

***Daubert* and the Acceptability of Legal Decisions¹**

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One who is absolutely committed to the process of ascertaining and testing the truth, and who would thus shun any concession of the search for truth to the production of acceptable verdicts, may find that he does so at the expense of other important values. He may discover that extremes in the pursuit of truth can impair the system's capacity to generate acceptable verdicts and thus undercut its ability to project the norms embodied in the substantive law.²

In a series of cases beginning with *Daubert v. Merrell-Dow Pharmaceuticals Inc.* the U.S. Supreme Court gave federal judges a heightened duty to review scientific evidence and expert testimony that are proposed for admission into civil and criminal litigation.³ Two of these cases were toxic tort cases, the focus of this essay.

A review of the admissibility of scientific evidence or expert testimony is not (or in principle should not be) aimed at adjudicating between the factual claims submitted by the parties; that is an issue that constitutionally should be left to juries. Rather, according to *Daubert* judges' admissibility decisions should ensure that *scientific* evidence and expert testimony are "reliable, that is, "ground[ed] in the methods and procedures of science," and they must fit the facts of the case.⁴

Moreover, admissibility decisions on scientific evidence are made before a jury is empanelled and before a trial proper begins. That is, after complaints and answers are filed and after discovery, during pretrial conferences to identify the issues in a trial, courts typically review whether any experts proposed to testify in a case should be admitted for court testimony. A judge must decide whether to admit or reject an expert witness to testify on a scientific or technical issue. After reviewing expert testimony for admissibility, if the judge has excluded one or more experts so that the litigant's factual foundation of his/her case is threatened, the other side, typically the defense, would next file a motion for a summary legal judgment. A *summary judgment* is a finding as a matter of law that there is *no material issue of fact* for a jury to decide—the evidence is so overwhelming or so deficient on one

side that the judge can decide issues between litigants as a matter of law. Typically, if a plaintiff's experts that were critical to a case were not admitted, plaintiff would not be able to establish, e.g., a legally required causal connection between exposure to ETO and brain cancer. If plaintiff cannot establish this claim, there is no material of fact to be decided by a jury, so there is no need for a jury trial. As a matter of law on that issue, the case is at an end (there might remain other issues).

Ten years after *Daubert* it may be early to come to very firm conclusions about its impact, but there are general reasons to be concerned about its effects on the tort law (I ignore the criminal law). I sketch some of these issues and then develop a particular concern further by discussing some ideas articulated by Charles Nesson on the importance of the acceptability of legal verdicts to the legal system.

II

Even before *Daubert* there were a variety of reasons to be concerned about how science and scientific evidence should be utilized in the law, especially in the tort law.⁵

There are "institutional" tensions between the law and science concerning the standards of proof required in each "institution". Consequently, unless legal requirements placed on scientific evidence are not tailored sensitively for the law, implicit burdens and standards of proof from scientific research can easily distort the law. For example, the scientific community strongly and asymmetrically protects against false positive mistakes (i.e., inferential procedures that show a substance is toxic when it is not), while in the tort law there is an institutional commitment to the view that *legal* false positives (i.e., mistakenly deciding for plaintiffs) should be approximately equal to *legal* false negatives (i.e., mistakenly deciding for defendants).⁶

Features of substances and of scientific research exacerbate these generic tensions. In research, scientists tend to presume substances have no particular properties, including toxicity, until they have been established by appropriate research. Moreover, it can be quite difficult to show toxicity for substances that cause diseases with long latency periods, cause *common* diseases, or have *subtle effects*. In many cases each substance or biochemical threat poses a new scientific detective problem, which only exacerbates problems of identifying toxicants. Moreover, it will often be difficult for persons exposed to toxicants to discover that their diseases are the result of exposure.⁷

In addition, there will often be considerable uncertainty attending scientific claims about suspected toxic substances, but in the law uncertainty can be a substantial barrier for the party with the burden of proof. Since science is open-ended, and since even comparatively settled conclusions are open to revision upon the presentation of new data, theories, or discoveries, scientists ordinarily assert their

views with considerable uncertainty even though their personal beliefs may be stronger. Some scientists even demand proof “beyond a reasonable doubt” before drawing conclusions because alternative explanations will slay “a beautiful [but mistaken] hypothesis.”⁸

These scientific conventions would further handicap the party with the burden of proof, almost always the plaintiff.

