

Daubert Response Compilation

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We received the following email from an expert witness about Daubert:

"I would really like to address the tyranny of the Daubert. It puts judges in the role of determining what is good science and what isn't. As a result, lots of expert testimony based on excellent science and, more importantly, long experience in a field is getting excluded just on the judge's whim that it isn't good science. What is happening is that experts are forced to manufacture science proofs or to just hope that the judge didn't get C's in his/her science classes.

A relative of mine graduated law school magna cum laude, law review editor and president of the student body. He also barely scraped by in science and math. God help us all if he has to be the science gatekeeper when he is judge.

This is another way of excluding plaintiffs' cases. It is time we experts as a group stand up and shout because so much injustice is being perpetrated under the mask of Daubert. All a defense lawyer has to do is get his judge buddy to exclude the expert whatever bogus whim and the case is eviscerated.

You know that I do a lot of HR cases. Tell me what science governs human resource policies? Lately I have been having problems getting in testimony because they want scientific outcomes. In business so much that exists is "best practices" not science experiments. My friend who analyzes English documents for grammar patterns has the same problem. Another friend, a prominent drug researcher, had his testimony excluded because he couldn't describe his state of mind when he was doing the science!"

Below is the compilation of responses we received from readers of our newsletter, Expert News.

Don't forget the effect on a medical expert of an adverse event report in the National Practitioner Data Bank. I know one such expert, a physician, who had a "Sham Peer Review" by a small-hospital Medical Executive Committee with a non-medical axe to grind against the doctor, at which his medical competence was not validly at issue. Years later he was kept off the stand in a matter in his field of expertise because of the resultant NPDB entry.

I agree completely. Judges are typically not able to discriminate "fish from fowl" scientifically. However, I think your examples are extremely bad. You cite topics which do not have established science. I see case after case where the plaintiff alleges some injury as a result of "repetitive trauma" or his symptoms started while he was working and he blames the job as the cause of his arthritis because it "started while I was working". By that rationale, one can blame cancer on working

because it was first discovered while someone was working. Similarly illogical arguments are that it was not important that he had been treated for low back pain for 20 years prior to the accident because there's no documented symptoms on the day prior to the accident in question. Isn't it true that an accident can cause back pain?

Therefore, the accident must have caused his back pain because he said it did. I would agree that judges are more often than not completely impotent on scientific topics. However, I find that plaintiffs are far greater abusers of this problem than the defense. All the plaintiff has to do is allege an injury and, regardless of the science, at least in Chicago, he is pretty much guaranteed at least some settlement regardless of the science of the case. His argument is more often than not, association is causation. I can cite the biomechanics of a head-on collision and why it causes a posterior cruciate ligament injury. However, the plaintiff's Attorney will say "But Dr., isn't it possible that he suffered an anterior cruciate ligament tear?" Obviously, since nothing is impossible, I have to say that it is possible. The plaintiff will prevail despite the fact that there may be no evidence of external trauma to the knee and the biomechanics are all wrong. This is the problems with the legal system. We need judges for scientific issues who understand science. The legal community is amazingly egotistical because they think that they are the only ones that can understand everybody else's area of expertise. I am an intelligent person.

Am I qualified to pass judgment on the legal aspects of an appeal of a court case after I have listened to a few expert opinions during the course of a few depositions? Could I negotiate an international treaty based on a few hours of discussing issues with an expert? I am required to take 10 or 12 hours of training every two years just to make sure that I understand advanced cardiac life support. Obviously, I have been trained in this for years. However, somehow the legal system feels that they can understand highly complicated scientific issues based on a few hours of expert testimony and somehow come to a correct decision. How many cases are decided based on less than 10 or 12 hours of medical testimony and the judge and jury obviously have absolutely no prior experience in medical issues?
Amazingly egotistical!!!!!!!!!!!!!!!!!!!!!!!!!!!!

On the one hand, I practice in Illinois (almost exclusively in the State Courts), and Illinois follows the 1923 Supreme Court decision in *U.S. v. Frye*, not the *Daubert* or *Kumho Tire* decisions. *Frye* looks at the underlying methodology. If the underlying methodology is reasonably relied upon by experts in the field, the Court may consider the opinion of the expert "despite the novelty of the conclusion rendered." Universal acceptance is not required. We almost never have pre-trial hearings assessing the testimony of the opinion witness.

On the other hand, I am also a practicing attorney so I have read the cases closely, and they are not as Draconian as the commentator would suggest (particularly Judge Breyer's decision in *Kumho Tire*).

Realize, DAUBERT is based on Federal Rule of Evidence 702. Daubert is not "judge-

made" law, it is strictly derived from FRE 702. It is what the Congress wants the Trial Judge to be doing to insure the quality of scientific and technical evidence is reliable and relevant.

The Daubert Court held FRE 702 assigned to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand. The Court discussed certain specific factors such as testing, peer review, error rates and "acceptability" in the scientific community. The Court said the test of reliability is flexible and the list of factors is neither necessarily nor exclusively applied to all experts in all cases. The District Court Judge was granted broad latitude.

In Kumho Tire, Judge Breyer pointed out that FRE 702 does not distinguish between scientific evidence and technical or engineering evidence, so the same rules of Kumho Tire should apply to assessing the value of proffered technical evidence, but - and this is important - he seems to be saying that there IS a difference, that not all technical evidence can be subjected to a "double-blind test," and therefore, the Trial Judge need not apply all the Daubert rules rigorously. He can pick and choose, and perhaps should be even more flexible than was suggested in Daubert. Judge Breyer says the trial judge is smart enough to know when and when not to apply any given criteria.

Does it make it harder for some experts to practice in the Federal Court? Absolutely. Is that a bad thing? Not in my opinion.

True, the average jurist sitting on the Federal Bench is unlikely to understand the modeling techniques in a Finite Element Analysis, or be able to understand whether the matrix is meaningful or when there are sufficient checks and double checks to validate the results. But I don't think you'll find twelve jurors, good and true, who will possess any greater understanding of the material unless you, as an expert, are capable of breaking it down so they can grasp the concepts and understand your thesis and conclusions. If you can't convince the Judge, you won't convince the Jury and maybe shouldn't get the chance.

Yes, as the commentator suggests, it is true the theory you espouse is not even being considered because you cannot get over the hurdles some Trial Judges place before you, and equally true sometimes the best witness may be a twelve year old insect collector, not a professor at the nearby university with a phalanx of grad students running tests for him (the famous case of the preteen bug collector who had several boxes of bugs which "couldn't possibly be found in Illinois" according to conventional wisdom, but the youngster found them along the Illinois Central right of way as they came up from New Orleans in box cars).

The opposing counsel's job is to keep your damaging testimony out. Your job is to practice competently and ethically, and not be an advocate, but if you are finding yourself in the legal forum, you need to play by their rules. You need to be smarter or wiser and figure out what you need to do to demonstrate to the Court that your testimony, measured against the criteria mandated by the Supreme Court, has value (is reliable and relevant).

The bottom line is: The Supreme Court and the Congress of the United States have reposed this threshold function in the hands of a Title III, lifetime appointed District Court Judge - perhaps a non-technical, former Security and Exchange attorney appointed by President "whosis," who can't program the TIVO unless their 9-year old is home - to be the GateKeeper of what to admit and what to keep out - - differentiating between "CUTTING EDGE SCIENCE AND TECHNOLOGY" and "WEIRD SCIENCE," but that's the law and it is foolish to whine about it. Get smarter and better, and figure out how to be heard.

On balance, the Congress and Courts believe the Trial Judge should undertake a "gatekeeper's" role and generally, to date, the better view is that it works fairly well.

