

What Every Defense (Or Plaintiff's) Lawyer Needs To Know About Daubert

James W. Standard, Jr.

Mr. Standard is a graduate of Washington University in St. Louis and the Georgia State University College of Law, where he graduated *magna cum laude* and served as an editor on the Georgia State University Law Review. Mr. Standard's practice areas include contractual and business disputes and professional liability. Mr. Standard has tried and litigated cases involving contractual disputes, psychological malpractice, medical malpractice, environmental and toxic tort liability, and products liability throughout the country.

Mr. Standard is the co-author of the new treatise, *The Admissibility of Expert Testimony in Georgia*, which is scheduled for publication by Thompson/West in the Fall of 2005. This authoritative text will include analysis of the admissibility of expert testimony under Georgia law.

jstandard@gorbyreeves.com

404-239-1150

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I. Introduction.

Scholarly concerns over the routine admission of suspect “expert” testimony came to a head in the early 1990s, and were perhaps best exemplified with Peter Huber’s commentary that “the kind of expertise regularly accepted as admissible by courts was, frankly, ‘junk’ of scandalous lack of dependability.”¹ With the phrase “junk science” thus coined, the United States Supreme Court threw its hat into the ring in the seminal case of Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S.Ct. 2786 (1993), and has since changed the way federal courts analyze and admit expert testimony.

Several jurisdictions throughout the nation have adopted some version of Daubert or Rule 702 of the Federal Rules of Evidence, which in the year 2000 codified the underlying principles of Daubert.² This year, Georgia has followed this trend by enacting O.C.G.A. § 24-9-67.1, which adopts Rule 702, and expressly incorporates Daubert and its progeny as precedent in the construction of the new statute.

II. The Daubert trilogy.

While rejecting the overly-restrictive “general acceptance” test enunciated in Frye v. United States, 293 F. 1013 (D.C. Cir. 1923), some seventy years earlier as the standard by which the reliability of scientific testimony would be analyzed, the Daubert Court made it clear that not every one who dons the cloak of an “expert” would be permitted to offer opinion testimony.

¹ Peter W. Huber, *Galileo’s Revenge: Junk Science in the Courtroom* (New York, Basic Books 1991).

² Rule 702 of the Federal Rules of Evidence governs the admissibility of expert testimony, providing that:
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

The adjective “scientific” implies a grounding in the methods and procedures of science. Similarly, the word “knowledge” connotes more than subjective belief or unsupported speculation. . . . [I]n order to qualify as “scientific knowledge” an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation - i.e. “good grounds,” based on what is known.

Id. at 590. Daubert ruled that the principles and methods underlying an expert’s conclusion must be reliable, and that, before the expert’s testimony may be admitted before a jury, the trial court must perform an assessment of the testimony to determine “whether the reasoning or methodology underlying the testimony is scientifically valid and . . . whether that reasoning or methodology can be applied to the facts in issue.” Id. at 593-595. The Court explained that this “gatekeeping” role exists because, when presented to a jury, “[e]xpert evidence can be both powerful and quite misleading because of the difficulty in evaluating it.” Id. at 595.³

In Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141, 119 S.Ct. 1167 (1999), the Supreme Court also made it clear that this gatekeeping requirement exists not only for expert testimony that is deemed “scientific” in nature, but for *all* expert testimony, whether based upon “scientific,” “technical,” or “other specialized” knowledge. Id. at 141. Elaborating upon the objective of Daubert’s “gatekeeping” requirement, Kumho Tire stated that it is to enable trial courts to employ the practical tools available to them to ensure that an expert “employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” Id. at 152.⁴

facts of the case.

³ As explained by the Eleventh Circuit, in requiring trial courts to assume their gatekeeping role, the Supreme Court in Daubert “deemed this less objectionable than dumping a barrage of questionable scientific evidence on a jury, who would likely be even less equipped than the judge to make reliability and relevance determinations and more likely than the judge to be awestruck by the expert’s mystique.” Allison v. McGhan, 184 F.3d 1300, 1310 (11th Cir. 1999).

