

# FLEXIBLE STANDARDS, DEFERENTIAL REVIEW: DAUBERT'S LEGACY OF CONFUSION

## I. INTRODUCTION

Expert evidence—particularly expert scientific evidence—has long been thought to require special treatment in the courtroom.<sup>1</sup> Concern about “junk science” and fear that jurors will be easily impressed by such evidence are two oft-cited reasons for giving special attention to expert testimony.<sup>2</sup> Addressing these concerns, the Supreme Court set the standard for the admissibility of expert testimony in the 1993 case of *Daubert v. Merrell Dow Pharmaceuticals*.<sup>3</sup> The holding of *Daubert* and two other cases, referred to as the “*Daubert* trilogy,”<sup>4</sup> were later codified in Rule 702 of the Federal Rules of Evidence:<sup>5</sup>

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.<sup>6</sup>

---

1. See, e.g., James E. Starrs, *The New Courtroom: There's Something About Novel Scientific Evidence*, 28 SW. U. L. REV. 417, 418–19 (1999).

2. See *id.*

3. 509 U.S. 579 (1993).

4. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), together with *General Electric Co. v. Joiner*, 522 U.S. 136 (1997), and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), are considered the *Daubert* trilogy. See Robert J. Goodwin, *Fifty Years of Frye in Alabama: The Continuing Debate over Adopting the Test Established in Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 35 CUMB. L. REV. 231, 268 (2004–2005).

5. Susan H. Bitensky, *Cat in the Hat Moves to Michigan; Expert Witnesses and Their Proponents Curse Dr. Seuss*, 2002 MICH. ST. L. REV. 835, 842.

6. FED. R. EVID. 702. Rule 702 was amended in 2000. Bitensky, *supra* note 5, at 842. At the time of the *Daubert* decision, Rule 702 read, “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,

The exact standard for the admission of expert testimony remains uncertain, and because evidentiary decisions under *Daubert* are reviewed only for abuse of discretion, courts have had little opportunity to reconsider or redefine the standard of admissibility.<sup>7</sup>

This Note argues that the flexible standard for admissibility of expert testimony and the abuse of discretion standard of review on appeal result in continued confusion about when expert testimony is reliable enough to be considered by the factfinder. Part II outlines the history of the *Daubert* trilogy. Part III describes the current application of *Daubert*, giving an example of how little guidance *Daubert* provides and elucidating the problems with the flexible approach and the deferential standard of appellate review. Part IV examines the practical application of the *Daubert* standards by judges across circuits, the debate on whether *Daubert* is liberal or conservative, and the confusion among scholars and jurists following the opinion. It also explores judges' confusion and their perceptions of their role as gatekeeper. Part V addresses the goals of both the Federal Rules of Evidence and *Daubert* and the ways the current approach to the admissibility of expert testimony fails to achieve those goals. Finally, this Note concludes that a more conservative standard is needed to provide guidance to judges when expert testimony is at issue and that more appellate oversight is necessary to ensure that expert testimony is appropriately reviewed and admitted or excluded.

## II. THE DEVELOPMENT OF CURRENT STANDARDS: FROM *FRYE* TO THE *DAUBERT* TRILOGY

For seventy years following the decision of the Court of Appeals for the District of Columbia in *Frye v. United States*,<sup>8</sup> expert testimony based upon a scientific principle was inadmissible

---

skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." *Daubert*, 509 U.S. at 588.

7. See *infra* Part IV; see also Victor G. Rosenblum, *On Law's Responsiveness to Social Scientists' Findings: An Intelligible Nexus?*, 2 PSYCHOL. PUB. POL'Y & L. 620, 631 (1996) ("[U]ncertainty and confusion—fueled unintentionally in *Daubert*—prevail in the legal system."); David O. Stewart, *Decision Creates Uncertain Future for Admissibility of Expert Testimony*, A.B.A. J., Nov. 1993, at 48, 48 ("[N]o one is exactly sure what the new standard is.")

8. 293 F. 1013 (D.C. Cir. 1923).

unless the principle had gained “general acceptance” in its field.<sup>9</sup> In *Frye*, the defense had sought to introduce an expert to testify to the results of a systolic blood pressure deception test—the precursor of the modern polygraph—to which the defendant had been subjected.<sup>10</sup> Citing no previous cases, the court held that the systolic blood pressure deception test had not achieved general acceptance within the fields of physiology and psychology and that expert testimony deduced from the test was therefore inadmissible.<sup>11</sup>

In the years after *Frye*, “sharp divisions” developed among the circuits about the proper standard for the admission of expert testimony, with some courts applying the *Frye* test and others rejecting it. The Supreme Court resolved the conflict in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*<sup>12</sup> In *Daubert*, plaintiffs Jason Daubert and Eric Schuller, born with serious birth defects, had alleged that these defects were a result of their mothers’ ingestion of the drug Bendectin and sought to introduce expert testimony that Bendectin could cause such defects.<sup>13</sup> Applying the *Frye* test, the district court found that the scientific principles upon which the plaintiffs’ expert testimony was based were not generally accepted. The court therefore granted the defendant’s motion for summary judgment, which had asserted that the plaintiffs could not produce admissible evidence that Bendectin caused their birth defects,<sup>14</sup> and the Court of Appeals for the Ninth Circuit affirmed.<sup>15</sup>

The Supreme Court disagreed, noting that *Frye* predated the Federal Rules of Evidence and thus was superseded by them.<sup>16</sup> Furthermore, nothing in the drafting history of the rules suggested that general acceptance was intended to be a prerequisite for the admission of expert testimony, and requiring general acceptance would go against the “liberal thrust” of the Rules and their “general approach of relaxing the traditional barriers to ‘opinion’ testimony.”<sup>17</sup> *Frye*’s rule was not assimi-

---

9. See, e.g., *Daubert*, 509 U.S. at 585.

10. *Frye*, 293 F. at 1013–14.

