met the threshold of general acceptance. These questions were left to the courts, like Illinois state courts, which adopted and applied *Frye* as the leading authority on the admission of scientific evidence until the United States Supreme Court's decision in *Daubert*.

B. The *Daubert* Trilogy: Creating a New Admissibility Standard

1. *Daubert and the Requirement of Evidentiary Reliability*

In 1993, seventy years after the *Frye* decision, the United States Supreme Court created a new standard for the admissibility of expert scientific evidence in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*¹⁴ The Court determined that the adoption of the Federal Rules of Evidence ("FRE") displaced *Frye* because the Federal Rules included a rule on expert testimony (FRE 702) that did not mention general acceptance and because a "rigid 'general acceptance' requirement would be at odds with the 'liberal thrust' of the Federal Rules" and their relaxation of the opinion evidence requirements.¹⁵

The Court found that, under FRE 702, scientific evidence was admissible only when it was relevant and reliable.¹⁶ FRE 702 provides: "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."¹⁷

The Court easily found the requirement of relevance in FRE 702's requirement that the evidence "assist the trier of fact to understand the evidence or to determine a fact in issue."¹⁸ The requirement of reliability, however, took more interpretative skill.

The Court stated that FRE 702 contemplated regulation of the subjects of expert testimony because it limited the testimony to "scientific knowledge."¹⁹ The Court defined "scientific" as "a grounding in the methods

13. See generally *Frye*, 293 F. at 1013–14.

14. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

15. *Id.* at 588.

16. *Id.* at 589.

17. FED. R. EVID. 702.

18. *Daubert*, 509 U.S. at 591.

19. *Id.* at 589 (citing FED. R. EVID. 702).

and procedures of science” and “knowledge” as referring to a “more than subjective belief or unsupported speculation.”²⁰ Based on these definitions, the Court determined that testimony qualified as “scientific knowledge” when the testimony was derived from the scientific method.²¹ Thus, the requirement that the testimony concern “scientific knowledge” imposed a requirement of evidentiary reliability or trustworthiness, which the Court equated with scientific validity.²²

The Court gave trial judges the task of determining whether expert scientific evidence was relevant and reliable.²³ As to the reliability inquiry, the Court offered five factors for trial judges to consider: (1) whether the theory or technique “can be (and has been) tested”; (2) “whether the theory or technique has been subject to peer review and publication”; (3) whether the “known or potential error rate” is acceptable; (4) whether standards exist and are maintained to control the technique’s operation; and (5) whether the theory or technique is generally accepted.²⁴ The Court did not view any of the factors as determinative of evidentiary reliability.²⁵ It stressed that the inquiry was flexible²⁶ and that it should focus on the “principles and methodology [used], not on the conclusions they generate.”²⁷

The Court concluded by addressing two conflicting concerns raised by its decision.²⁸ First, the abandonment of *Frye* and general acceptance as the exclusive requirement for admissibility raised concerns that this liberalization of admissibility standards would result in juries being “confounded by absurd and irrational pseudoscientific assertions.”²⁹ The Court responded that “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof” were the appropriate ways to attack weak but admissible evidence.³⁰ Second, the new admissibility standard’s recognition of a “screening role” for trial judges raised concerns that judges would “sanction a stifling and repressive scientific orthodoxy” that was contrary to the search for truth.³¹ The Court responded by noting that law and

20. *Id.* at 589–90.

21. *Id.* at 590.

22. *Id.*

23. *Id.* at 592–93.

24. *Id.* at 593–94.

25. *Id.* at 593.

26. *Id.* at 594.

27. *Id.* at 595.

28. *Id.* at 595–97.

29. *Id.* at 595.

30. *Id.* at 596.

31. *Id.*

science have different goals for their investigations.³² Scientists had the luxury of time in which to continually update their theories, while courts had to make final determinations and make them quickly.³³ Under these circumstances, the Court recognized that trial judges would occasionally exclude authentic scientific insights and innovations that had not met the standard for admissibility.³⁴ According to the Court, the Federal Rules found this to be an acceptable byproduct of resolving a particular legal dispute.³⁵

2. Joiner and Kumho Tire Co.: Expanding the Reach of the Daubert Standard

Following *Daubert*, the United States Supreme Court issued two decisions that addressed questions left unanswered about the new admissibility standard. First, in *General Electric Company v. Joiner*, the Court addressed the standard of review that appellate courts should apply to evaluate expert scientific evidence.³⁶ It held that abuse of discretion, rather than a more stringent standard of review, was the appropriate standard for reviewing a trial court's decision to either allow or disallow expert scientific evidence.³⁷ In so holding, the Court reaffirmed "the 'gatekeeper' role of the trial judge"³⁸ as it granted the trial judge's decision to allow or disallow evidence great deference.³⁹

Second, in *Kumho Tire Company, Ltd. v. Carmichael*, the Court expanded the reach of *Daubert* to all expert testimony.⁴⁰ *Daubert* held that FRE 702 required trial judges to ensure that all expert scientific testimony was relevant and reliable. But in *Kumho*, the Court recognized that FRE 702 was not limited to scientific knowledge but applied to "technical" knowledge and "other specialized knowledge" as well.⁴¹ Because the *Daubert* standard was derived from the word "knowledge" in FRE 702, as opposed to the modifier "scientific," the *Daubert* standard extended to these other types of expertise.⁴² Further supporting its interpretation, the Court noted that it would be almost impossible for trial judges to "administer evidentiary rules under which a

32. *Id.* at 596–97.

33. *Id.* at 597.

34. *Id.*

35. *Id.*

36. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136 (1997).

37. *Id.* at 142.

38. *Id.*

39. *Id.* at 142–43.

40. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999).

41. *See* FED. R. EVID. 702.