⁴ As stated by the Fifth Circuit in Watkins v. Telsmith, 121 F.3d 984, 991 (5th Cir. 1997),

In between Daubert and Kumho, the Supreme Court decided General Elec. Co. v. Joiner, 522 U.S. 136, 118 S.Ct. 512 (1997). There, the Court held that a trial court's determination as to the admissibility of an expert's testimony would not be disturbed unless there was an abuse of discretion; that is, unless the trial court's determination was "manifestly erroneous." Id. at 141-142. This holding is of particular significance given the fact that the exclusion of an expert's testimony may be outcome-determinative, and that while exclusion of such testimony can lead to summary judgment, an appellate court will review the trial court's determination under a deferential abuse of discretion standard. Furthermore, the Joiner Court provided an additional admonition to those experts who would have a court to accept their testimony at face value on the merits of their credentials alone.

Trained experts commonly extrapolate from existing data. But nothing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.

Id. at 146.

III. The Eleventh Circuit's adoption of Daubert and rules governing the admissibility of expert testimony.

In the Eleventh Circuit, there is a three-tiered analysis courts will undertake in analyzing the admissibility of expert testimony. Such testimony is admissible when:

- 1) the expert is qualified to testify competently regarding the matters he intends to address;
- 2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in Daubert;
- and 3) the testimony assists the trier of fact, through

application of Daubert's factors is pertinent in "evaluating whether the expert is a hired gun or a person whose opinion in the courtroom will withstand the same scrutiny that it would among his professional peers."

application of scientific, technical or specialized expertise, to understand the evidence to determine a fact in issue.

City of Tuscaloosa v. Harcross Chemicals, 158 F.3d 548, 562 (11th Cir. 1998); see also Allison v. McGhan Medical Corp., 184 F.3d 1300 (11th Cir. 1999). Trial courts in the Eleventh Circuit enjoy “considerable leeway” in making reliability determinations; however, trial courts do not have discretion to abdicate their “gatekeeping” role due to the complexity of the science and the difficulty in evaluating the expert’s testimony. McClain v. Metabolife International, Inc., 401 F.3d 1233, 1238 (2005).

IV. Qualifications.

F.R.E. 702 (and O.C.G.A. § 24-9-67.1(b)) provides that a witness may be qualified as an expert by “knowledge, skill, experience, training, or education[.]” Whether an expert possesses the requisite qualifications is, of course, a matter largely left to the discretion of the trial court. Wheat v. Sofamor, 46 F.Supp.2d 1351, 1356 (N.D. Ga. 1999). At the heart of the qualification requirement is that the expert possess sufficient knowledge in the particular area in which he is to testify so as to be able to provide reliable testimony, and that the expert’s testimony be helpful to the jury in understanding the issues involved. Smith v. Ortho Pharmaceutical Corp., 770 F. Supp. 1561, 1566 (N.D. Ga. 1991).

An expert “need not have complete knowledge about the field in question[.]” nor should the expert “be required to satisfy an overly narrow test of his own qualifications.” Id. at 1566-1567. It is important to remember, however, that “one size does not fit all,” and that one who is qualified to speak on one matter is not necessarily qualified to provide competent and reliable testimony on another matter. In assessing an expert’s qualifications, “the court is to examine ‘not the qualifications of a witness in the abstract,

but whether those qualifications provide a foundation for a witness to answer a specific question.”” Semsler v. Norfolk Southern Ry. Co., 105 F.3d 299, 303 (6th Cir. 1997). For instance, in Everett v. Georgia-Pacific Corp., 949 F. Supp. 856 (S.D. Ga. 1996), the testimony of a physician practicing in family medicine and surgery was offered to establish that the plaintiff’s inhalation of chemicals caused him to suffer from chronic respiratory ailments. Noting that the physician possessed no knowledge of toxicology, the court disallowed his testimony, reasoning that “a physician must, at a minimum, possess some specialized knowledge about the field in which he is to testify.” Id. at 857⁵; see also Will v. Richardson-Merrell, Inc., 647 F.Supp. 544, 548-549 (S.D. Ga. 1986) (plastic surgeon incompetent to testify as to whether drug caused birth defects).

Similarly, in McLendon v. Georgia Kaolin Co., 841 F.Supp. 415 (M.D. Ga. 1994), the testimony of an “economic geologist” was offered to provide testimony regarding the value of kaolin in the subject tract of land. Despite the geologist’s academic credentials, the court disallowed this testimony because the witness had minimal experience in evaluating the mineral for commercial use, the processes used to make the mineral commercially viable, or the market value of the mineral during the relevant time period. Id. at 418. The court reasoned that the expert’s lack of knowledge in these matters rendered his proposed testimony “of no assistance to the trier of fact.” Id.

