Suffolk Journal of Trial and Appellate Advocacy

Volume 6 | Issue 1 Article 7

1-1-2001

A Pig's Breakfast: Judicial Gatekeeping for Scientific and Specialized Expert Testimony

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"A PIG'S BREAKFAST"[1]: JUDICIAL GATEKEEPING FOR SCIENTIFIC AND SPECIALIZED EXPERT TESTIMONY

Jane Doe wanted to lose thirty pounds for her wedding. Sadly, instead of a wedding celebration, Jane's family arranged for her funeral after she died from heart complications allegedly caused by the newly marketed diet drug she was taking. Jane's family hires you to handle their wrongful death suit against the makers of the diet drug.[2] To win your case, you must find an expert to testify that the diet drug caused Jane's untimely demise. What standards will the judge use in evaluating the admissibility of your expert's testimony? What steps can you take to ensure that the jury will hear the testimony?

I. INTRODUCTION

Expert testimony is often an essential tool for determining a party's liability, or lack thereof, in a particular case.[3] A judge must determine whether expert testimony is admissible before allowing it in front of a jury, due to its inherent persuasiveness and potential to mislead.[4] Attorneys

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[1] James L. Dam, "Expert Testimony Is Harder To Use: U.S. Supreme Court," 99 Law. Wkly US 312, 20 (Apr. 5, 1999) (asserting Supreme Court "made a pig's breakfast" of guidelines for expert testimony in *Kumho Tire*).

[2] *See Judge Rules Expert's Conclusions on Diet Drug as Too Speculative*, Boston Herald, January 6, 2000 (discussing lawsuit filed against Fisons Corporation, makers of diet drug phentermine).

[3] *See* FED. R. EVID. 702 advisory committee's note (asserting intelligent application of facts often impossible without expert testimony); *see also* Kurtis B. Reeg and Cawood K. Bebout, *What's It All About, Daubert?* 53 J. Mo. B. 369, 377 (1997).

[4] *See* FED. R. EVID. 104(a) which states, in pertinent part: "Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court..."; *see also* FED. R. EVID. 401 (evidence must be relevant); FED. R. EVID. 702 (admissibility of expert testimony); FED. R. EVID. 703 (basis of opinion); FED. R. EVID. 403 (exclusion of relevant evidence based on

continue to grapple with anticipating the appropriate standards for admitting scientific and technical expert testimony, due in part to the wide discretion afforded to judges as gatekeepers by the Federal Rules of Evidence and the Supreme Court.[5]

In *Daubert* v. *Merrell Dow Pharmaceuticals*[6] the Supreme Court provided judges with more flexibility in their role as gatekeepers by ruling that the Federal Rules of Evidence superseded the rigid "general acceptance test" for admitting scientific expert testimony.[7] The Court recently held that the guidelines for admitting scientific expert testimony set out in *Daubert* might also apply to other specialized or technical knowledge.[8] Part II of this note traces the legal developments surrounding expert testimony, including an outline of the *Daubert* guidelines trial judges use to ensure that such evidence is both reliable and relevant.[9] Part III reviews the arguments in favor of extending *Daubert* to other specialized knowledge, while Part IV examines the arguments against such an extension. Finally, Part V asserts that the Court's extension of the *Daubert* guidelines to other specialized knowledge is consistent with the Federal Rules of Evidence and a practical response to the inevitable intermingling of scientific and other specialized expert testimony.

II. HISTORY OF LAW OF EXPERT TESTIMONY

A. Federal Law of Expert Testimony

For nearly fifty years under Federal law, the courts admitted scientific evidence at trial if it was generally accepted in the testifying expert's field.[10] This general acceptance test, established in *Frye v. United States*,

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prejudice, confusion, or waste of time).

[5] *See* General Elec. Co. v. Joiner, 522 U.S. 136, 147 (1997) (Breyer, J., concurring) (reasoning difficulty of task does not excuse judges from gatekeeping responsibility).

[6] 509 U.S. 579 (1993).

[7] *See id.* at 589; *see also* Frye v. United States, 54 App. D.C. 46, 47 (1925) (explaining testimony must have gained general acceptance in field before admission).

[8] *See Kumho* Tire Co. Ltd. v. Carmichael, 526 U.S. 137, 146 (1999) (asserting some cases may not require use of *Daubert* screening test).

[9] *See Daubert*, 509 U.S. at 591-95 (holding relevance and reliability as measuring standard for expert testimony).

