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Challenging An Expert's Opinion and Testimony

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I. Introduction

Experts are special witnesses because they don't have to have any personal knowledge of the facts of the case. "Unlike an ordinary witness ... an expert is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation." Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 592 (1993). "[T]his relaxation of the usual requirement of firsthand knowledge ... is premised on an assumption that the expert's opinion will have a reliable basis in the knowledge and experience of his discipline."

Controlling whether a proffered expert may testify can make the difference between winning and losing at trial. Moreover, it can even determine whether you get to trial in the first place, because there can be circumstances in which the exclusion of an expert deprives a party of all their evidence on a critical issue for which they bear the burden of proof. In such situations, the loss of the expert results in the grant of summary judgment.

II. Practical Considerations in Challenging Expert Witness Testimony

Carefully consider the reasons why you might want to object to an opposing expert, and weigh the risks against the benefits of a successful challenge.

A. Setting a Precedent

A successful challenge could bar an entire theory of the case that a proponent otherwise hopes will apply to other cases. See, e.g., Kaufman v. Motorola, Inc., No. 95 C 1069, 2000 WL 1506892 (N.D. Ill. Sept. 21, 2000) (barring plaintiffs' expert's opinion computing securities fraud damages based on the "proportional trading model" theory as having "never been tested against reality" nor "accepted by professional economists"); In re Broadcom Corp. Sec. Litig., No. SACV01275GLTMLGX, 2005 WL 1403756 (C.D. Cal. June 3, 2005) ("In addition to probably failing the Daubert test, the trading model has been shown to be of highly questionable reliability and accuracy under the unique facts of this particular case").

Conversely, surviving a challenge can bolster the theory. Proponents can say in future cases that this theory was allowed to be presented. The proponent of that expert can recite the decision in another, similar case.

B. Impact on Expert

A successful motion to bar an expert can be damaging to that expert. If an expert is stricken, he or she will have to disclose in future engagements that this happened. Also, the deposition question "Have you ever been barred as an expert" will have to be answered in the affirmative. The court's determination might also be published and accessible to online database searches.

In addition, such orders can have a cumulative effect. Courts can refuse to admit an expert based solely on prior exclusions. Nunez v. Allstate Ins. Co., 604 F.3d 840, 847 (5th Cir. 2010).

Conversely, surviving a challenge can add to the expert's credentials. The expert can say in the future that this particular court qualified them as an expert on the subject and permitted them to testify as an expert. The proponent of that expert can recite the decision in another, similar case.

C. Appellate Considerations

The ruling faces a more difficult appellate standard of review. Rulings on motions to bar experts are reviewed under the abuse-of-discretion standard. General Elec. Co. v. Joiner, 522 U.S. 136, 141-43 (1997).

In addition, even if it were found on appeal to have been an abuse of discretion to bar an expert, the appellate court applies a harmless error analysis under Rule 61, especially if a jury has rendered a verdict. Naeem v. McKesson Drug Co., 444 F.3d 593, 608-09 (7th Cir. 2006) ("Even though the admission of Prof. Anthony's testimony was in error, the defendants must show that the introduction of such evidence violated their "substantial rights" in order to be entitled to relief under Federal Rule of Civil Procedure 61"); Seahorse Marine Supplies, Inc. v. Puerto Rico Sun Oil Co., 295 F.3d 68, 82 (1st Cir. 2002) ("Given the jury's ultimate award, the district court's admission of [the expert's] testimony would have been harmless error at best").

D. Interim Nature of Ruling

Challenges to experts are typically brought using a motion in limine. Such rulings are subject to being revisited and overturned during the trial. Luce v. United States, 469 U.S. 38, 41-42 (1984) ("even if nothing unexpected happens at trial, the district judge is free, in the exercise of sound judicial discretion, to alter a previous in limine ruling"); Curry v. Washington, 16 Fed. Appx. 703, 705 (9th Cir. 2001) ("a court's ruling on a motion in limine is an interlocutory order. The court can change its mind based on unanticipated developments during trial, or as the result of a trial counsel's persuasive request for reconsideration.")

Casares v. Bernal, No. 08 CV 4198, 2011 WL 1988788 *1 (N.D. Ill. May 20, 2011):

Included in the district court's inherent authority to manage trials is the broad discretion to rule on motions in limine. Jenkins v. Chrysler Motors Corp., 316 F.3d 663, 664 (7th Cir.2002). The purpose of a motion in limine is to prevent the jury from hearing evidence that is "clearly inadmissible on all possible grounds." Anglin v. Sears, Roebuck & Co., 139 F.Supp.2d 914, 917 (N.D. Ill. 2001). Accordingly, in some instances it is best to defer rulings until trial, where decisions can be better informed by the context, foundation, and relevance of the contested evidence within the framework of the trial as a whole. Id. "A pre-trial ruling denying a motion in limine does not automatically mean that all evidence contested in the motion will be admitted at trial." Delgado v. Mak, No. 06 CV 3757, 2008 WL 4367458, at *1 (N.D. Ill. March 31, 2008). And although a ruling granting a motion in limine excludes the introduction of certain evidence, the court may revisit evidentiary rulings during trial as appropriate in its exercise of discretion. Luce v. United States, 469 U.S. 38, 41-42, 105 S.Ct. 460, 83 L.Ed.2d 443 (1984).

NetQuote, Inc. v. Byrd, Civil Action No. 07-cv-00630-DME-MEH, 2008 WL 4572528 *1 (D. Colo. Oct. 14, 2008) (revisiting a prior ruling denying a motion in limine under Daubert):

Generalized pre-trial statements concerning Mr. Duree's expert testimony on causation have now become clarified and fleshed-out after Mr. Duree's trial testimony, and necessitate this court's reconsideration of Mr. Duree's expert testimony. The court's duty to admit testimony only if allowed under Daubert and the Federal Rules of Evidence is not limited to a pre-trial (and necessarily preliminary and incomplete) evaluation of expert testimony, but is a continuing obligation and requires the court to strike expert testimony that does not meet Daubert standards. See Massock v. Keller Industries, Inc., 147 Fed. Appx. 651 (9th Cir. Sept. 1, 2005) (unpublished) (affirming district court's exclusion of expert testimony after hearing trial testimony, where district court previously refused to exclude the testimony after an in limine motion seeking its preclusion); Luce v. United States, 469 U.S. 38, 41-42, 105 S.Ct. 460, 83 L.Ed.2d 443 (1984) ("even if nothing unexpected happens at trial, the district judge is free, in the exercise of sound judicial discretion, to alter a previous in limine ruling"); see also Weaver v. Blake, 454 F.3d 1087, 1092 (10th Cir. 2006) (not reversible error for district court to revisit at trial Daubert ruling that was subject of a previous ruling on a motion in

limine); Mems v. City of St. Paul-Dept of Fire and Safety Services, 2002 WL 334411 (D. Minn. Feb. 20, 2002) (unpublished) (explaining it was not error for court to reconsider and reverse its earlier Daubert ruling based on party's misrepresentation during Daubert hearing). Therefore, based on Mr. Duree's trial testimony, I have decided to re-visit my previous determination and conclude that Mr. Duree's expert opinion testimony regarding the causal link between the terminated accounts and MostChoice's wrongful conduct must be excluded.

E. The Odds

According to the Advisory Committee Notes for the 2000 amendments to FRE 702, the experience of the courts after Daubert is that the rate of exclusions has gone down, not up:

A review of the caselaw after Daubert shows that the rejection of expert testimony is the exception rather than the rule. Daubert did not work a "seachange over federal evidence law," and "the trial court's role as gatekeeper is not intended to serve as a replacement for the adversary system." United States v. 14.38 Acres of Land Situated in Leflore County, Mississippi, 80 F.3d 1074, 1078 (5th Cir. 1996).

Attempts to exclude an expert can be difficult because courts may lean in favor of admission of weak expert evidence to let the adversarial system test it, if a minimum threshold of reliability is met. "As the Court in Daubert stated: 'Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.' 509 U.S. at 595." Advisory Committee Notes (2000 Amendments). See, e.g., Milward v. Acuity Specialty Products Group, Inc., 639 F.3d 11 (1st Cir. 2011) (reversing a Daubert exclusion, noting at one point: "the alleged flaws identified by the court go to the weight of Dr. Smith's opinion, not its admissibility. There is an important difference between what is unreliable support and what a trier of fact may conclude is insufficient support for an expert's conclusion."). Thus, consider the odds when evaluating your strategy.

III. **Challenges On Bases Other Than Daubert/FRE702**

The party offering an expert's testimony must satisfy prerequisites to admissibility that include Daubert and FRE 702 as well as other rules. Before addressing Daubert and FRE 702, some of the other grounds for objections to expert testimony are considered.