⁵ In so ruling, the court cited to the Federal Judicial Center’s *Reference Manual on Scientific Evidence*, which provides that:

a physician without particular training or experience in toxicology is unlikely to have sufficient background to evaluate the strengths and weaknesses of toxicological research. . . . Generally, physicians are quite knowledgeable as to identification of effects. . . . However, most physicians have little training in chemical toxicology and lack an understanding of exposure assessment[.]

Id. at 858, n.3.

V. Reliability.

In ruling that the methodology employed by an expert in arriving at his opinions must be reliable, Daubert suggested several factors to aid judges in making this determination, including: 1) whether the theory or method has been and can be tested; 2) whether the theory or method has been subjected to publication and peer-review; 3) whether the theory or method has an acceptable rate of error, and whether mechanisms exist to ensure the error rate is accurate; and 4) whether the theory or method has been met with general acceptance within the relevant scientific community. Id. at 593-594. It is important to bear in mind, however, that the factors articulated in Daubert are not exhaustive, and that any one or several of these factors may or may not be applicable to the reliability inquiry in any given case. Id. at 593; see also In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 750 (3d Cir. 1994). Moreover, there are numerous factors beyond those set forth in Daubert which will bear upon the reliability of an expert's opinion. Discussed below are some frequently used factors to test the reliability of an expert's testimony.

A. Testing.

One factor Daubert considered is “whether a theory or technique can be (and has been) tested.” Id. at 593. ““Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry.”” Id. An expert must arrive at his conclusions using scientific methods and procedures, and his testimony should be excluded when based only on a “hypothesis” which has yet to be subjected “to

the rigors of scientific testing.” Higgins v. Diversey Corp., 998 F.Supp. 598, 602 (D. Md. 1997).

The issue of testing often arises in the context of products liability actions, wherein an expert is employed to establish the existence of a “design defect” by suggesting that safer, alternative designs (which would have prevented the injury at issue) could have been used in the design of a product. It is not enough, however, for the expert to merely propose alternative designs, and the failure to test the feasibility of alternative designs in the first instance can be fatal to the expert’s opinion. As was noted in McGee v. Evenflo Co., 2003 W.L. 23350439, *9, 11 (M.D. Ga. 2003), “it is not sufficient that an expert merely ‘conceptualize possibilities.’ . . . ‘The history of engineering and science is filled with finely conceived ideas that are unworkable in practice.’”

Similarly, the failure to conduct testing in an effort to show how the alternative design would have prevented the injury at issue can be fatal to the expert’s testimony. See, e.g. McCorvey v. Baxter Healthcare Corp., 298 F.3d 1253, 1256-1257 (11th Cir. 2002) (court upheld exclusion of engineer’s testimony that catheter was defective, observing that the engineer “did not test alternative designs for the catheter; did not talk to medical personnel; was unable to cite scientific literature in support of his theories; and did not consider or test possibilities for failure that could have come from sources outside the product, such as the effect of improper storage conditions, contaminants, or human error”); Clark v. Takata Corp., 192 F.3d 750, 757 (7th Cir. 1999) (court upheld exclusion of expert who proposed to testify that seat belt was defective, noting that such testimony “is only helpful to the fact finder if he is able to establish [the cause of injury] through visual inspection, independent research, testing, and knowledge”). Testimony which is

not supported by testing to confirm an expert's hypotheses as to how an alternative design would have prevented injury is little more than a "haphazard, intuitive inquiry[.]" based not on a reliable methodology, but solely upon the expert's qualifications and years experience. Oddi v. Ford Motor Co., 234 F.3d 136, 156-158 (3d Cir. 2000). It is important that the testing not be performed in the "bubble of a laboratory," and that it approximate conditions which exist in the "real world." Dale v. General Motors Corp., 109 F.Supp.2d 1376 (N.D. Ga. 1999) (expert's testing, purporting to demonstrate how seat belt defect caused it to unlatch during motor vehicle accident, rejected as an unreliable "parlor trick," as testing did not approximate real world conditions).