[10] *See Frye*, 54 App. D.C. at 47:

> Just when a scientific principle or discovery crosses the line between the

was a rigid standard that limited judicial discretion in evaluating the merits of expert testimony.[11] The Federal Rules of Evidence ("Federal Rules"), enacted in 1975, established a different standard for determining the relevancy and admissibility of expert evidence.[12] The Federal Rules state that relevant testimony from qualified experts is admissible if it will assist the trier of fact in resolving a disputed issue.[13] The Federal Rules have a "liberal thrust" that contrasted with the rigid, common-law based general acceptance test, and sparked division over which standard should apply to expert testimony.[14]

The Supreme Court resolved part of the issue in *Daubert* v. *Merrell Dow Pharmaceuticals*, signaling the next major legal development involving expert testimony.[15] In *Daubert*, the Court held that the general acceptance test was incompatible with, and superseded by, the Federal Rules.[16] The Court further held that, before admitting scientific expert tes-

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> experimental and the 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 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] *See Daubert*, 509 U.S. at 588 (stating general acceptance standard rigid); *see also* James Hanson, *Frye is Sixty-Five Years Old; Should He Retire?*, 16 West. St. U. L. Rev. 357 (1989)(asserting standard should be modified).

[12] *See* FED. R. EVID. 401 (providing relevant evidence is that which makes the determination of fact more probable or less probable than without it); FED. R. EVID. 402 (stating all evidence admissible unless otherwise in Constitution, Acts of Congress or other rules); FED. R. EVID. 403 (excluding prejudicial evidence). The Supreme Court asserted that these rules should be read in harmony with the guidelines or admissibility of evidence as established in *Daubert*. *See* Daubert, 509 U.S. at 588-91.

[13] *See* FED. R. EVID. 702: "If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise." *Id.* In *Daubert* and *Kumho Tire*, the Supreme Court addressed new controversies involving which evidentiary standard governed in cases with expert testimony. *See Daubert*, 509 U.S. at 591; *Kumho Tire*, 526 U.S. at 137.

[14] *See* Beech Aircraft Corp. v. Rainey, 488 U.S. 163, 169 (1988) (discussing division over standards for admitting expert testimony).

[15] *See supra* note 6 (presenting additional guidelines for admissibility of expert testimony).

[16] *See id. Daubert* involved a suit by the parents of minor children born with defects allegedly caused by the drug Benedictin that the mothers took while pregnant. *Id.* The plaintiffs offered expert testimony based on animal studies, similar chemical studies and reanalysis of published human statistical studies to show that the drug caused the defects. The Supreme Court vacated the Ninth Circuit's ruling that the scientific evidence was inadmissible because it was not generally accepted in the community. The Court stated that

timony, trial judges must determine whether an expert proposes to testify as to scientific knowledge that will assist the trier of fact.[17] The Court then presented guidelines intended to assist judges in their roles as gatekeepers determining the admissibility of scientific expert testimony. These guidelines include: (1) whether the scientific theory can be or has been tested; (2) whether it has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) acceptance and support from the relevant community.[18] Thus, the Supreme Court in *Daubert* not only afforded trial judges more flexibility, but also increased responsibility in their roles as gatekeepers.[19] Finally, the Court established that rulings on admissibility could only be overturned if the trial judge abused his or her discretion in reaching his or her determination.[20]

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general acceptance was not an "absolute prerequisite" to admissibility, and that the flexible standard adopted by Federal Rule 702 should be applied in all federal cases. *Id.* at 589.

Although the Supreme Court decisions in *Daubert* and *Kumho Tire* apply to all federal cases, many states have adopted them expressly or in practice. The Massachusetts Supreme Judicial Court has adopted *Daubert* and *Kumho*. *See* Am. Computer Innovators, Inc. v. Electronic Data Systems Corp., 1999 U.S. Dist. LEXIS 17484 at *93 (D. Mass. Nov. 8, 1999) (accepting *Kumho* as extension of *Daubert*); *see also* Commonwealth v. Lanigan, 419 Mass. 15, 21, 641 N.E.2d 1342, 1348 (1994) (accepting *Daubert's* reasoning as consistent with test for reliability).

