Frye 'Em

Jury Psychology Can Undermine Plaintiffs' Expert Witnesses

By Neil A. Goldberg, John P. Freedenberg, Joseph L. Mooney and Joseph M. Hanna

Cross examination of plaintiff's expert witness should be geared to thwart the emotional hijacking of jurors that plaintiffs endeavor to secure.

Most trial attorneys are familiar with the Chicago study that found that 85 percent of jurors vote after deliberations in a manner consistent with the impressions they developed after the opening statements. A study conducted by Angela Abel of Decision Quest distributed at DRI's 2006 Preeminent Trial Lawyer Seminar found that the ultimate evaluation a juror reaches in a case on both liability and damages essentially remained unchanged by the *voir dire* process.

One interpretation of these two poignant nuggets of information is that at the moment of accountability, when many jurors engage in the deliberation process, the critical factor that most significantly influences how they analyze the case is their longstanding predispositions.

Determining what those longstanding predispositions are and what themes will influence jurors the most are reasons defendants in catastrophic injury cases more and more find that there is great value in engaging in "mock jury" exercises. A studied review of many such exercises of this kind leads us to believe that in any jury pool one will likely find jurors who are either predisposed toward the plaintiff's themes, or the defendant's themes. One will also find "centrist" jurors. One of the premises of this article is that to the extent that the "centrist" can be won over to the defendant's camp, the greater the likelihood that the pro-plaintiff jurors will be won over as well by the logical discussion and peer pressure that occurs during the deliberative process.

An essential component of achieving this goal is to undermine the jurors' perception of plaintiffs' expert witnesses successfully and to maximize the favorable impression a defense expert makes. Since the early 1990s, achieving this goal has been particularly challenging for defense counsel.

The Role of Jurors in Analyzing the Credibility of Expert Witnesses

Even before the Enron scandal, a survey found "that a majority of jurors are pre-

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disposed to believe an individual's version of events in any dispute with a corporation." The Wall Street Journal, Nov. 13, 1991, at B5. After the litany of scandals that followed Enron, the problem was compounded. *The Wall Street Journal* verified what many trial lawyers have recognized; increasingly we are confronted with a "new class" of jurors.

The members of this class have been displaced by economic chaos—environmental disasters, and "down-sizing"—and they are now feeling insecure, vulnerable and bitter. They blame, among others, Corporate America for their plight. These individuals contribute significantly to the volatility of jury verdicts.

Jurors from this group of individuals will deliberate and consider how a corporation should be judged for its alleged errors and tortious conduct. This is the group that the corporation must win over if it is to defend its case successfully.

The success of defense counsel under these circumstances depends, in large part, upon his or her ability to develop a high degree of empathy for the plight of the typical juror in a lawsuit against a corporation. Among other things, counsel should be sensitive to the following:

- Most jurors will be the quintessential "average citizen," a person that may or may not have graduated from high school. In some jurisdictions, exemptions and other available ploys virtually assure that few, if any, professionals will sit on the jury.
- Law students take separate courses in tort, products liability, civil procedure, and evidence. Imagine the difficulty the average juror confronts in attempting to make an appropriate determination based upon an understanding of the "evidence" and law in a given case during the two or three weeks of trial.
- In many jurisdictions, jurors are not permitted to take notes and, thus, must remember a significant amount of factual information that accumulates over the course of the trial. Perceptions and impressions often may be more important than the evidence itself.
- The jurors are in a stressful environment with many novelties and distractions that may limit their ability to appreciate the subtleties of the case.

Keeping the foregoing factors in mind, it is no wonder that some jurors are overly impressed by a polished expert's demeanor, rather than suspicious of the lack of substance of the expert's testimony.

Anger Management

The adversarial legal system is dependent on the assumption that decision makers are rational, unbiased, and not strongly predisposed. The plaintiffs' bar recognizes that this paradigm can be altered by their trial strategy, which can benefit the plaintiff's case mightily.

In recognition of this fact, the plaintiffs' bar has developed aggressive discovery initiatives, questioning techniques, order of proof strategies and expert witness presentations that, among other things, are geared towards capitalizing on the tarnished reputation of Corporate America.

The plaintiff's goal is to capitalize on the tarnished image of Corporate America, by creating anger and suspicion on the part of the juries toward the defendant. With the arguments developed from the implementation of these strategies in hand, plaintiffs' counsel angle to generate as much anger against the corporation as they can. They recognize what we all intuitively know from our own experiences; what is rational is often overcome when anger holds sway. In our own lives, we have all observed time and again how passion overwhelms reason.

Among other things, the cross examination of plaintiff's expert witness should be geared to avoid this type of emotional hijacking of the jurors that plaintiffs are endeavoring to secure.