Beyond the above problems and prior to the *Daubert* decision some legal scholars argued that there is a procedural bias in the tort law against plaintiffs resulting from problems of latency, proof of causation, free-rider problems and so on. However, they also argued that this procedural bias was counterbalanced by a substantive bias for plaintiffs once they were in court, despite plaintiffs having the burden of proof. Thus, the institution struck a reasonable balance between those who create and those who are exposed to risks. In their view, there was no need to reform the law as many were advocating.⁹

Nonetheless, the *Daubert* decision in effect reformed the law concerning expert testimony and exacerbated some of the above problems in the process.

In implementing *Daubert* some judges appear to have imposed more stringent requirements on scientific evidence than scientists themselves would—by demanding evidence scientists would not require or excluding evidence scientists would routinely utilize. Such decisions deprive plaintiffs of some reasonable evidence that scientists utilize in their own fields for inferring causation, further exacerbating the barriers faced by plaintiffs.¹⁰

There are reasons for thinking that even if *Daubert* had been implemented to admit precisely the right kinds of expert testimony, there are likely to remain problems with toxic tort law. There is profound ignorance of the universe of substances,¹¹ which together with the causation requirement creates incentives “on the part of corporations not to know and not to disclose” information about the harms their products may cause.¹² To address this the substantive law may need to be reformed to encourage greater toxicity testing, better data-gathering and better reporting of adverse effects in order to better protect the public.¹³ Ignorance of the chemical universe adversely affects litigants who have the burden to remove the ignorance, typically plaintiffs. The higher the barriers for removing ignorance, the greater the burdens on plaintiffs. Almost certainly the *Daubert* decision has increased plaintiffs’ barriers.

The above concerns suggest that when substantial scientific evidence is required in torts, the law is likely being altered by *Daubert* and its progeny. However, the remainder of the essay addresses a less obvious, more subtle issue related to *Daubert’s* focus on evidence, namely, the difference between the acceptability of verdicts that convey a liability judgment and verdicts that tend to focus on the evidence.

III

In a well-known paper, Charles Nesson introduced and argued for the following distinctions.

A verdict that a defendant is guilty or liable can carry two different meanings and project two different rules. The verdict can articulate a legal rule: '*You did the thing enjoined by the law*; therefore, you will pay the penalty.' This message encourages each of us to conform our conduct to the behavioral norms embodied in the substantive law. Alternatively, the verdict can emphasize a proof rule: 'We will convict and punish you only if your violation is proved by due process of law.' This message invites people to act not according to what they know is lawful, but according to what they think can be proved against them. While the legal system requires judges to heed the proof rule, it encourages citizens to heed the legal rule and to conduct themselves accordingly. A primary objective of the judicial process, then, is to project to society the legal rules that underlie judicial verdicts.¹⁴

One way to make these points is to consider some of the “gaps” between comparatively raw evidence (I use scientific evidence as the example) and an ultimate legal conclusion about liability. Consider *Allen v. Pennsylvania Engineering, Inc.*¹⁵

Walter Allen worked for a hospital as a maintenance man, sometimes changing bottles of ethylene oxide (ETO) in hospital sterilization chambers. Mr. Allen contracted brain cancer, a quite rare disease. He and his wife alleged that his brain cancer was caused by ETO and that the hospital and ETO manufacturer should be held liable. The hospital settled before trial.

How might the Allens establish their case against the manufacturer of ETO? They need some scientific evidence showing that ETO *could cause* brain cancer (so-called “general causation”) and that ETO *did cause* Mr. Allen’s brain cancer (“specific causation”). They also need to show, given the causal claims, under the applicable law that Pennsylvania Engineering should be held liable for his brain cancer.

There are at least two major “gaps” in arguments from basic scientific studies to liability judgments. There is an “evidence-causation” gap from basic scientific studies to the two causal judgments.¹⁶ There is also a “causation-liability” gap from any causation established to showing liability. Both inferences are typically underdetermined.

The raw scientific studies in this case were good studies in rats showing that ETO could and did cause brain cancer in rats exposed to ETO compared with rats not so exposed. ETO does not appear to cause brain cancer in mice. ETO is a small molecule that is a direct acting alkylating agent; that is, without needing metabolic

reduction in the body it can attach itself to DNA anywhere in the body and disrupt DNA function.¹⁷

There was also some suggestive, but not statistically significant evidence that ETO caused brain cancers in some humans occupationally exposed. A large meta-analysis of these small studies published by a very controversial scientist did not show that there was a higher rate of brain cancer in ETO-exposed persons than in non-exposed persons.¹⁸ These scientific studies are not transparently interpretable; do they show causation or not?