[17] *See supra* note 13 (discussing Federal Rule 702's failure to mention general acceptance regarding expert testimony). The Court read FRE 702 as comprising a reliability requirement, namely that the expert's testimony "derive from the scientific method" and be validated by "good grounds." *Id.* According to the Court, 702 also contained a relevancy requirement; that the evidence sufficiently "fit" the case in order to assist the jury in its deliberations. *Id.*; *see also* Reeg and Bebout, 53 J. Mo. B. at 370. The Court asserted that the reliability of an expert's testimony should be measured by whether both the theory and the methodology used in reaching the conclusion were reliable. *See Daubert*, 509 U.S. at 593. Although the Court acknowledged that Rule 702 applies to "technical and other specialized knowledge," it limited its findings to scientific testimony. *Id.*

[18] *See id.* at 593-95. The Court did not intend the list to be exhaustive, as it recognized that judges could consider various factors for admissibility in a particular case. *Id.* at 593.

[19] *See Daubert*, 509 U.S. at 592 (stating federal judges possess capacity to make preliminary review of evidence on facts). Chief Justice Rhenquist expressed the concern echoed by the opponents of the flexible review in his dissent which states, in relevant part: "I do not doubt that Rule 702 confides to the judge some gatekeeping responsibility in deciding questions of the admissibility of proffered expert testimony. But I do not think it imposes on them either the obligation or the authority to become amateur scientists in order to perform that role." *Id.* at 600.

[20] *See Gen. Elec. Co.*, 522 U.S. at 143 (asserting abuse of discretion standard rather than more "stringent review" appropriate). A recent Supreme Court case established that if appellate courts reverse trial court determinations of admissibility, they may enter judgment for the party who lost at trial. *See* Weisgram v. Marley Co., 528 U.S. 440 (2000).

Although *Daubert* proposed illustrative guidelines for the admissibility of scientific expert testimony, courts remained divided about whether to apply *Daubert* to other specialized knowledge.[21] The Supreme Court addressed the issue of whether the *Daubert* guidelines applied beyond the "hard sciences" in *Kumho Tire Co. v. Carmichael*.[22] In that case, a plaintiff's tire blew out, resulting in an accident which injured one of his passengers and killed another.[23] The plaintiffs sued the Kumho Tire Co., manufacturers of the tire, claiming that the tire was defective and caused the accident.[24] To bolster their case, the plaintiffs submitted testimony from an expert analyst of tire failure who claimed that a defective separation in the tire caused it to rupture.[25] Although the trial court used the *Daubert* analysis in concluding that the expert's methodology was unreliable, the Eleventh Circuit Court of Appeals reversed the decision on grounds that the *Daubert* factors did not apply to non-scientific expert testimony.[26]

The Supreme Court upheld the trial court's decision, asserting that the reliability standard outlined in *Daubert* for scientific knowledge applied equally to technical or other specialized knowledge.[27] In a carefully

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[21] *See* Moore v. Ashland Chem. Inc., 151 F.3d 269, 285 (2d Cir. 1998) (quoting Michael H. Graham, Handbook of Federal Evidence, p. 25-26 (Supp. 1998)) (*Daubert's* gatekeeping language should apply to scientific evidence only); Compton v. Subaru of America, Inc., 82 F.3d 1513 (10th Cir. 1996) (inapplicable if not "hard science" testimony); United States v. Starzecpyzel, 880 F. Supp. 1027, 1039 (S.D.N.Y. 1995) (*Daubert* applies only to scientific expert testimony); *accord* Kay v. First Cont'l Trading, Inc., 1997 U.S. Dist. LEXIS 14908 *1 (N.D.Ill. 1997). *But see* Watkins v. Telsmith, Inc. 121 F.3d 984, 991 (5th Cir. 1997) (applies to scientific, technical or other specialized knowledge); Tyus v. Urban Search Mgmt., 102 F.3d 256, 262 (7th Cir. 1996) (applies to expert in advertising).

[22] 526 U.S. 137 (1999).

[23] *See id.* at 141.

[24] *See id.*

[25] *See id.* at 142 (discussing expert analysis). Upon inspection the expert noted the treads on the tire were worn to almost nothing, and that holes in the tire had been inadequately repaired. He concluded that the separation between the rubber and the steel "carcass" was the result of manufacturer defect, absent other signs of tire misuse. The factors the expert used in reaching his conclusion included: (1) tread wear on the outside of the tire which is greater than in the center; (2) indications of "bead groove" where the tire beads have been pushed too hard against the rim; (3) tire discoloration or other signs of deterioration; and (4) marks on the outside rim. *Id.* Since the expert did not observe significant signs of at least two indications of tire misuse, he concluded the tire was defective. *Id.*

[26] *See Kumho Tire*, 526 U.S. at 153 (reversing Eleventh Circuit's conclusion that *Daubert* applied only to scientific testimony, not "skill or experience based testimony").