42. *Kumho Tire Co.*, 526 U.S. at 147.

gatekeeping obligation depended upon a distinction between ‘scientific’ knowledge and ‘technical’ or ‘other specialized’ knowledge.”⁴³

In applying the *Daubert* standard to these other types of expertise, the Court stated that trial judges could apply the five factors that *Daubert* identified as relevant to the reliability inquiry.⁴⁴ As in *Daubert*, the Court stressed that the inquiry was flexible and that the factors were not a test.⁴⁵ Certain factors “may or may not be pertinent in assessing, depending on the nature of the issue, the expert’s particular expertise, and the subject of . . . [the expert’s] testimony.”⁴⁶ Trial judges were given as much latitude in determining how to test an expert’s reliability as they were in deciding whether an expert’s testimony was reliable.⁴⁷

II. ILLINOIS’ APPROACH TO EXPERT TESTIMONY

Just as the United Supreme Court established a standard for the admission of expert testimony for the federal courts in a trilogy of cases, the Illinois Supreme Court has also done so in a trilogy of cases—*Donaldson v. Central Illinois Public Service Company*,⁴⁸ *In re Commitment of Simons*,⁴⁹ and *People v. McKown*.⁵⁰

Prior to the Illinois Supreme Court’s decisions in the above cases, the proper standard for the admission of expert scientific evidence and the parameters of the chosen standard were unclear. The Court mentioned *Frye*’s general acceptance test and offered reasons why it was the proper standard in several cases during the 1980s. In *People v. Zayas*, for instance, the Court stated that the *Frye* general acceptance test was the proper standard because it (1) was judicially manageable; (2) saved time and resources; (3) ensured the jury is not misled by unproven scientific procedures; and (4) ensured fairness and uniformity of decision-making.⁵¹ However, the Court’s decisions in these cases purportedly applying *Frye* resolved the admissibility issue in terms of

43. *Id.* at 148.

44. *Id.* at 149–50.

45. *Id.* at 151.

46. *Id.* at 150 (quoting Brief for the United States as Amicus Curiae Supporting Petitioners at 19, *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999) (No. 97-1709), 1998 WL 541947).

47. *Id.* at 153.

48. *Donaldson v. Cent. Ill. Pub. Serv. Co.*, 767 N.E.2d 314 (Ill. 2002).

49. *In re Commitment of Simons*, 821 N.E.2d 1184 (Ill. 2004).

50. *People v. McKown*, 875 N.E.2d 1029 (Ill. 2007).

51. *People v. Zayas*, 546 N.E.2d 513, 517–18 (Ill. 1989) (quoting the Alaska Supreme Court’s decision in *Contreras v. State*, 718 P.2d 129 (Alaska 1986)).

reliability or probative versus prejudicial value.⁵² This caused some appellate courts in Illinois to apply a modified *Frye* standard called the *Frye*-plus-reliability standard, which required trial courts to first determine whether the technique or methodology was generally accepted and then determine whether it was reliable by using the *Daubert* factors.⁵³ The Court did not unequivocally determine the standard for admissibility until *Donaldson*.

A. *Donaldson*: The Affirmation of the *Frye* General Acceptance Test

In 2002, the Illinois Supreme Court affirmed in *Donaldson* that the *Frye* general acceptance test governed the admission of expert testimony.⁵⁴ It did not consider the adoption of the *Daubert* standard, and it rejected the *Frye*-plus-reliability standard for two reasons.⁵⁵ First, it found that the *Frye*-plus-reliability standard was redundant because the reliability determination was part of the general acceptance inquiry.⁵⁶ According to the court, a principle or technique would not receive general acceptance if it was unreliable.⁵⁷ Second, the court found that the *Frye*-plus-reliability standard invaded the jury's role in evaluating the weight of the evidence because it examined the data underlying the expert's opinion even though a technique was generally accepted.⁵⁸ Questions about underlying data or an expert's application of a generally accepted technique concerned the weight of the evidence rather than its admissibility.⁵⁹ In other words, "[t]rial judges decide the general acceptance of the technique; a jury decides whether it will accept the expert's conclusion which is based on that technique."⁶⁰

The court stated the standard for the admissibility of expert scientific evidence using the language of *Frye*: "[S]cientific evidence is only admissible at trial if the methodology or scientific principle upon which the opinion is based is 'sufficiently established to have gained general acceptance in the particular field in which it belongs.'"⁶¹

52. *Id.* at 518 (stating that hypnotically induced testimony was not reliable and that its probative value was questionable).

53. See *Harris v. Cropmate*, 706 N.E.2d 55, 60 (Ill. App. Ct. 1999); *First Midwest Trust Co. v. Rogers*, 701 N.E.2d 1107, 1114–15 (Ill. App. Ct. 1999), *abrogated by Donaldson*, 767 N.E.2d 314 (Ill. 2002).

54. *Donaldson*, 767 N.E.2d at 323.

55. *Id.* at 325–26.

56. *Id.* at 325.

57. *Id.*

58. *Id.*

59. *Id.* at 323.

60. *Id.* at 326.

61. *Id.* at 324.

The general acceptance test focused on the method used to reach an opinion, regardless of the actual opinion reached.⁶² The methodology had to be generally accepted by experts in the testifying expert's particular field.⁶³

The court then explained the meaning of general acceptance. It initially stated that the inquiry focused on the issue of "consensus versus controversy over a particular technique" in the relevant scientific community.⁶⁴ But the court immediately contradicted this focus on consensus:

Simply stated, general acceptance does not require that the methodology be accepted by unanimity, consensus, or even a majority of experts. A technique, however, is not "generally accepted" if it is experimental or of dubious validity. Thus, the *Frye* rule is meant to exclude methods new to science that undeservedly create the perception of certainty when the basis for the evidence or opinion is actually invalid.⁶⁵

Thus, the court defined general acceptance in a vague and contradictory manner by what it was not. The only affirmative meaning ascribed to general acceptance was that it related to validity.

The court also limited the general acceptance standard to certain subjects. First, it limited it to expert testimony based on a scientific principle or technique that was new or novel.⁶⁶ The court defined a technique as "new" or "novel" if it was "original or striking" or did "not resemble something formerly known or used" but recognized that the identification of a technique as new or novel was not easy.⁶⁷ Second, the court limited the standard to subjects that had not gained general acceptance in prior litigation.⁶⁸ Once a scientific technique or principle achieved general acceptance in a court, its general acceptance was established as a matter of law for all time.⁶⁹

B. *In re Commitment of Simons*: Once Generally Accepted, Always Generally Accepted

After *Donaldson*, the Illinois Supreme Court, just like the United States Supreme Court, addressed the standard for reviewing a trial court's

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.*

66. *Id.*

67. *Id.* at 325 (quoting WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1546 (1993)).