Technical experts, such as engineers, are famous for proclaiming that their opinions are not based on any specific methodology, but rather, based upon their observation of the evidence as informed by the general experience and knowledge they have developed over their career. In this way, such experts may attempt to side-step indicators of reliability, such as the existence of testing, controls to ensure the validity and reliability of the testing which was in fact done, or scientific or professional literature which supports their conclusions. Courts are not impressed with such tactics, and as noted in Milanowicz v. Raymond Corp., 148 F.Supp.2d 525, 532 (D.N.J. 2001):

It 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. The moral of [this] approach would be, the less factual support for an expert's opinion, the better.

The Milanowicz court went on to note that it was common knowledge that engineers routinely "rely upon established principles of physics, material sciences, and industrial design and often utilize technologically sophisticated and carefully calibrated testing

methods and devices[,]” and that reliable and accepted methodology “simply does not involve guess work or even conjecture . . . [but rather] some inquiry into industry standards, practices, or publications and results in conclusions based upon concrete data, testing, measurements, or calculations.” Id. at 532-536.

B. Peer review, publication, and general acceptance.

While Daubert was quick to point out that the absence of a theory or technique’s publication is not dispositive on the issue of reliability, it did observe that “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.” Id. at 593. Moreover, while Daubert rejected the “general acceptance” test as the *sine qua non* of reliability, it affirmed that a theory or method’s general acceptance within the relevant scientific community would continue to bear upon the reliability inquiry: “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.” Id. at 594.

The non-existence of published studies supporting an expert’s theories is often invoked in toxic tort cases, wherein the absence of epidemiological studies establishing that a substance is capable of causing a certain malady can result in the exclusion of testimony on the “general causation” element of the claim. Siharath v. Sandoz Pharmaceuticals Corp., 131 F.Supp.2d 1347, 1356-1358 (N.D. Ga. 2001) (in excluding expert’s testimony that a prescription medication caused plaintiff’s hemorrhagic stroke, the court observed that “epidemiological studies provide ‘the primary generally accepted methodology for demonstrating a causal relationship between a chemical compound and

a set of symptoms or disease. . . . [and] the lack of epidemiological studies supporting plaintiff's claims creates a high bar for plaintiffs to surmount"); see also Wehling v. Sandoz Pharmaceuticals Corp., 162 F.3d 1158 (4th Cir. 1998) ("An 'expert' opinion is considered unreliable and inadmissible under Daubert where, as here, the expert has developed opinions expressly for the purposes of testifying in the case, has himself performed no tests or studies that support his opinions, has cited no peer-reviewed, controlled studies substantiating his opinions, and fails to 'point to some objective source . . . to show that he has followed the scientific method.'").

The non-existence of supporting literature can arise in other contexts as well. For instance, in rejecting a physician's testimony that pedical screws were the source of the plaintiff's pain, the court in Wheat v. Sofamor, 46 F.Supp.2d 1351 (N.D. Ga. 1999), observed that while the physician had purported to base his opinion on the differential diagnosis process, "there is no body of literature which addresses the relationship between the mere implantation of pedicle screws and back pain." Id. at 1359. On the issue of general acceptance, the court went on to note that there had been no showing that "any other expert has reached the conclusion that the mere implantation of pedicle screws causes back injuries and pain." Id. In McGee v. Evenflo Co., Inc., 2003 W.L. 23350439 (M.D. Ga. 2003), the court rejected a mechanical engineer's testimony regarding the feasibility of alternative designs for an allegedly defective child safety seat, noting that the expert had failed to identify any relevant industry research or publications in support of his opinions. Id. at *7-8.

C. Error rate and testing controls.

Daubert observed that, in gauging the reliability of an expert's methodology, "the court should consider the known or potential rate of error, . . . and the existence and maintenance of standards controlling the technique's operation[.]" Id. at 594. At the heart of these prongs of the Daubert inquiry are the concepts of "validity" and "reliability." Validity asks the question: "does the principle support what it purports to show?" Id. at 590, n.9. Reliability asks the question: "does application of the principle produce consistent results?" Id. As noted by one commentator, "there are multiple types of errors that can, and do, occur during scientific research. The trial judge must be prepared to assess the effect of all of these different types of errors. The next thing the judge must consider is the existence of standards that govern particular experimental processes and mechanisms and the nature of the enforcement of those very standards, if they exist."⁶