A. Expert Report Requirement Under Fed. R. Civ. P. 26(a)(2)

A party is required to disclose an expert to the other parties on a timely basis and to provide the information set forth in Rule 26(a)(2). If that is not done, that party generally is barred from presenting the expert's opinion or testimony.

1. *Text of Rule 26(a)(2)*

(A) *In General.* In addition to the disclosures required by Rule 26(a)(1), a party must disclose to the other parties the identity of any witness it may use at trial to present evidence under Federal Rule of Evidence 702, 703, or 705.

(B) *Witnesses Who Must Provide a Written Report.* Unless otherwise stipulated or ordered by the court, this disclosure must be accompanied by a written report--prepared and signed by the witness--if the witness is one retained or specially employed to provide expert testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony. The report must contain:

- (i) a complete statement of all opinions the witness will express and the basis and reasons for them;
- (ii) the facts or data considered by the witness in forming them;
- (iii) any exhibits that will be used to summarize or support them;
- (iv) the witness's qualifications, including a list of all publications authored in the previous 10 years;
- (v) a list of all other cases in which, during the previous 4 years, the witness testified as an expert at trial or by deposition; and
- (vi) a statement of the compensation to be paid for the study and testimony in the case.

(C) *Witnesses Who Do Not Provide a Written Report.* Unless otherwise stipulated or ordered by the court, if the witness is not required to provide a written report, this disclosure must state:

(i) the subject matter on which the witness is expected to present evidence under Federal Rule of Evidence 702, 703, or 705; and

(ii) a summary of the facts and opinions to which the witness is expected to testify.

(D) *Time to Disclose Expert Testimony.* A party must make these disclosures at the times and in the sequence that the court orders. Absent a stipulation or a court order, the disclosures must be made:

(i) at least 90 days before the date set for trial or for the case to be ready for trial; or

(ii) if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C), within 30 days after the other party's disclosure.

(E) *Supplementing the Disclosure.* The parties must supplement these disclosures when required under Rule 26(e).

2. *Text of Rule 37(c)(1)*

(1) *Failure to Disclose or Supplement.* If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless. In addition to or instead of this sanction, the court, on motion and after giving an opportunity to be heard:

(A) may order payment of the reasonable expenses, including attorney's fees, caused by the failure;

(B) may inform the jury of the party's failure; and

(C) may impose other appropriate sanctions, including any of the orders listed in Rule 37(b)(2)(A)(i)-(vi).

3. *Untimely Disclosure*

Compania Administradora de Recuperacion de Activos Administradora de Fondos de Inversion Sociedad Anonima v. Titan Intern., Inc., 533 F.3d 555, 561 (7th Cir. 2008)

Arabian Agriculture Services Co. v. Chief Industries, Inc., 309 F.3d 479, 483 (8th Cir. 2002)

Yeti by Molly, Ltd. v. Deckers Outdoor Corp., 259 F.3d 1101, 1105-06 (9th Cir. 2001)

4. *Deficient 26(a)(2) Report*

Ciomber v. Cooperative Plus, Inc., 527 F.3d 635, 642-43 (7th Cir. 2008) (noting that "Rule 26(a)(2) does not allow parties to cure deficient expert reports by supplementing them with later deposition testimony")

Pell v. E.I. DuPont de Nemours & Co., Inc., 231 F.R.D. 186, 193-94 (D. Del. 2005)

B. Not a Matter Properly for Expert Testimony (a/k/a "Helpfulness" Requirement)

The party proffering an expert bears the burden of showing that expert assistance is necessary, and that the matter is beyond the ordinary capabilities of jurors. See, e.g., U.S. v. Rodriguez-Pacheco, 475 F.3d 434 (1st Cir. 2007) (expert not needed because jurors are capable of distinguishing between real photographs of minors and virtual depictions of minors). However, just because there might be a part of an expert's opinion that would not be helpful to the jury does not require the complete exclusion of an expert or of his or her entire testimony. U.S. v. Lamarre, 248 F.3d 642, 648 (7th Cir. 2001) ("Trial courts are not compelled to exclude all expert testimony merely because it overlaps with matters within the jury's experience").

Expert testimony has always be excludable if it did not address something for which the jurors would need expert assistance. FRE 702 has codified this requirement since its original adoption by Congress, when (until its amendment in 2000) the rule 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, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

Pub. L. 93-595, § 1, 88 Stat. 1937 (1975). The “assist the trier of fact” clause has been called the “helpfulness” requirement, i.e., the concept that an expert’s opinion is not admissible unless it would be helpful to the trier of fact. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 591 (1993).

Thus, one may object to expert testimony as not helpful “in resolving a factual dispute”. United States v. Downing, 753 F.2d 1224, 1242 (3rd Cir. 1985). For example, an expert witness whose opinion consists of legal argument and legal conclusion fails to satisfy the helpfulness requirement. U.S. v. Sinclair, 74 F.3d 753, 758 (7th Cir. 1996) (experts are prohibited from offering opinions about legal issues on which the judge will instruct the jury); Mid-State Fertilizer Co. v. Exchange National Bank of Chicago, 877 F.2d 1333, 1338-40 (7th Cir. 1989) (proffered opinions were “legal rather than economic opinions” which did no more than offer a CV as opposed to expert skills); Scottsdale Insurance v. City of Waukegan, 689 F.Supp.2d 1018, 1023 (N.D. Ill. 2010) (those types of opinions “belong in briefs, not in expert’s reports”); Bone Care International, LLC v. Pentech Pharm., Inc., No. 08-CV-1083, 2010 WL 3928598 (N.D. Ill. Oct. 1, 2010) (legal conclusions are “unhelpful to the finder of fact”).

C. Faulty Factual Assumptions

Because experts typically have no personal knowledge of the facts of the case, it is axiomatic that they assume facts in the course of reaching their opinions. The law permits this, but there are limits. While the manner in which particular factual assumptions lead to an expert’s conclusions is the essence of a Daubert/FRE 702 inquiry (as discussed in Part IV below), the expert can be barred if his or her assumed facts are completely contrary to anything the evidence could possibly support.

Thus, wholly apart from typical Daubert issues such as reliability and methodology, one might challenge an expert’s opinion if the factual assumption is contrary to an uncontested view of what happened in the case. See, e.g., Perry v. Berkley, 996 A.2d 1262, 1271 (Del. Supr. 2010) (applying Delaware’s adoption of the Federal Rules of Evidence):

We recognize that, as a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is for the opposing party to challenge the factual basis of the expert opinion on cross-examination. When the expert's opinion is not based upon an understanding of the fundamental facts of the case, however, it can provide no assistance to the jury and such testimony must be excluded.

As shown by the quote above, this challenge is not available *to seek exclusion of an expert* where the facts are contested. Experts are permitted to choose one set of facts supportable by some evidence over another, and while that choice might be fodder for cross-examination it does not render the expert subject to exclusion merely because a fact on which he or she relied is contested. In re Zurn Pex Plumbing Products Liability Litigation, No. 10-2267, 2011 WL 2623342 *6-8 (8th Cir. July 6, 2011) (“[a]s a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility... An expert's opinions are not inadmissible simply because an underlying assumption may be contestable.”).

D. Reliance on Hearsay Not Generally Used in the Field

Federal Rule of Evidence 703 provides: “The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted.” This rule addresses the common situation in which an expert reads deposition transcripts or other hearsay documents and draws conclusions. One may challenge an expert if his or her opinion is based on such hearsay and yet those documents are not “of a type reasonably relied upon by experts in the particular field.”

1. *Examples*

Gong v. Hirsch, 913 F.2d 1269, 1271-73 (7th Cir. 1990) (letter from family physician was not the type of information reasonably relied upon by experts in the field)

Renaud v. Martin Marietta Corp., 749 F. Supp. 1545, 1548 (D. Colo. 1990) (“A court must make a preliminary determination as to whether the methodology employed by an expert is of a type normally relied upon by experts in that field before the expert's opinion may be presented to a jury”)

E. Irrelevant Evidence

Federal Rule of Evidence 402 provides: “All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, by these rules, or by other rules prescribed by the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible.” This begs the question of what evidence is relevant, but that depends on the circumstances of each case. As stated in Federal Rule of Evidence 401, “‘Relevant evidence’ means evidence having any tendency to

make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.”

Thus, one basis to object to an expert’s testimony is that it is not relevant evidence.

