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Expert Testimony and the Daubert and Frye Standards

Daubert

Introduction

The Daubert standard is a rule of evidence relating to the admissibility of expert witness testimony during legal proceedings in U.S. Federal court. Pursuant to the Daubert rule, a party to a lawsuit may raise a Daubert motion, which is a special case of motion in *limine* raised before or during trial, to exclude certain expert evidence to the jury.

The Daubert ruling is based on three U.S. Supreme Court cases that articulated the Daubert standard:

- Daubert v. Merrell Dow Pharmaceuticals, which held in 1993 that Rule 702 of the Federal Rules of Evidence (FRE) did not incorporate the Frye "general acceptance" test (see Frye section herein) to evaluate the admissibility of scientific expert testimony, but that the rule incorporated a flexible reliability standard instead;
- General Electric Co. v. Joiner, which held that a district court judge may exclude expert testimony when there are gaps between the evidence relied on and the conclusion or opinion reached by an expert; and
- Kumho Tire Co. v. Carmichael, which held in 1999 that the judge's gatekeeping function identified in Daubert applies to all expert testimony, including that which is non-scientific.

Definition

In Daubert, seven members of the Court agreed on the following guidelines for admitting scientific expert testimony:

Judge is gatekeeper: Under Rule 702, the task of "gatekeeping", or assuring that scientific expert testimony truly proceeds from "scientific knowledge", rests on the trial judge.

Relevance and reliability: This requires the trial judge to ensure that the expert's testimony is "relevant to the task at hand" and that it rests "on a reliable foundation". Concerns about expert testimony cannot be simply referred to the jury as a question of weight. Furthermore, the admissibility of expert testimony is governed by Rule 104(a), not Rule 104(b); thus, the Judge must find it more likely than not that the expert's methods are reliable and reliably applied to the facts at hand.

Scientific knowledge = scientific method/methodology: A conclusion will qualify as scientific knowledge if the proponent can demonstrate that it is the product of sound "scientific methodology" derived from the scientific method.

Factors relevant: The Court defined "scientific methodology" as the process of formulating hypotheses and then conducting experiments to prove or falsify the hypothesis, and provided a non-dispositive, non-exclusive, "flexible" set of "general observations" that it considered relevant for establishing the "validity" of scientific testimony:

1. Empirical testing: whether the theory or technique is falsifiable, refutable, and/or testable.
2. Whether it has been subjected to peer review and publication.
3. The known or potential error rate.
4. The existence of standards and controls concerning its operation.
5. The degree to which the theory and technique is generally accepted by the scientific community.

In 2000, Rule 702 was amended in an attempt to codify the Daubert standard: “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.”

In 2011, Rule 702 was again amended to make the language clearer, and the rule now reads: “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.”

Although the Daubert standard is now the law in federal court and over half of the states, the Frye standard remains the law in some jurisdictions including California, Illinois, Maryland, New York, New Jersey, Pennsylvania, and Washington.

Trial judges have always had the authority to exclude inappropriate testimony; however, prior to Daubert, trial courts often preferred to let juries hear evidence proffered by both sides and let them “weigh all the evidence.” Even though a Daubert motion is not binding to other courts, if something was found untrustworthy by one court, other judges may choose to follow that

precedent. Of course, a decision by the Court of Appeals that a piece of evidence is inadmissible under Daubert would be binding on district courts within that court's jurisdiction.

Use and Timing

To attack expert testimony as inadmissible, counsel may bring motions, including motions in *limine*. The motion in *limine* may be brought prior to trial, although counsel may also bring the motion during the trial. However, in general, a motion to exclude expert testimony should be brought within a reasonable time after the close of expert discovery, if the grounds for the objection can be reasonably anticipated. Thus, the hearing should occur well before the case appears on a trial calendar. However, in the event one party seeks to exclude expert testimony immediately before or during trial, the court may reject the motion but allow the party to conduct its own *voir dire* of the expert in question before he testified.

History

Prior to Daubert, relevancy in combination with the Frye test (see Frye section herein) were the primary standards for determining the admissibility of scientific evidence. The Frye test is based on a 1923 Federal Court of appeals ruling involving the admissibility of polygraph evidence. Under Frye, the admissibility of testimony regarding novel scientific evidence is based on whether it has "gained general acceptance in the particular field in which it belongs." The trial court's gatekeeper role in this respect helps to keep pseudo-science out of the courtroom by deferring to those in the particular scientific field.