11. *Id.* at 1014.

12. 509 U.S. at 585.

13. *Id.* at 582–83.

14. *Id.* at 582–84.

15. *Id.* at 584.

16. *Id.* at 587–88.

17. *Id.* at 588 (citations omitted).

lated in the Federal Rules; instead, it was incompatible with them and *Frye's* general acceptance standard should not be applied in federal courts.<sup>18</sup>

Although it rejected *Frye's* limits on the admissibility of expert testimony, the Court did not leave in its place a standardless regime.<sup>19</sup> Instead, the Court directed the trial judge to apply a two-prong test for admissibility: the evidentiary proffer must be both relevant and reliable.<sup>20</sup> First, to be admissible, the evidence must qualify as relevant under Rule 702, which states that such evidence must "assist the trier of fact to understand the evidence or to determine a fact at issue."<sup>21</sup> Thus, as with any other type of evidence, the relevance requirement will cause expert scientific evidence to be admissible for some purposes but not for others. Second, the evidentiary proffer must be "reliable"; the Court listed several factors to assist the trial judge in determining whether the evidence exhibits sufficient indicia of reliability to be admissible.<sup>22</sup> The first and most important factor to determine reliability is whether the scientific principle sought to be adduced is testable.<sup>23</sup> Subsidiary factors include publication and peer review;<sup>24</sup> the "known or potential error rate";<sup>25</sup> and general acceptance.<sup>26</sup> The overriding principle enunciated by the Court is that the inquiry should be flexible and focused on scientific methodology rather than the substantive scientific conclusions advocated by the expert.<sup>27</sup> The Court vacated and remanded the judgment of the Ninth Circuit because its decision rested almost entirely on general acceptance.<sup>28</sup>

In *General Electric Co. v. Joiner*, the Court addressed the proper standard of review for an appellate court reviewing a trial court's decision on the admissibility of expert testimony.<sup>29</sup>

---

18. *Id.*

19. *Id.*

20. *See id.*

21. *Id.* at 591; *see also* FED. R. EVID. 702.

22. *Daubert*, 509 U.S. at 593.

23. *Id.*

24. *Id.* at 593–94.

25. *Id.* at 594.

26. *Id.*

27. *Id.* at 594–95.

28. *Id.* at 597–98.

29. 522 U.S. 136 (1997).

Plaintiff Robert Joiner was a city electrician and worked with electrical transformers that were cooled by a fluid—with which Joiner frequently came in contact—containing polychlorinated biphenyls (PCBs), which “are widely considered to be hazardous to human health.”<sup>30</sup> When he was diagnosed with lung cancer, Joiner sued the manufacturers of the transformers and PCBs, alleging that, although he had been a smoker, it was the PCBs that had “promoted” his cancer, and proffering scientific experts to support this allegation.<sup>31</sup> The court granted summary judgment for the defense, stating that the testimony of the plaintiff’s experts “did not rise above ‘subjective belief or unsupported speculation.’”<sup>32</sup> The Court of Appeals for the Eleventh Circuit reversed, noting that the Federal Rules show a preference for admissibility and concluding that appellate courts must apply a very stringent standard of review when expert testimony is excluded.<sup>33</sup>

The Supreme Court reversed the judgment of the Court of Appeals, holding that evidentiary rulings are to be reviewed by appellate courts under an abuse of discretion standard.<sup>34</sup> Although the Eleventh Circuit suggested that *Daubert* had altered that standard, the Court found that *Daubert* did not address the standard of review at all.<sup>35</sup> The Court noted that although *Daubert* provided a more liberal application of the Federal Rules, trial judges’ gatekeeping role was unaltered.<sup>36</sup> Therefore, no distinction should be made between an exclusion of expert testimony and an inclusion of expert testimony on review by an appellate court, and the applicable standard for both is abuse of discretion.<sup>37</sup> The Court held that the district court did not abuse its discretion.<sup>38</sup>

In *Kumho Tire Co. v. Carmichael*, the Court further clarified the extent to which the *Daubert* standard applies to proffers of evi-

---

30. *Id.* at 139.

31. *Id.*

32. *Id.* at 140 (citing *Joiner v. Gen. Elec. Co.*, 864 F. Supp. 1310, 1326 (N.D. Ga. 1994)).

33. *Id.*

34. *Id.* at 141.

35. *Id.* at 142.

36. *See id.*

37. *See id.* at 142–43.

38. *Id.* at 143.

dence under Rule 702.<sup>39</sup> The plaintiffs, who brought a products liability suit after a tire blowout on their minivan resulted in a fatal accident, sought to introduce the testimony of an expert who was to testify that the tire's defect caused the blowout, relying, in part, on visual and tactile inspection rather than scientific methodology.<sup>40</sup> The district court reviewed the expert's methodology, which was described as technical, and applied the *Daubert* factors.<sup>41</sup> Even after considering the expert's testimony under a "more flexible" interpretation of *Daubert*, the district court found that the expert's testimony was not reliable.<sup>42</sup> The Eleventh Circuit reversed and remanded, stating that *Daubert* applies only to scientific knowledge.<sup>43</sup> The Supreme Court granted certiorari to clarify the confusion among the lower courts about whether *Daubert* applies to non-scientific expert testimony.<sup>44</sup>

The Supreme Court held that a judge's basic gatekeeping function applies to all expert testimony.<sup>45</sup> The Court noted that the language of Rule 702 and *Daubert* suggests that there should be no distinction between scientific knowledge and other knowledge.<sup>46</sup> Furthermore, the Court could not identify a convincing reason to draw such a distinction, as the judge's role as gatekeeper can assist the jury in deciphering all varieties of knowledge.<sup>47</sup> The Court also reiterated *Daubert's* flexible approach and noted that the considerations identified in *Daubert* are not a definitive checklist.<sup>48</sup>

Thus, general acceptance is no longer the most important factor in determining the reliability of expert testimony. Instead, under the *Daubert* trilogy, courts are free to use a flexible ap-

---

39. 526 U.S. 137 (1999).