In response to a recent e-mail you sent out where one expert was decrying the unfairness of the current situation on Daubert, I note the following:

Daubert v. Merrel Dow Pharmaceuticals, 509 U.S. 579 (1993) is a Supreme Court case.

It should be noted that Daubert was a reaction to new Federal Rules of Evidence that caused the court's previous standard (the Frye test) to be displaced. That standard was much more restrictive, only allowing expert testimony admitted when the techniques and methods underlying the expert's opinions and conclusions were "generally accepted" in the expert's particular discipline. Under Daubert, "general acceptance" is no longer required, only that the testimony be relevant and reliable. So this standard allows for the admissibility of more forms of testimony was previously the case.

To quote the opinion: "The inquiry envisioned...is...a flexible one. Its overarching subject is the scientific validity--and thus the evidentiary relevance and reliability--of the principles that underlie a proposed submission. The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate."

The opinion stresses trusting the jury to examine the validity of expert opinion. Interestingly, Judge Rehnquist, in his part concurrence/part dissent, worried about making judges become "amateur scientists."

In responding about Daubert. I am a fire investigator and I have found that to get in information as a expert witness you MUST show and tell what the scientific method is and who it was used. Learn it and it should help. The steps for any scientific method based investigation and/or examination is: 1 - Explain the Need; 2 - Define the Problem; 3 - Collect the Data; 4 - Analysis the Data; 5 - Develop a Hypothesis; 6 - Test the Hypothesis; and 7 - Developed your Final Hypothesis. You can take anything you are working on and use these steps. Show that your Final Hypothesis has had a peer review and is accepted in that community of experts and you will have a opinion that will stand up to any judge.

Your Daubert Correspondent (YDC) calls for experts to rise up against Daubert. This is misguided and will lower the credibility of experts as a whole. YDC blames Daubert, defense lawyers, and judges when he/she should instead be questioning their own expert practices.

YDC is confusing experience, best practices, and opinion with methodology. Experts are not being asked to “manufacture” science proofs. They are being asked to identify the analytic thought processes they employ when reaching conclusions.

1. Regarding YDC’s Friend Who Analyzes English Documents for Grammar Patterns

YDC’s friend is engaged in content analysis. In order for content analysis to have scientific or scholarly validity, the friend must bring a coding scheme to the analysis that is methodological, reliable, and reproducible (that is, scientific). The actual methodology (the procedure or process or coding scheme) used must be defined, described, and an example provided. Defining a methodology requires that YDC’s friend address the factors in the table below as best he/she can. If no attempt is made to address these factors, then one may be faced with a situation where the expert: (a) doesn’t understand how a scientific or scholarly methodology is developed, and/or b) doesn’t have a methodology. If a methodology cannot be defined in ways that others can replicate, then one does not have a methodology.

2. Regarding YDC’s Drug Researcher Friend Who Could Not Describe His State of Mind When Doing the Science. Why is YDC incredulous? His friend was simply being asked to describe his analytic state of mind when applying his expertise. He was being asked to describe his methodology. As discussed in 1 above, if his expert friend cannot define his methodology in ways that others can replicate, then his friend does not have a methodology.

3. Regarding YDC’s Question: Tell Me What Science Governs Human Resource Policies? The science that governs HR is the same science that governs any language communication. Systems of thought are what drives human endeavor; including the thinking, reading, and writing that takes place in business settings; including HR. Among the thought systems long-employed in business practice are methodological models of thinking such as systems analysis, operations research, problem solving, the scientific method, strategic planning, and decision-making. All of these methodologies are models for thinking and therefore reading and writing. They all share a common cognitive foundation that can be summarized as follows: (1) Identify an objective, (2) find or identify ways of achieving the objective, and (3) predict or observe the results (consequences) of achieving or not achieving the objective. Among YDC’s tasks as an HR expert is to see to it that HR policies follow this cognitive formulation.

**Table
A Basis for Evaluating a Scientifically-based or
Scholarly-based Methodology**

Methodological Element	Does the Method Possess this Attribute? [Yes or No]
1. Is the method theory-based?	
2. Has the theory been validated via peer review?	
3. Does the theory give rise to a systematic methodology?	
4. Does the method have controls (is it capable of being checked)?	
5. Has the method been used by peers?	
6. Has the method been tested under controlled conditions?	
7. Has the method been shown to be valid?	
8. Has the method been shown to be replicable?	
9. Has the method been shown to be reliable?	

YDC's prospective judge relative does not have to be a math and science whiz. Experts, lawyers, and judges do not have to be authorities on math and science. They do need to become familiar with the requirements described in the table above. It is the lawyer who hires the expert. If the expert cannot define his or her methodology in ways that address the factors in the table above, then don't be surprised when this expert's testimony does not hold up in court. Better yet, don't hire that expert.

Rather than rail against Daubert, YDC and all experts should understand what is meant by a scientifically-based proof (see table). YDC and all experts should also take the time to understand: (a) the federal rules of evidence, (b) why Daubert [1993] replaced Frye [1923], and (c) how Daubert has been interpreted in GE [1997] and in Kumho Tire

[1999]. Anyone wanting to know more about Daubert, especially how it relates to the analysis of the content of documents, can contact me at vpmayo@optonline.net.

In our field of fire/arson investigation and consulting, Daubert challenges are expected from the outset of a case assignment and should such cases go to litigation (almost all of them do), they are considered a necessary evil.

They do level the playing field by making sure that non-peer reviewed and non-accepted (a.k.a. JUNK SCIENCE) opinions and theories are not used to try and mislead the court/jury. Fortunately though, in our field, we have scientific and recognized standard practices and procedures in place which over the past 10 years have significantly minimized successful challenges against those who adhere to the document (National Fire Protection Association Document 921). The NFPA 921 has been recognized by many federal court jurisdictions as a Standard of Care for our profession.

In 2000 after the Daubert and, more importantly, Kumho Tire decisions came down from the US Supreme Court I saw the writing on the wall. I am an expert in the field of security and, through a professional association, I formed a committee to research the decisions and design a methodology (best practice) to be used by experts in our field to withstand Daubert challenges. It was peer reviewed through members of our association and nonmembers who were also security experts. We also had it published in appropriate journals. No security expert who has used this methodology properly (a few tried to use parts of it and supplement it with their own practices and, therefore, could not withstand the challenge) has had his testimony struck in federal court or in state courts who follow the Daubert gatekeeper practices. We are now in the process of doing a periodic review but because of its success I suspect we will not need many changes.

I recommend you do the same through a well-respected professional association in your field. The Kumho Tire decision said Daubert applies to all experts but nonscientific experts do not have to apply the scientific principles. If you read that decision and the myriad of articles you can find on the web you should have a good understanding of how to proceed.

This is an issue that every expert potentially faces and should be well-prepared to address. Your reader rightly recognizes that Daubert motions have become a standard if not automatic strategy in the playbook. What I have to say comes with the caveat that I am not an attorney and I am not an expert in HR matters.

There is little that can be done about a judge who will arbitrarily strike an expert without cause, except to put enough in the record to justify an overturn on appeal. I would like to believe that such experiences are rare.

I once heard an attorney who was knowledgeable on Daubert matters suggest that when responding to a motion to strike, an expert should be prepared to drill down through how his or her opinion is backed up by good methodology in the discipline, continuing to answer "why is that justifiable" in sequential steps until you pretty much exhaust the process. I understand your reader's frustration with examining HR practices from a scientific perspective, but my suggestion would be to find as much published (especially peer-reviewed) information that answers the "justification" question. The scientific method applies to disciplines that we don't usually consider to be in the "sciences". By that I mean that the scientific method is a logical way of analyzing information and for individuals and groups of professionals to develop knowledge. An important step in answering the justification question is being able to articulate how the scientific method applies to one's discipline.