Several types of errors can occur in testing. Some of these errors may be random in nature, such as where a test produces a small number of results that are anomalous with the vast majority of results. Another error in the test can be a failure to account for data manipulation by either the examiner or the subject. See, e.g. United States v. Birdsbill, 243 F.Supp.2d 1128 (D. Mont. 2003) (psychological test used in effort to demonstrate defendant had no pedophilic tendencies inadmissible in light of no mechanism to determine whether subject was falsifying test results). Other errors may be more systemic in nature, such as where problems with the boundaries or parameters of

⁶ Sara K. Ledford, *The Implications of Kumho Tire: Applying Daubert Analysis to Warning-Label Testimony in Products Liability Cases*, 76 Ind. L.J. 465 (2001).

the testing exist, leading to the reporting of “false positives” and “false negatives.”⁷ A “false positive” occurs when a test erroneously identifies something as true when in fact it is not, and a “false negative” occurs when a test erroneously identifies something as false when in fact it is true.⁸

For instance, in Myers v. Arcudi, 947 F.Supp. 581 (D. Conn. 1996), the district court excluded an expert’s testimony regarding polygraph results, noting that the testing supporting the accuracy of the polygraph results only referenced instances wherein a subject had failed the test and subsequently confessed; not referenced were those instances wherein an innocent person failed the test and a guilty person passed. This resulted in “a skewing of the results of the study which may systematically overestimate the accuracy of the exam in determining deception or truthfulness.” Id. at 587.

Accurate documentation of testing conditions and error rates enable a test to be repeated so that its results can be verified and critiqued, and the failure to adequately document these matters will mitigate in favor of excluding any conclusions derived from the testing. See, e.g. Semsler v. Norfolk Southern Ry. Co., 105 F.3d 299, 304 (6th Cir. 1997).

D. Lack of factual foundation.

One very important factor is set forth in the text of Rule 702 (and now, O.C.G.A. § 24-9-67.1) itself; namely, whether the expert’s opinion is based upon “*sufficient* facts or

⁷ Ledford, *supra.*, at 474-475.

⁸ Mara L. Merlino, *Judicial Application of Daubert to Psychological Syndrome and Profile Evidence*, 11 Psychol. Pub. Pol’y & L. 62 (2005).

Similarly, various tests, such as checklists purporting to state whether an individual has characteristics consistent with a particular syndrome, such as child sexual abuse accommodation syndrome, can result in an over-reporting of false positives. While these checklists may accurately identify symptoms consistent with children who have been sexually abused, children who have not been sexually abused frequently exhibit these characteristics as well. See Terrence W. Campbell, Smoke and Mirrors: The Devastating Effect of False Sexual Abuse

data”. Expert’s opinions are often replete with unsubstantiated assertions and unstated assumptions lying beneath the surface of the opinion. A skillful examination of the bases underlying an expert’s conclusions can expose an expert’s want of factual support for his opinions, and serve to demonstrate the unreliability of his testimony.

Courts have consistently excluded purported “expert” testimony where the expert has been unable to demonstrate that he has a sufficient factual basis for his opinions. Where an expert has “assume[d] the very fact that he has been hired to prove, his testimony is not helpful to the trier of fact in determining that same fact in issue[,]” and is nothing more than “subjective belief.” Clark v. Takata Corp., 192 F.3d 750 (7th Cir. 1999). An expert opinion that lacks a proper factual foundation is nothing more than “unscientific speculation offered by a genuine scientist.” Rosen v. Ciba-Geigy Corp., 78 F.3d 316, 318 (7th Cir.1996).

For instance, in Oglesby v. General Motors Corp., 190 F.3d 244 (4th Cir. 1999), a mechanical engineer attempted to opine that a component part of a radiator hose failed because it was defective, thereby causing the plaintiff’s injuries. The engineer made a variety of assumptions about the shape, composition, and stress resistance of the component part, as well as the actual stress exerted upon the component part when it failed. In excluding the engineer’s testimony, the Fourth Circuit found that the engineer “had none of the necessary data and therefore could not make any such calculations for the part in this case. He could only speculate as to a possibility which was no more likely than other available possibilities.” Id. at 252; see also Collier v. Varco-Pruden Buildings, 911 F.Supp. 189, 192 (D.S.C. 1995) (expert testimony as to cause of plaintiff’s fall excluded because there was “insufficient evidence from which any person could

Claims (1998).

determine what caused [the plaintiff] to fall[,]” and expert’s testimony “amount[ed] to nothing more than his speculation as to what ‘most likely’ happened.”).