Some cases show that when it comes to experts, the relevance issue can be broken down into multiple parts. On the one hand, courts have described as “irrelevant” expert testimony that is the product of improper reasoning or methods. *See, e.g., Smith v. Bubak*, No. 10-1587, 2011 WL 2505064 (8th Cir. June 24, 2011), quoting *Barrett v. Rhodia, Inc.*, 606 F.3d 975, 980 (8th Cir. 2010) (“To satisfy the relevance requirement, the proponent must show that the expert’s reasoning or methodology was applied properly to the facts at issue”). This analysis blends into the typical *Daubert* evaluation and will be addressed in Part IV below.

On the other hand, if the entire subject-matter of an expert’s opinion relates to a matter that has no tendency to make the existence of any fact *that is of consequence to the determination of the action* more or less probable, then it does not meet the definition of FRE 401 and is irrelevant. That is, even if an expert could meet all the requirements under *Daubert* and FRE 702, his or her proffered testimony may not be relevant in the first place.

1. Examples

Smith v. Bubak, No. 10-1587, 2011 WL 2505064 (8th Cir. June 24, 2011) (expert testimony concerning results of scientific paper was irrelevant under South Dakota’s proximate cause statute, and thus was not admissible)

U.S. v. Ibarquen-Mosquera, 634 F.3d 1370, 1385-86 (11th Cir. 2011) (expert’s excluded testimony about whether defendant’s boat was not within international waters was irrelevant, as it went to a jurisdictional issue and not culpability)

U.S. v. Hofus, 598 F.3d 1171, 1177-78 (9th Cir. 2010) (expert witness testimony as to likelihood that defendant would have actually engaged in sexual activity with the minor was irrelevant and properly excluded)

Milne v. USA Cycling Inc., 575 F.3d 1120, 1135 (10th Cir. 2009) (proffered expert’s testimony was not relevant to gross negligence claim, and “a district court is not obliged to entertain evidence, expert or otherwise, irrelevant to the claims before it”)



Note also that some courts have also described the “helpfulness” requirement (discussed in Part III.B above) as another aspect of relevance, since unhelpful testimony -- expert testimony that the trier of fact does not need to resolve any factual issue in the case -- is by definition irrelevant. See, e.g., Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 591 (1993). Likewise, the factual assumptions disconnect (described in Part III.C above) can also be thought of as resulting in an irrelevant opinion.

F. Relevant But Excludable Under FRE 403

Even if the proffered expert opinion is relevant, it may be objectionable because its “probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.” Fed. R. Evid. 403. As the Court observed in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 595 (1993):

Rule 403 permits the exclusion of relevant evidence “if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury....” Judge Weinstein has explained: “Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 of the present rules exercises more control over experts than over lay witnesses.” Weinstein, [“Rule 702 of the Federal Rules of Evidence is Sound; It Should Not Be Amended,” 138 F.R.D. 631,] 632.

1. Examples

Barfield v. Orange County, 911 F.2d 644, 651 n.8 (11th Cir. 1990)
(Expert testimony proffered by employee in employment discrimination action on whether she was a victim of employment discrimination would not have assisted trier of fact and would not have been admissible to rebut EEOC determination)

Breidor v. Sears, Roebuck and Co., 722 F.2d 1134, 1140 (3rd Cir. 1983)
(Exclusion of expert's testimony as to cause of fire on ground that testimony was cumulative was abuse of discretion)

U.S. v. Buchanan, 964 F.Supp. 533, 537 (D.Mass. 1997)
(Government's proffered expert testimony regarding whether defendant's actions were consistent with generally accepted standards of conduct in banking industry was unduly prejudicial as it came very close to announcing that defendant was guilty of offenses charged)

Tilton v. Capital Cities/ABC, Inc., 938 F.Supp. 751, 753-54 (N.D. Okl. 1995) (even if linguist's proffered testimony would have been helpful to the jury as required by FRE 702, it was inadmissible under FRE 403 "on the basis that the testimony would be confusing to the jury, would be a waste of time and would be unfairly prejudice to Defendants"), aff'd, 95 F.3d 32 (10th Cir. 1996) (adopting district court's opinion)

G. Specialized Requirements

There could be specialized additional requirements under the particular facts of the case. For example, in Legg v. Chopra, 286 F.3d 286 (6th Cir. 2002), the court found that in a case based on diversity jurisdiction, a state law imposing its own competency requirement had to be satisfied as a prerequisite before the federal rules would be applied.

IV. **Challenges Under Daubert/FRE 702**

A. Daubert

At the time the Supreme Court decided Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), the Federal Rules of Evidence had been in effect for almost 20 years, including FRE 702 which governed expert testimony. At the same time, a majority of the federal courts continued to employ the "general acceptance" test of Frye v. United States, 54 App. D.C. 46, 47, 293 F. 1013, 1014 (1923) (expert opinion based on a scientific technique is inadmissible unless the technique is "generally accepted" as reliable in the relevant scientific community). Daubert, however, held that the adoption of FRE 702 superseded the Frye test in federal courts. It observed that "[n]othing in the text of [FRE 702] establishes 'general acceptance' as an absolute prerequisite to admissibility" and that the drafting history of the rule made no mention of Frye. Daubert, 509 U.S. at 588.

The Court also made clear for the first time at the Supreme Court level that the trial judge must act as a gatekeeper. "[T]he centerpiece of the Daubert regime is the gatekeeping role of the trial judge, whose duty it is to screen challenged expert testimony and assure that it is sufficiently reliable to be of assistance to the jury." Asplundh Mfg. Div., a Div. of Asplundh Tree Expert Co. v. Benton Harbor Engineering, 57 F.3d 1190, 1202 (3rd Cir. 1995).

1. Daubert Factors

In the place of Frye, Daubert provided an interpretation of FRE 702 that featured a set of "observations" that it cautioned was not "a definitive checklist or test." Daubert, 509 U.S. at 593.

- Testing – “Ordinarily, a key question to be answered in determining whether a theory or technique is scientific knowledge that will assist the trier of fact will be whether it can be (and has been) tested.”
- Peer Review – “Another pertinent consideration is whether the theory or technique has been subjected to peer review and publication. Publication (which is but one element of peer review) is not a sine qua non of admissibility; it does not necessarily correlate with reliability, and in some instances well-grounded but innovative theories will not have been published. Some propositions, moreover, are too particular, too new, or of too limited interest to be published. But submission to the scrutiny of the scientific community is a component of ‘good science,’ in part because it increases the likelihood that substantive flaws in methodology will be detected. The fact of publication (or lack thereof) in a peer reviewed journal thus will be a relevant, though not dispositive, consideration in assessing the scientific validity of a particular technique or methodology on which an opinion is premised.” (Citations omitted.)
- Error Rate – “Additionally, in the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error...” (Citations omitted.)
- Controlling Standards – “Additionally, in the case of a particular scientific technique, the court ordinarily should consider ... the existence and maintenance of standards controlling the technique’s operation.” (Citations omitted.)
- General Acceptance – “Finally, ‘general acceptance’ can yet have a bearing on the inquiry. A reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community. Widespread acceptance can be an important factor in ruling particular evidence admissible, and a known technique which has been able to attract only minimal support within the community may properly be viewed with skepticism.” (Citations and internal quotations omitted.)



2. Other Factors

The Advisory Committee Notes to the 2000 amendments of FRE 702 identified a variety of other factors that courts have cited:

Courts both before and after Daubert have found other factors relevant in determining whether expert testimony is sufficiently reliable to be considered by the trier of fact. These factors include:

(1) Whether experts are “proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying.” Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1317 (9th Cir. 1995).

(2) Whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion. See General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997) (noting that in some cases a trial court “may conclude that there is simply too great an analytical gap between the data and the opinion proffered”).

(3) Whether the expert has adequately accounted for obvious alternative explanations. See Claar v. Burlington N. R.R., 29 F.3d 499 (9th Cir. 1994) (testimony excluded where the expert failed to consider other obvious causes for the plaintiff’s condition). Compare Ambrosini v. Labarraque, 101 F.3d 129 (D.C. Cir. 1996) (the possibility of some uneliminated causes presents a question of weight, so long as the most obvious causes have been considered and reasonably ruled out by the expert).

(4) Whether the expert “is being as careful as he would be in his regular professional work outside his paid litigation consulting.” Sheehan v. Daily Racing Form, Inc., 104 F.3d 940, 942 (7th Cir. 1997). See Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1176 (1999) (Daubert requires the trial court to assure itself that the expert “employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field”).