The judge has to evaluate the expert's qualifications and methodology. The qualifications issue is up to the expert to explain, but remember to consider to what extent the issue in question is in the domain of experts in your field. With respect to methodology, an expert would want to provide as much information as possible to show that the opinions are consistent with good practice for methodology in the discipline. In the soft sciences, including management, there is a great body of scientific methodology and experimentation. I would think that is the kind of foundation an expert needs to build in a response to a challenge.

Furthermore, an expert needs to have a handle on statistics to address the part of the Daubert criteria that involves the "error rate". I think that the Daubert criteria in this context is specifically about the error rate of experiments that form the basis for the science that is in question, and that would include both hard sciences and soft sciences. Many peer-reviewed publications specifically address this issue, although it may be addressed through the statistical consideration of confidence level. Briefly, when one runs an experiment, one will select an experimentation strategy that affects the confidence level of the results. Looking across various disciplines, one might see error rates on the order of 1-5 percent. All this means is that, by necessity, an experiment runs a sample of the total population in question (theoretically, if you could examine the entire population you'd have 100 percent confidence in your findings). When you make a conclusion from looking only at a sample, statistics says that you may draw an incorrect conclusion about the rest of the population that you did not sample and you need to understand this. By properly planning an experiment, you reduce the chance of the incorrect conclusion to a very reasonable low percentage. By the way, under cross examination you will be presented the question, "So there's a 5 percent chance that you are wrong?" Answer what you wish but the reality is that this is considered the standard of good practice for application of the scientific method in the discipline.

A (philosophical) question I've had for a number of years that I've never seen addressed in any commentary on Daubert is this. Does the consideration of rate of error apply to the methodology by which an expert reaches an opinion? In other words, if 100 experts in a discipline examine a situation and apply the accepted science in that discipline, how many will reach a "wrong" opinion about the situation? And just because an opinion is different, is it really "wrong"? If any attorney can articulate an answer to this that is well-grounded in how judges consider this matter, I'd love to hear it. My guess is that the rate of error concept does not apply or is not applied to methodology of reaching an opinion in the Daubert context.

In my experience, when an expert articulates the points above in a logical and confident manner, a judge will be reluctant to strike the expert, and instead is likely to let the jury decide which expert's opinion more closely fits the facts of the case. Just referring to my limited experience, I have not perceived that judges attempt to determine good or bad science, but rather will look at whether an expert can articulate how his or her opinion is rock solid and is backed up by others in the discipline. The judge is not deciding on the science, but only on how well the expert represents that the opinion is consistent with accepted science. Other than qualifications issues, I think what may get an expert in trouble is the appearance of being a lone ranger in the discipline. The ability to refer to well-established knowledge and other experts in the discipline that support the opinions on a given matter make it easier for the judge to deny the motion to strike and let the jury decide.

When defining 'judges', it is important to remember that for the most part they are 'hack politicians who decide to 'retire' and become 'benched.'
Nuf said.

Hi. The magazine Science News did a great article on Daubert problems about two months ago. Basically, the dispositive science needed for trials often has never been done, so experts may be hired to prepare studies for litigation — usually on the plaintiff's side (think the Erin Brockowitz (spelling?) movie). This seems biased, but may not be, but it smells of bias and judges often want to toss it. So, the deck is stacked against plaintiffs as they often have to study a situation that has never been studied specifically. The article pointed out that good science actually is based on methodology (like if done in one's garage), not on exhaustive peer review. The article pointed out, too, that science done LONG before a trial may be biased as well, especially if the studies were done by the defendants.

The article was written by Janet Raloff of Science News. You might want to post it to your readers. [Judging Science: Science News Online, Jan. 19, 2008](#)

My understanding is that Daubert cuts both ways, and there have been numerous times that the defense expert's methods have been similarly challenged. Rather than bemoaning what this does to plaintiff cases, it seems to me to be a call to get better experts whose science is relevant to the case at hand. Even a judge with scientific strengths can't be an expert at everything, but the idea is that the expert should know how to communicate the relevance of his or her science to the case. Just my 2c worth.

The Daubert comments are interesting and deserve review.

Although, I have never been on the receiving end of a successful Daubert challenge, mostly because the lawyers who hire me are totally prepared for any possible opposing effort, it is easy to see how lesser reviews by an expert with his or her lawyer could contribute to the lawyer getting blind sided.

I work in a field, bicycle transportation, in which there are no recognized scientific bodies and no publications. Such have been attempted, but have died for lack of interest. There is one other unfortunate complication. Those who are paid in the field are employed by government to carry out its bikeway program that is contrary to scientific knowledge, and those persons also constitute the government-sponsored technical committee on bicycle transportation that lists itself as an arm of the National Academy of Sciences. Those who do accurate work are amateurs. The only persons whom I have found who will pay professional rates for information about non-racing bicycling, sufficiently firmly based to stand up to cross examination, are attorneys with bicycle accident cases. And, of course, it is problematic whether accurate information will assist an attorney, or the reverse. Sometimes the decision is obvious at first glance; at other times it becomes clear only after intensive investigative work. While my work has been challenged for lacking publication in these non-existent peer-reviewed journals, I have always been able to reply that it is based on standard science, such as Newton's laws of motion, or recognized data from official sources, such as proportions of different types of car-bike collision.

In the field of bicycle transportation, there is much advocacy of programs that is based on correlation. The Dutch do X and have Y

conditions. If America does X it will produce Y conditions in America. Of course, correlation does not demonstrate causation, and this advocacy is based on correlation for which there is no reason to conclude that there is a causative relationship. Fortunately, I suppose, legal suits based on such junk science have not developed in the field of bicycle transportation, but it does appear that suits based on supposed causative relationships exist in other fields.

It's easy to join the writer's complaint about being unfairly excluded, but as an incurable seer-of-the-other-side, I see the following:

1. He seems to assume the excluded expert is on the plaintiff's side. Almost all my work is defense, so I can't agree with that.
2. By now there has to be some precedent as to what has been and not been excluded, and why. An attorney whose expert is challenged should know of such precedent, and be able to use it in defense of his expert's testimony.
3. Science can be defined more broadly as logical conclusion based on knowledge, and does not necessarily require skills in science and math. If the writer's relative was deficient in those things (logic, knowledge of case details), I doubt that he/she would have attained the honors reported.
4. If judges have indeed interpreted Daubert as requiring such science/math background to be admitted, it is the attorney's problem to find people who think that way and still be able to make conclusions that will help the case. If such people can't be found, nor any published expert information to cite, then the opposition will have the same problem. The attorney will also have the chance to cross-examine any experts brought out in opposition, and if his own is excluded, use that as grounds for challenging the opposition.
5. Expert testimony isn't the only basis for judging a case, much as we may like to think so. There are details of contracts, independence of witnesses, personal relationships, details of product failures and the like, all of which may not need experts and all of which may influence a judge or jury.
6. Having said all that, I am also aware that the nonscientific world has an awe of "science" that gets in the way of knowledge and logic. Judges need to have the power to clear out the junk-scientists in our midst (and I am referring here especially those who use "science" to support popular myths about the environment, product safety, etc.) who clothe shaky-based opinion in scientific dress. How well they use this power is something I don't know but well worth attention.

Thank you for raising this point.

I have been testifying for years and have considered the Daubert ruling a real asset, as I have always done things in the most scientific way possible following ASTM standard test methods and documenting things to the Nth degree, reporting in a show and tell format so anyone can see for themselves how we come to a conclusion.