Plaintiffs argued that because ETO was a direct acting alkylating agent and because it caused brain cancer in rats, this provides a mammalian model that it *could* cross the blood-brain barrier and cause cancer in humans. Rats appear to be better models for the adverse effects of ETO in humans, because their breathing rate is much nearer that of humans than the very rapid inhalation rate of mice.¹⁹ Moreover, there were some small human studies suggesting an association between ETO exposure and brain cancer.

Defendants argued that because ETO did not cause brain cancers in mice, which are phylogenetically more similar to rats than rats are to humans, rat studies are *not evidence* that ETO can cause cancer in humans. Moreover, the defense greatly emphasized the significance of the meta-analysis of human studies and claimed that it showed that ETO did not cause cancer in humans. One defense expert opined, "It is impossible to believe that" ETO caused Mr. Allen's brain cancer. The judge excluded plaintiff's experts and issued a summary judgment for defendants.

Ultimately if a case goes to trial a jury must assimilate all of the causal and pertinent historical evidence of the events leading to the case with the applicable law to come to a liability verdict (or not).

Nesson would argue that there is a difference between Pennsylvania Engineering being found *liable* for causing Mr. Allen's brain cancer and the claim that the toxicological, epidemiological and exposure evidence tended to favor the view that Pennsylvania Engineering was liable for Mr. Allen's brain cancer. A verdict of *liable* in civil litigation calls attention to the human and social events that transpired and the corresponding legal rules that were violated, and invites people to act according to what is lawful and avoid unlawful behavior. An evidentiary claim calls attention to the evidence available and the extent to which a verdict might be proven, in turn inviting citizens to act "according to what they think can be proved against them."²⁰ The evidence-only claim ultimately leaves us in *doubt* about causation, much less secure in a liability claim and in whether justice has been done between the parties.

Moreover, a citizen by viewing the "verdict as a determination of what actually happened, [can] assimilate the applicable legal rule and absorb its behavioral message;" it also reminds a person of "what constitutes proper legal conduct in the

circumstances.”²¹ If a citizen regards a verdict “as merely a statement about the evidence, he will assimilate only the proof rule, whose deterrent power [and behavioral message] is far less pronounced.”

Nesson appears to support his distinction by means of the following considerations. “The projection [and receipt] of the verdict as a statement about what happened is the key to conveying the legal rule and its behavior message. Projecting the verdict as such forges a link between the judicial account of the defendant’s transgression and our own behavior.”²² The idea seems to be that those receiving the verdict about *the people involved* and *what happened* tend to identify with or perhaps recognize the significance of the *behavior* of those who were violating the law toward others. Such recognition can have a significant impact on our and others’ behavior to the extent the liability judgment is understood and internalized; we would tend to take the legal message embedded in the verdict seriously and be disposed to modify our conduct accordingly. To the extent that a court decision *conveys* a message about the persons involved and their violation of the law, this creates the possibility that “[w]hen similar situations arise in the lives of those who have accepted the verdict as a determination about what happened, these citizens will govern their conduct in according with the behavioral rules that they have absorbed.”²³

By contrast, if a legal dispute is primarily about the *evidence* involved, this may undermine a behavioral or deterrence message. *Citizens* typically would not recognize the significance of generic *evidence claims* for their own *behavior* in the same way they identify with statements about the *behavior* of *others* being held liable. And, a focus on the evidence keeps the attention on the evidence and the extent to which, say, legal violation can or cannot be established. Thus, instead of conveying that the defendant *negligently injured* a plaintiff, it conveys and asks those receiving the evidence message to “assimilate the rule that one should not negligently injure others in a manner that allows them to prove it.”²⁴ A recent internal memo from Bayer Pharmaceutical concerning product testing seems to exhibit this view: “If the F.D.A. asks for bad news, we have to give, but if we don’t have it, then we can’t give it to them.”²⁵

IV

If Nesson’s account is plausible, it suggests some ways in which the *Daubert* decision fosters the acceptance of a verdict about what happened, but also shows how, by an undue focus on the evidence, it can tend to undermine the acceptance of judicial decisions and the outcomes of the judicial process.²⁶

How *Daubert* Could Foster Acceptable Verdicts

Begin with a point Nesson makes about directed verdicts; they “prevent the legal system from generating *unacceptable* verdicts. The directed verdict permits the court to withhold from the jury those cases in which a finding of guilt or liability would be *patently untenable* in light of the case presented by the plaintiff. The trial

judge allows a case to go to the jury only if the evidence suffices to support a verdict either way.”²⁷ A directed verdict is not equivalent to an admissibility decision, but it resembles a ruling on the sufficiency of the evidence that typically follows a ruling excluding critical evidence (recall the introduction).