(5) Whether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the

expert would give. See Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1175 (1999) (Daubert's general acceptance factor does not "help show that an expert's testimony is reliable where the discipline itself lacks reliability, as for example, do theories grounded in any so-called generally accepted principles of astrology or necromancy."), Moore v. Ashland Chemical, Inc., 151 F.3d 269 (5th Cir. 1998) (en banc) (clinical doctor was properly precluded from testifying to the toxicological cause of the plaintiff's respiratory problem, where the opinion was not sufficiently grounded in scientific methodology); Sterling v. Velsicol Chem. Corp., 855 F.2d 1188 (6th Cir. 1988) (rejecting testimony based on "clinical ecology" as unfounded and unreliable).

3. Factors are not rigidly applied

Daubert and Kumho Tire emphasized that these factors are not to be rigidly applied. As the Committee Advisory Comments to the 2000 Amendments of FRE 702 state:

All of these factors remain relevant to the determination of the reliability of expert testimony under the Rule as amended. Other factors may also be relevant. See Kumho, 119 S.Ct. 1167, 1176 ("[W]e conclude that the trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable."). Yet no single factor is necessarily dispositive of the reliability of a particular expert's testimony. See, e.g., Heller v. Shaw Industries, Inc., 167 F.3d 146, 155 (3d Cir. 1999) ("not only must each stage of the expert's testimony be reliable, but each stage must be evaluated practically and flexibly without bright-line exclusionary (or inclusionary) rules."); Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1317, n.5 (9th Cir. 1995) (noting that some expert disciplines "have the courtroom as a principal theatre of operations" and as to these disciplines "the fact that the expert has developed an expertise principally for purposes of litigation will obviously not be a substantial consideration.").

B. Federal Rule of Evidence 702

At present, FRE 702 states as follows:

Rule 702. Testimony by Experts. 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.

The Rule was amended in 2000 to take into account Daubert and the many cases applying it, including Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999). See Advisory Committee Comments; U.S. v. Mamah, 332 F.3d 475, 477 (7th Cir. 2003).

C. Proposed New Version of Federal Rule of Evidence 702

The Supreme Court has submitted proposed amendments to the Federal Rules of Evidence as part of a long-term restyling project under which all of the federal rules are being rewritten with linguistic rather than substantive goals in mind. The proposed text of FRE 702 that will become effective on December 1, 2011, absent Congressional action, is as follows:

Rule 702. Testimony by Expert Witnesses

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods;
and

(d) the expert has reliably applied the principles and methods to the facts of the case.

The Advisory Committee Notes state: "The language of Rule 702 has been amended as part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the

rules. These changes are intended to be stylistic only. There is no intent to change any result in any ruling on evidence admissibility.”

D. “Hard” Science Opinions – The Paradigmatic *Daubert* Situation

The Daubert standards arose in the context of a products liability case, in which the experts worked in a field involving medicine, a traditional, “hard” science. The experts in that case were offered to establish causation, and had developed opinions regarding whether a particular drug had caused the plaintiffs’ injuries. All of the language of the opinion is bound up in references to “science,” and the factors it announced reflected that vantage point. For example, it focused on Newtonian scientific method, such as hypothesis testing, peer review through publication in scientific journals, and replication by other scientists.

Even though the Daubert factors are not to be taken as exclusive or rigidly applied, they are most easily fitted to the “hard” science expert. For instance, the Supreme Court has shown how the testimony of laboratory scientists about whether a substance contained cocaine would easily fit into the Daubert paradigm:

The affidavits submitted by the analysts contained only the bare-bones statement that “[t]he substance was found to contain: Cocaine.” App. to Pet. for Cert. 24a, 26a, 28a. At the time of trial, petitioner did not know what tests the analysts performed, whether those tests were routine, and whether interpreting their results required the exercise of judgment or the use of skills that the analysts may not have possessed. While we still do not know the precise tests used by the analysts, we are told that the laboratories use “methodology recommended by the Scientific Working Group for the Analysis of Seized Drugs,” App. to Brief for Petitioner 1a-2a. At least some of that methodology requires the exercise of judgment and presents a risk of error that might be explored on cross-examination. See 2 P. Giannelli & E. Imwinkelried, *Scientific Evidence* § 23.03[c], pp. 532-533, ch. 23A, p. 607 (4th ed.2007) (identifying four “critical errors” that analysts may commit in interpreting the results of the commonly used gas chromatography/mass spectrometry analysis); Shellow, *The Application of Daubert to the Identification of Drugs*, 2 *Shepard’s Expert & Scientific Evidence Quarterly* 593, 600 (1995) (noting that while spectrometers may be equipped with computerized matching systems, “forensic analysts in crime laboratories typically do not utilize this feature of the instrument, but rely exclusively on their subjective judgment”).

Melendez-Diaz v. Massachusetts, 129 S.Ct. 2527, 2537-38 (U.S. 2009). Other illustrations abound. See, e.g., Kumho Tire Co. v. Carmichael, 526 U.S. 137, 154 (1999) (“The relevant issue was whether the expert could reliably determine the cause of this tire’s separation”); Banks v. U.S., 93 Fed. Cl. 41, 48 (2010) (marine scientist was qualified expert in sidescan sonar interpretation, which was a reliable methodology); Metabolife Intern., Inc. v. Wornick, 264 F.3d 832, 841 (9th Cir. 2001) (medical research scientists opining based on animal toxicity tests and cardiovascular risk studies).

Applying FRE 702 and the Daubert factors to the “hard” science expert is a relatively straightforward proposition, as the Daubert factors were developed in that context and are well-suited. To determine whether an expert opinion is admissible, the district court performs a two-step analysis. First, the court must determine whether the expert is qualified by “knowledge, skill, experience, training, or education” to render an opinion, pursuant to FRE 702. Second, if the expert is sufficiently qualified, the court must determine whether the expert's opinion is reliable by studying the reasoning and methodology underlying the expert's opinion and applying the Daubert factors. See, e.g., Milne v. USA Cycling Inc., 575 F.3d 1120, 1134 (10th Cir. 2009).

E. “Soft” Science Opinions

In addition to the “hard” sciences, there are also experts in what are sometimes referred to as the “soft” sciences. These involve areas such as the social sciences but are no less based on the scientific (Newtonian) method than the “hard” sciences.

Scientific evidence encompasses so-called hard sciences (such as physics, chemistry, mathematics and biology) as well as soft sciences (such as economics, psychology, and sociology), and it may be offered by persons with scientific, technical, or other specialized knowledge whose skill, experience, training, or education may assist the trier of fact in understanding the evidence or determining a fact in issue.

U.S. v. Frazier, 387 F.3d 1244, 1261 n.14 (11th Cir. 2004), quoting William W. Schwarzer & Joe S. Cecil, “Management of Expert Evidence,” Reference Manual on Scientific Evidence 39 (Federal Judicial Center, 2d ed. 2000). See, e.g., U.S. v. Simmons, 470 F.3d 1115, 1123 (5th Cir. 2006) (researchers into rape-victim behavior); U.S. v. LeBlanc, 45 Fed.Appx. 393, 399 n.1 (6th Cir. 2002) (psychologist addressing children’s suggestibility).

Before Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999), courts reached opposite conclusions where “soft” science opinions were involved. Some rigidly



required Daubert to be applied regardless of any mismatch. See, e.g., Moore v. Ashland Chem., Inc., 151 F.3d 269 (5th Cir. 1998) (en banc). Others held that there is some question as to whether Daubert should be applied at all in such situations. Jenson v. Eveleth Taconite Co., 130 F.3d 1287, 1297-98 (8th Cir. 1997) ("There is some question as to whether the Daubert analysis should be applied at all to "soft" sciences such as psychology, because there are social sciences in which the research, theories and opinions cannot have the exactness of hard science methodologies."). See also Coastal Tankships, U.S.A., Inc. v. Anderson, 87 S.W.3d 591, 600 n.16 (Tex. App. 2002), characterizing Moore as requiring application of Daubert to a field that was "not a 'pure' hard science", to which it was "ill-suited".

That schism was resolved when the Supreme Court decided Kumho Tire. In that case, the Court made two things very clear. First, "Daubert's general holding -- setting forth the trial judge's general 'gatekeeping' obligation -- applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge." Id., 526 U.S. at 141. This has been understood in later cases to mean that Daubert applies to all types of experts, whether or not involving scientific fields. Second, Daubert and its factors are to be applied flexibly, and its "list of specific factors neither necessarily nor exclusively applies to all experts or in every case." Id.

Elcock v. Kmart Corp., 233 F.3d 734, 747-48 (3rd Cir. 2000), illustrates this principle well. There, the Court applied Daubert to the testimony of an expert in vocational rehabilitation:

Vocational rehabilitation is a social science that does not exactly mirror the fundamental precepts of the so-called harder sciences. However, the gist of the above Daubert factors are nonetheless implicated in this case. Just as a scientist would want to duplicate the outcome when evaluating a colleague's claim that he had developed a technique for cold fusion, a vocational rehabilitationist assessing Copemann's disability determination would want to test the underlying hypotheses and review the standards controlling the technique's operation in an attempt to reproduce the results originally generated.