I have always stood up easily to formal Daubert challenges and in the states that do not use it directly, stood up to any qualification inspections. Then came politics. I had heard that the judiciary could be political in their actions, but did not really believe that our justice system could be so far out of kilter as I have since seen it to be.

In one ruling in Texas for the express purpose of obtaining the reversal of a multimillion dollar verdict in a fatality tire failure case, an appellate court decided to exclude all of the testimony of all three plaintiff's witnesses who had easily passed their Daubert challenges. With no evidence remaining for the plaintiffs they could freely overturn.

Subsequently, in a second similar fatality defective tire case in Texas, the defense followed the same tactics and cared little if they lost the case in court because they were so confident of sympathetic appellate courts. However in this case they accidentally got a fair minded appellate judge who upheld the award and reaffirmed the testimony of all three plaintiff's witnesses and the award. However, the defense was relentless, and carried it to the Texas Supreme Court, who found our testimony to be unreliable and overturned.

Using these two black marks on my record, a case in Georgia was dismissed BEFORE any Daubert hearing due to a lack of evidence once my testimony was excluded. Since, I have been dropped like a hot potato by tire plaintiff's attorneys.

I have a Bachelor's in Chemistry from the University of Central Florida and a Master's in Polymers from Georgia Tech and 17 years experience in failure analysis and materials testing in a laboratory environment. My testimony concerns manufacturing defects that led to failure based on fractography, chemical analysis and physical testing. I support my opinions with multiple publications and references and as previously mentioned follow the most appropriate ASTM procedures whenever possible. Without a design background I have not opined about design defects, only manufacturing defects.

It seems the primary doctrine to which I have fallen victim is a new one. I am unqualified because I have never worked for a tire manufacturing company. I hold no tire related patents, have published no research papers with regard to tires and have never published any research papers. But then I have never had a job where publishing was part of my job requirements. Actually, in most cases the results of my non-litigation work are to be held in confidence subject to nondisclosure agreements.

Fortunately I have a full service materials testing laboratory and we have shifted to approximately 85% laboratory services and about 15% legal testimony work. Previously legal work was 80% or more of our income. Defense teams considered me to be a serious threat, realized they could not beat me with the facts of the cases, nor in Daubert challenges, yet found an angle and finally neutralized me to large degree.

The defense experts have been able to publish meaningless self serving 'peer reviewed' publications at tire conferences, but I am not willing to cheapen any publications in my name with trash research and the peer system in place is not likely to accept anything from anyone who has ever testified against the industry.

Part of the problem is that the defense teams have deep enough pockets for appellate work while plaintiff's attorneys are often stretched to the limit just for jury trials and have no stomach or funds available for the appellate system. I may be wrong, but I doubt there has ever been a defense product liability verdict challenged on appeal.

Thanks for the invitation to share my experiences. I would like to know if anyone else has been shackled in this manner and if anyone has any solutions.

I don't often get involved in these kinds of debates, but I thought I'd throw my 2¢ into the mix. At the outset, let me say that, apparently, unlike the individual who sent the original email, I and my firm work both sides, not just plaintiff or defendant. We've been hit with *Daubert* motions from both sides with varying degrees of success. Thus, I disagree with the notion that *Daubert* is just "another way of excluding plaintiffs' cases."

At a more fundamental level, I think the specter of *Daubert* serves a useful function. First, it provides a reality check. While I find it

both annoying and expensive to have to respond to a *Daubert* motion, it forces me to be more critical in my analysis and explanation. I cannot begin to tell you how many times an opposing expert has come up with a materially different outcome from mine, and that difference arises from just a couple of variables. As often as not, one of us lacks independent support for the variable and relies, instead, on the "based on my X years of experience in the profession," which is really the same as saying, "because I said so." Thanks to *Daubert*, that is simply not good enough.

Second, *Daubert* forces us as experts to be better at explaining our position. I disagree with your writer's argument that all is lost if the judge was less than a stellar student in math and science. If an expert cannot help a judge, a generally well-educated and capable analytical thinker, that his or her methodology is sound and well grounded in established professional practice, what hope does the expert have of making the random collection of jurors understand it.

Finally, if, as your writer indicated, there are judges looking for "scientific proofs" to substantiate HR policies, the failing belongs to the attorney proffering the witness, not with *Daubert* and the line of cases interpreting it. The precedent which applies the *Daubert* gate-keeping role to non-scientific matters requires the court to assess whether or not the proffered theory has been subject to rigorous debate within the applicable profession (the concept of peer review) and whether or not the methodology is capable of replication (as opposed to an expert taking the stand to say, "I've been in this field for X years and plaintiff did/didn't sustain an injury because I say so.") It is counsel's responsibility to make sure that judges properly apply the law and when a judge fails to do so, as often as not, the fault lies with an attorney who did not effectively argue the standard.

That said, of course there are bad judges out there. Judges who look for an excuse to make a case turn out the way they want it too. Whether it is because the judge is corrupt and placating a friend who represents one of the parties or because they have a personal bias one way or the other on a particular case. Getting rid of *Daubert* will not solve this problem. Those kinds of judges will just find another way to make the case come out the way they want

I recently had my first *Daubert* hearing - in a felony murder case - the "peer reviewed" requirement for test work is often impossible - the time it takes for peer review is simply not there, nor is publication possible, when one is addressing an area that requires unique tests not having been done previously. The judge decided to exclude that part of my testimony after it was attacked by the Defense expert, despite his agreeing with my conclusions. I believe *Daubert* requires serious **revision**.

In its broadest sense, **science** (from the [Latin](#) *scientia*, meaning "[knowledge](#)") refers to any [systematic](#) knowledge or [practice](#). In its more usual restricted sense, science refers to a system of acquiring knowledge based on the [scientific method](#), as well as to the organized body of knowledge gained through such [research](#).

One of the issues that frustrates many highly skilled scientists and engineers is their inability to articulate complex scientific matters in layman's terms. Experts must be able to not only communicate with their peers using technical jargon, they must also be able to

communicate clearly and succinctly to non-expert judges and juries. This requires an ability to "see the forest and not just the trees" and to verbally express such to the lay person. Not everyone can do this, and, consequently, not all experts make good expert witnesses. Judges are certainly more educated than most jurors, and they are routinely exposed to science concepts that are outside of their own education. If an expert witness can't effectively communicate the basis of his scientific/engineering/technical procedures, tests, research, etc. to the judge, then he certainly won't be able to do so to a jury. If you are well prepared for the case, you should look forward to Daubert challenges (and their related state counterparts) because it will afford you the opportunity to convince the court that your basis for testimony is sound.

The problem of "junk science" in the courtroom has been a strong interest of mine ever since I co-authored an American Medical Association resolution in 1997 which put that organization in support of the position that for a physician to give expert testimony comprises the "practice of medicine" and, therefore, should be subject to peer review, just as bedside decisions and actions are. I agree completely with the belief that judges are not trained or qualified to determine what constitutes valid scientific testimony. Sadly, the Daubert rules require them to do so. That said, we must acknowledge that judges have been forced into this role by the fact that there has never been a system by which physicians themselves have stepped forward to accept this responsibility. It should be beyond debate that the only people qualified to determine if medical testimony is valid are physicians themselves. With a few notable exceptions, such as those actions taken by both the Neurosurgical and the OB/GYN associations who do police their members' testimony, there have been no real efforts to demand courtroom accountability by the medical profession. Not surprisingly, there is often great reluctance by physicians to criticize and discipline one another when it is ever so much easier to blame the malpractice problem on greedy plaintiffs and their unscrupulous attorneys.