40. *Id.* at 142–45.

41. *Id.* at 145.

42. *Id.* at 145–46.

43. *Id.* at 146.

44. *Id.* at 146–47.

45. *Id.* at 147.

46. *Id.* at 147–48.

47. *Id.* at 149–50.

48. *See id.* at 150 (citing *Daubert*, 509 U.S. at 593–94). The Court explained that "the trial judge must have considerate leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable." *Id.* at 152. The Court also stated that "the factors identified in *Daubert* may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." *Id.* at 150.

proach for all expert testimony in analyzing whether the proffered testimony is reliable knowledge. Furthermore, the lower courts are insulated from rigorous review by the abuse of discretion standard, which is applied in all determinations of whether an expert should be allowed to testify.

### III. THE CURRENT APPLICATION OF *DAUBERT*

The ambiguity in *Daubert* regarding the standards to apply in evaluating expert testimony has not eased the task of determining the admissibility of expert testimony. Indeed, one commentator has stated that the Court “did not address anything at all”<sup>49</sup> when attempting to solve *Frye*'s perceived problem of relying only on general acceptance. In fact, at the time *Daubert* was handed down, all parties and amici claimed victory and satisfaction with the decision.<sup>50</sup> The language of the decision lacks clarity,<sup>51</sup> and thus the courts have been left to guess whether and how the factors delineated in *Daubert* should be applied.<sup>52</sup> Although some courts rigidly investigate the four considerations identified in *Daubert*, others take seriously the Court's assertion that it is a flexible standard.<sup>53</sup>

The Eleventh Circuit adopted a flexible standard when considering the admissibility of expert testimony in *United States v. Brown*.<sup>54</sup> Defendants Ronald and Kevin Brown were convicted for conspiracy to distribute 1,4-butanediol, which was allegedly “substantially similar” to a Schedule I controlled substance;<sup>55</sup> thus, although 1,4-butanediol is not specifically listed on Schedule I, it is considered a “controlled substance analog” and its distribution will support a conviction for distribution of a

---

49. Joseph B. Spero, *Much Ado About Nothing—The Supreme Court Still Fails to Solve the General Acceptance Problem Regarding Expert Testimony and Scientific Evidence*, 8 J.L. & HEALTH 245, 268 (1993–1994).

50. Paul C. Giannelli, *The Supreme Court's “Criminal” Daubert Cases*, 33 SETON HALL L. REV. 1071, 1077 (2003) (citing commentary indicating that all parties were pleased with the decision and noting, “This alone should have raised red flags”).

51. Jon Y. Ikegami, *Objection: Hearsay—Why Hearsay-Like Thinking is a Flawed Proxy for Scientific Validity in the Daubert “Gatekeeper” Standard*, 73 S. CAL. L. REV. 705, 710 (2000) (“It is unfortunate that the clearest language of the opinion is tucked away in a footnote.”).

52. See *infra* Part IV.

53. See *infra* Part IV.

54. 415 F.3d 1257 (11th Cir. 2005), *cert. denied*, 126 S. Ct. 1570 (2006).

55. *Id.* at 1260.

controlled substance.<sup>56</sup> In a bench trial, the prosecution presented two witnesses who testified that the drugs were analogs, based only on a visual examination of the molecules and a knowledge of how the body breaks down molecules;<sup>57</sup> the experts cited no objective data or studies that tended to show that the drugs were, in fact, analogs.<sup>58</sup> The defense presented one witness who testified that, based on the “Tanimoto coefficient” method, the drugs were not substantially similar.<sup>59</sup> The court found that the defense witness’s testimony did not constitute reliable expert opinion, whereas the prosecution’s witnesses were reliable and relevant.<sup>60</sup>

On appeal, the defendants contended that the trial court’s determination was erroneous under *Daubert*.<sup>61</sup> Before addressing the *Daubert* issue, the Eleventh Circuit explained “why it is difficult to persuade a court of appeals to reverse a district court’s judgment on *Daubert* grounds,”<sup>62</sup> describing the abuse of discretion standard and emphasizing that it defers to the district court to a “considerable extent” on all evidentiary issues.<sup>63</sup> For *Daubert* issues, however, the court stated that this deferential standard applies with possibly “even greater force” than for typical evidentiary issues.<sup>64</sup> The appellate court acknowledged that the prosecution’s witnesses met only one of the four *Daubert* factors—general acceptance—but stated that expert testimony can be admissible even when not meeting all factors.<sup>65</sup> Relying on the “flexible nature” of the *Daubert* inquiry, the appellate court found that it was not an abuse of discretion for the district court to have admitted the testimony of the two prosecution experts after concluding that specific *Daubert* factors were not needed in evaluating their testimony.<sup>66</sup>

---

56. *Id.* at 1261.

57. *Id.* at 1261–62.

58. *Id.* at 1262.

59. *Id.* at 1263.

60. *Id.* at 1263–64.

61. *Id.* at 1264. The defendants also raised a sufficiency of the evidence claim, which the court dismissed, *id.* at 1270–72, and a constitutional claim, which the court found had been waived by the defendants, *id.* at 1272.

62. *Id.* at 1264.

63. *Id.* at 1264–65.

64. *Id.* at 1265–66.

65. *Id.* at 1267.