[27] *See id.* The Court stated that the language of Rule 702 "makes no relevant distinction between scientific knowledge and technical or other specialized knowledge." *Id.* at 158. The Court further asserted that not only would it be difficult for judges to make evi-

worded opinion, the Court stated that *Daubert* factors such as rate of error, general acceptance and submission to peer review might also apply to non-scientific testimony, depending on the circumstances.[28] The Court noted that the trial court should have the same flexibility in determining which, if any, *Daubert* guidelines apply to a case as it does in concluding whether an expert's testimony is relevant and reliable.[29] While persuasive authority in state courts, the Supreme Court decisions in *Daubert* and *Kumho Tire* are only binding in federal cases.[30]

B. Massachusetts Law Regarding Expert Testimony

Massachusetts has adopted the Supreme Court decisions in *Daubert* and *Kumho Tire*.[31] Prior to *Daubert*, Massachusetts used the general acceptance test as the standard for admissibility of expert testimony.[32] Massachusetts courts held that the general acceptance test had a "practical usefulness" as an effective means of assuring that an expert's theory was reliable.[33] Massachusetts' Proposed Rule of Evidence regarding expert testimony, which is identical to Federal Rule of Evidence 702 ("Federal Rule 702"), laid the groundwork for judicial review of the then existing standards for expert testimony.[34]

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dentiary determinations under a system which required them to distinguish between scientific and other specialized knowledge, but that there was "no convincing need" to make such determinations. *Id.* ("experts of all kinds tie observations to conclusions through the use of specialized experience").

[28] *See id.* ("We can neither rule out, nor rule in, for all cases and for all time the applicability of the factors mentioned in *Daubert*...") The Court underscored the fact that the *Daubert* guidelines were not exhaustive, but merely illustrative. *Id.*

[29] *See id.* at 164 (suggesting trial court should consider the *Daubert* factors when they are reasonable measures of the reliability of expert testimony in specific case).

[30] *See* supra note 16 and accompanying text.

[31] *See Lanigan*, 419 Mass. at 24 (suggesting *Daubert* guidelines useful to all types of expert testimony).

[32] *See* Commonwealth v. Curnin, 409 Mass. 218, 223, 565 N.E.2d 440, 444 (1991) (holding testimony admissible under *Frye* standard).

[33] *See generally Lanigan*, 419 Mass. at 24 (asserting general acceptance test remains strong indicator for admissibility); *see also* Theresa Canavan's Case, 432 Mass. 304, 313 (2000) (holding *Daubert* analysis applies to any expert witness). The *Canavan* case also established that an appellate court could only overturn a trial judge's ruling on the admissibility of expert testimony if there was an abuse of discretion. *Id.*

[34] *See* PROP. MASS. R. EVID. 702: "[i]f 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" *quoted in* Rotman v. Nat'l

Despite the general acceptance test's benefits, the Supreme Judicial Court ("SJC") eventually recognized the possibility that a strict application of the test might result in the exclusion of reliable evidence, and in *Commonwealth v. Lanigan*,[35] adopted the Supreme Court's holding in *Daubert*.[36] Thus, the SJC established that general acceptance was no longer the exclusive standard for determining the admissibility of scientific expert testimony in Massachusetts.[37] The SJC noted, however, that general acceptance within the scientific community would "continue to be the significant, and often the only, issue" bearing on admissibility.[38] Finally, the SJC recognized that reviewing courts must accord great deference to a trial judge's decision to admit or bar testimony based upon its relevance and reliability.[39]

Even before the Supreme Court decision in *Kumho Tire*, Massachusetts applied the *Daubert* guidelines to other types of expert testimony.[40] In *Commonwealth v. Santoli*,[41] the SJC evaluated the admissibility of expert testimony regarding eyewitness identification.[42] In *Santoli*, a woman was raped in an alley behind a liquor store.[43] The victim noted her attacker's face, build, clothing and height, and later identified him while she sat in a police cruiser.[44] The defendant sought to introduce

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R.R. Passenger Corp., 41 Mass. App. Ct. 317, 318, 669 N.E.2d 1090, 1092 (1996).