The solution to this problem, in my view, is for the medical and legal professions to come together and create a system by which ethical testimony is promoted and rewarded and dishonest testimony is punished. How do we do that? First, there should be created a process of "certification" of expert medical witnesses, just as there is for dozens of specialties within medicine. A physician who wishes to become certified in this specialty would need to go through a process of demonstrating his/her knowledge, training, and skill to the satisfaction of a "specialty board". There would be requirements for continuing education and periodic examinations to be certain that the expert was maintaining the needed skills. Most importantly, the certifying board would have the power to discipline those who abuse their positions as trusted experts. Naturally, a physician would not be prohibited from testifying without certification, but the lack of this credential would be brought to the attention of a jury, thus serving as a powerful incentive to maintain a positive record.

Second, the legal profession would need to adopt a code of ethical behavior by which its members would be acknowledged as signatories to an agreement to not hire experts who are not certified by the board. As it is likely that attorneys might object to a restriction of this sort, there would be an understanding that a certified medical expert must agree to provide consultation and testimony on an equal footing for both plaintiffs and defendants. This would, hopefully, address the often-expressed concern that the movement to police testimony is just a thinly-veiled plot to assault those who testify for plaintiffs. The certifying board would further agree to accept and adjudicate complaints which are filed by plaintiffs, their attorneys, and even the general public. The system would thus achieve the even-handedness without which there would be little chance of its success.

That this scenario would constitute a major reform of a largely dysfunctional, not to mention costly, system of jurisprudence, goes almost without saying. For it to come to pass would require

time and money as well as a major commitment to cooperation by camps which have not been noted to be friendly to one another to this point. Hopefully, both sides would be able to see how such a project would not only streamline and make fairer our tort system, but also dramatically enhance the reputations and integrity of everyone involved.

What is needed at this point, then, is a coalition consisting of physicians, attorneys, judges, political leaders, and the media to come together to hash out the admittedly devilish details. As a physician committed to the principles of ethics and fairness, I am prepared to work with interested individuals and organizations to strive for this compelling goal.

Perhaps the Court should hire their own experts to screen the experts. They have the right to do so under Federal Court rules. It is up to the Legislatures of the various states to authorize funds for the Courts to hire their own experts. The answer also lies in legislation and petitioning the state Supreme Courts or other Court governing bodies to create a technical board to help the Courts decide on scientific questions. In my opinion it is folly to allow judges with little or no scientific training to rule on what is 'good' science.

I'm not sure that this is central to the Daubert discussion, but I find it interesting. As a consultant in political redistricting, I have twice been the subject of formal motions to exclude my testimony as an expert for the plaintiff, on the basis that I lack credentials to offer expert opinion and that I'm "known to know nothing" about the issues in the case. In both instances (one in U. S. District Court, one in state court), the motion was denied.

A few months after the second instance, the state's attorney apologized to me for filing a motion that could cause me professional embarrassment. I told him that I took his motion as a compliment, on my theory that if I was as unqualified as he attempted to inform the court, his legal team would have had no trouble disposing of me on the stand in a fashion that furthered the defense's case.

Is this a common strategy? Or was I just lucky to be before open-minded judges?

Your comments are interesting to say the least.

In cases I have had experience in and the Daubert decision came to light it has involved a railroad crossing accident.

The carrier always indicates inasmuch as the Federal Government has had an input in the installation of crossing protection they were of the opinion they had no responsibility for any damages at a grade crossing accident.

We have consistently argued, successfully I might add, while the Federal Government has participated financially in the installation of the grade crossing protection this fact does not eliminate the responsibility of the railroad employees on the train from complying with the rules of safety both via Federal or Operating Rules requirements.

This is submitted for what it is worth.

One would hope that the court, if it feels unable to evaluate scientific testimony, would have the sense to retain its own expert to advise. That has been my experience and that of others I know.

I've had two Daubert challenges. The second was simply ridiculous: I have a small sideline as a saltwater flyfishing guide, and that was used to challenge me because "I wasn't really a serious economist!" The judge laughed it out of court.

The first one was very serious. It ended up as a 3-1/2 day mini-trial on my report, with additional hired experts on both sides testifying on my work. We demolished the opposing expert so badly at the Daubert proceedings that he didn't testify at trial because he had been so damaged; he sent his assistant instead to testify, who was also pretty solidly trounced. The argument they were selling was bogus.

I survived the challenge quite handily, but it was a very expensive ordeal for my client who had to hire a second expert to testify on my behalf at twice my price!

And the "scientific proof" the other side was calling for was syllogistic, which is not really the way an economic argument works. Fortunately, (for me), the judge understood that and – finally- ruled in my favor. But it could have been different, with a less well-educated and well-informed judge who did stick to the rules...

(The judge was heavily biased in favor of the other side and should have recused himself from that case instead of fighting to be assigned to it, since it involved an old law school and golf club buddy of his in a legal malpractice trial. This may be why the Daubert proceeding was so lengthy and cumbersome, but he did stick closely to the rules in order to maintain the appearance of being "clean" and to forestall any appeal on procedural grounds, all the while piling work on my client's attorney in calling for additional submissions throughout the course of the trial...)

It was, however, a very stressful and not very useful experience overall, both for me and my clients. It was also an eye-opener as to what Daubert involves...

I am a human factors expert and I ran into this in court where a judge basically discounted the discipline of human factors. I was representing the plaintiff and the attorney I was working with was unable to address this challenge and it severely limited my testimony. Even though the Human Factors/Ergonomics Society has prepared a position paper on Daubert, as you suggest, judges sometimes are reluctant to accept disciplines first that they don't understand and second that are not mainstream.

I have much to share with you regarding Daubert. I have made myself a quasi expert in the area in order to avoid a ruling which could disqualify me. In my 10 years as a trucking expert (non-scientific expert like HR) I have never been disqualified. The key to this success is the non-scientific experts do not have to meet the four factors required by Daubert. However, it is clear that all judges do not understand this requirement. Therefore, I am forced to remain adamant from the time I am retained, that my client agrees that any brief in response to such motion or challenge be reviewed by me and submitted with my approval. One of the primary issues which remain confusing to judges is Methodology vs Conclusions. Judges have no discretion in being the "gatekeeper" regarding expert's conclusions. Judges must be convinced that the methodology used in reaching such conclusions is generally accepted in the expert's field. I am preparing for trial right now but will try to remember to get back to you with much more.

As an MD, JD I find this fascinating. The Daubert standard and its predecessors allow for training and experience to count as well as degrees and for use of standard methodologies – no science in HR matters e.g. I wonder if this varies state to state also – here in CA, for example, Daubert, which is a Federal Case, is not adopted. An older standard is used.

Finally, it has been my experience that there is no end to the vagaries of judges, being they are human, have prejudices and differing social and legal philosophies. This will never go away – which is why actually being in Court should be avoided because it is always a crap-shoot. Settling cases is almost always a better way to go.

I love Daubert and wish it was applicable in the New York State Supreme Court system.

I am a P.E., with an expertise in hydrology and structures. It is disheartening to see people who do not know anything about storm water flow being allowed to opine in court filings about storm water runoff.

This type of nonsense does not happen in Federal Cases.

I read with great interest the post on Daubert. As a Psychologist, I frequently find that the results of my forensic evaluation are challenged under Daubert, as not “scientific”. However, much of the psychology is concerned with clinical insights, not science, and therefore, the rigid adherence to “science” is misplaced. How for instance, do we determine the “known error rate” of a child custody evaluation? How do we determine the “known error rate” of an opinion that a defendant met the criteria for legal sanity at the time of an offense? The simple answer is, they do not fit, and courts should not try to force areas of expertise that are not “pure science” into that category.