The *Daubert* decision seeks to ensure that expert testimony is based on “valid science” or on reasonable “scientific reasoning and methodology”. Thus its aim seems to be to winnow expert testimony so that a jury decision based in part on either plaintiffs’ or defendant’s experts’ accounts of the science will be within the bounds of respectable scientific views about the issue involved. Consequently, whatever the jury decides will not be beyond respectable scientific reasoning on that issue and will be (broadly) scientifically acceptable. This does not ensure that the overall verdict will be acceptable, but an important aspect of it will be.

The test of admissible evidence has not been given a definitive formulation (and a guide that is too specific should probably be avoided). However, there are several guidelines that have been suggested. In extra-legal venues, Justice Breyer has suggested that the test should be analogous to a one he credits to the physicist Wolfgang Pauli—expert testimony should not be permitted, if it is “so bad it cannot even be wrong,” as Pauli once said of some articles in physics.²⁸ A second test might be that the expert testimony should be permitted as long as it does not fall “outside the range where experts might reasonably differ.”²⁹ A third guide might be that expert testimony is permitted as long as, in Nesson’s words, it would not be “patently untenable” scientific testimony.

I do not adjudicate between these, but only note how they could place constraints on scientific testimony to help ensure that jury verdicts are not scientifically unacceptable.

How *Daubert* Can Undermine the Acceptability of Judicial Decisions

Poor *implementation* of *Daubert* can undermine admissibility decisions. As already noted some courts are requiring or excluding scientific evidence for reasons that are at odds with scientists’ conceptions of reasonable evidence. To the extent that courts err and their decisions become known, this invites criticism of the legal system analogous to that directed at courts when they were alleged to be too permissive in allowing experts to testify. As such criticisms become known, this tends to challenge the legitimacy of the decisions.

Moreover, when courts make mistakes in excluding *plaintiffs’* evidence and their legal actions end with a summary judgment, this denies plaintiffs a trial and the *possibility* of justice. To the extent that such results become known, this too affects the perceived *fairness* of the legal system.

However, even if courts properly implement a reasonable version of *Daubert*, there are reasons, following Nesson, for being concerned about the heightened attention scientific evidence is receiving in admissibility decisions.

It seems plausible that plaintiffs have already been hurt by a focus on the evidence—analogueous to Nesson’s point about the difference between a focus on evidence and a focus on liability. A *pre-trial* focus *only on the evidence* does not obviously require any consideration of past events, including discussions about defendant’s improper treatment of plaintiff. Instead, as in *Allen* the discussion is about the merits of rodent studies, small versus large epidemiological studies, structure-activity tests, and case studies—not on what happened and the relations between people that led to litigation. Plaintiffs are handicapped because they can present only part of their account—the scientific evidence and expert testimony needed for causation. (They will have some account of past events in their complaints, but this is likely to be minimal.) It is difficult for them to offer a full account of defendant’s behavior, whether it was negligent or not, and how the law was violated. *Per force* plaintiff’s focus must be only on *what the scientific evidence and expert testimony would support about causation*, only on the evidence-causation gap.

Daubert debates more closely resemble *scientific* debates or seminars about the quality of studies and the inferences from them about causation than a legal debate about defendant’s treatment of plaintiff, and whether and to what extent legal rules have been violated. Some may think this is desirable since it forces a clarification of the quality of the science, free from contamination by stories about sympathetic plaintiffs, to see if there is a reasonable basis for plaintiff’s complaint, and it promises court efficiencies (although these tend to be overrated). Others may find this undesirable.