68. *Id.*

69. *Id.*

admissibility decision. However, unlike the United States Supreme Court, the Illinois Supreme Court did not defer to a trial court's *Frye* general acceptance analysis. The court stated that a trial court's *Frye* general acceptance analysis was subject to *de novo* review.⁷⁰ An appellate court could consider sources outside the record, such as legal and scientific articles and the decisions of other jurisdictions, in addition to the trial record to determine whether a scientific technique was generally accepted in the relevant scientific community.⁷¹

The court adopted this more stringent standard of review, rather than the abuse of discretion standard that was typically applied to *Frye* rulings, for two reasons. First, a *de novo* standard of review was necessary because the legal finding of general acceptance of a technique impacted cases beyond the individual case on appeal.⁷² A finding of general acceptance established the law of the jurisdiction for future cases and a standard less than *de novo* would lead to inconsistent treatment of similar claims.⁷³ Second, the *de novo* standard of review, relying on outside sources, did not raise the same problems in the *Frye* context that such a standard would raise in other contexts.⁷⁴ The *Frye* general acceptance analysis required a reviewing court to “[count] scientists’ votes” as to general acceptance, rather than determine a scientific technique’s validity, so that there would be no “concerns about witness credibility and hearsay normally associated with citations to empirical or scientific studies whose authors cannot be observed or cross-examined.”⁷⁵

C. *People v. McKown*: The Breakdown of the *Frye* General Acceptance Test

The recent case of *McKown* concludes the Illinois Supreme Court’s trilogy of cases discussing the *Frye* general acceptance standard for the admissibility of expert scientific evidence.⁷⁶ Unlike the United States Supreme Court decision in *Kumho*, the court in *McKown* does not expand the reach of the *Frye* general acceptance standard to all expert testimony. Instead, the court’s application of the *Frye* standard in *McKown* appears to weaken the standard.

70. *In re Commitment of Simons*, 821 N.E.2d 1184, 1189 (Ill. 2004).

71. *Id.*

72. *Id.*

73. *Id.* at 1189–90.

74. *Id.* at 1190.

75. *Id.* (quoting *People v. Miller*, 670 N.E.2d 721, 739 (Ill. 1996)).

76. *People v. McKown*, 875 N.E.2d 1029 (Ill. 2007).

In *McKown*, the court examined whether it was proper for the trial court to refuse to hold a *Frye* hearing and determine the general acceptance of the horizontal gaze nystagmus (HGN) test⁷⁷ as an indicator of alcohol impairment by taking judicial notice of prior decisions.⁷⁸

The court began its analysis by reiterating the *Frye* standard—scientific evidence is admissible in Illinois when the “methodology or scientific principle” is novel and is generally accepted in the relevant field.⁷⁹ General acceptance could be shown either by the results of a *Frye* hearing or “by taking judicial notice of unequivocal and undisputed prior judicial decisions or technical writings.”⁸⁰ The court proceeded to discuss two initial matters—whether HGN testing was (1) scientific evidence and (2) new or novel and, therefore, subject to *Frye*.⁸¹

The court defined “scientific evidence” as “the product of scientific tests or studies.”⁸² It noted that Illinois courts require that such evidence be found reliable in a *Frye* hearing because juries may give it weight it would not otherwise have been given merely because it is labeled “science.”⁸³

The court, recognizing that a minority of jurisdictions had concluded that HGN testing was not scientific, sided with the majority of jurisdictions which found it was scientific⁸⁴ “because it [was] based on a scientific principle that [was] not common knowledge.”⁸⁵ According to the court, the results of an HGN test, unlike the walk-and-turn field sobriety test, are meaningless to a layperson without expert interpretation.⁸⁶

Next, the court determined that HGN testing was novel.⁸⁷ In so finding, the court explained that, “despite the fact that it has been used by police officers for many years . . . no *Frye* hearing has been held in Illinois to determine if the HGN test has achieved general acceptance as a reliable indicator of alcohol impairment.”⁸⁸ It also noted that HGN testing had been

77. The HGN test is supposed to measure nystagmus, which is the “abnormal and involuntary rapid movement of the eyeballs up and down, or more commonly, side to side.” People typically exhibit nystagmus as their eyes track to the extreme side. However, intoxicated people exhibit nystagmus at fewer degrees of lateral deviation from the center, and the movement is more noticeable at extreme angles. Nystagmus may be caused by alcohol consumption as well as other ailments. *Id.* at 1031.

78. *Id.* at 1034.

79. *Id.* (quoting *In re Commitment of Simons*, 821 N.E.2d 1184, 1188–89 (Ill. 2004)).

80. *Id.*

81. *Id.* at 1035–37.

82. *Id.* at 1035.

83. *Id.*

84. *Id.* at 1035–36.

85. *Id.* at 1035.

86. *Id.* at 1036.

87. *Id.*

88. *Id.*

subject to legal challenges with varied results across the country and that other jurisdictions had not let the question of novelty stop them from addressing reliability and probative value.⁸⁹

Finally, the court turned to the ultimate issue—whether the lower courts erred in taking judicial notice of the general acceptance of the reliability of HGN testing as an indicator of alcohol impairment.⁹⁰ The court first examined opinions from Illinois cases, specifically *People v. Basler*⁹¹ and *People v. Wiebler*,⁹² as well as other jurisdictions.⁹³ It then examined the “technical writings” submitted by the parties.⁹⁴

The court first looked at the *Wiebler* decision, which the appellate court relied on.⁹⁵ That decision reaffirmed *People v. Buening*,⁹⁶ the first Illinois case to find the general acceptance of HGN testing.⁹⁷ *Buening* described how other jurisdictions treated HGN testing but did not discuss those cases in any detail.⁹⁸ Instead, it found general acceptance because of three reasons.⁹⁹ One was the United States Department of Transportation Test Manual’s statement that “the HGN test is the single most accurate field test used in determining whether a person is alcohol impaired.”¹⁰⁰ A second was the National Highway Traffic Safety Association’s (NHTSA) finding that an officer is better able to detect alcohol impairment when both the HGN test and the walk-and-turn field sobriety test are used.¹⁰¹ Finally, the court was persuaded by the Arizona Supreme Court’s decision in *State v. Superior Court, County of Cochise (Blake)*, which the *Buening* court considered to be “extensively researched and well-reasoned.”¹⁰²

Because of the *Buening* court’s reliance on *Blake*, the Illinois Supreme Court examined *Blake* in significant detail.¹⁰³ In *Blake*, at the *Frye* hearing, the State of Arizona presented the testimony of three police officers and Dr.