If such testing did not generate consistent results, Copemann's method would be exposed as unreliable because it is subjective and unreproducible. Moreover, without an inkling as to the standards controlling Copemann's method-i.e., how he excludes for other variables, such as Elcock's pre-existing injuries or job limitations-an expert trying to reproduce Copemann's methods would be lost. Because Elcock had neither the need nor the opportunity to test



Copemann's methods in this manner, on the present record we conclude that the first and fourth Daubert factors suggest that Copemann's method was unreliable and therefore his opinion would not "assist the trier of fact to understand the evidence or to determine a fact in issue...." Fed R. Evid. 702.

Similarly, in Zenith Electronics Corp. v. WH-TV Broadcasting Corp., 395 F.3d 416, 418-420 (7th Cir. 2005), the court explained how "soft" science is still scientific, and provided a very useful discussion of how to mount a challenge to the "soft" science expert:

The supposed "uniqueness" of a market does not justify substituting a guess for careful analysis. Cities differ in size, average income, levels of education, availability of over-the-air TV signals, and other factors that might affect the demand for MMDS service. But social science has tools to isolate the effects of multiple variables and determine how they influence one dependent variable—here, sales of MMDS service. Perhaps the leading tool is the multivariate regression, which is used extensively by all social sciences. Regression analysis is common enough in litigation to earn extended treatment in the Federal Judicial Center's Reference Manual on Scientific Evidence (2d ed.2000). Regression has its own chapter (Reference Guide on Multiple Regression, prepared by Daniel L. Rubinfeld, at Reference Manual 179-228) and plays a leading role in two more: David H. Kaye & David A. Freedman, Reference Guide on Statistics, at Reference Manual 83-178, and Robert E. Hall & Victoria A. Lazear, Reference Guide on Estimation of Economic Losses in Damages Awards, at Reference Manual 277-332. Shapiro [the expert at issue here] neither employed any of the methods covered in the Reference Manual nor explained why he hadn't.

Judges asked to determine whether an approach is "reliable" by the standards of science encounter the problem that we are lawyers rather than scientists. ... But even a lawyer knows enough to insist that experts follow scientific approaches normal to their disciplines. See Frymire-Brinati v. KPMG Peat Marwick, 2 F.3d 183, 186 (7th Cir. 1993). Rule 702 uses words such as "sufficient" and "reliable" to describe these norms. An expert must offer good reason to think that his approach produces an accurate estimate using professional methods, and this estimate must be testable. Someone else using the same data and methods must be able to replicate the result. Shapiro's method, "expert intuition," is neither normal among social

scientists nor testable-and conclusions that are not falsifiable aren't worth much to either science or the judiciary.

... Neither Shapiro nor any of WH-TV's lawyers discussed statistical or econometric means of coping with variance across markets; the record contains nothing suggesting that these would have been inadequate if tried. Indeed, the record does not contain any hint why Shapiro preferred intuition to the empirical toolkit of the social sciences. And if Shapiro did not use these devices because he does not know how: that would just demonstrate that he's not an "expert" in the first place.

A witness who invokes "my expertise" rather than analytic strategies widely used by specialists is not an expert as Rule 702 defines that term. Shapiro may be the world's leading student of MMDS services, but if he could or would not explain how his conclusions met the Rule's requirements, he was not entitled to give expert testimony. As we so often reiterate: "An expert who supplies nothing but a bottom line supplies nothing of value to the judicial process." Mid-State Fertilizer Co. v. Exchange National Bank, 877 F.2d 1333, 1339 (7th Cir. 1989). See also, e.g., Bucklew v. Hawkins, Ash, Baptie & Co., 329 F.3d 923, 933 (7th Cir. 2003); Huey v. United Parcel Service, Inc., 165 F.3d 1084, 1087 (7th Cir. 1999); Burns Philp Food, Inc. v. Cavalea Continental Freight, Inc., 135 F.3d 526, 530-31 (7th Cir. 1998); Navarro v. Fuji Heavy Industries, Ltd., 117 F.3d 1027, 1031 (7th Cir. 1997); People Who Care v. Rockford Board of Education, 111 F.3d 528, 537-38 (7th Cir. 1997); Braun v. Lorillard Inc., 84 F.3d 230, 235 (7th Cir. 1996). WH-TV observes that experts sometimes must extrapolate from existing data, as Shapiro did, but this cannot justify his lack of discipline. "[E]xperts commonly extrapolate from existing data. But nothing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert." General Electric, 522 U.S. at 146, 118 S.Ct. 512. That's a fair description of Shapiro's proposed testimony.

1. Additional Examples

U.S. v. Mamah, 332 F.3d 475, 477 (7th Cir. 2003) (social scientists frequently testify as experts, and their opinions are an integral part of many cases)

U.S. v. Rubio, 321 F.3d 917, 525 (5th Cir. 2003) (research scientist at a social science institute permitted to testify regarding the effect of low prosecutions of DWI cases on highway safety and commerce)

U.S. v. Lamarre, 248 F.3d 642, 648 (7th Cir. 2001) (“Certainly laypersons are qualified to evaluate things within their everyday experience, but scientifically valid social science can be offered to show a jury that their commonly held beliefs are incorrect”)

Tyus v. Urban Search Management, 102 F.3d 256, 263 (7th Cir. 1996) (“We have noted a number of times since the Supreme Court decided Daubert that its framework for assessing expert testimony is applicable to social science experts, just as it applies to experts in the hard sciences”)

F. Non-Science or Experience-Only Opinions

Drawing a distinction between “hard” and “soft” science leaves out another class of expert testimony altogether: the expert who applies no science at all and instead bases everything on his or her qualifications – on only, as FRE 720 puts it, his or her “knowledge, skill, experience, education or training.” Kumho Tire makes clear that the Daubert factors should be applied to them as well, but only to the extent the court in its discretion believes is appropriate.

1. Advisory Committee Comments (2000 Amendments)

Nothing in this amendment is intended to suggest that experience alone--or experience in conjunction with other knowledge, skill, training or education--may not provide a sufficient foundation for expert testimony. To the contrary, the text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience. In certain fields, experience is the predominant, if not sole, basis for a great deal of reliable expert testimony. See, e.g., United States v. Jones, 107 F.3d 1147 (6th Cir. 1997) (no abuse of discretion in admitting the testimony of a handwriting examiner who had years of practical experience and extensive training, and who explained his methodology in detail); Tassin v. Sears Roebuck, 946 F.Supp. 1241, 1248 (M.D. La. 1996) (design engineer's testimony can be admissible when the expert's opinions “are based on facts, a reasonable investigation, and traditional technical/mechanical expertise, and he provides a reasonable link between the information and procedures he uses and the conclusions he reaches”). See also Kumho Tire



Co. v. Carmichael, 119 S.Ct. 1167, 1178 (1999) (stating that “no one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience.”).

2. *Examples of Experiential Experts*

A typical non-science or experiential expert is one who reviews certain facts and/or deposition testimony and then opines about how that comports with his or her experience. Some examples include:

- All types of professionals – testimony in negligence cases about the standards of their profession
- Industry experts – testimony about “best practices” or the specialized meaning of terms of art
- Real estate appraiser experts
- Accounting experts
- Securities valuation experts
- Damages experts – testimony about profits
- Copyright experts
- Compensation experts
- Corporate governance experts

3. *Kumho Tire’s Flexible Application of Daubert*

As discussed above, Kumho Tire has been understood to have settled the question of whether Daubert should be applied to the non-science or experience-only expert.

4. *Challenging the Non-Science Expert*

Given that the standard explained in Kumho Tire is not a bright-line standard, so that courts may refer to only those Daubert factors that they find applicable, how does one challenge such an expert under FRE 702 and Daubert? The answer lies in the fact that courts still require such experts to have employed a methodology, even if they don’t have a scientific one. In other words, there have to be reasons – *reasons that the expert can articulate* – that explain how the expert

was able to go from (1) factual observations or assumptions to (2) applying their experience to their observations or assumptions, and then to (3) conclusions. Otherwise, the expert is engaging in what the Seventh Circuit has called being a witness who “supplies nothing but a bottom line.” Zenith Electronics Corp. v. WH-TV Broadcasting Corp., 395 F.3d 416, 420 (7th Cir. 2005). Put another way, they are simply supplying their qualifications and their conclusions, asking the trier of fact to take their word for it. See, e.g., Mid-State Fertilizer Co. v. Exchange National Bank of Chicago, 877 F.2d 1333, 1340 (7th Cir. 1989) (proffered expert did no more than offer a CV as opposed to expert skills).