66. *Id.* at 1267–68. The appellate court also affirmed the trial court’s finding as to the defense’s expert witness. *Id.* at 1269. It was not an abuse of discretion to

*Brown* is thus a good example of the relationship between the role of the district court and that of the appellate court. The district judge did not erect a very high barrier for the admissibility of expert testimony, and the appellate court declined to review the use of so flexible a standard.<sup>67</sup> This interplay is problematic as the role of the trial judge as gatekeeper has created a challenge for the courts, particularly insofar as the responsibility for determining the reliability of expert testimony now lies more with the judge and less with the proffered experts and colleagues familiar with the subject matter.<sup>68</sup> The appellate court in *Brown* declined to review either the substance of the trial judge's decision or the procedure by which the decision was reached, thereby revealing its own role to be one of great deference.

The Eleventh Circuit in *Brown* relied only on general acceptance in finding the evidence admissible,<sup>69</sup> yet it was reliance on that factor alone that the Court overruled in *Daubert*.<sup>70</sup> The appellate court, however, by focusing on the flexibility of the *Daubert* standard and by reviewing deferentially, interpreted *Daubert* as permitting the very test that it had rejected: the *Frye* general acceptance standard. Indeed, the *Brown* court stated, "An abuse of discretion can occur where the district court applies the wrong law, follows the wrong procedure, bases its decision on clearly erroneous facts, or commits a clear error in judgment."<sup>71</sup> When the standards are not clearly defined, as in the admissibility of expert testimony,<sup>72</sup> it is difficult—if not impossible—to demonstrate that the wrong law or procedure was used. This makes it particularly challenging for an appellate court to overrule a district court's ruling.

Under such a liberal, nearly unreviewable view of admissibility, experts may receive too much leeway as judges attempt

---

distrust the methodology of the proffered witness and because the trial judge was both gatekeeper and factfinder, there was even less concern about this determination since it went to weight and not admissibility. *Id.* at 1269–70.

67. See *id.* at 1267.

68. See Joseph T. Walsh, *Keeping the Gate: The Evolving Role of the Judiciary in Admitting Scientific Evidence*, 83 JUDICATURE 140, 143 (1999).

69. See *Brown*, 415 F.3d at 1267.

70. See *Daubert*, 509 U.S. at 585–87.

71. *Brown*, 415 F.3d at 1266.

72. See *infra* Part IV.

to be flexible gatekeepers.<sup>73</sup> This liberalization again raises the twin concerns of junk science in the courtroom and its improper influence on the factfinder that *Daubert* sought to address.<sup>74</sup> By creating a flexible standard with the *Daubert* trilogy, the Court permitted more expert testimony to be admitted without review.

Not only does the flexible standard raise junk science concerns, but it also could lead to inconsistent decisions.<sup>75</sup> Inconsistency becomes a possibility because of the variety of factors that can be—but do not have to be—considered in making a *Daubert* ruling.<sup>76</sup> These rulings are then practically not correctable on appeal, whereas a de novo standard of review would have provided more authority for the appellate courts not only to ensure consistent results but also to assist in policing against junk science and similar “expert” testimony.<sup>77</sup> Ironically, it was inconsistency among the circuits that motivated the Court to grant certiorari in *Daubert*;<sup>78</sup> the current application of *Daubert* indicates that the split among the circuits still exists and was even worsened by the decision.<sup>79</sup>

#### IV. DAUBERT STANDARDS

Determining what standard to apply when considering proffered expert testimony is a difficult task. Although *Daubert* did clarify that the standard set forth in *Frye* was no longer viable, it did not indicate what standard, if any, would be determinative, thereby creating “a greater source of confusion.”<sup>80</sup> The

---

73. See Jason Sabot, Comment, *Expert Testimony on Organized Crime Under the Federal Rules of Evidence: United States v. Frank Locascio and John Gotti*, 22 HOFSTRA L. REV. 177, 224 (1993) (discussing the liberal view of admissibility of experts in *United States v. Locascio*, 6 F.3d 924 (2d Cir. 1993)).

74. See *supra* Part I.

75. See Goodwin, *supra* note 4, at 303–04.

76. See *id.*

77. See *id.* at 304 (“Accordingly, review of trial court rulings under the abuse of discretion standard may mean that these inconsistent trial court rulings will not be correctable on appeal.”); Giannelli, *supra* note 50, at 1079 (“[A] de novo review standard would have given appellate courts more authority to control junk science.”).

78. *Daubert*, 509 U.S. at 585.

79. See *infra* Part IV.

80. Frank R. Emmerich Jr., Note, *The Supreme Court Strengthens the Discretionary Powers of the District Courts in Admitting Expert Scientific Testimony: Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 3 WIDENER J. PUB. L. 1051, 1083 (1994).

flexible standard the Court wished to promote is actually a "more nebulous and less defined test" than the test under *Frye*.<sup>81</sup> The *Daubert* decision has thus been described as "contain[ing] a fundamental tension on admissibility."<sup>82</sup> That tension has not yet been resolved. Although *Daubert* itself raises questions about what expert testimony should be admissible, it serves as the standard by which courts must make those admissibility determinations.<sup>83</sup>

The questions regarding *Daubert* are not limited to the factors that should be applied to expert testimony. How broad or narrow, conservative or liberal, strict or open-ended, a view of an inquiry should be undertaken is still open for debate.<sup>84</sup> Although Chief Justice Rehnquist characterized the majority's "general observations" as dicta,<sup>85</sup> some commentators view *Daubert* as making the admission of expert testimony more difficult.<sup>86</sup> As one commentator stated, "[I]t doesn't take a rocket scientist to figure out that a four or five part test including 'general acceptance' as one factor will be more difficult to meet than a test based on 'general acceptance' alone."<sup>87</sup> Such a conclusion, however, assumes that district courts will not see the Court's "observations" as such (as the district court did in *Brown*), but rather will perceive those observations as a test despite the Court's proclamation that *Daubert* is a "flexible" standard in line with the "liberal thrust" of the Federal Rules of Evidence.<sup>88</sup>

Other commentators counter that "*Daubert* introduced a more elaborate, open-ended approach" that placed more responsibility on the judge as gatekeeper in determining what

---

81. *Id.*

82. Stewart, *supra* note 7, at 49.

83. See Spero, *supra* note 49, at 267.

84. Compare Giannelli, *supra* note 50, at 1076 (noting that *Daubert* established an "exacting" standard) with Richard Collin Mangrum, Kumho Tire Company: *The Expansion of the Court's Role in Screening Every Aspect of Every Expert's Testimony at Every Stage of the Proceedings*, 33 CREIGHTON L. REV. 525, 525 (2000) (stating that the trial judge, as gatekeeper, has a "dramatically expanded" role).