Moreover, plaintiffs increasingly must invest substantial monetary and expert resources in preparation for an admissibility hearing simply in order to have a trial on what happened. By some estimates as much as 60% of costs of bringing a case now occur before trial begins.³⁰ This increases lawyers’ screening of plaintiffs and decreases plaintiffs’ access. Often plaintiffs must invest these resources because defendants did not test their products adequately in the first place.

The larger community also loses. First, there is likely to be little discussion of the relationships between people and the applicable law before a public trial. Second, there is no structured *public discussion* in a trial about what happened, the relationships and whether the law had been properly followed. Third, to the extent there is a legitimate dispute about proper legal behavior, there is no *public resolution* of this. Thus, the community is deprived of important kinds of information about its institutions and how persons are affected by them;³¹ at most the community would learn that there was insufficient expert testimony for the case to proceed.

With *Daubert* the Supreme Court itself has elevated the importance of the quality of scientific studies and expert opinions based upon them above other values in

the system. The Court has seemed so concerned to secure these values that it permits judges to err on the side of mistakenly excluding evidence, which precludes adjudication of what happened between the parties, rather than permitting in the evidence and letting the trial and appellate process adjudicate *what happened between parties*. Adjudicating whether such relationships were legal is just as significant as whether every “i” is dotted and “t” crossed concerning scientific evidence. Thus, the concern about scientific evidence and expert testimony appear to have taken precedence over *public* adjudication of past events and relations between people, norms of behavior evidenced therein, and the rules, norms and ideals of the substantive law. In short, it seems more important *to the law* to get the science right by means of *Daubert* rulings than to *adjudicate* more fully the past events and lawful norms of behavior.³²

There may be worse effects on potential defendants and their behavior, the main focus of Nesson’s concerns, with adverse consequences for the community and plaintiffs.

Defendants need only play “defense,” an easy thing to do where science is concerned. By definition this is their role, but it has acquired added significance concerning scientific evidence. Implicit scientific burdens and standards of proof reinforce the defense position (as it does in the criminal law, but with a much different social effect). Within science the burden of proof is typically on a scientist who would argue against the received scientific view, e.g., that a substance is toxic when toxicity had not previously been established. As already noted, the standards of proof can be quite high in the scientific community, and typically are more demanding than the tort law’s preponderance of the evidence standard. Thus, the standard of proof to *clear the admissibility barrier* can be much higher than the plaintiff’s *ultimate standard of proof* (although the original *Daubert* decision suggested this should not be a significant issue). Moreover, because scientists typically demand removal of considerable uncertainty before they come to scientific conclusions, any uncertainty (of which there can be considerable) assists defendants. Typically, defendants argue that too little is known to draw conclusions about toxicity, a view it is easy to find some scientists to support. It may be easier to persuade judges that there are too many uncertainties about the scientific evidence than that there is enough evidence to survive a *Daubert* review.

These structural issues, plus the possibility of winning on evidentiary grounds alone before trial, may heighten defendants’ temptations to distort the science needed for toxicity assessments because, if they are successful, *the case is over*. For example, it is reasonably common for defendants to insist that before scientific testimony is admissible it must be based upon statistically significant epidemiological studies, a kind of evidence that can be quite helpful, but is rarely available to evaluate the toxicity of a substance and not necessary according to most toxicologists for a toxicity judgment. Moreover, even though defendants in their own product research typically rely upon rodent studies, structure-activity relationships, mutagenicity studies, and even case studies to assess the toxicity of

their products, they typically *dismiss*, *downplay*, or *denigrate* such evidence in admissibility hearings, simply because it is easy to raise various kinds of doubts about them that might appear persuasive to judges (and they appear to have had some success with such tactics).

There is even the temptation for defendants to act in ways that can corrupt the science. There has always been the temptation for litigants to fund studies that favor their own view of causation. There have been systematic efforts to mislead the public and regulatory agencies about what scientific evidence shows.³³ *Daubert* has likely heightened this effect because it encourages judges to use publication in peer-reviewed journals as one consideration to assess expert testimony. Studies can be misleadingly designed to find the desired outcome. If such studies are then published, this distorts the scientific literature. Consequently, this literature is at some risk from misleading studies created for admissibility reviews.

To the extent that defendants are successful with some of the above strategies, this only reinforces their use in the future. One of Nesson's concerns about a focus on the evidence is that it can convey a message about "crude risk calculation ('estimate what you can do without getting caught')." ³⁴ The *Daubert* admissibility requirements may well exacerbate these temptations in toxic tort cases.