Thus, the basis for the challenge is to draw out the expert’s articulable reasons and examine whether those reasons make sufficient sense for the expert’s testimony to be reliable. If the expert describes his or her process and reasoning, attack any weaknesses in that process and show why the leap from facts to conclusion is too great. If the expert cannot explain his or her process – i.e., how they applied their knowledge, experience, education and training to the particular facts they observed or assumed – then that issue is itself a good basis for challenge. As the Advisory Committee stated in 2000:

If the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply “taking the expert's word for it.” See Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1319 (9th Cir. 1995) (“We've been presented with only the experts' qualifications, their conclusions and their assurances of reliability. Under Daubert, that's not enough.”). The more subjective and controversial the expert’s inquiry, the more likely the testimony should be excluded as unreliable. See O'Conner v. Commonwealth Edison Co., 13 F.3d 1090 (7th Cir. 1994) (expert testimony based on a completely subjective methodology held properly excluded). See also Kumho Tire Co. v. Carmichael, 119 S.Ct . 1167, 1176 (1999) (“[I]t will at times be useful to ask even of a witness whose expertise is based purely on experience, say, a perfume tester able to distinguish among 140 odors at a sniff, whether his preparation is of a kind that others in the field would recognize as acceptable.”).

Another common occurrence with experiential witnesses who opine based on depositions is that they make credibility determinations through which they accept some testimony and reject other testimony. Opinions made on that basis are inadmissible because the expert is usurping the function of the jury, or is effectively adding himself or herself as the “13th juror” and just telling the jury what to do. See, e.g., Scottsdale Insurance v. City of Waukegan, 689 F.Supp.2d 1018 (N.D. Ill. 2010); see also Dahlin v. Evangelical Child and Family Agency, No. 01 C 1182, 2002 WL 31834881 *3 (N.D. Ill. Dec. 18, 2002) (cautioning against experts who give “the false impression” of divining a person’s state of mind). You may be able to challenge such experts by obtaining an admission that they weighed the testimony of deponents.

G. Educational, Non-Opining Experts

Any of the above three categories of experts (hard science, soft science, and non-scientific) may be called upon to educate the trier of fact about some specialized matter, and not to state an opinion. The principles of Daubert and FRE 702 still apply to these experts, except that the inquiries stop short of addressing the reliability of the expert’s application of their expertise to the facts of the case in formulating their opinion, because the expert never formed an opinion.

The Advisory Committee Comments to the 2000 Amendments explain:

If the expert purports to apply principles and methods to the facts of the case, it is important that this application be conducted reliably. Yet it might also be important in some cases for an expert to educate the factfinder about general principles, without ever attempting to apply these principles to the specific facts of the case. For example, experts might instruct the factfinder on the principles of thermodynamics, or bloodclotting, or on how financial markets respond to corporate reports, without ever knowing about or trying to tie their testimony into the facts of the case. The amendment does not alter the venerable practice of using expert testimony to educate the factfinder on general principles. For this kind of generalized testimony, Rule 702 simply requires that: (1) the expert be qualified; (2) the testimony address a subject matter on which the factfinder can be assisted by an expert; (3) the testimony be reliable; and (4) the testimony “fit” the facts of the case.

As stated earlier, the amendment does not distinguish between scientific and other forms of expert testimony. The trial court's gatekeeping function applies to testimony by any expert. See Kumho Tire Co. v. Carmichael, 119 S.Ct. 1167, 1171 (1999) ("We conclude that Daubert's general holding--setting forth the trial judge's general 'gatekeeping' obligation--applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge."). While the relevant factors for determining reliability will vary from expertise to expertise, the amendment rejects the premise that an expert's testimony should be treated more permissively simply because it is outside the realm of science. An opinion from an expert who is not a scientist should receive the same degree of scrutiny for reliability as an opinion from an expert who purports to be a scientist. See Watkins v. Telsmith, Inc., 121 F.3d 984, 991 (5th Cir. 1997) ("[I]t seems exactly backwards that experts who purport to rely on general engineering principles and practical experience might escape screening by the district court simply by stating that their conclusions were not reached by any particular method or technique."). Some types of expert testimony will be more objectively verifiable, and subject to the expectations of falsifiability, peer review, and publication, than others. Some types of expert testimony will not rely on anything like a scientific method, and so will have to be evaluated by reference to other standard principles attendant to the particular area of expertise. The trial judge in all cases of proffered expert testimony must find that it is properly grounded, well-reasoned, and not speculative before it can be admitted. The expert's testimony must be grounded in an accepted body of learning or experience in the expert's field, and the expert must explain how the conclusion is so grounded. See, e.g., American College of Trial Lawyers, Standards and Procedures for Determining the Admissibility of Expert Testimony after Daubert, 157 F.R.D. 571, 579 (1994) ("[W]hether the testimony concerns economic principles, accounting standards, property valuation or other non-scientific subjects, it should be evaluated by reference to the 'knowledge and experience' of that particular field.").

H. Examination Techniques in Preparing for a *Daubert* Motion

The time to start considering whether or not to bring a challenge to an opposing expert is when that expert is first disclosed and the Rule 26(a)(2) report delivered. If you have any interest in seeking to exclude that expert's testimony, you should take that person's deposition and work some important questions into

your examination. The precise questions must be tailored to the type of expert you are dealing with. For example, as discussed above, the manner of challenging an experiential witness will differ from a “hard” scientist. E.g., you might ask a metallurgist whether they took samples from an object in question, but that type of inquiry would have no place for an accounting expert opining on the standard of care for CPAs. But you can develop lines of inquiry from the cases under FRE 702 and Daubert for use in a deposition. A transcript of the deposition can then be used to support a motion in limine. Similar questions could be used at a Daubert hearing, if one is called.

1. Example Questions

- What was your methodology?
- Can your methodology be tested by others?
- Are there any written standards in your field that control the operation of your methodology?
- Are there any written standards in your field that control how that methodology can be applied?
- Looking at what you described as the process you followed to reach your conclusion, has that process been met with general acceptance in your field?
- Is there some kind of written guideline or code of conduct to which you referred? If I wanted to go look up the “rules” that you say govern here, where would I find them?
- Has your methodology been subjected to any peer review?
- If I wanted to go out and hire a different expert, how would that expert peer review the methodology that you say you just applied?
- Is there a practice in your field by which theories or even “best practices” are published?
- Is there some system out there whereby your theories and approaches can be exhibited to others for them to critique?
- Is there a known error rate associated with the technique you employed?

- Is there a standards-setting body that maintains a set of standards controlling the technique you have employed?
- Are you testifying about matters growing naturally and directly out of research you have conducted independent of the litigation, or have you developed your opinions expressly for purposes of testifying?
- Have you accounted for alternative explanations?
- What is the level of intellectual rigor you would ordinarily apply when dealing with an issue like this in your field?
- You say your work consisted of reading depositions and their exhibits and thinking about them in light of your industry experience. Is there any methodology that you have applied to reading these things and thinking about them in reaching your conclusion?
- Isn't it fair to say that in reviewing deposition testimony and documentary exhibits in this case, you drew inferences from what you read?
- Isn't it fair to say that in reviewing deposition testimony and documentary exhibits in this case, you accepted some testimony and rejected others by making credibility determinations?
- Isn't the opinion you just expressed a legal opinion?

2. Sample Daubert hearing examination

Attached as Appendix 1 is an excerpt of the transcript of the cross-examination by the movant in an actual Daubert hearing. The court in that case ultimately granted part of a motion to exclude the expert in Kaufman v. Motorola, Inc., No. 95 C 1069, 2000 WL 1506892 (N.D. Ill. Sept. 21, 2000), barring plaintiffs' expert's opinion computing securities fraud damages based on the "proportional trading model" theory. The court held that the model had "never been tested against reality" nor "accepted by professional economists" and therefore excluded plaintiffs' expert to the extent of that opinion.



Appendix 1

Excerpts from Cross Examination in Daubert Hearing
Kaufman v. Motorola, Inc., No. 95 C 1069 (N.D. Ill.) (held on July 11, 2000)

Q. Now, you've talked on direct about your proportional trading model?

A. Yes.

Q. Right?

And I think you said that it was routinely used?

A. The trading model -- trading models are routinely used and the proportional trading model, which is a trading model that has an acceleration factor of 1, is routinely used.