89. *Id.* at 1036–37.

90. *Id.* at 1037.

91. *People v. Basler*, 740 N.E.2d 1 (Ill. 2000).

92. *People v. Wiebler*, 640 N.E.2d 24 (Ill. App. Ct. 1994).

93. *McKown*, 875 N.E.2d at 1037.

94. *Id.*

95. *Id.*

96. *People v. Buening*, 592 N.E.2d 1222 (Ill. App. Ct. 1992).

97. *McKown*, 875 N.E.2d at 1037.

98. *Buening*, 592 N.E.2d at 1224–27.

99. *Id.* at 1225, 1227; *see also McKown*, 875 N.E.2d at 1038 (stating the basis of the *Buening* holding).

100. *Buening*, 592 N.E.2d at 1227.

101. *Id.*

102. *Id.* at 1225; *State v. Superior Court, County of Cochise (Blake)*, 718 P.2d 171 (Ariz. 1986).

103. *McKown*, 875 N.E.2d at 1038.

Marcelline Burns, a research psychologist and an expert on the relationship between alcohol and behavior.¹⁰⁴

Burns directed the Southern California Research Institute (SCRI), an NHTSA contractor working to develop field sobriety tests.¹⁰⁵ SCRI developed a three-test battery: the walk-and-turn test, the one-leg stand test, and the HGN test.¹⁰⁶ SCRI found that the HGN test was “the best single index of intoxication,” because jerking movements of the eye were involuntary.¹⁰⁷ Burns testified that the HGN test had been accepted as valid by NHTSA, city agencies, and highway patrols in California, Washington, and Arizona.¹⁰⁸

Two of the three officers who testified provided particularly relevant testimony. The first, the head of DUI enforcement for the Los Angeles Police Department and an NHTSA field sobriety testing consultant, testified on the basis of fieldwork and studies that the HGN test was accurate between 80%-90% of the time in determining if a person’s blood alcohol content is over 0.10%.¹⁰⁹ The other officer, who was in charge of training Arizona police officers in HGN testing, testified as to the usefulness of the test and the rigorous requirements of the training in Arizona.¹¹⁰ The details of Arizona’s training program were not discussed but the NHTSA’s HGN training manual was entered into evidence.¹¹¹ The defendant did not present any evidence.¹¹²

The *Blake* trial court found that HGN testing was a new scientific principle, subject to *Frye*.¹¹³ It also found that it was not reliable scientific evidence under *Frye*.¹¹⁴ The Arizona Court of Appeals reversed, finding that the HGN test met the *Frye* standard.¹¹⁵

The Arizona Supreme Court affirmed the Court of Appeals.¹¹⁶ It identified “experimental psychologists in the area of behavioral psychology,” behavioral psychologists studying the impact of alcohol on driving, and “scientists in the area of highway safety” as the relevant scientific communities whose acceptance of the validity of the HGN testing was required.¹¹⁷ Relying

104. *Blake*, 718 P.2d at 173.

105. *Id.*

106. *Id.*

107. *Id.* at 173–74.

108. *Id.* at 174.

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.* at 180.

113. *Id.* at 174.

114. *Id.*

115. *Id.* at 175.

116. *Id.* at 182.

117. *Id.* at 180.

on the testimony of Burns and the officers, as well as twenty-nine studies on nystagmus and HGN testing, the Arizona Supreme Court concluded that HGN testing was generally accepted.¹¹⁸

The court noted that the *Blake* decision had been followed by many jurisdictions but proceeded to discuss *People v. Kirk*,¹¹⁹ a Fourth District Appellate Court opinion that questioned the *Blake* analysis and found that it was error to admit HGN test results without a *Frye* hearing.¹²⁰ *Kirk* considered *Blake* to be questionable authority because the defense did not present any evidence and because the Arizona appellate courts relied on their own research to reverse the trial court, which heard evidence firsthand.¹²¹ *Kirk* also questioned *Blake*'s reliance on Dr. Burns because she conducted the studies that led to the NHTSA's adoption of the HGN test and because she relied, in part, on the NHTSA's manual to support the proposition that HGN testing was accepted and reliable.¹²² In other words, her conclusions essentially referred to her own work.¹²³ As such, *Kirk* concluded that the general acceptance of HGN testing had not been adequately litigated in *Blake*.¹²⁴

After examining the Illinois cases regarding HGN testing, the Illinois Supreme Court reviewed how other jurisdictions handled the issue.¹²⁵ It found that many jurisdictions relied on the *Blake* decision and admitted HGN evidence without a *Frye* hearing until 1992.¹²⁶ In 1992, a Pennsylvania superior court and the Kansas Supreme Court chose not to follow foreign cases.¹²⁷ The Pennsylvania court relied solely on the evidence presented in a lower court to find that the general acceptance of HGN testing had not been established.¹²⁸ The Kansas Supreme Court examined the *Blake* decision and determined, based on its own research, that the reliability of HGN testing was the subject of disagreement in the scientific community.¹²⁹ It concluded that the *Blake* court may not have held that HGN testing satisfied *Frye* if it had considered this new research.¹³⁰

118. *Id.* at 181–84.

119. *People v. Kirk*, 681 N.E.2d 1073 (Ill. App. Ct. 1997).

120. *Id.* at 1078; *People v. McKown*, 875 N.E.2d 1029, 1039–40 (Ill. 2007).

121. *Kirk*, 681 N.E.2d at 1078.

122. *Id.*

123. *Id.*

124. *Id.*

125. *McKown*, 875 N.E.2d at 1041.

126. *Id.*

127. *Id.* at 1041–42.