In fact, Judges and lawyers who insist on the narrow scientific approach to Daubert are, in fact, in my opinion, misreading it. Daubert spoke of “scientific, technical and other specialized knowledge” and made it clear that what they were discussing in that case was only the scientific component because that was the type of evidence being considered in that case (whether Bendectin caused birth defects). Daubert’s narrow scientific criteria were never meant to apply to other areas more characterized by clinical insights. In fact, the justices speak, in a subsequent case, Kumho, about the difference between scientific and experience based testimony and make it clear that the narrow Daubert criteria were only intended as guidelines, not as a rigid series of rules to exclude expert testimony. In fact, in Kumho, the Justices said that the important point, that should govern admissibility, is “relevance and reliability” and that the criteria for determining relevance and reliability may differ depending on the nature of the proffered evidence.

As a security consultant this strikes close to home. I was being deposed and the defendant’s attorney starts down Daubert Avenue. The case involved a security guard that allegedly committed arson to a hotel where he was on duty. \$5M in damage.

The attorney went right down the list of Daubert citations of scientific studies, peer review studies, etc. All I could answer to each question was NO! Although I’ve been in this business 33 years there was little I could do. How many scientific studies of arsons, by guards, in this particular city exist? You get my point.

I have yet to have a judge toss my testimony because of the Daubert Challenge because I think they recognize that strict interpretation does not cover all areas of expertise (HR included). So few suits get to trial that I feel judges are willing to let juries weigh the credibility of the witness. Scientific protocols do not fit well outside of that environment.

What do you call a lawyer with an IQ of 70?

Answer: “Your Honor”

Well, the best answer and the only way to avoid this issue is to clearly state that “the scope of my testimony is such and such and this is an area in which I have always been qualified to testify. I have never been disallowed to testify in any court. Moreover, the issue of “scientific results” is a separate issue and one which never was challenged during my deposition”. (In short...tell the opposing attorney to screw himself!)

I find that tying my opinions to SPHR standards, a widely used text in HR and EEOC guidelines, does help in establishing HR policies as a science for many judges. I have also added a discussion of our curriculum at both the undergraduate and PhD levels in HR so the judge can see that there is a defined body of scientific knowledge on which my opinions are based. Even so, I have had a judge tell me while sitting in the court room about to testify, that “We do not need your testimony. It is just common sense and the jury can understand that.” I think that to some extent, we need to educate legal professionals about our field.

Even if one passes the Daubert screen, there is still no guarantee the judge will be any more clear-minded thereafter, particularly in a bench trial. I will not bore you with the war story, but I was allowed to testify in a bench trial, even though the judge informed me in advance that he was not going to give any weight to what I would say. I realize that your experts are sure that once they get before the jury they will be effective, but if the judge is biased against them or their client (s) he can control the jury’s view of the expert’s testimony by how objections are handled, regardless of how (s)he ruled in the Daubert hearing—or whether there was one.

Having also been through a Daubert hearing with little trauma in front of a sensible judge, I still agree that there is much room for error in the process, and that attempting to apply a screen for “junk science” to areas in which controls in and of themselves color the data, like human resources and business finance, is an abuse of Daubert’s intent. But since the application of Daubert depends on the Judge’s own estimate of his(her) ability to understand the scientific/technical issues presented, and as a gate-keeping function it is not easily subjected to appellate review, I think we will have to live with Daubert and its abuses by attorneys for awhile.

What we need to learn to do is to testify before the judge in the Daubert hearing as clearly as we do for the jury—in about the same non-scientific language—and help write the questions defending the science or “best practice” as carefully as we do the questions defending our opinions in the trial itself. In fact, this can be prepared boilerplate to a large extent. Think of it as a two-step trial with two different kinds of testimony. Once precedent has been clearly established that Daubert only applies in a narrow range of cases, the attorneys should back off or risk censure from annoyed judges—a Daubert backlash!

I respectfully disagree. A judge does not need an A in science to know if a theory meets Daubert Standards. A judge does not need to be able to read the scientific literature and decide if the research methodology was adequate. Rather, a judge needs to know that there are peer reviewed journals and that experts should be able to find support in the literature for things that they say are scientific facts. I have seen many experts put in pet theories as science in order to support a side that they liked or that was paying them a lot of money. I have also seen many psychiatrists make assertions to a reasonable degree of medical certainty based on their “clinical experience” that I feel were unjustified conclusions. This is a serious problem. I have not yet, in my personal experience, seen reasonable testimony excluded based on Daubert.

Excluding testimony is not easy. A Daubert hearing to exclude testimony is expensive and time consuming. Moreover, if a judge arbitrarily calls science “junk” when it is good then it can be overturned.

Experts are not limited to testifying about scientific facts. Experts can also testify about best practices and experience.

Judges have always doubted experts, and Daubert hasn't changed anything but codified minimal acceptable standards. They prefer to rely on the preponderance of evidence doctrine, and if the expert fits that pattern, they give weight to that testimony. Don't feel picked on, your client (lawyer) is aware of this and chooses to take the risk of introducing expert testimony. Sometimes it helps, mostly not in judicial decisions.

I am an economic damages expert working on business cases not scientific ones, so my controlling case in federal matters is Kumbo Tire, a Daubert sibling that holds essentially the same regarding admission of expert testimony. In my market, the judges are not acting so cavalierly and typically admit testimony of business experts rather than exclude it. I have been challenged many times, but never excluded. I am not aware of any of my colleagues having their testimony excluded either.

I like Daubert/Frye; they often provide leverage to reveal the weaknesses of Defense Reports.

It's been my experience that as long as I stay in the mainstream of my life's work experience in taking cases and continue to rely on the peer reviewed documents in my field I have had no problems with Daubert.

Daubert challenges are an increasing part of our business. I empathize greatly with what was described in the reader's message.

The most recent case that I lost had a Daubert component to it. In brief, the Defendant was accused of the sale/distribution of "angel dust" in northeast Ohio. What I didn't know at the time was that the lead attorney (a female) from the US Attorney's Office and the judge (a male) had once practiced law together. It is these types of "incestuous" relationships that really stretch the ethical basis for recusing oneself in either of the capacities. The objective to obtain a conviction over-rode the apparent fact that an "innocent Defendant" was caught up in this outrageous cabal. The concept of innocent until proven guilty, apparently, is not universally applied in this jurisdiction.

As a professional, I am obliged to report the facts to my client and, upon Disclosure/Discovery requests, turn over all relevant documents to opposing counsel. In this instance, I had copies of the gas chromatograph and mass spectrometer traces obtained by a reputable laboratory. To the untrained eye, the "fingerprints/signals" were all in the same places on the reference and actual scans.

The problem with this "seemingly compelling evidence" was what other chemicals the drugs were "cut with". The "impurities" in these two sets of scans were different, indicating that the actual samples were still illegal drugs, but not from the same batch that the reference drugs were collected. None of the potential mitigating circumstances, resulting from my examination, could be brought up as "reasonable doubt".

I was not allowed to testify (Daubert?). The judge over-ruled all of my client's objections and the Defendant was convicted.

Since this time, the case took an "ugly turn". The Defendant refused to pay his bill and the client refused to pay my bill. I told my client that the Defendant's name is not on our engagement

agreement. (I've since gone to contracts with all relevant details spelled out to reduce the possibility of such shenanigans). The net effect is that I am now civilly suing the client in our local courts.

The client has erected multiple delaying tactics with the apparent intent to bleed my professional fees through retained collection counsel costs billed to my firm. I told retention counsel to go through with our action (he will be paid within 48 hours irrespective of the outcome). A conviction on fraud will then be brought to the attention of our State Bar and I will insist that my former client's license to be suspended (hopefully permanently).