[35] *See supra* at note 31.

[36] *See id.*

[37] The defendant in *Lanigan* was convicted of rape. He argued that expert testimony based upon test results using the "ceiling principle" which showed a match between his DNA and that of one of the victims should be excluded because the ceiling principle was not one which was "generally accepted within the scientific community". Applying the *Daubert* factors, the SJC admitted the testimony. *Id.* Massachusetts courts have used the *Daubert* factors to exclude scientific testimony. *See* Aziz v. French, No. 98-1749, 1999 Mass. Super. LEXIS 233, at *5-6 (Jun. 1, 1999) (physician's letter on causation excluded in personal injury trial due to lack of reliable methodology); Rotman, 41 Mass. App. Ct. at 318 (expert testimony that crash aggravated plaintiff's existing medical condition excluded based on technology used).

[38] *Id.*

[39] *See* Commonwealth v. Johnson, 413 Mass. 598, 604, 602 N.E.2d 555, 610 (1992) (quoting Commonwealth v. Johnson, 410 Mass. 199, 202, 571 N.E.2d 623, 626 (1991)) (stating judge's discretionary ruling on admissibility only reversed if abuse of discretion or error of law).

[40] *See* Commonwealth v. Santoli, 424 Mass. 837, 843, 680 N.E.2d 1116, 1121 (1997) (using *Daubert* guidelines to evaluate expert testimony on eyewitness identification).

[41] *See id.* at 838.

[42] *See id.*

[43] *See id.*

expert testimony that victims under a high amount of stress are less able to recognize their attacker's physical characteristics.[45]

The SJC held that the trial judge did not abuse his discretion in barring the testimony as unhelpful to the jury under Proposed Mass. R. Evid. 702.[46] The Court also cited *Daubert*, and discussed guidelines for determining the admissibility of expert opinions on eyewitness identification such as: (1) the opinion must be relevant to the circumstances of the witness' identification; (2) the subject of the opinion must be one on which the jurors need assistance and can be helped; and (3) the jury will not be misled by the testimony.[47] Massachusetts has also extended the *Daubert* analysis to expert testimony in cases involving murder, robbery and drug dealing.[48]

III. ARGUMENTS FOR EXTENDING *DAUBERT* TO TECHNICAL OR SPECIALIZED KNOWLEDGE

A. Federal Rule 702 Does Not Distinguish Between "Scientific" or "other Specialized Knowledge"

Proponents of extending the *Daubert* screening test to other spe-

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[44] *See id.* at 840. The victim identified the items her attacker was wearing (a Bruins hat and black jacket) and carrying (a black bag). The police drove her around the shopping mall, where she spotted the defendant walking along the sidewalk. She then identified the defendant by saying "[t]hat's him." *Id.*

[45] *See id.*

[46] *See Santoli*, 424 Mass. at 843 (proffered expert testimony within general realm of juror's knowledge).

[47] *See id.* The Court also asserted that the opinion must be "sufficiently tied to the facts of the case so that it will aid the jury in resolving the matter." *Id.*

[48] *See* Commonwealth v. Ashley, 427 Mass. 620, 624, 694 N.E.2d 862, 865 (1998). In that case, the Court upheld the trial judge's determination that expert testimony involving the identification of a murder suspect would not assist the jury, when the jury heard other evidence linking the defendant to the murder. *Id. See also* Commonwealth v. Pagano, 47 Mass. App. Ct. 55, 64, 710 N.E.2d 1034, 1042 (1999) (robbery) (excluding expert testimony on unreliability of victim's voice identification of defendant); (drugs) Commonwealth v. Cordero, 34 Mass. App. Ct. 923, 924, 614 N.E.2d 1000 (1993) (ruling "knowledge as to significance and method of packaging, amount and purity of narcotics, and different instrumentalities used to administer narcotics as they relate to...possession with intent to distribute is not within the realm of common experience"); *Johnson*, 413 Mass. at 603 (allowing police officer to testify as expert that defendant's packaging of cocaine indicated his intent to distribute).

cialized knowledge assert that by making no distinction between "scientific" or "other specialized knowledge," Federal Rule 702 sets up a "standard of evidentiary reliability" which applies to all expert testimony.[49] Therefore, the trial judge may use the *Daubert* factors to determine whether proffered expert testimony in any field is both relevant and supported by sound methodology.[50] Proponents also argue that a broad interpretation of Federal Rule 702 is consistent with the rationale behind placing judges in the role of gatekeeper for expert testimony; namely, tempering the wide latitude given to expert witnesses, such as their ability to give testimony which is not based on their firsthand knowledge.[51]