128. *Id.* (citing *Commonwealth v. Apollo*, 603 A.2d 1023 (Pa. Super. Ct. 1992)).

129. *Id.* at 1042 (citing *State v. Witte*, 836 P.2d 1110 (Kan. 1992)).

130. *Id.* at 1043.

The Illinois Supreme Court found that many jurisdictions after 1992 became less willing to take judicial notice of the general acceptance of the reliability of the HGN test.¹³¹ Some states conducted full *Frye* hearings on the issue and were divided in their conclusions.¹³² Other states decided the admissibility of HGN test results without a *Frye* hearing by taking judicial notice of the *Blake* decision or by declining to do so and ruling the evidence inadmissible.¹³³

The court concluded that other jurisdictions had such varied decisions on HGN testing that judicial notice, which requires an unequivocal or undisputed conclusion regarding an issue, was not possible.¹³⁴ Accordingly, it declined to take judicial notice of the general acceptance of HGN testing based on prior judicial decisions.¹³⁵

The court also declined to take judicial notice of the general acceptance of HGN testing based on the technical writings on the subject.¹³⁶ Each party submitted many articles either endorsing the reliability of HGN testing as an indicator of alcohol impairment or condemning it, and the materials demonstrated a great conflict in the scientific community as to the reliability of HGN testing.¹³⁷ Because of this conflict, the court refused to take judicial notice of the reliability of HGN testing without an “unequivocal and undisputed viewpoint” of the scientific community.¹³⁸ It ordered that a *Frye* hearing be held.¹³⁹

II. A CRITICAL ANALYSIS OF ILLINOIS’S APPROACH TO EXPERT TESTIMONY

Illinois’s approach to expert testimony is quite liberal. Illinois admits expert testimony as long as it concerns matters that are not common knowledge and will assist the trier of fact in the disposition of a case.¹⁴⁰ The only exception is expert testimony based on novel scientific evidence. Such evidence is held to a higher standard of admissibility—the *Frye* general acceptance test. Although it sounds simple to state that the *Frye* general

131. *Id.*

132. *Id.*

133. *Id.* at 1044.

134. *Id.*

135. *Id.*

136. *Id.* at 1046.

137. *Id.* at 1045–46.

138. *Id.* at 1046.

139. *Id.*

140. *People v. Enis*, 564 N.E.2d 1155, 1164 (Ill. 1990).

acceptance test only applies to novel scientific evidence, the reality is not so simple. Illinois courts, faced with a proffer of expert evidence, may face multiple issues: (1) determining whether the evidence is “scientific;” (2) determining whether the methodology or principle underlying the evidence is “novel;” and (3) determining whether the relevant scientific community generally accepts the methodology or scientific principle. The Illinois Supreme Court, in the trilogy of cases discussed above, has provided little guidance on how trial courts are supposed to analyze these issues.

A. Scientific Evidence

The *Frye* general acceptance test only applies to expert “scientific” evidence. But what exactly is “scientific” evidence? In *McKown*, the Illinois Supreme Court offered its first definition of scientific evidence, defining it as “the product of scientific tests or studies.”¹⁴¹ This definition is similar to the United States Supreme Court’s definition of “scientific knowledge” as a product of the scientific method.¹⁴² But unlike the United States Supreme Court’s definition, the Illinois Supreme Court’s definition is supposed to aid in determining whether expert evidence is subject to a higher admissibility standard. The Illinois Supreme Court’s application of the definition or, more accurately, failure to apply the definition in *McKown* shows that it is no aid.

In *McKown*, the Illinois Supreme Court did not apply its definition of scientific evidence to determine whether HGN testing was scientific. Instead, the court noted that other jurisdictions had reached conflicting conclusions as to whether HGN testing was scientific, and it sided with the majority of jurisdictions that held such testing was scientific because it was based on a scientific principle that was not common knowledge. The court’s analysis is interesting for two reasons.

First, the court’s recognition of conflict between other jurisdictions over whether the same evidence is scientific shows that determining whether evidence is scientific is not an easy task.¹⁴³ As a threshold inquiry for applying the *Frye* general acceptance test, the determination of whether evidence is scientific should be relatively straightforward or else it would serve no purpose. Without a relatively straightforward standard, the same evidence,

141. *McKown*, 875 N.E.2d at 1035.

142. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 590 (1993).

143. *See Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 148 (1999) (“[I]t would prove difficult, if not impossible, for judges to administer evidentiary rules under which a ‘gatekeeping’ obligation depended upon a distinction between ‘scientific’ knowledge and ‘technical’ or ‘other specialized’ knowledge, since there is no clear line dividing the one from the others . . .”).

depending on a trial court's determination of whether the evidence is scientific, might be subject to the *Frye* general acceptance test or readily admitted just like any other expert evidence.¹⁴⁴ The latter result would be particularly problematic when the evidence is in fact scientific evidence but not generally accepted.

Second, despite the foregoing concerns about the need for a definite standard for determining whether evidence is scientific, the court's analysis in *McKown* showed that there is no meaningful distinction between scientific evidence and all other expert evidence. The court found that HGN testing was scientific because it was based on a scientific principle that was not common knowledge. By that standard, all expert evidence is scientific because expert evidence, by definition, is a matter beyond the common knowledge of lay people. The limitation of the *Frye* general acceptance test to scientific evidence is meaningless.

B. Novelty

Just as meaningless is the limitation of the *Frye* general acceptance test to "novel" scientific evidence. Unlike the scientific evidence limitation, though, the court appears to recognize its lack of meaning or value.

In *Donaldson*, the court stated that identifying a "new" or "novel" scientific technique was not easy because science was constantly making advances, and it offered definitions of "new" and "novel" as a way of analyzing whether scientific evidence was novel. It defined scientific evidence as "'new' or 'novel' if it is 'original or striking' or does 'not resemble something formerly known or used.'"¹⁴⁵ These definitions are too vague for any trial court to apply because they do not specify whether the evidence must be scientifically novel or judicially novel.¹⁴⁶

McKown resolved this issue but ultimately showed that the issue of novelty is not important. *McKown* found that HGN testing was novel, even though it had been used by police officers for years, because it had not been subject to a *Frye* hearing in Illinois. This finding shows that a trial court's

144. See, e.g., Robert J. Steigmann, *Applying the Frye Standard to Expert Testimony—A Guide for Lawyers and Judges*, 92 ILL. B.J. 363, 376 (2004) (comparing cases in Illinois appellate districts that have reached different conclusions as to whether actuarial risk-assessment instruments are scientific evidence and therefore subject to *Frye*).