Where I am optimistic is that what was described in your reader's message and my "bad experience" are exceptions rather than the rule. Opposing counsels and judges have generally been deferential plus these professionals have behaved appropriately in such challenges. In fact, I've met Daubert challenges in chemical exposures/releases, explosion/fire investigations, and physics/accident reconstruction cases in multiple jurisdictions throughout our country. What Daubert, in my considered opinion, has done is that it has created a condition where the facts/truth drive matters much more so than ever before. Credibility rules the day.

Intuitively, Daubert may give more latitude to the Defendant. However, it is the presentation of the facts/truth that create the preponderance of evidence necessary to go beyond the reasonable doubt necessary to obtain a conviction in a criminal case. I feel much more comfortable in my preparation and testimony when "the dots have been connected."

There are a number of things that are working against the scales of justice. For instance, why should an agency be allowed to have bad engineering excused by a signature from someone that has, in many cases, never learned how to think? (Design immunity RE: transportation engineering, roadways, railways, etc) Then there is the "similarity of accidents" defense (which is used to exclude evidence dependent on the "exactitude" of similarity in an accident). Again, the whim of a judge can make a major difference. I know a particular state that has finally been able to legislate tort reform. The defense attorneys were so happy. Then, the number of tort cases dropped like a rock. Many defense attorneys found themselves without a job when agencies had no work for them. "Reverse justice." So, who does it help? Certainly not you, the individual, who may be injured for life and have to subsist on a pittance of support from the state.

Daubert is tyranny? I don't think so. Too often I have been involved in cases where the other side's expert says things like 'it' based on my 25 years of experience doing this." Well, my first question is, do you have 25 years experience or 1 year's experience 25 times? My second question is, who said you did it correctly?

If you can't justify what you're doing with some scientific basis then you shouldn't be using it as the main basis for your testimony. In the vocational side we have been using scientifically based academic testing forever and, if you don't use tests that are reliable and valid, then you have no basis to speak to the results.

I also think that you underestimate judges. One doesn't need a science degree to understand whether or not something is based in fact and the method to get there is based on empirical evidence.

I am an expert witness in financial damages cases and I also teach courses in Daubert. I understand your frustration but you need to step back and look at the greater picture.

In Louisiana we use the term "Daubert Challenge" to represent any type of motion in limine that is launched against an expert of any kind. I know, we should be more precise but that's the way we do it here.

There are many occasions when an expert should not be allowed to testify, waste the court's time and confuse the jury. I often encounter financial experts whose folksy manner and charming personalities mask the inadequate skills that they possess or the positions of advocacy that they espouse. These experts have been retained merely to legitimize the position of one side or the other, without actually performing any independent analysis resulting in a reasonable conclusion.

Occasionally these charlatans are so gifted in their communication skills that a jury or even a judge is likely to reach a verdict based on an inappropriate methodology, inadequate analysis or sub-standard assemblage of data. I believe that it is the duty of competent professionals to rid their profession of these pretenders and to neutralize these experts whenever possible.

I have been engaged as an expert under three types of conditions. As a testifying expert, I perform my analyses and present my opinion at trial.

As a consulting expert, I work with my retaining counsel and assist discovery and trial strategy. I have also been engaged as a "challenge expert" whose sole responsibility is to "take out" the opposing expert with a Daubert challenge or a motion in limine.

Of course, only an attorney can launch a Daubert challenge because it is a legal proceeding. The attorney prepares the final document, notifies the court and the opposition but where do you think he (she) gets the ammunition to use in the challenge? They get it from people like me.

The testimony of a challenge expert can be rather compelling because he has absolutely no interest in the outcome of the case. It is almost like being amicus curiae - assisting the court in avoiding a miscarriage of justice that would certainly occur if the charlatan-expert would be allowed to testify in court and play mind games with the trier(s) of fact.

As a competent financial expert with many years of study and teaching, I take my responsibilities very seriously and do not tolerate fools and pretenders in my profession. I have never suggested or participated in a Daubert challenge merely as a ploy to win a case; the consequences of being excluded as an expert are far too damaging to be taken so lightly.

Nevertheless, individuals who knowingly omit certain procedures or techniques that would be damaging to their position or those who use "data-mining" techniques to sift among data points looking for the most favorable outcomes have crossed the line and are cheating. If these experts demonstrate a habitual tendency to take such positions or if

they embrace them with the zeal of an evangelist, they must not be allowed to confuse the trier of fact.

I hope that I did not offend you but this is my position on the subject.

Hello. My area is forensic musicology. I'm in the early stages of preparing a paper on the very subject you discuss in your essay on Daubert. I've included the abstract below:

Abstract,*

Fallacies of Intrinsic-Extrinsic Bifurcation in
The Judicial Assessment of Forensic Musical Analysis

Courts must evaluate expert analyses in cases involving the alleged plagiarism of music that is both created and disseminated mainly or entirely in a non-written manner. In performing that function, they frequently fail to consider not only nearly seventy years of systematic investigation of oral-aural musical processes but also an extensive amount of research in the psychology of perception and learning. Hence it is possible for one to escape the legal consequences of misappropriating another creative artist's work by altering the surface structure of a piece of music and subsequently arguing that remaining subsurface similarities are either largely or wholly irrelevant. Also possible is the reverse situation wherein a few surface similarities form the basis of a claim of infringement notwithstanding pervasive, and, in some cases extensive, differences within sub-surface strata wherein most memory traces and points of recognition reside.

Part of this problem is the logic underlying the legal procedure of focusing on the intrinsic elements of works at issue, with concomitant exclusion of elements and factors that are deemed extrinsic. The distinction between the intrinsic and the extrinsic, while both valid and necessary, often is based on inadequate knowledge of the way in which music is fashioned and learned through non-literate processes, including its transmission via recorded media and the airwaves. This is part of a more general unawareness of the mental sorting that delineates essential, minimally important, and relatively unimportant data. In most instances, the procedures to which courts attach the greatest credence are either 1) pseudo-analytical methods that amount to little more than note-counting or 2) established academic processes that were developed for the analysis of pieces created through writing and disseminated either directly through reading or through performance from the written page. Most methods within both of the above-described categories tend to focus primarily on surface structures, and in fact there often is the erroneous assumption by courts that any form of musical reduction is invalid. Both categories of analysis, and also the reluctance of courts to accept procedures involving reduction, fail to recognize or address the essentially non-literate manner in which most popular music is fashioned, disseminated, perceived, assimilated, and remembered.

Differences between literate and non-literate processes have long been recognized in psychology, literary scholarship, and academic musical study; and various techniques of reduction utilizing objective criteria are regarded as legitimate tools for the study of

oral-aural fashioning and transmission. Further, the distinctions between visual and auditory learning form part of the core of accepted modern educational theory. A catching up with these realities on the part of courts is long overdue.

This paper draws on previous musical and psychological studies, statutory and case law, and studies addressing both musical and legal issues in suggesting a set of standards for courts to consider in differentiating between intrinsic and extrinsic factors in copyright infringement and intellectual property misappropriation disputes. The proposed analytical procedure combines traditional methods and foci, methods utilizing reduction techniques, and those using adaptations of generative-transformational linguistic paradigms. The second of those groups includes principles and processes that date in some cases from as far back as the early twentieth century. The last category includes theories and methods that have been in use for about the last twenty-five to thirty years, including but not limited to those set forth both in the author's doctoral dissertation on oral-aural melodic transmission and in subsequent post-doctoral investigations. The ultimate goal of the present study is the establishment of legal precedents that are informed, consistent, and fair, and that reduce the likelihood of courts' upholding invalid arguments or claims on the part of either plaintiffs or defendants.

I think that is the judge's job. I have not had a problem in 25 years, I'm not worried. Thank you.