B. Difficult to Distinguish Between "Scientific" or "Other Specialized Knowledge"

Proponents also argue that since many professions use both scientific and specialized knowledge to create a product or achieve a result, scientific and other knowledge are often intertwined.[52] They assert that judges would be unable to serve effectively as gatekeepers if they had to determine whether the testimony was founded upon science or other types of knowledge.[53] Furthermore, since all experts reach their conclusions based on professional experiences which are unlike the jury's, according to advocates, there is no need for the judge to distinguish between the types of knowledge used.[54] Accordingly, the judge's job is to ensure that expert testimony is reliable, relevant, and helpful to the jury regardless of whether it is based on scientific or other specialized knowledge.[55]

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[49] *See Kumho Tire*, 526 U.S. at 156 (quoting *Daubert*, 509 U.S. at 590).

[50] *See* Kumho *Tire*, 526 U.S. at 164.

[51] *See id.* ("[T]he evidentiary rationale that underlay the court's basic "gatekeeping" determination is not limited to 'scientific knowledge'...the Rules grant (testimonial) latitude to all experts, not just to scientific ones"); *see also* FED. R. EVID. 703 (expert opinion may be based upon information received at or before hearing, no requirement of firsthand knowledge).

[52] *See Kumho Tire*, 526 U.S. at 165 (no clear line that divides scientific knowledge from others). The Court cited engineering to illustrate its point. Engineering requires scientific knowledge such as physics, and a scientific experiment relies on "properly engineered machinery" to reach a valid conclusion. *Id.*

[53] *See id.*; *see also* Judge Harvey Brown, *"Eight Gates for Expert Witnesses"* 36 Hous. L. Rev. 743, 803 (1999) ("Limiting Daubert to scientific evidence would require courts to add a new dimension to their analysis by artificially trying to define what constitutes science").

[54] *See Kumho Tire*, 526 U.S. at 158.

[55] *See* Ruiz-Troche v. Pepsi Cola, 161 F.3d 77, 88 (1st Cir. 1998) (explaining reli-

C. Extending Daubert Assists Juries in Understanding Complex Specialized Expert Testimony

Attorneys can effectively challenge the accuracy of scientific evidence on cross examination by showing flaws in methodology, contradictions between the expert's conclusions and those reached by the scientific community, and a lack of scientific foundation.[56] Proponents suggest that since non-scientific specialized knowledge is based on professional experience, something that is harder to quantify objectively, such knowledge is difficult to challenge through traditional cross-examination.[57] Therefore, judges must carefully screen specialized testimony for reliability and relevance, as juries will be less able to evaluate such testimony on their own.[58]

IV. ARGUMENTS AGAINST THE EXTENDING *DAUBERT* TO TECHNICAL OR SPECIALIZED KNOWLEDGE

A. Extension Creates Undue Hardship for Plaintiffs and May Assist Criminal Defendants.

Once the opposing side has challenged expert testimony, it is subjected to the judge's screening test in a preliminary "*Daubert*-hearing."[59] Opponents of extending the screening test to non-scientific testimony assert that it will place an undue burden on plaintiffs in a number of ways.[60] First, the *Kumho Tire* decision gives defense attorneys an incentive to challenge all experts before trial, increasing money and time spent litigating the merits of expert testimony in pretrial hearings.[61] Second, evidence that was once admitted under the general acceptance standard now risks exclusion under the increased scrutiny of the *Daubert* screening test.[62]

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ability and relevance are legal judgments which are judge's responsibility despite complex evidence).

[56] *See* Brown, *supra* note 53.

[57] *See id.*

[58] *See id.*

[59] *See* Reeg and Bebout: *What's It All About, Daubert?*, 53 J. Mo. B. 369 at 371 (describing pre-trial *Daubert* hearing).

[60] *See supra* note 1 and accompanying text.

[61] *See id.*

[62] *See id.* (forensic sciences such as handwriting analysis, hair comparisons and voiceprints open to attack as "unreliable").