In Daubert, the Supreme Court ruled that the Frye test was superseded by the 1975 FRE, notably Rule 702 governing expert testimony which stated (in its entirety): “If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or 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.”

In Daubert, the Court ruled that nothing in the FRE governing expert evidence "gives any indication that 'general acceptance' is a necessary precondition to the admissibility of scientific evidence. Moreover, such a rigid standard would be at odds with the Rules' liberal thrust and their general approach of relaxing the traditional barriers to 'opinion' testimony."

By requiring experts to provide relevant opinions grounded in reliable methodology, proponents of Daubert believed that these standards would result in a rational resolution of the scientific and technological issues which lie at the heart of many cases. In fact, the Daubert decision is considered by many at the defense bar (and some political commentators) as one of the most important Supreme Court decisions in imposing higher barriers for toxic tort and product liability cases, by allegedly reducing the volume of so-called junk science in the court room.

There is little empirical evidence of the impact of Daubert (and as such any opinions on the impact of Daubert on these cases would be inadmissible!). However, some critics argue that Daubert has altered the balance between plaintiffs and defendants, "The exclusion of expert testimony affects plaintiffs far more than defendants because plaintiffs may then not be able to meet their required burden of proof. Furthermore, there is little point in plaintiffs going to the expense of Daubert motions to exclude defendant's experts until they know if their case will proceed. So if more experts are now being excluded, then Daubert has undoubtedly shifted the balance between plaintiffs and defendants and made it more difficult for plaintiffs to litigate successfully."

A different pattern has emerged in criminal cases where the prosecution has the burden of proof and uses a host of forensic science methods as evidence to prove their case. But, Daubert motions are rarely made by criminal defendants and when they do, they lose a majority of the challenges.

Some observers believe that Daubert caused judges to become, using the phrase used in former Chief Justice William Rehnquist's dissent in Daubert, amateur scientists. Thus, judges lack the scientific literacy to effectively fulfill their role as gatekeeper of scientific evidence, and the responsibility to assess scientific relevance has shifted from highly trained expert witnesses to judges deficient in science education. Furthermore, the Daubert ruling allows for the possible introduction of non-peer reviewed data and conclusions. This increasingly shifts the burden of scientific judgment onto judges who have not had an education which would enable them to properly evaluate such data.

Pursuant to Rule 104(a), the U.S. Supreme Court suggested that the following factors be considered in applying Daubert:

1. Has the technique been tested in actual field conditions (and not just in a laboratory)?
2. Has the technique been subject to peer review and publication?
3. What is the known or potential rate of error?
4. Do standards exist for the control of the technique's operation?
5. Has the technique been generally accepted within the relevant scientific community? (this test was earlier the only relevant criterion under Frye).

The Supreme Court explicitly cautioned that the above list should not be regarded by judges as "a definitive checklist or test..." However, in practice, judges have evaluated the admissibility of scientific evidence using the "Daubert factors" as a checklist.

Frye

The Frye standard, or general acceptance test, is a test to determine the admissibility of scientific evidence. It provides that expert opinion is only admissible where the scientific technique or methodology is generally accepted as reliable in the relevant scientific community.

History

This standard comes from Frye v. United States, 293 F. 1013 (D.C. Cir. 1923), a case discussing the admissibility of polygraph tests. The Court in Frye held that expert testimony must be based on scientific methods that are sufficiently established and accepted, and the court opined: "Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while the courts will go a long way in admitting experimental testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs."

In many but not all jurisdictions, the Frye standard has been superseded by the Daubert standard (see Daubert section above). States still following Frye include: California, Illinois, Maryland, Minnesota, New Jersey, New York, Pennsylvania, and Washington.

Definition

To meet the Frye standard, scientific evidence presented to the court must be "generally accepted" by a meaningful segment of the associated scientific community, as interpreted by the court. In practical application of this standard, those who were proponents of a widely disputed scientific issue had to provide a number of experts to speak to the validity of the science behind the issue in question. Novel techniques, placed under the scrutiny of this standard forced courts to examine papers, books and judicial precedents on the subject at hand to make determinations as to the reliability and "general acceptance."

Closing

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