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² Charles Nesson, *The Evidence or the Event? On Judicial Proof and the Acceptability of Verdicts*, 98 HARV. L. REV. 1357, 1392 (1985).

³ *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993) [hereinafter referred to as *Daubert*]. The other cases are *General Elec. Co. v. Joiner*, 522 U.S. 136 (1997) and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

⁴ *Daubert* at 588. The Court has said little about "reliable" evidence, but the decision suggests that the U.S. legal system is predicated upon witnesses having "firsthand evidence" about what happened, and that by analogy any exception to firsthand testimony must be as "reliable" as firsthand testimony would be. This analogy could pose problems if firsthand evidence refers to eyewitness testimony, which can be quite *unreliable*.

⁵ See generally, CARL F. CRANOR, *REGULATING TOXIC SUBSTANCES: A PHILOSOPHY OF SCIENCE AND THE LAW* (1993).

⁶ *Id.* at 60-82. Legal false positives are not identical to factual false positives, but there can be a comparatively direct relationship between the scientific errors and legal mistakes.

⁷ See Clayton P. Gillette & James E. Krier, *Risk, Courts, and Agencies*, 138 U. PA. L. REV. 1027 (1990)

⁸ H.J. Eysenck, *Were We Really Wrong?*, 133 AM. J. PUB. HEALTH 429-32 (1991).

⁹ Gillette and Krier, *supra* note 7 at 1043-61.

¹⁰ Carl F. Cranor and David A. Eastmond, *Scientific Ignorance and Reliable Patterns of Evidence in Toxic Tort Causation: Is There a Need for Liability Reform?* 64 LAW AND CONTEMPORARY PROBLEMS 5 (2001).

¹¹ *Id.* at

¹² See Margaret A. Berger, *Eliminating General Causation: Notes Towards a New Theory of Justice and Toxic Torts*, 97 COLUM. L. REV. 2117, 2119 (1997).

¹³ Berger, *Id.* at 1135-1140, 1147-1152, and Cranor and Eastmond, *supra* note 10 at 13-14, 45-48.

¹⁴ Nesson, *supra* note 2 at 1357.

¹⁵ 102 F.3d 194, 197 (5th Cir. 1996).

¹⁶ Some states do not require both general and specific causation, e.g., Illinois.

¹⁷ These plaintiffs' and defendants' scientific arguments are taken from expert reports filed with the court and acquired by the author from plaintiff's counsel.

¹⁸ Gerald Markowitz and David Rosner, *DECEIT AND DENIAL: THE DEADLY POLITICS OF INDUSTRIAL POLLUTION* (2002) (the author, Otto Wong, in 1991 under pressure from industry, publicly retracted some of his own scientific findings contrary to industry interests (*Id.* at 230)).

¹⁹ David Eastmond, Professor of Toxicology, University of California, Riverside, personal communication.

²⁰ Nesson, *supra* note 2 at 1357.

²¹ Nesson, *supra* note 2 at 1361. Occasionally, a high-profile case, such as the criminal case involving O.J. Simpson, exhibits how an extreme focus on the evidence can distort the acceptability of a decision.

²² Nesson, *supra* note 2 at 1367.

²³ *Id.*

²⁴ *Id.*

²⁵ Alex Berenson, *Trial Lawyers Are Now Focusing on Lawsuits Against Drug Makers*, NEW YORK TIMES, May 18, 2003.

²⁶ Nesson also shows how the jury, the judge and procedural devices can help convey a message about the verdict instead of the evidence (points not considered here).

²⁷ Nesson, *supra* note 2 at 1369-1370.

²⁸ Justice Stephen Breyer, *Introduction*, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE (2000), at 6.

²⁹ *Kumho Tire Co. v. Carmichael*, 526 U.S. at 153.

³⁰ Personal communication from a major plaintiff's expert.

³¹ Owen M. Fiss, *Against Settlement*, 93 YALE L.J. 1073 (1984), decries the loss of public discussion of legal relationships that are blocked by settlements.

³² *Daubert* may also have encouraged an attitude toward risks very much favored by the technical community (vs. the public's conception of acceptable risk), which would further separate the public from its institutions. (Gillette and Krier, *supra* note 7.)

³³ Markowitz and David Rosner, *DECEIT AND DENIAL*, at 195-233.

³⁴ Nesson, *supra*. note 2 at 1362.