85. *Daubert*, 509 U.S. at 600 (Rehnquist, C.J., concurring in part and dissenting in part).

86. See, e.g., Goodwin, *supra* note 4, at 233-34.

87. Jeffrey D. Cutler, *Implications of Strict Scrutiny of Scientific Evidence: Does Daubert Deal a Death Blow to Toxic Tort Plaintiffs?*, 10 J. ENVTL. L. & LITIG. 189, 214 (1995).

88. *Daubert*, 509 U.S. at 588.

expert testimony is admissible.<sup>89</sup> These commentators see the *Daubert* trilogy as greatly expanding the trial court's role and creating a far broader reliability inquiry than had previously existed.<sup>90</sup> Some have also raised the possibility that judges may admit all but the most obviously absurd evidence.<sup>91</sup> These commentators recognize *Daubert* more as a "malleable" standard than a strict test.<sup>92</sup> Given the highly deferential standard of review in place for these decisions and the courts' application of varying standards and tests,<sup>93</sup> *Daubert* appears to be in line with the "liberal thrust" of the Federal Rules.

Perhaps one reason why it might appear that *Daubert* created a stricter standard is that the task now required of district court judges as gatekeepers is a rather complex one, thereby rendering the observations of the *Daubert* Court an easy fallback for judges unsure of how to fulfill their gatekeeping role. *Daubert* requires judges to have scientific knowledge and to apply that knowledge to the facts of each case.<sup>94</sup> This difficult task is made even more challenging when judges are told that they have flexibility, yet are not provided with any framework for its exercise. This lack of guidance from the Court on how to undertake the flexible analysis it envisions creates a great deal of confusion on the part of trial court judges.<sup>95</sup>

One district court judge compared the process of dealing with expert scientific testimony to being "hit . . . between your eyes with a four-by-four."<sup>96</sup> Given the topic of expert testimony, which is typically scientific or at least technical, it is not surprising that judges might consider the process stressful.<sup>97</sup>

---

89. Walsh, *supra* note 68, at 140.

90. See, e.g., Goodwin, *supra* note 4, at 271; Mangrum, *supra* note 84, at 525.

91. See Joëlle Anne Moreno, *Beyond the Polemic Against Junk Science: Navigating the Oceans that Divide Science and Law with Justice Breyer at the Helm*, 81 B.U. L. REV. 1033, 1053 (2001).

92. See Kari L. Foster, *Expert Testimony: Frye is Dead, Long Live Frye*, 15 MISS. C. L. REV. 163, 188 (1994).

93. See *supra* Part III.

94. See Jennifer L. Groscup & Steven D. Penrod, *Battle of the Standards for Experts in Criminal Cases: Police vs. Psychologists*, 33 SETON HALL L. REV. 1141, 1144 (2003).

95. Problems with the *Daubert* decision are not unexpected; this confusion was even predicted by commentators shortly following the decision. See Emmerich, *supra* note 80, at 1084–86.

96. Ikegami, *supra* note 51, at 711 (quoting U.S. District Judge Alfred V. Covello of the District of Connecticut) (alteration in original).

97. See, e.g., *id.*

Indeed, "even the most learned and experienced members of the bench and the bar can find themselves inextricably perplexed when navigating through the procedural and substantive morass that is *Daubert*."<sup>98</sup> It is challenging to balance the needs of preventing junk science from entering the courtroom with the desire to admit novel scientific discoveries.<sup>99</sup> It is even more difficult for judges to do this as gatekeepers without a clear standard.

Courts were put into "unchartered and considerably thorny territory" by the *Daubert* decision.<sup>100</sup> The observations by the majority "suggest[] no obvious methodology" to assist district court judges in determining whether expert testimony should be admitted.<sup>101</sup> Within a few years of the *Daubert* decision, one commentator noted that with time it would be clear if the Court gave judges an "unmanageable task and should have provided them with more concrete guidance."<sup>102</sup> Five years after the decision, the courts still "remain[ed] divided and perplexed."<sup>103</sup> Even a decade later, there were still demonstrable problems in assessing scientific evidence.<sup>104</sup> Time has bolstered the argument that *Daubert* created an unmanageable task.

Confusion over the suggested standards is contributing to the continued division among the courts.<sup>105</sup> Some federal courts read *Daubert* as providing four "technical hurdles" instead of flexible criteria,<sup>106</sup> and one respected trial judge authored an

---

98. Janine M. Kern & Scott R. Swier, *Daubert v. Merrell Dow Pharmaceuticals, Inc.: "Gatekeeping" or Industry "Safekeeping"?*, 43 S.D. L. REV. 566, 575 (1998) (citation omitted).

99. Walsh, *supra* note 68, at 143.

100. Effie J. Chan, Note, *The "Brave New World" of Daubert: True Peer Review, Editorial Peer Review, and Scientific Validity*, 70 N.Y.U. L. REV. 100, 110 (1995).

101. *Id.* at 110–11.

102. Kimberly A. Jackson, *Daubert v. Merrell Dow: Missed Opportunity*, 50 FOOD & DRUG L.J. 71, 93 (1995).

103. Kern & Swier, *supra* note 98, at 596.

104. See Joëlle Anne Moreno, *Einstein on the Bench?: Exposing What Judges Do Not Know About Science and Using Child Abuse Cases to Improve How Courts Evaluate Scientific Evidence*, 64 OHIO ST. L.J. 531, 546 (2003).