A few assumptions in an expert’s opinion are inevitable. However, where a crucial part of an expert’s opinion is premised upon an assumption, or where the expert’s conclusion consists of several assumptions stacked upon one another, the reliability of the expert’s conclusions become vulnerable to attack. Siharath v. Sandoz Pharmaceuticals Corp., 131 F.Supp.2d 1347, 1371 (N.D. Ga. 2001) (“expert testimony must be supported by “good grounds” at each step of the causal chain; and any step that renders their analysis unreliable also renders the testimony inadmissible”). The more you can expose such assumptions, the better able you will be able to show that the expert’s opinions are premised upon insufficient facts, and are little more than speculation clothed in the robe of expertise.

E. Assumptions in medical opinions.

Physicians, who treat and care for patients as a living, are often employed to provide testimony as to the specific cause of an individual’s medical condition. More often than not, such testimony is based upon a process known a “differential diagnosis.” This process usually entails a sort of process of elimination, or exclusion, wherein a diagnosis is “made by excluding those diseases to which only some of the patient’s symptoms might belong, leaving one disease as the most likely diagnosis, although no definitive tests or findings establish that diagnosis.”⁹ A potential problem in relying on such a process is that it is often focused on the treatment of symptoms, as opposed to

⁹ *Stedman’s Medical Dictionary* (26th Edition, 1995).

ascertaining the etiology of those symptoms.¹⁰ As noted by the federal court of the Northern District of Georgia, a differential diagnosis *assumes* that a substance is capable of causing a patient's symptoms, but does not *prove* that the substance *can* cause the patient's symptoms. Siharath v. Sandoz Pharmaceuticals Corp., 131 F.Supp.2d 1347, 1362 (N.D. Ga. 2001) (discussing the distinction between "general causation" and "specific causation" in a toxic tort case).

The conclusory statement that causation was determined by the differential diagnosis process, unsupported by independent testing or literature, has been met with disfavor by the courts. For instance, in rejecting a physician's testimony that a patient's pain was attributable to a pedical screw, the federal court of the Northern District of Georgia explained:

In making the leap from his cursory review of the medical records to his conclusion, Mitchell offers little to explain his methodology. As best as the Court can discern, he relied on differential diagnosis. Put another way, since Baker had a successful fusion surgery, yet continued to suffer pain, the pain must be attributable to the hardware. The law demands a more complete factual basis for scientific conclusions, and a methodology that is more in accordance with generally accepted scientific principles than what Mitchell offers here.

Baker v. Smith & Nephew Richards, Inc., 1999 W.L. 1129650, *5 (N.D. Ga. 1999). As can be seen, evidence of causation that relies primarily on the fact that the occurrence preceded the manifestation of symptoms is treated suspiciously. See, e.g. Cartwright v. Home Depot U.S.A., Inc., 936 F.Supp. 900, 906 (M.D. Fla. 1996) ("It is well settled that a causation opinion based solely on a temporal relationship is not derived from the scientific method and is therefore insufficient to satisfy the requirements of Fed. R. Evid. 702."); Wheat v. Sofamor, 46 F.Supp.2d 1351, 1358 (N.D. Ga. 1999). As explained by

¹⁰ Michael B. Kent, Jr., Daubert, Doctors and Differential Diagnosis: Treating Medical

the Eleventh Circuit, testimony dependent solely upon such a temporal connection results in a *post hoc ergo propter hoc* (“after this, because of this”) fallacy - “an assumption based on the false inference that a temporal relationship proves a causal relationship.” McClain v. Metabolife Int’l, Inc., 401 F.3d 1233, 1243 (11th Cir. 2005).

F. Assumptions contradicted by facts in evidence.

Sometimes, an expert will have failed to consider, or will have discounted, a crucial piece of evidence which directly contradicts his conclusions, such as the testimony of a fact witness. This can result in what is perhaps best termed a “gift” to opposing counsel. As discussed above, exposing an expert’s lack of factual support for his opinions can result in the exclusion of his testimony. Better yet for examining counsel is the situation where it can be shown that the factual predicates underlying an expert’s conclusions are contradicted by the facts in evidence. See, e.g. Guidroz-Brault v. Missouri Pacific R.R. Co., 254 F.3d 825 (9th Cir. 2001) (expert testimony that cause of train derailment was railroad engineer’s failure to keep a proper lookout and discover defect in rail excluded where eye-witness testimony demonstrated that defect in rail was not visible); J.B. Hunt Transport, Inc. v. General Motors Corp., 243 F.3d 441 (8th Cir. 2001) (where damages expert assumed that plaintiff’s vehicle had been impacted only three times, and evidence demonstrated that plaintiff’s vehicle had been impacted four times, testimony excluded).