Q. You'd agree that just because it is routinely used doesn't mean it's accurate, wouldn't you?

A. Not necessarily, right.

Q. Not necessarily accurate just because it is used, correct?

A. Yes.

Q. And you know of no empirical studies that support the accuracy of the proportional trading model, isn't that right?

A. I know of no systematic empirical study on the question at all.

Q. One way or the other?

A. One way or the other.

Q. There is no support for it?

A. There is no systematic empirical study of the type that I would consider, you know, helpful on this issue.

Q. You agree, do you not, sir, that as a matter of scientific method, the correct way to test the validity of a theory is to compare the predictions of that theory with real world experience?

A. That's generally speaking one way.

Q. You teach that principle to your students, don't you?

A. I don't specifically recall teaching that particular principle to my students.

Q. You referenced some University of Chicago economists on your direct. Do you recall one by the name of Milton Friedman?

A. Very well.

Q. Was he one of your teachers?

A. At one point, yes.

Q. Are you familiar with the fact that he taught that as a matter of scientific method, the correct way to test the validity of a theory is to compare the predictions of that theory with real world experience?

A. I don't know that he would say "real world experience." He would say empirical testing, scientific testing, and so forth.

But that's a principle that has been taught by Milt Friedman and by Professor George Stiegler, who was on my committee and a teacher of mine, yes.

Q. When you talk about empirical testing, you're talking about data, correct?

A. Yes.

Q. Facts?

A. Systematic, systematic scientific empirical studies.

Q. And there has been to your knowledge no such empirical study that supports the proportional trading model that you've used in this case, isn't that right?

A. Yes. You don't have the actual data. You don't have the actual data before. You don't have the actual data afterwards. All you have is claims.

If after the fact you knew -- if before the fact you knew what the actual damages were, and you knew what the actual ins-and-outs were, you could trace every share and have the actual data, you wouldn't need a model.

Q. Of course --

A. If after the fact you learned what it was, you could go back and test the model. And you don't know what the actual ins-and-outs are, and you don't know from claims data, and you don't know from any data as far as I know. So it's not possible to do the type of test that you're alluding to.

* * *

My point is simply this, if you don't need aggregate damages, you don't need a model, at least you don't need this model?

A. Yes. You do not need to use a statistical trading model, you don't need to use an estimate of that sort if your only task is to estimate artificial inflation per share. You see, that part, that's the reports of two distinct parts, because total damages requires two completely separate, you know, independent calculations, one for artificial inflation and one for total damaged shares.

* * *

Q. You said in your report that you believe that the trading in Motorola stock is an efficient market?

A. Yes.

Q. In an efficient market, delivery of news to the market may or may not move the price of a stock, correct?

A. Okay.

Q. Is that right? Do you agree with me?

Appendix 1 (Page 2)

LYNCH & STERN LLP



A. Depending upon what your definition of "news" is. I mean, I've heard people, there are some people that define news to be information that moves the market.

Q. Let me be more precise.

A. Okay.

Q. Let's use the term "information."

A. Okay.

Q. Not as information that moves the market, but simply information.

A. Okay.

Q. Under the theory, disclosure of information to the market might or might not move the market, that is, change the market price, correct?

A. Right. It might or might not be material.

Q. Might or might not. Let's not talk about material for the moment. Let's talk about might or might not move the market price.

A. Okay.

Q. All right?

A. Fair enough.

Q. My question -- and let me ask another preliminary question. There could have been the disclosure that said "We had an inventory buildup in the fourth quarter of 1994." Are you with me on that one?

A. Okay.

Q. My question is: Do you have any support for the proposition that that kind of information disclosure would or would not have moved the market?

A. Yeah, I have -- no, I don't think I can parse it out like that, because the information that we have, the market receives this report, and then the analysts react to it, and the market reacts to it.

Q. Did you do any research that would support splitting this piece of the information, that is, the fourth quarter buildup, off from the other piece of the information, that is, the several weeks of inventory in excess of normal levels?

A. I don't, I don't understand that question. I mean, I'm reading analysts' reports and looking at stock returns and volume and newspaper stories. And analysts are looking at, what analysts are doing is they're predicting EPS, and they're looking at EPS growth rates, and they react to this news.

They thought that we had a high-growth situation. They thought that Motorola was capacity constrained as of mid-February. And then Motorola puts this announcement out, and from that they reduce their growth rates and they reduce their EPS estimates.

I did a lot of work, I went back to November 4th, and

I said: Well, what are their growth rates leading up to November 4th, and what are the EPS estimates? And they're very similar in position, the market is very optimistic, has built in very high growth rates for Motorola.

Had they told the market in early November that they had built up excess inventory levels several weeks in excess of normal, it's my opinion they would have had a similar effect as they had in February. There is no great difference in the market position and the mix of information to Motorola.

I don't remember parsing out, and I'm at a loss, maybe I don't understand, I guess, the point. But I think the answer is no.

Q. Well, let me make the point I think more clear. There are two pieces to this disclosure that you've included in your -- there was more to the disclosure, but there are two pieces that you included in your paragraph 36, correct?

A. Yes.

Q. One piece is excess inventory. The other piece is that it built up during the fourth quarter.

A. Right.

Q. Are you with me so far?

A. Which is recent to February 17th, right? I mean, you have to remind me, it's been two years since I studied this.

Q. Calendar year, calendar year.

A. Calendar year. So the fourth quarter of '94 would be fairly recent to February.

Q. Correct.

A. I'm saying recently, the data that we have, we've built up excess inventory. And the market thought that they were capacity constrained and thought that they had booming sales and so was surprised to learn that they had built up excess inventories especially in several weeks.

Q. Let's back up. You understand it's not Motorola's inventory we're talking about?

A. It's distributors, yeah, at its U.S. distributors.

Q. You understand Motorola had a great fourth quarter, don't you?

A. I did at the time that I had my deposition taken two years ago.

Q. Okay. You wouldn't disagree with that proposition, would you?

A. I would want to go back and look at the data before I agreed or disagreed with you.

Q. All right. Your paragraph 36 talks about a two part disclosure that Motorola made on February 17. Part one is "We have this buildup in the fourth quarter." Part two is "It's several weeks in excess of normal levels"?

A. The second --

Q. Paraphrase.

A. -- part simply characterizes the first part.

Q. My question is a different one.

Do you have any empirical support for parsing the two, using only the second part, and not using the first part in your hypothetical corrective disclosure?

A. No special reason there. I'm happy to adjust it. I'm happy to change it. I'm happy to say "recently" or "In the last several weeks it's become apparent to us that we now have excess inventory levels that are several weeks beyond normal."

I don't see any material difference between that particular verbiage and the one that I used for my hypothetical disclosure.

Q. The one that you used was to the effect that Motorola believed that it had excess inventory of several weeks in its distribution system, correct?

A. Yes, I think that's right. I mean, we talked about it at great length in the deposition, so there are several variants, but I'll go with that.

Q. And I think you said that you came up with that in consultation with plaintiffs' counsel?

A. That's right.

Q. Now, you did nothing to verify or test whether, in fact, Motorola in November believed that it had excess inventory of several weeks?

A. Correct.

Q. If the assumption that you made, that is, that there were several weeks of excess inventory in November is not true -- with me so far?

A. Right.

Q. -- then your analysis is not valid, isn't that correct?

A. If it's not true, then presumably you would be successful at trial and the jury would find no liability if I'm following you, and then they wouldn't be interested in anything I had to say.

Q. Put the jury aside for a moment, sir.

If this assumption is not true, should anybody be interested in what you had to say on this subject?

A. I don't know.

Q. Now, I believe -- well, just to be clear, you never looked at Motorola's inventory levels?

A. I answered that a moment ago. I said that in the course of preparing for my deposition two years ago, I ended up looking at a lot of numbers. I read expert reports from liability witnesses. I looked at all kinds of information. But it was beyond the scope of the work in this case in my judgment to

study Motorola's actual inventory levels.

I was concerned with what the marketplace understood and what Motorola was discussing to the marketplace and what analysts were discussing about Motorola.

Q. You're not --

A. Growth rates, EPS, and how the market would have reacted. Two things, why did the stock price go down in February in response to that announcement? Why? What was material about that announcement? Was it material? What caused the stock price to go down? And the second thing was, if you made the hypothetical corrective disclosure in November, would it have done something similar? And the answer was yes, except for the fact that in January 10th the stock price went up 2.76.

So that's the work that I did and explained in great detail in my deposition.

Q. So you agree with me that you did not look at what actual inventory levels were at Motorola?

A. I didn't study them. I saw them. I was aware of the data. I was generally exposed to lots of information on those types of questions, as you have been in your work on this case. But it wasn't something that I studied, and it wasn't relevant to me. I'm assuming liability.