145. *Donaldson v. Cent. Ill. Pub. Serv. Co.*, 767 N.E.2d 314, 325 (Ill. 2002) (quoting WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1546 (1993)).

146. Andrew R. Stolfi, *Why Illinois Should Abandon Frye's General Acceptance Standard for the Admission of Novel Scientific Evidence*, 78 CHI.-KENT L. REV. 861, 887 (2003) (noting that the Illinois Supreme Court's definitions of "new" and "novel" were "virtually useless" for a trial court to apply).

focus in determining novelty is on whether the method or technique is *judicially* novel. Novelty is essentially a question of whether the evidence has been subject to the *Frye* general acceptance test. If the evidence has not been subject to *Frye*, then it is novel and its general acceptance must be determined. If it has been subject to *Frye*, it is not novel and may be admitted if it was found to be generally accepted in that prior hearing.

This test seems easy enough, but the Court's novelty inquiry into whether the evidence has been subject to a *Frye* hearing is misplaced. An appellate court, reviewing *de novo* a trial court's finding of general acceptance, decides whether the evidence is generally accepted as a matter of law. The appellate court's review examines the evidence presented in the trial court (i.e. the *Frye* hearing) plus any additional sources, such as technical writings and opinions from other jurisdictions. The appellate court's ultimate determination of general acceptance does not depend on the evidence presented at the *Frye* hearing. So the existence or non-existence of a *Frye* hearing is not that important. The court in *McKown* strained to find that HGN testing was novel because the various appellate courts had reached divergent conclusions about its general acceptance based on sources other than evidence from a *Frye* hearing. HGN testing was not novel.¹⁴⁷ The court admitted as much when it stated that the issue of novelty should not prevent a court from considering the general acceptance of a technique or methodology. The limitation of the *Frye* general acceptance test to novel scientific evidence is therefore in doubt after *McKown*. It is possible that evidence previously subjected to *Frye* and found to be not generally accepted (i.e. supposedly not novel according to *McKown*) and evidence that has been found to be generally accepted, like HGN testing, may be reconsidered.

C. The *Frye* General Acceptance Test

After conducting the threshold inquiry into whether a technique or methodology is scientific and novel, which, as discussed above, is a meaningless task since *McKown*, a trial court applies the *Frye* general acceptance test. The test requires a two-part analysis: (1) the identification of the relevant scientific community and (2) a determination of whether that community has generally accepted the methodology or scientific principle. The Illinois Supreme Court has offered no guidance on how to identify the relevant scientific community, and a discussion of how to do so would be

147. *But see* Justin Lee Heather, *The New Standard for Admissibility of Expert Opinion Testimony*, 94 ILL. B.J. 88, 90 (2006) (stating that HGN testing was not novel because it had been found to be generally accepted in a prior case).

futile. Nonetheless, it must be noted that a trial court's selection of the relevant scientific community may lead it to admit or refuse to admit evidence because the general acceptance determination may be easier or more difficult depending on the community chosen.¹⁴⁸ As to the second part of the analysis, the court has offered guidance about what constitutes general acceptance and how it is determined, but the court's guidance raises more questions than it answers.

1. *What is General Acceptance?*

General acceptance is supposed to be simply a matter of counting scientists' votes. But how many votes are enough to constitute general acceptance?

In *Donaldson*, the Illinois Supreme Court offered conflicting definitions of general acceptance. On the one hand, the court stated that general acceptance concerned "the issue . . . [of] 'consensus versus controversy' over a particular technique" or methodology.¹⁴⁹ On the other, general acceptance did not require acceptance "by unanimity, consensus, or even a majority of experts."¹⁵⁰ Although it illustrates the difficulty of defining general acceptance, courts, applying the *Frye* general acceptance test, have not noticed the conflicting language. Instead, they have only reiterated that "general acceptance does not require unanimity . . . consensus, or even [agreement by] a majority of experts."¹⁵¹ Regardless of the definition stated, neither definition defines any parameters for a general acceptance finding, and the latter, the most commonly applied definition, ignores the basic meaning of "general" as the "most common" or "widespread."¹⁵² Thus, anything could meet the court's definition of general acceptance because no line separates a generally accepted technique or methodology from one that is invalid.

2. *How is General Acceptance Determined?*

Further complicating the general acceptance inquiry is the difficulty in clearly determining what constitutes 'general acceptance.' General acceptance may be found (1) based on the results of a *Frye* hearing or (2) by taking judicial notice of unequivocal and undisputed prior judicial decisions or

148. Stolfi, *supra* note 146, at 888–89.

149. *Donaldson*, 767 N.E.2d at 324.

150. *Id.*

151. WEBSTER'S NEW WORLD DICTIONARY 581 (2d ed. 1986).

152. *Id.*

technical writings. Ironically, both methods are unreliable, as shown by *McKown*.

At a *Frye* hearing, a trial court may hear expert testimony on the general acceptance of a particular technique or methodology. However, the expert testimony may be biased because, as *McKown*'s discussion of the *Blake* decision showed, the expert may be the leading proponent of the technique or methodology.¹⁵³

Technical writings may also be examined at a *Frye* hearing or by an appellate court conducting a *de novo* review of a trial court's general acceptance finding. The problem inherent in relying on technical writings is that all the relevant writings may not be put before the court or discovered.¹⁵⁴ Even when the relevant technical writings are discovered, the writings may not be enough to show general acceptance. In *McKown*, although it was not reviewing a *Frye* hearing, the Illinois Supreme Court had the opportunity to determine the general acceptance of HGN testing because: (1) it reviewed *de novo* the general acceptance finding and (2) the parties had submitted the technical writings on the subject. The court declined to decide the general acceptance of HGN testing based on the technical writings because they showed that HGN testing "[has] as many critics as it does champions."¹⁵⁵ The court's failure to decide general acceptance, and its decision to order a *Frye* hearing, is inexplicable under its *de novo* review power. It is unclear what other evidence a *Frye* hearing would provide that the court could not infer from the technical writings. The court's inability to make a decision, where the writings established a controversy as to general acceptance, shows the inadequacy of using technical writings to show general acceptance and the vagueness of the general acceptance standard.