G. Failure to run necessary calculations.

Closely aligned with the case wherein an expert premises his conclusion on little more than assumptions is the case wherein an expert has failed to do his “homework” and perform the necessary research, tests, and calculations to provide his opinion with the

Causation Testimony as Evidence, 66 Def. Couns. J. 525 (1999).

necessary factual foundation. For instance, in McGee v. Evenflo Co., 2003 W.L. 23350439 (M.D. Ga. 2003), a mechanical engineer seeking to opine that a product defect was the cause of the plaintiff's injuries failed to conduct any tests, take any measurements, run any calculations, or review any literature to support his conclusions. The court excluded the expert's testimony, noting that "[w]hile Brown's conclusions may be altogether accurate, he has done nothing in this case to show that they are." Id. at *10, 14.

In Oddi v. Ford Motor Co., 234 F.3d 136, 158 (3d Cir. 2000), the court upheld the exclusion of an engineer that an allegedly defective design of a truck caused the plaintiff's injuries in an accident, observing that the engineer had not calculated the forces involved in the accident and did not know how much force the metallurgy of the truck could withstand. Similarly, in Adams v. Pro Transportation, Inc., 2002 WL 801911 (D. Neb. 2002), the court excluded the proffered testimony of an expert as to the cause of a tractor-trailer accident, finding that the methodology the expert had employed in arriving at his conclusion was unreliable because the expert either did not know, or did not take into account, specific characteristics of the collision at issue, including the grade of the slope on which the vehicle was traveling and the vehicle's speed. Id. at *7.

H. Failure to rule out alternative explanations.

Expert testimony which fails to consider and rule out alternative causes is generally deemed unreliable and inadmissible. Courts appear to regard the failure of an expert to "rule out" alternative explanations as indicative of the fact that the expert may have started out with his conclusion in mind - working backwards to tailor to the

evidence to fit the conclusion - rather than objectively considering all evidence and following it to whatever the conclusion may be.

For instance, in Cooper v. Smith & Nephew, Inc., 259 F.3d 194 (4th Cir. 2001), a physician testified that a patient's failed back surgeries and resulting complications were caused by a defect in a manufacturer's spinal fusion device. While abundant evidence and literature suggested alternative causes of the patient's post-surgical complications, the plaintiff's expert failed to consider and rule out several of these alternative causes, and for those he did rule out, failed to provide an explanation as to how he had ruled them out. In upholding the exclusion of the expert's testimony, the court stated that where an "expert utterly fails to consider alternative causes or fails to offer an explanation for why the proffered alternative cause was not the sole cause, a district court is justified in excluding the expert's testimony." Id. 202.

Similarly, in Martinez v. CO2 Services, Inc., 12 Fed. Appx. 689 (10th Cir. 2001), a physician opined that the circumstances surrounding a tractor-trailer accident in which both the tractor-trailer driver and the plaintiff died supported an inference that the accident was caused by the tractor-trailer driver's falling asleep at the wheel. In upholding the exclusion of this testimony, the court noted that the expert's opinion that the driver had fallen asleep behind the wheel was "based upon a number of assumptions which plaintiff is unable to establish through anything other than speculation." Id. at 696. Moreover, the expert had "not ruled out other possible causes of the accident and [had] therefore failed to establish a probability that the accident occurred as a result of [the driver's] negligence." Id. at 697.

VI. Relevance.

It is important to remember that Daubert's focus was not only on reliability; its focus extended to the relevance of the expert's testimony as well. Noting that F.R.E. 702 also requires that an expert's testimony must "assist the trier of fact . . . to determine a fact in issue[,]” the court observed that “[e]xpert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” Id. at 591. Describing this inquiry as one of “fit,” the Court stated that there must a valid scientific connection between the underlying theory or methodology and the pertinent inquiry. Id. at 592.