Amen to the "scientific certainty" in some areas of expertise. I am a court qualified expert in Inadequate Security and Liquor Liability matters. As in HR, there are no scientific issues to be addressed, but rather Industry Standards and Best Practices. I was shocked to review a report of an opposing "for hire" expert recently who included in his Dram Shop / Inadequate Security conclusion: "My opinion is based upon reasonable scientific certainty...." YIKES! What "scientific" anything?!

I very much agree that Daubert is out of control. In my experience, in the past couple of years, every time a case gets close to trial, the lawyers for both sides file Daubert motions against all the experts, regardless of how qualified they may be, in the hopes that a sympathetic judge will exclude an opposing expert. As pointed out by the recent posting on your site, most judges know nothing about the technology involved in cases and rely only on which lawyer makes the best argument in light of the Daubert factors. Too often, these Daubert factors are not relevant for a particular case. There is far too much emphasis on "science". Although I am an engineer, most of the cases I work on require practical experience and knowledge of the equipment involved, not "science". Daubert leads to accepting experts who can supposedly document some little "scientific study" while making it very difficult for experts who actually have knowledge and long experience with the technology involved. The Daubert emphasis in refereed journal articles also poses a problem. In some of the cases in which I have been involved, the issue is so basic and well known to engineers in the field that a refereed publication would be almost trite. It is often impossible to find a refereed publication to support a practical fact that is basic and well-known. The suggestion under Daubert that only theories developed prior to or outside of litigation should carry weight is a problem, too.

Often, in my field, an issue has not come up until that particular lawsuit, so no one has conducted any "scientific studies" or published a refereed article prior to the incident in question.

Another problem with the "science" approach is that engineers are, by definition, not scientists. We have studied science and sometimes do some things "scientifically", but not always. Much of engineering is based on practical experience. Expecting engineers (or accountants, or psychologists, etc.) to be "scientists is unrealistic and impractical. We now waste too much time trying to satisfy the "scientific" standards of Daubert instead of doing useful work.

Not only does the current Daubert system cause some experts to be unreasonably excluded (or limited as to their testimony), thus jeopardizing the case and doing lasting damage to the expert, but it also raises the cost of litigation for all parties. Somebody has to pay for all the judicial, legal and expert time expended (wasted!) in filing and fighting Daubert challenges.

In summary, the Daubert factors are too often a cop-out. Yes, there are "experts" out there who should not be allowed to testify, either because they lack qualifications or because their opinions have been purchased, but the current Daubert system may too often "throw out the baby with the bath water" and cause qualified experts with valid opinions to be excluded simply because what they did does not precisely follow the Daubert formula or because they and their retaining attorney did not argue as persuasively as the other side. I agree that a problem with unqualified experts exists, but Daubert is an example of the typical government approach to a problem, namely " do something to address the issue even if what they do is wrong."

I recently read that the West Virginia Supreme Court over-ruled a Daubert rejection, and in their ruling, stated that trial courts were abusing the Daubert system and rejecting too many qualified experts. I agree. We need a REASONABLE approach to qualifying experts, not the "one size fits all" approach of Daubert. It may make judges' lives easier to have a simple formula to follow, but it is not working.

I should state that I have never been excluded under Daubert, but the constant risk is there.

This may be a matter of simple communication strategy. In the mention below of "best practices", for example, it would seem that a practice is best because of actual, measured outcomes. If so, then the term "best practice" could be supplemented with "practice shown statistically to produce the best outcomes", etc.

I ****DID**** get A's in science, and DO a lot of expert cases, and all mine succeed in being accepted.

Your despondent correspondent may want to review the "Substance" section of www.daubertontheweb.com and/or <http://library.findlaw.com/1999/Aug/1/127466.html>. Courts are struggling with the questions involved in how apply the Daubert rule

(and the Kumho Tire case, also) to testimony of non-scientific expert witnesses.

Hello...We have a problem of sorts like this in Nova Scotia (eastern Canada); judges who are unfamiliar with science but still making decisions in this area that can have profound effects on the litigants and the experts before them.

It seems unethical for judges to do this when they know they may be floundering and causing litigants problems, and also possibly exposing themselves to an embarrassing overturning of their decisions on appeal. We experts are cautioned to stay in our sandbox. Seems the same caution applies to judges. In fact, it seems there is a greater expectation that they will stay in their sandbox because of their supposedly greater wisdom seeing as they were elevated to the bench. If a decision on the science involved in the case before them takes them outside their sandbox it seems unethical if they go ahead and make the decision anyway.

I wonder if a well publicized national register of profiles on judges and their area of expertise and experience might keep them honest and in their sandbox?

The problem should be publicized in the literature at the very least.

On the other side of the problem I wonder if litigants and their experts should work harder to ensure that the science taken into court is in fact good science? Take greater care not to stress the judge, forcing him into unfamiliar territory; after all we do want him on our side. As experts, we theorize on the cause of problems, often reason inductively, and arrive at conclusions and opinions.

The merits of all theories can be checked fairly easily before relying on any one to support a claim - see various tests in any introductory university text on Critical Thinking such as the TEST formulae, the Criteria of Adequacy and the Scientific Method. I think these procedures are reflected in the Daubert decision to some extent.

Be careful with the concept of Best Practices because I think it has more to do with technology, the production of stuff, as opposed to science which seeks knowledge - technology uses and applies the knowledge found by science.

Although I am from Canada, we have the similar issues with the judiciary here as you do with Daubert. Similar rules.

Judges are and will continue to be the gatekeepers of what is and what is not allowed into evidence. Some, like all people are better at it than others. I spent 17 years doing collision reconstruction work for the Ontario Provincial Police and have retired and am now doing some private consulting work.

I learned a very long time ago that you can't take a decision by an adjudicating body personally or it will drive you nuts. My/our job as an expert in a chosen field is to gather, interpret and present the evidence in an unbiased, clear and concise manner to the court for them

to make an informed decision. They are the ones that will decide, regardless of the fact that someone may or may not like the final outcome. Someone has to be in a position to make a decision on how much weight to give a persons evidence.

You have to give them the credentials and experience necessary to qualify yourself as an expert as well as educate and satisfy them that you know what you are talking about and take your opinions in a positive way into account.

(Knowing how to hammer a nail doesn't make me a carpenter?

I don't know what the writer means by "manufacturing science proofs" but I certainly wouldn't manufacture anything. Information used should be able to be substantiated by way of provable personal and or published tests and or studies performed in an accepted scientific manner.

At the end of the day I have no problem with a judicial body deciding on my qualifications, weight given to it and to that of others. It helps to keep the charlatans at bay.

I can sleep at night knowing I did the best job I could. The adjudicator should be able to do the same.

I was more than shocked to read this expert's opinion of the unanimous U.S. Supreme Court decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* in which the Court set a new standard for expert testimony that has since become embodied in the Federal Rules of Evidence 702. The Court also set some guidelines for the application of the standard but noted that they were just that because there can be different scientific methods used in different types of investigations.

I would agree with the writer that a lot of judges are ill equipped to perform their gatekeeper function but that is where the expert can earn his or her money by educating both their attorney and the judge in a *Daubert* hearing. If "excellent science" is being excluded an expert has not done his or her job. Also, if an expert "manufactures science proofs" they have perjured themselves and do not belong in a court of law.

The law being what it is there will always be cases where reliable evidence is excluded or unreliable evidence is allowed. Anyone who takes the time read and understand the standard will understand, while not perfect, it does require that evidence be based upon methods that produce valid and reliable conclusions. I have a hard time fathoming how anyone could even begin to think that the standard is a "tyranny" let alone make a "judge buddy" insinuation.

Anyone who is interested in learning how their discipline is doing under *Daubert* should visit, www.dauberttracker.com

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