The final piece of evidence that courts use to determine general acceptance is prior judicial decisions. But prior judicial decisions may be flawed, as shown in *McKown*. In Illinois, like in other jurisdictions, the trial courts and the appellate courts initially relied on the *Blake* decision in finding the general acceptance of HGN testing and did not question *Blake*'s general acceptance analysis. Eventually, Illinois trial courts began relying on the Illinois appellate court decisions to find that HGN testing was generally accepted, and the reliance on *Blake* was lost until an appellate court questioned the basis for finding the general acceptance of HGN testing. *McKown* ultimately concluded that it was error to take judicial notice of the general acceptance of HGN testing based on prior judicial opinions because no

153. See Stolfi, *supra* note 146, at 890.

154. *Id.*

155. *People v. McKown*, 875 N.E.2d 1029, 1046 (Ill. 2007).

unequivocal or undisputed opinion on the issue existed. The *Blake* decision had been discredited, and other jurisdictions had reached varying conclusions on general acceptance based on new evidence. *McKown* showed that the reliance on prior judicial decisions is an imperfect method for determining general acceptance because it assumes that the other court's analysis properly considered the available evidence. *McKown* also cast doubt on the propriety of a court's general acceptance finding establishing general acceptance as a matter of law because it implicitly recognized that new evidence might alter such a finding.

IV. FRYE NOT? THE CASE FOR *DAUBERT*

The foregoing critique of Illinois' approach to expert evidence, specifically expert scientific evidence, shows that, contrary to the Illinois Supreme Court's declaration in *People v. Zayas*, the *Frye* general acceptance test is the wrong standard to determine the admissibility of scientific evidence.¹⁵⁶ The *Frye* general acceptance test (1) is not judicially manageable; (2) does not save time and resources; (3) does not prevent the jury from being misled by unproven scientific procedures; and (4) does not ensure fairness and uniformity of decision-making.¹⁵⁷ The *Frye* general acceptance test, as *McKown* demonstrated, is susceptible to admitting unproven scientific evidence, and it is anything but judicially manageable. The *Daubert* approach addresses the weaknesses of the *Frye* general acceptance test, providing an admissibility standard that is judicially manageable and with greater potential to prevent the admission of unreliable evidence.

A. Universal Applicability

Daubert applies to all expert evidence. It does not require a threshold inquiry into whether the evidence is novel or scientific like the *Frye* general acceptance test. That threshold inquiry has proven to be unmanageable because identifying novel techniques and methodologies is not easy and because the line between science and non-science is not always clear.¹⁵⁸

Moreover, the *Frye* general acceptance test's limitation to scientific evidence is illogical. As mentioned above, non-scientific expert evidence is readily admitted as long as it concerns matters beyond the common knowledge of jurors and will assist jurors in the disposition of a case. The admission of

156. See *People v. Zayas*, 546 N.E.2d 513, 517–18 (Ill. 1989).

157. *Id.* at 517–18 (quoting *Contreras v. State*, 718 P.2d 129 (Alaska 1986)).

158. See *supra* Part III.A.-B. (discussing Illinois's definition of novel scientific evidence).

non-scientific expert evidence under such a liberal standard cannot be justified simply because it is not “science.” Jurors are just as likely to grant undue significance to evidence labeled “science” as they are to evidence labeled “non-scientific.”¹⁵⁹ They are not equipped to assess the validity of non-scientific expert evidence. Jurors evaluate non-scientific expert testimony based on the same criteria as they evaluate any testimony, including scientific testimony: “demeanor, the prospect of bias due to expert witness fees, credentials, and admissions or inconsistent statements made on cross-examination.”¹⁶⁰ Beyond these standard indicia of reliability, the validity of non-scientific expert evidence is unquestioned by a jury.¹⁶¹ Scientific testimony, in contrast, besides being subject to the *Frye* general acceptance test, may be easier for jurors to critique. Unlike non-scientific, experience-based evidence, scientific experts typically set forth the methodological premises for their testimony and detail the extent to which the methodologies support their conclusions.¹⁶² Jurors can evaluate scientific experts on those aspects of their testimony as well as the standard indicia of reliability.

Daubert's applicability to all types of expert evidence provides a judicially manageable, uniform standard because it eliminates the gatekeeping role performed by courts when they attempt to determine whether evidence is novel or scientific based on the vague and unreliably flexible definitions of the Illinois Supreme Court.¹⁶³ It also subjects non-scientific expert evidence to some test of evidentiary reliability, thereby attempting to prevent the admission of unreliable evidence.

159. David L. Faigman, *Admissibility Regimes: The “Opinion Rule” and Other Oddities and Exceptions to Scientific Evidence, the Scientific Revolution, and Common Sense*, 36 SW. U. L. REV. 699, 712–14 (2008) (finding no compelling basis to subject scientific evidence, but not non-scientific experience-based evidence, to the *Frye* general acceptance test because jurors are not equipped to assess the reliability of non-scientific experience-based evidence); see also Stephen A. Wood, *Donaldson v. CIPS: The Death Knell for Daubert in Illinois?*, 91 ILL. B.J. 26, 31 (2003) (questioning why Illinois does not subject “non-scientific, experience-based testimony to the same level of judicial scrutiny” as scientific evidence).

160. Faigman, *supra* note 159, at 714.

161. See *id.* (finding that non-scientific expert opinion is nothing more than “ipse dixit” because jurors have no tools to assess the reliability of the evidence other than the standard tools used to assess all witnesses).

162. *Id.* at 715.