105. See John P. Rutledge, *They All Look Alike: The Inaccuracy of Cross-Racial Identifications*, 28 AM. J. CRIM. L. 207, 218–19 (2001) (discussing the scattered views among the circuits in relation to expert psychological testimony on eyewitness identification).

106. David Crump, *The Trouble with Daubert-Kumho: Reconsidering the Supreme Court's Philosophy of Science*, 68 MO. L. REV. 1, 1–2 (2003).

article that identifies “eight gates” for expert testimony.<sup>107</sup> The Third Circuit came down in the middle of these positions, holding that district courts had to consider all factors listed by *Daubert* as well as any other relevant factors.<sup>108</sup> Some courts re-examined the admissibility of evidence in all technical fields, even those previously deemed generally accepted.<sup>109</sup> One district court even excluded fingerprint identification evidence before later reversing itself.<sup>110</sup> On the other hand, some district courts rely on relevance and fit-based analyses to determine the admissibility of expert testimony.<sup>111</sup> The Seventh and Ninth Circuits interpret the *Daubert* criteria in a way that resembles the hearsay exception for business records.<sup>112</sup> The Tenth Circuit has found that an important part of the gatekeeping function is to create a “sufficiently developed record,”<sup>113</sup> whereas the Eighth Circuit has found that an expert’s testimony should be excluded only if it is so fundamentally unsupported that it could not offer any assistance to the jury.<sup>114</sup> Some other judges have shown “creativity” in looking for factors indicative of reliability.<sup>115</sup> Each circuit and, in some cases, each judge has a different method for evaluating expert testimony, which often results in widely differing outcomes.

This confusion is not just about what type of standards should apply, but also about the relative weight that should be afforded to these standards. A national survey of 400 state court trial judges sheds light on the degree to which judges at the trial level understand the Court’s criteria in *Daubert*.<sup>116</sup> When judges were surveyed about the *Daubert* guidelines, half of those willing to weigh the factors were still giving general

---

107. *Id.* at 2 (citing Harvey Brown, *Eight Gates for Expert Witnesses*, 36 HOUS. L. REV. 743 (1999)).

108. Ruth Saunders, *The Circuit Courts’ Application of Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 46 DRAKE L. REV. 407, 417 (1997).

109. Giannelli, *supra* note 50, at 1096.

110. Crump, *supra* note 106, at 2.

111. *See* Moreno, *supra* note 91, at 1057.

112. Ikegami, *supra* note 51, at 721.

113. *United States v. Lauder*, 409 F.3d 1254, 1263 (10th Cir. 2005) (quoting *Dodge v. Cotter Corp.*, 328 F.3d 1212, 1223 (10th Cir. 2003)).

114. *See* *Larson v. Kempker*, 414 F.3d 936, 941 (8th Cir. 2005).

115. *See* Bitensky, *supra* note 5, at 842–43.

116. *See* 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 (2001).

acceptance the most weight while the remaining factors were almost equally split in the percent of judges willing to weigh them as being the most important factor.<sup>117</sup> Approximately twenty percent of the judges who took the survey admitted to being unsure of how to combine the factors.<sup>118</sup>

There also exists confusion over the meaning of the *Daubert* criteria. The survey findings indicate that judges found the *Daubert* criteria useful, but the extent to which the judges understand and properly apply the criteria is "questionable at best."<sup>119</sup> The responses of these judges often reflect the rhetoric of *Daubert* but not the substance of the Court's factors.<sup>120</sup> For example, a majority of judges reported that falsifiability was useful, yet the results of the survey demonstrate that most judges did not understand the scientific meaning of the term.<sup>121</sup> Furthermore, while a majority of judges identified error rate as a useful criterion, a true understanding of error rate could be inferred from only four percent of responses.<sup>122</sup> These judges, although confidently and overwhelmingly stating that the *Daubert* criteria were useful, did not recognize their own lack of understanding of these concepts.<sup>123</sup>

The results of this survey suggest the challenges judges face in applying the *Daubert* criteria and demonstrate the potential for inconsistent application of those guidelines.<sup>124</sup> While judges continue to struggle with the criteria for admitting scientific evidence, *Daubert* and the Court's decisions since then fail to provide guidelines that can yield consistent decisions.<sup>125</sup> Some argue that *Daubert* "at least stands for the idea that general acceptance should no longer be the single dominant factor in every decision about whether to admit scientific evidence."<sup>126</sup> Even that limited holding does not seem to be clear to the courts, however, when they hand down decisions, such as

---

117. *See id.* at 448.

118. *Id.* (finding that 85 of the 400 judges surveyed were unsure of how to combine the guidelines).

119. *Id.* at 452.

120. *Id.* at 453.

121. *Id.* at 444.

122. *Id.* at 447.

123. *See id.* at 452.

124. *Id.* at 453.

125. *See Moreno, supra* note 104, at 531.

126. Ikegami, *supra* note 51, at 727.

*Brown*, where admissibility is based on the single factor of general acceptance and the appellate courts allow that decision to stand.