This issue often arises where there exists a questionable ability to apply an otherwise valid test in support of a particular conclusion. For instance, in the context of a toxic tort case, courts have often rejected use of toxicology studies on animals to prove that a substance is capable of producing certain ailments in humans. As was explained in Siharath v. Sandoz Pharmaceuticals Corp., 131 F.Supp.2d 1347 (N.D. Ga. 2001):

Extrapolations from animal studies to human beings generally are not considered reliable in the absence of a credible scientific explanation of why such extrapolation is warranted. . . . [E]xtrapolating from animals to humans is difficult because ‘differences in absorption, metabolism, and other factors may result in interspecies variation in responses. . . . [Moreover], ‘the high doses customarily used in animal studies requires consideration of the dose-response relationship and whether a threshold no-effect does exists.’

Id. at 1366-1367.

Similarly, in McClain v. Metabolife Int'l, Inc., 401 F.3d 1233 (11th Cir. 2005), the Eleventh Circuit rejected an expert's reliance on FDA reports and restrictions on supplements containing ephedrine in support of the plaintiff's claim that the ingestion of a supplement containing this substance caused her ischemic strokes, noting that the FDA's risk assessments and actions were largely geared towards protecting the public at

large, including particularly sensitive components of the population, from potential and largely unquantifiable risks. Thus, the FDA reports were poorly suited to establishing whether a particular substance caused a particular malady in a particular individual. *Id.* at 1249; see also Wheat v. Sofamor, 46 F.Supp.2d 1351, 1358 (N.D. Ga. 1999) (where physician could not explain to a reasonable degree of medical certainty that plaintiff's pain was caused by pedical screws themselves as opposed to the *implantation* of the screws, physician's testimony in products liability action was excluded as unhelpful and irrelevant).

VII. Other considerations - prevent "sandbagging."

It may be the case that, after thorough cross-examination at deposition, or perhaps only after a motion to exclude expert testimony has been filed, the proponent of the testimony will seek to cure the faults of his expert's testimony. This may occur by way of supplemental testing which the expert neglected to perform in the first instance. This may occur by way of "recently discovered" data which the expert did not initially think to consider. This may occur by way of an affidavit, wherein the expert has only just now decided that it is important to provide the court the full bases of his knowledge while having previously denied examining counsel the same benefit.

Do not allow an expert who is too "cute" for his own good to get away with such tactics, and be adamant in exposing this gamesmanship to the court. The Supreme Court has expressly disapproved of such "shell games" by noting that "[i]t is implausible to suggest, post-Daubert, that parties will initially present less than their best expert evidence in the expectation of a second chance should their first try fail." Weisgram v. Marley Co., 528 U.S. 440, 442, 120 S.Ct. 1011 (2000). As stated by one district court:

If the parties are allowed to change the nature and scope of their expert's opinions after the Court has imposed deadlines and as late as the Pre-Trial Order, parties would in effect be encouraged to wait until such time to make known new theories, thereby minimizing the opportunity for the exploration of countervailing opinions. Such "trial by ambush" is precisely what the 1993 revision of the Federal Rules is attempting to eliminate. . . . To allow Congressional's proposed "supplementation" would create the proverbial "moving target" that is so offensive to civil litigants.

Congressional Air, Ltd. v. Beech Aircraft Corp., 176 F.R.D. 513, 516 (D. Md. 1997).

VIII. Conclusion.

Just as Daubert has had a dramatic impact on the way federal courts scrutinize expert testimony, Georgia's enactment of O.C.G.A. § 24-9-67.1 is expected to significantly change the way in which state courts view the reliability, and admissibility, of testimony donned with the aura of expertise. This heightened scrutiny is justified, as an expert, unlike any other witness, is permitted wide latitude to freely offer opinions on what frequently amounts to the ultimate issues in the case, based upon information of which he has no personal knowledge.

Daubert and its progeny enable the court to "pierce the veil" of previously assumed expertise to ensure that only that testimony which is supported by "good grounds" is permitted to influence a jury. As explained by one commentator, given the weight it is hoped a jury will attach to the opinion of one ordained by the court as an "expert," the "gatekeeping" role a trial judge plays under Daubert "is simply to guard the jury from considering as proof pure speculation presented in the guise of legitimate scientifically-based expert opinion. . . . [I]t is to assure that an expert's opinions are

based on relevant scientific methods, processes, and data, and not on mere speculation, and that they apply to the facts at issue.”¹¹

¹¹ Henry F. Fradella, et al., The Impact of Daubert on Forensic Science, 31 *Pepp. L.Rev.* 323, 329 (2004).