163. In *Donaldson*, the Illinois Supreme Court stated that the *Frye* general acceptance test “does not make the trial judge a ‘gatekeeper’ of all expert opinion testimony.” *Donaldson v. Cent. Ill. Pub. Serv. Co.*, 767 N.E.2d 314, 324 (Ill. 2002). However, in practice, trial courts appear to serve as gatekeepers because of their decisions on whether the proffered evidence is novel, scientific, and generally accepted. See *infra* Part III (discussing how the inquiries involved in the *Frye* general acceptance test are easy to manipulate).

B. Expansive, Specific Standard for Determining Evidentiary Reliability

Daubert, like the *Frye* general acceptance test, is concerned with the evidentiary reliability (i.e. validity) of the proffered expert evidence. However, *Daubert* does not rely on general acceptance alone to determine evidentiary reliability. Under *Daubert*, evidentiary reliability may be determined based on one or more factors, counteracting the negative effects of the one-factor *Frye* general acceptance test. *Daubert* counteracts the subjectivity of the *Frye* general acceptance test—determining the relevant scientific community, deciding what constitutes general acceptance, and sifting through the potentially inadequate sources of general acceptance—because it relies on factors that are objective and not vague and malleable, such as testing, peer review and publication, error rate, and controlling standards. These factors provide a specific, judicially manageable standard for assessing reliability. They also increase the likelihood that reliable expert evidence will be admitted prior to achieving general acceptance, which will enable juries to decide matters with the best available evidence, because the *Daubert* factors expand the scope of the reliability inquiry.

Nevertheless, despite the obvious benefits of the multi-factor *Daubert* standard, it must be noted that *Daubert* has not been applied as intended. In a pre-*Kumho* survey of 400 state trial court judges, ninety-four percent of whom found that *Daubert* was valuable to their decision-making, a large number of the judges did not understand two basic *Daubert* factors, falsifiability and error rates.¹⁶⁴ Eighty-eight and ninety-one percent of the judges, respectively, found falsifiability and error rates to be useful in determining reliability.¹⁶⁵ But only six percent and four percent demonstrated an accurate understanding of falsifiability and error rates.¹⁶⁶ The judges demonstrated a better understanding of general acceptance and peer review and publication, which foreshadowed the results of a follow-up survey.¹⁶⁷ In the follow-up survey, judges showed a strong tendency to rely on traditional admissibility factors, such as general acceptance and qualifications of the expert, when making their decisions.¹⁶⁸ These results, casting doubt on the

164. Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 LAW & HUM. BEHAV. 433, 443 (2001).

165. *Id.* at 444–47.

166. *Id.*

167. *Id.* at 447–48.

168. Veronica B. Dahir et al., *Judicial Application of Daubert to Psychological Syndrome and Profile Evidence*, 11 PSYCHOL. PUB. POL'Y & L. 62, 73–74 (2005) (finding, as with other evidence, that judges tend to rely on traditional admissibility standards when assessing psychological syndrome and profile evidence).

efficacy of *Daubert*, show that judges lack knowledge about the technical concepts of falsifiability and error rates and will revert to what they know, but these results are not surprising or worrisome. Initially, judges will be reluctant to apply *Daubert* factors, other than general acceptance, because general acceptance is familiar. With training, though, judges will gain an understanding of the *Daubert* factors and begin to apply them with ease.

The benefits of adopting *Daubert* in Illinois outweigh any associated cost. Under *Daubert*, all expert evidence will be subjected to an objective, rational test for reliability. If it is not applied as intended, then all admissible expert evidence (scientific and non-scientific) will be generally accepted because judges will revert to the *Frye* general acceptance test, which is incorporated into *Daubert*. Either way, all expert evidence will be tested for evidentiary reliability before admission, ensuring that juries receive reliable evidence.

C. Recognition of Evolving Evidentiary Reliability

Daubert recognizes that science and other specialized knowledge evolves.¹⁶⁹ Based on new research, evidence that was once reliable may prove to be unreliable, and evidence that was once unreliable may prove to be reliable. Of course, this means that *Daubert* may admit or exclude evidence based on imperfect information about reliability at the time of a particular case.¹⁷⁰ However, it also means that *Daubert* will correct the admissibility determination in the next case when better information becomes available.

Conversely, the *Frye* general acceptance test as applied in Illinois does not recognize the evolving nature of science and other specialized knowledge. Once an appellate court, under its *de novo* review power, determines that evidence is generally accepted, it is generally accepted for all cases. This provides an efficient system for making admissibility decisions but ignores the possibility that the evidence is no longer generally accepted. As a result, evidence may be admitted for years without question as to its current reliability, as *McKown* demonstrated. *Daubert*, though less inefficient in practice, always questions the reliability of proffered expert evidence and offers a superior standard for determining the admissibility of expert evidence.

169. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993) (“Scientific conclusions are subject to perpetual revision.”).

170. *Id.* (“We recognize that, in practice, a gatekeeping role for the judge, no matter how flexible, inevitably on occasion will prevent the jury from learning of authentic insights and innovations.”).

V. CONCLUSION

Illinois continues to use an admissibility standard for expert scientific evidence developed in a case from 1923. While age alone is no reason to abandon the *Frye* general acceptance test, the test as applied in Illinois has become contorted to the point of meaninglessness. Trial courts, applying the *Frye* general acceptance test, must determine whether proffered evidence is novel and scientific and then must determine whether it is generally accepted in the relevant scientific community, but they have been offered little or no guidance on how to make these determinations. The result is that courts can manipulate the admissibility standard to achieve a desired result, which in many cases leads to the admission of unreliable evidence under either *Frye* or the more liberal admissibility standard for all other expert evidence. The adoption of *Daubert* in Illinois would address the weaknesses of the *Frye* general acceptance test. First, *Daubert* would require that all expert evidence be reliable, eliminating the threshold inquiries about novelty and scientific evidence from the *Frye* general acceptance test and ensuring that non-scientific evidence is subject to some test of reliability before admission. Second, *Daubert* would provide trial courts with objective standards for determining evidentiary reliability—testing, peer review and publication, error rate, and controlling standards—so that admissibility decisions are not based solely on a vague, highly subjective general acceptance finding. Third and finally, *Daubert* recognizes the evolving nature of science and other specialized knowledge, allowing parties to challenge the reliability of expert evidence as new research becomes available and avoiding the admission of unreliable evidence that was once generally accepted.