With some courts viewing the *Daubert* criteria as requirements, others viewing them as guidelines, and yet others focusing on just a few of the criteria to the exclusion of others, there is little consistency in decisions regarding the admissibility of expert scientific testimony.<sup>127</sup> *Frye* was considered to be easy to apply, providing consistency and predictability within the circuits. By contrast, *Daubert* has been described as “arbitrary, fraught with time-consuming and detailed analysis, and . . . prone to unwarranted manipulation” in practical application.<sup>128</sup> The broad discretion that *Daubert* affords judges in determining the admissibility of expert testimony can result in disparate outcomes even in factually similar cases, causing uncertainty and decreasing public faith in the judicial system.<sup>129</sup>

This lack of consensus might be a reflection of how judges understand their gatekeeping role, the discretion in that role, and the flexibility of the *Daubert* criteria.<sup>130</sup> While judges are sometimes willing to admit that qualifications of an expert speak to credibility and the weight of evidence rather than to admissibility—thus falling outside the scope of their gatekeeping role<sup>131</sup>—courts generally exhibit confidence in their ability to sort out the reliable from the unreliable evidence, as is demonstrated by *Daubert*.<sup>132</sup> Yet judges might have entered their profession because they did not have an interest in science,<sup>133</sup>

---

127. Jackson, *supra* note 102, at 84.

128. Emmerich, *supra* note 80, at 1084.

129. See John Hein, *When Reliable is Reliable Enough: The Use of Expert Testimony After Kumho Tire v. Carmichael*, 6 WASH. U. J.L. & POL'Y 223, 243 (2001).

130. *Id.* at 453.

131. See, e.g., *Nimely v. City of N.Y.*, 414 F.3d 381, 397–98 (2d Cir. 2005); Hein, *supra* note 129, at 242.

132. See Richard D. Friedman, *The Death and Transfiguration of Frye*, 34 JURIMETRICS J. 133, 144 (1994) (“*Daubert* may therefore reflect continuing mistrust of the jury’s ability to sort out the wheat from the chaff in considering scientific evidence—or, perhaps more precisely stated, a differential in the courts’ confidence in their own and the jury’s ability to do the job.”).

133. See Moreno, *supra* note 91, at 1034. Furthermore, studies show that a legal education does not help judges make methodological or statistical judgments that might be required in their gatekeeping role. See Margaret B. Kovera & Bradley D. McAuliff, *The Effects of Peer Review and Evidence Quality on Judge Evaluations of Psychological Science: Are Judges Effective Gatekeepers?*, 85 J. APPLIED PSYCHOL. 574, 575 (2000).

making all the more troubling the lack of clarification or guidance in this area.<sup>134</sup>

The way in which judges view the reasoning behind *Daubert* and their own roles can affect what type of evidence they allow at trial. Often, a judge's understanding of *Daubert's* goal is significantly associated with the admissibility standard that he decides to apply.<sup>135</sup> Most of the state trial court judges surveyed believed that a purpose of *Daubert* is to guard against junk science.<sup>136</sup> As gatekeepers, judges must ensure that they meet this goal in choosing whether or not to admit evidence, yet they do not have clear guidance on how to accomplish such a task.<sup>137</sup> Thus, there is a great disparity in the types of standards applied and, therefore, the expert testimony that is found admissible.

Worse, this disparity can even exist within a circuit as appellate courts grant a great degree of deference by applying an abuse of discretion standard of review. Some commentators have argued that a de novo standard of review is needed to expand the role of appellate courts.<sup>138</sup> Some state courts seem to be in agreement; nine states and the District of Columbia use a de novo standard rather than abuse of discretion.<sup>139</sup> Absent appellate guidance, however, each trial judge is free to create his own test for admissibility of expert testimony, and that judge's determination will be given great deference. There is generally no connection between the reliability of testimony and whether or not it is admitted,<sup>140</sup> and thus, this deference does little to ensure that only reliable expert testimony is admitted and leaves parties without any recourse regarding the admission or exclusion of expert testimony.

---

134. See Kern & Swier, *supra* note 98, at 595.

135. Gatowski et al., *supra* note 116, at 443.

136. See *id.*

137. Spero, *supra* note 49, at 245–46.

138. See, e.g., Richard D. Friedman, *Squeezing Daubert out of the Picture*, 33 SETON HALL L. REV. 1047, 1065 (2003).

139. Christopher B. Mueller, *Daubert Asks the Right Questions: Now Appellate Courts Should Help Find the Right Answers*, 33 SETON HALL L. REV. 987, 1019 (2003).

140. See, e.g., Kovera & McAuliff, *supra* note 133, at 582.

V. THE GOALS OF *DAUBERT* AND  
THE FEDERAL RULES OF EVIDENCE

One concern with expert testimony is that it will appear scientific and, therefore, infallible.<sup>141</sup> It becomes the trial judge's responsibility, then, to separate credible science from junk science, which is no easy task.<sup>142</sup> As noted by Chief Justice Rehnquist, the general observations of the *Daubert* majority require trial judges to become "amateur scientists."<sup>143</sup> These judges, however, may not be any better than jurors at identifying reliable science.<sup>144</sup> While Justice Blackmun expressed confidence that federal judges were up to the task,<sup>145</sup> it is impossible for every judge to have a high level of knowledge in every scientific and technical area that might come before him.

Judges may be better suited to help implement the general goals of the Federal Rules of Evidence than those goals specifically related to expert testimony. The Federal Rules state, "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."<sup>146</sup> Yet under a goal of truth, the standards governing the admissibility of expert testimony do not fare any better. Letting in all evidence could confuse the jury and lead to irrational decisions.<sup>147</sup> Excluding expert testimony can deprive this truth-seeking process of useful information, but allowing unreliable testimony could take the factfinder on a path away from the truth.<sup>148</sup> Even if the Federal Rules establish a preference for admitting scientific evidence, problems with the Rules' approach still led to the confusing *Daubert* standard.<sup>149</sup> The *Daubert* factors do not seem to fare much better than relying simply on the Federal Rules' goal of finding the truth.

---

141. See Goodwin, *supra* note 4, at 247.

142. See, e.g., Emmerich, *supra* note 80, at 1087.

143. *Daubert*, 509 U.S. at 600–01 (Rehnquist, C.J., concurring in part and dissenting in part).

144. See Emmerich, *supra* note 80, at 1107–08.

145. *Daubert*, 509 U.S. at 593 (majority opinion).