Finally, prosecutors express concern that increased challenges to experts might assist criminal defendants, since judges have raised the standard of admissibility for certain evidence such as sobriety tests and psychological evaluations.[63]

B. Judges Are Neither Scientists Nor Specialists

By establishing trial judges as gatekeepers for all types of expert testimony, the Supreme Court requires them to digest and evaluate complex scientific and technical evidence for its "fit" in the case.[64] Opponents assert that since most judges are not well versed in the technologies or theories offered by proposed experts, there is a danger that evidence will be misunderstood and excluded as "unreliable."[65] Some critics also argue that *Kumho Tire* blurred *Daubert's* emphasis on deliberating an expert's methodology and conclusions to determine reliability, thus allowing judges to make decisions based on subjective criteria.[66] These opponents predict that the standards established by *Daubert* and *Kumho Tire* will result in the exclusion of helpful testimony, impairing the jury's ability to find the truth.[67]

V. ANALYSIS

The Supreme Court's extension of the *Daubert* factors to technical or specialized knowledge is an appropriate response to the need for judges to evaluate all expert testimony before allowing its admission before a jury.[68] Many types of specialized knowledge are founded upon unique professional experiences and opinions. Without *Daubert* and *Kumho Tire*, a judge could subject the jury to a wide array of theories and conclusions, based on foundations that are difficult to scrutinize, by allowing such testimony into evidence under the "general acceptance test."[69]

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[63] *See id.*

[64] *See* Ruiz-Troche, 161 F.3d at 81 ("choreographing the *Daubert* pavane remains an exceedingly difficult task").

[65] *See supra* note 60 (suggesting judges use the extension of *Daubert* factors to "clear their calendars" by excluding exceedingly complicated evidence).

[66] *See supra* note 50.

[67] *See* Daubert, 509 U.S. at 592 ("a gatekeeping role for the judge...inevitably on occasion will prevent the jury from learning authentic insights and innovations...").

[68] *See id.* (asserting increased scrutiny results in higher quality of expert testimony).

[69] *See generally* William C. Smith, *No Escape From Science*, A.B.A J., Aug. 2000 at

Requiring judges to review the methodology all experts use in reaching their conclusions increases the likelihood that the jury will hear reliable expert testimony.[70] For instance, in a case involving a house fire, an electrician may testify that, due to its high potential for causing fires, a certain type of wiring is generally acknowledged to be inappropriate for use in new homes. If that same expert were allowed to testify under the old general acceptance test, and on merely an educated hunch concluded that the wiring was the cause of the particular fire, the jury alone would have to assess both the relevance and the reliability of his testimony.[71] Although opposing counsel could cross-examine the electrician, counsel would have fewer resources available to place against expert's conclusions.[72]

Under *Kumho Tire* the trial judge will review the testimony to determine whether the methodology the electrician used in reaching his conclusions was reliable and relevant to the particular case.[73] Was the wiring defective? Were there any other hazards in this case that were more likely to have caused the fire? Did the electrician use methods in reaching his conclusions that are accepted amongst other electricians? Finally, what are the potential rates of error for the electrician's techniques? If the evidence passes this preliminary analysis, the jury is more likely to hear useful testimony.

Moreover, it is exceedingly difficult for fact finders to ascertain the difference between scientific and nonscientific evidence.[74] For instance, criminal investigators use both DNA evidence and specialized investigative techniques to form their cases and builders use physics concepts like gravity, weight and pressure when completing projects.[75] Science and professional experience thus combine equally to assist investigators, builders and other professionals in reaching informed conclusions. Requiring a judge to make a distinction between what is scientific and what is not for

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61 (suggesting rigorous standard for expert testimony makes lawyers more thorough regarding experts).

[70] *See id.* (asserting before *Daubert* and *Kumho* judges would "nod off" and not question experts).

[71] *See id.* ("[a]n educated guess or significant hunch is not enough...(attorneys) now need good science").

[72] Scott Bales, "*Turning the Microscope Back on Forensic Scientists*," LITIG., vol. 6 No. 2 (Winter 2000).

[73] *See Kumho Tire*, 526 U.S. at 165 (holding *Daubert* analysis applies equally to scientific and technical knowledge).

[74] *See id.* (stating no clear line that divides scientific knowledge from others).