Q. Did I just hear you to say that you, in fact, did look at inventory levels?

A. No. I said that I was exposed to lots of information on Motorola's inventory levels. Whether that was internal documents, I don't know. I don't think so. There was a lot of information I didn't see.

You were talking about sell-through reports at the deposition and so forth. I mean, it's two years ago. I don't remember what I saw.

It's inaccurate to say I know nothing -- I knew nothing as of the time this deposition was taken about inventory levels. But as I say in my deposition, as I said here three or four times now, it's beyond the scope of my work. I assume liability.

Q. Well, Dr. Jarrell, maybe you think it's a minor point, but I'd like to know whether, in fact, you looked at inventory levels?

A. I don't remember looking at inventory levels in a fashion where I was studying them and was interested in them and concerned about internal Motorola inventory levels for purposes of anything that I did in this report. I think that's consistent with my deposition testimony, and that's my recollection of the work that I did two or three years ago in the case.

Q. All right. Did you ever ask to look at internal Motorola

documentation regarding inventory?

A. I don't believe I did, and I think I testified to that effect in my deposition.

Q. I think you did, too.

A. Okay.

Q. And so you never tested the question whether Motorola believed in November that it had excess inventory of several weeks?

A. Correct.

* * *

Q. It's a simple point, Dr. Jarrell. Your use of the term "damaged shares" is a surrogate for people and the number of shares those people bought during the class period and held to the end --

A. Yes.

Q. -- isn't that correct?

A. And the damages, that's right.

Q. That's what "damaged shares" mean?

A. That's right.

Q. It doesn't mean that a share is damaged. It just means this is how I am going to calculate --

A. Right.

Q. -- when I get out the other side, I've got these people who are members of the class, and they bought during the period and held?

A. Right.

Q. And by my analysis, those are the only class members who ought to be able to recover?

A. Right.

Q. Because the others weren't damaged?

A. Right. I mean, it's not like the share itself was damaged or the certificate got wrinkled. It was the investor that was damaged by paying too much for the share. That's fine.

Q. That's all it was, a simple point.

* * *

* * *

Q. Dr. Jarrell, you've never published anything at all on the proportional trading model?

A. No.

* * *

Q. And what you call in your report the proportional trading model and you call in your affidavit the general trading model 1X --

A. Yes.

Q. -- is the same model?

A. Yes.

Q. You have never published anything on that model --

A. No.

Q. -- correct?

A. Correct.

* * *

Q. Now, you did a sensitivity analysis in your affidavit?

A. At some point, yes.

Q. And you ran the number with a factor of .75 and another time with 1.25?

A. Counsel asked for that to be computed and put in the affidavit, and I did.

Q. Did you run it with bigger numbers?

A. I testified in the deposition I believe that I ran it two years ago with a 1.5.

Q. Did you ever run it with a 2?

A. No. But it's easy enough to make the jump.

Q. Have you ever done it?

A. If you run it with 1.25, it reduces the damaged shares by 4 percent. If you run it with 1.5, it reduces damaged shares by 8 percent. So I would imagine that if you run it with a 2, and you know better than I do, you have Lexecon at your disposal, if you run it with a 2, it probably reduces damaged shares by approximately 12 percent.

Q. My question then, sir, is: Did you run it with a 2 in this case?

A. No. But I just told you what you would get.

Q. Did you run it with a 3?

A. No.

Q. Have you ever recommended a 3 acceleration factor?

A. I've recommended -- I've used a 6. And the case was a take-over case. And Lexecon was on the other side. It was years ago. And the company was in play during the class period. And I used a 6. And I was on plaintiffs' side. And Lexecon's witness, if I recall, came in, we had to put reports in simultaneously, and Lexecon's witness, Dr. Cox, my old friend, used a 4, and he was on the defendant's side. He quickly changed and said he thought Jarrell's 6 was more appropriate.

Now that's just all from recollection, so don't hold me to that.

* * *

Q. Let me ask you this question: Is there any support in the empirical economic literature for the proposition that if you have what you term a stable situation, you use 1 rather than some other number?

A. I haven't specifically looked at the literature for that. I mean, I think the answer is yes, but I haven't sat down and done a literature search for that particular statement.

Q. You can't cite any such literature?

A. Not sitting here, no.

Q. All right. Let's take a look at your Exhibit 5.

A. Okay.

Q. That's the --

A. Fischel and Ross.

Q. Fischel and Ross.

You'd agree with me that doesn't provide support for that proposition, does it?

A. I don't know.

Q. Do you think it does?

A. I don't know.

Q. All right. Let's look at No. 4, the Cone and Laurence article. Do you think that provides empirical support for the use of the acceleration factor of 1?

A. I'm sorry, was that the question you asked with respect to the previous?

Q. Yes.

A. Yes. Same answer.

Q. You don't know?

A. I don't know.

Q. Let's turn to Exhibit 3, the Weil and Wagner article. Who is the third author?

A. Peter Frank.

Q. Does that article provide empirical support for the use of 1?

A. I don't know. I mean, I don't think any of these articles have empirical -- give us any empirical guidance on the acceleration factor.

Q. All right. And the Dyl article, Exhibit 2, doesn't do that either, does it?

A. Empirical support?

Q. Yeah.

A. I don't think any of these studies do empirical studies. We talked about that earlier, and I said the data wasn't

available.

Q. Right.

A. But the Dyl article obviously is, as I mentioned earlier, very favorable towards the model.

Q. But it doesn't have any empirical support for the model?

A. I don't know. I'd have to read it with that in mind. I just can't -- I mean, I'm not arguing with you. I just can't give you a definitive answer.

* * *

Q. Now, is it fair to say that these publications we've been over, of them, that none of them is a peer-reviewed publication that supports empirically the accuracy of the equal probability assumption of the proportional trading model?

A. I think it's accurate to say that none of them is a peer-reviewed empirical study one way or the other.

Q. Do you know if any of them is peer reviewed?

A. Off the top of my head, no. I would have to go through them and try to figure that out.

* * *



Avidan J. Stern

Avidan J. Stern is co-founder of Lynch & Stern LLP, a boutique litigation firm based in Chicago, Illinois. Prior to opening that firm in early 2008, Mr. Stern practiced in the Chicago office of Jenner & Block LLP for 18 years. Mr. Stern has represented numerous clients in federal and state trial and appellate courts in a wide variety of commercial litigation, including securities matters, contract disputes, real estate development and mortgage matters, class actions, corporate governance disputes, derivative actions and consumer claims.

In securities and shareholder class action litigation, Mr. Stern has represented broker-dealers, securities issuers, investment companies, investment advisors, corporate directors/officers and special litigation committees. Representative cases include defending a securities broker in Indiana state court and administrative proceedings regarding services provided to a large institutional client; representing the special litigation committee of a Fortune 500 media conglomerate in a shareholder class action brought in Illinois state court, successfully moving to dismiss; defending the officers and directors of a Midwestern retailer in federal court in Michigan against a shareholder class action, settling favorably through a third-party mediator; and working on the trial of a shareholder class action and tender offer contest in Delaware Chancery Court on behalf of the general partner of a real estate limited partnership.

In addition, Mr. Stern has represented a variety of clients in other types of commercial litigation. Among other cases, he recently tried a quiet title action on behalf of a developer in Chicago's Near North Side against a neighbor using part of the client's building as a party wall, obtaining a complete victory. Mr. Stern currently represents an international hotel conglomerate prosecuting antitrust claims against manufacturers of polyurethane foam. He also represents a large commercial real estate developer in ongoing disputes with a lender regarding a mall in Chicago's Loop, including a contested receivership motion and interlocutory appeal. Other representative matters include participating in a trial over a prepayment penalty in a large commercial mortgage, in which the court ruled that the client was not required to pay the demanded penalty of over \$50 million; prosecuting claims by an electric utility against three former executives in Ohio state court over alleged breaches of fiduciary and contractual duties, settling during trial; representing a major distributor of electronic news and market pricing information regarding a contract dispute involving assets purchased in a bankruptcy sale, overturning a preliminary injunction on interlocutory appeal and settling the parties' respective remaining claims through mediation; and defending a landlord against a multi-million dollar claim of wrongful refusal to sublease, obtaining full dismissal on summary judgment.

Mr. Stern has written and lectured on civil procedure matters for many years, and also maintains a blog concerning interesting civil procedure and electronic discovery developments at www.civprolaw.com. He received his bachelor of arts degree *magna cum laude* from the University of Pennsylvania in 1986 and his J.D. *with honors* from The University of Chicago Law School in 1989.