146. FED. R. EVID. 102.

147. See Cutler, *supra* note 87, at 212.

148. See Friedman, *supra* note 132, at 134–35.

149. See Cutler, *supra* note 87, at 194.

The courtroom is not a laboratory, and therefore there must be restrictions on how a court can address scientific evidence. The search for truth in a courtroom and a laboratory are quite different: While the scientific method allows for and even encourages multiple trials, "Law . . . must resolve disputes finally and quickly."<sup>150</sup> It might be argued that the Federal Rules, by their "liberal thrust," seek to find the balance necessary in the search for truth for the resolution of legal disputes.<sup>151</sup> Some commentators contend that judges do not need to become "amateur scientists" because they do not need to find absolute truth, just sufficient reliability.<sup>152</sup> Although this standard may be what the *Daubert* majority was attempting to put in place, they missed that goal. Instead, their opinion created disparities among the courts in what expert testimony is deemed admissible, which can have negative consequences for the legal system<sup>153</sup> and its search for truth.

Although determining exact truth can be nearly impossible, our legal system seeks truth through the adversarial process. The need for accurate information is particularly important in light of this goal.<sup>154</sup> Yet, *Daubert* depends on each individual judge to make his own determination of what should be taken into consideration in evaluating whether proffered expert testimony is reliable and thus likely to be accurate. This flexibility embodied in *Daubert* does not consistently lead to reliable information.<sup>155</sup> Therefore, courts should consider what type of

---

150. *Daubert*, 509 U.S. at 597.

151. See Saunders, *supra* note 108, at 414.

152. See Ikegami, *supra* note 51, at 735.

153. See, e.g., Hein, *supra* note 129, at 243 ("This disparity increases uncertainty for litigants, undermines the public's faith in the judicial system, and opens the door to selective forum shopping."); Starrs, *supra* note 1, add. at 438 (noting that a disparity can trigger forum shopping).

154. See Erica Beecher-Monas, *The Epistemology of Prediction: Future Dangerousness Testimony and Intellectual Due Process*, 60 WASH. & LEE L. REV. 353, 355 (2003) ("In a democracy, in which the enunciated goal of the rule of law is the search for truth in a system that aspires to rationality, accurate information is a prerequisite.") (citation omitted); Edward Stein, *The Admissibility of Expert Testimony about Cognitive Science Research on Eyewitness Identification*, 2 L. PROBABILITY & RISK 295, 295 (2003) (commenting regarding scientific research on human cognition and memory, "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").

155. See *supra* text accompanying note 147.

standard would lead to an outcome where the truth—in this case, the most accurate expert testimony possible—would typically be admitted.<sup>156</sup> A flexible standard does not achieve such a goal; therefore, a more conservative standard is desirable to meet the goal of finding the truth through a trial.

## VI. CONCLUSION

The courts have long considered whether a conservative standard (such as *Frye*) or liberal standard (such as *Daubert*) should be used in evaluating the admissibility of expert testimony.<sup>157</sup> The current flexible *Daubert* analysis leads to uncertainty in its application.<sup>158</sup> This is partly because there are judges on the extremes: those who do not follow any sort of guidelines, and those who are afraid of science and fall back on strict guidelines, which were not intended to serve as such, for the admission of expert testimony. By adhering to an abuse of discretion standard of review for rulings on the admissibility of expert testimony, most courts allow this disparity to stand and do not take the opportunity to put in place a more rule-like standard to provide guidance to judges.

Since *Daubert*, judges have become more active gatekeepers.<sup>159</sup> While these judges have become more active in policing expert testimony, they have done so without a concrete standard for reliability.<sup>160</sup> The resulting broad discretion creates uncertainty and outcomes that vary from court to court.<sup>161</sup> In addition to fostering disparity in outcomes, applying a liberal approach makes it easier for junk science to find its way into the courtroom.<sup>162</sup> Jurors may give the claims advanced by junk science great deference because of its perceived weight as “sci-

---

156. See Joseph Sanders, *The Merits of the Paternalistic Justification for Restrictions on the Admissibility of Expert Evidence*, 33 SETON HALL L. REV. 881, 895 (2003) (stating that a central question in determining the admissibility of evidence is what evidence would maximize the likelihood of arriving at the truth).

157. See, e.g., Chan, *supra* note 100, at 102.

158. See, e.g., Emmerich, *supra* note 80, at 1102.

159. See Gatowski et al., *supra* note 116, at 444 (stating that this is the case among judges who felt as though their role had changed since *Daubert*).

160. See Ikegami, *supra* note 51, at 735; see also *supra* Part IV.

161. See, e.g., Hein, *supra* note 129, at 243; see also *supra* Part IV.

162. See, e.g., Chan, *supra* note 100, at 102.

entific" and therefore potentially infallible information.<sup>163</sup> Once junk science enters the courtroom under a flexible standard for admissibility, however, little can be done to rectify the situation. Guidelines are needed for judges to make educated decisions about the reliability and thus the admissibility of expert testimony to prevent such an outcome.

"When the goals of science and law collide, these disputes must be resolved using the facts of science and the methodologies of law."<sup>164</sup> Actual standards are needed to guide trial courts, and the methodologies of law should be put into action by appellate courts. The appellate courts in turn need to afford the district courts less deference to resolve the tensions in current admissibility standards for expert testimony. *Daubert* failed to provide clear rules or standards, and thus did little to advance the goals of the Court or the Federal Rules of Evidence. A more conservative standard is needed to provide clarity for the admissibility of expert testimony and to better assist in the search for truth in the courtroom. Instead of forcing judges to evaluate science with only the suggestion that they can be flexible, the Court needs to apply a more active standard of review to evaluate whether expert testimony was appropriately reviewed and admitted or excluded and provide much-needed guidance by offering a more conservative standard for admissibility. Only then will there be the consistency surrounding expert testimony necessary to assist the courts in finding the truth.

*Cassandra H. Welch*

---

163. See, e.g., *id.*

164. Moreno, *supra* note 91, at 1091.