[75] *See supra* note 67 (asserting all types of cases might be subject to scientific or technical expert testimony).

purposes of admitting each expert's testimony will result in increased confusion, lack of uniformity and backlog at the pretrial level.[76]

Furthermore, *Daubert* and its progeny allow judges to be flexible when evaluating expert testimony.[77] The guidelines are merely illustrative, and are not applicable to every case.[78] Neither *Kumho Tire* nor *Daubert* completely abolishes general acceptance as a standard of reliability.[79] In fact, general acceptance remains an important guideline for judges to use when evaluating expert testimony.[80] In many cases, especially those involving clearly scientific evidence, general acceptance will be a crucial factor in the judge's decision to admit the testimony.[81]

Extending the *Daubert* factors to all expert testimony also gives judges the proper tools to evaluate testimony based on modern technology.[82] New professions and disciplines have emerged as a result of rapid advances in technology.[83] Internet start-ups require web-site consultants, and on-line media specialists. Law firms and banks have expanded information technology departments, or hired outside consultants to provide ongoing support and maintenance of company-wide computer networks. With each new profession comes a new "community" of experts. It would be difficult for courts to determine whether an expert's testimony is admissible based solely on standards that are generally accepted in these new communities, since the standards are constantly evolving and changing.[84] Allowing judges to be flexible in evaluating testimony based on new technology is an effective protection against presenting the jury with unreliable information.

In Massachusetts, extending the *Daubert* guidelines to expert testimony in criminal cases has not resulted in an increased benefit to criminals.[85] In fact, trial judges acting as gatekeepers have prevented expert

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[76] *Id.*

[77] *See Daubert*, 509 U.S. at 586 (providing judges have wide discretion in choosing to admit expert testimony).

[78] *See id.* (suggesting factors are not mandatory, and may vary depending on circumstances).

[79] *See Lanigan*, 419 Mass. at 24 (asserting general acceptance test remains strong indicator for admissibility).

[80] *See id.*

[81] *See id.*

[82] *See supra* note 69 (stating advances in computer and biotechnology introduce new legal issues).

[83] *Id.*

[84] *See supra* note 69 and accompanying text.

[85] *Id.*

testimony regarding the unreliability of eyewitness and voice identification, presumably intended to help the defendant, because such testimony did not meet the *Daubert* standards of relevance and reliability.[86] Incidentally, the SJC has also concluded that police officers may testify as experts regarding the packaging of drugs found on defendants as an indication of their intent to distribute narcotics.[87] Such rulings indicate that criminal defendants will have a more difficult time building a defense around traditionally "defense friendly" testimony.

While many attorneys argue that *Daubert* and *Kumho Tire* will result in increased pre-trial costs, practitioners should remember that judges may appoint neutral experts to assist them in pre-trial challenges.[88] Of course, attorneys should also research and seek experts who are not only experienced in their field, but are able to employ a sound and reliable methodology (scientific or otherwise) in reaching their conclusions.[89]

VI. CONCLUSION

Both the SJC and the Supreme Court have established that all expert testimony must meet the standards of relevancy and reliability outlined in *Daubert*. In many cases, whether or not the testimony is generally accepted within the community will be an essential factor in determining its admissibility. However, allowing judges flexibility as gatekeepers over all expert testimony ensures that the jury will not hear misleading evidence. While courts will inevitably exclude some helpful testimony due to *Daubert's* extension to technical or other specialized knowledge, requiring such judicial screening is especially important given the growing community of technological experts, whose testimony has the potential to confuse the jury.

The argument that *Kumho Tire* will work to assist criminal defendants is not reflected in Massachusetts' decisions. These decisions suggest that courts will exclude traditionally favorable defense expert testimony on matters such as victim identification. Finally, any potential hardship to

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[86] *See Santoli*, 424 Mass. at 843 (using *Daubert* guidelines to evaluate expert testimony on eyewitness identification).

[87] *See Johnson*, 413 Mass. at 603 (holding police officer may testify as expert that defendant's packaging of cocaine indicated his intent to distribute).

[88] *See General Elec. Co.*, 522 U.S. at 145 (Breyer, J., concurring) (suggesting

FED. R. EVID. 706 provides relief from proliferation of *Daubert* motions).

[89] *See supra* note 69 (asserting that attorneys must rigorously interrogate experts about qualifications and techniques).

plaintiffs resulting from increased pretrial hearings is outweighed by the benefits to jurors acting as fact finders in a particular case. Extending *Daubert* to all expert testimony is an appropriate way to clarify issues before the jury, thereby ensuring that they will only hear testimony that is helpful.[90]

Jason G. Duncan

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[90] This note is dedicated to my family, especially my wife Adrien, without whose support I could not have finished this project.