A number of the studies discussed below shed light on juror psychology and how to avoid this distinct danger. For the defense to be effective, it is submitted that timing is critically important. The plaintiff's effort to generate anger and, in turn, irrational behavior and closed-mindedness on the part of jurors has to be addressed aggressively and as early in the trial as possible. The more that can be accomplished early in the plaintiff's case the better.

Structuring the cross examination of the plaintiff's experts to articulate mitigating information that undermines the plaintiff's themes is crucial. Similarly, suggesting during the cross examination facts that tend to justify and shed a more charitable light on the criticized corporate conduct has the potential to pay big dividends as the trial progresses.

The Quality of Jurors

Professor Samuel Gross from the University of Michigan outlined the "essential paradox" of expert testimony by noting that: "We call expert witnesses to testify about matters that are beyond the ordinary understanding of lay people (that is both the major practical justification and a formal legal requirement for expert testimony), and then we ask lay judges and jurors to judge their testimony." Samuel R. Gross, *Expert Evidence*, Wisconsin Law Review 1113–1232, 1182 (1991).

Some jurors are not prone simply to accept an expert's testimony. Instead, they tend to view "experts" with a great deal of skepticism. Factors that jurors in civil trials identified as important to evaluating expert credibility have been examined and analyzed. Sanja Kutnjak Ivkovic and Valerie P. Hans, *Jurors' Evaluations of Expert Testimony: Judging the Messenger and the Message*, 28 Law & Soc. Inquiry 441 (2003). Ivkovic and Hans interviewed 55 jurors from seven civil trials and developed a comprehensive model of the key factors that jurors used to evaluate expert witnesses and their testimony. *Id.* The interviews were conducted as part of a larger study that examined the reactions of 269 jurors in cases with business and corporate parties. *Id.* The jurors were interviewed separately and asked to give their reactions to the parties, attorneys, and evidence in the case. *Id.* at 452.

Seventy percent of the jurors either agreed or strongly agreed with the statement "lawyers can always find an expert who will back up their client's point of view, no matter what it is." *Id.* Only 10 percent of the respondents disagreed. The result supports the jurors' view of experts as hired guns. *Id.*

Seventy-six percent of the jurors surveyed agreed that "there's a lot of disagreement among experts in most professions." *Id.* The jurors' response to this question may suggest that jurors are not as gullible as one might believe. Moreover, this may show that jurors have a more positive view of the role of experts than what we would prefer to believe.

Pro-Defendant Jurors vs. Pro-Plaintiff Jurors

What are the attributes of a pro-defendant juror versus a pro-plaintiff juror? A pro-defendant juror will not be influenced by the plaintiff's attorney's gamesmanship. He or she will show an open mind and will be skeptical of posturing. In our justice system, the pro-defendant minded juror is willing to follow the rule of law. Jurors who showed the greatest suspicion of experts also believed that there were many illegitimate lawsuits. *Id.* The jurors in the study who had a more cynical point of view, or who regularly doubted the fairness of the world, also seemed to be more dubious about the expertise claims of professionals. *Id.*

On the flip side are pro-plaintiff jurors. Jurors who see themselves as efficacious and the world as a basically agreeable place are more likely to grant legitimacy to claims advanced by litigants and, in turn, to be more supportive of a plaintiff's expert witness. *Id.* Other pro-plaintiff juror characteristics include individuals who believe that the world has treated them poorly or individuals who view themselves as socially and economically vulnerable.

Jurors' Characterizations of "Good" and "Bad" Expert Witnesses

Ivkovic and Hans' study also analyzed the ways in which jurors characterized "good" and "bad" expert witnesses. *Id.* at 455. The jurors' responses showed that being a "good" expert did not solely depend on only one characteristic. *Id.* As the following examples show, a number of characteristics must blend together:

In one of the medical malpractice cases that featured conflicting expert testimony, several jurors explained why they trusted one medical expert more than the other:

- "She had backup documents to go along with everything she was saying…" *Id.*
- "She seemed to me a very intelligent person. She was the one I felt was the most credible. She was able to field the answers very well from the defendants and to have information to prove that what she was saying was the way it was… I put more credibility in what she said." *Id.* at 456.

Several jurors in another case evaluated one medical doctor as being extremely good as an expert witness. This is how the jurors explained what the characteristics of a "good" expert witness are:

- "He was just excellent and convincing, he could speak to the court and the jury in lay terms… He really made things very clear." *Id.*
- "He was so interesting. He explained everything to us at our level, at a layman's level. He was an excellent teacher. We could understand, so it really helped." *Id.*

However, the accounts of "bad" expert witnesses also included several characteristics. *Id.* at 457. Here are a few examples:

- "the economist… was really deep and really boring, but you could tell from his testimony that he was definitely being paid by the plaintiffs." *Id.*
- "the surgeon… he was a disaster… because he got flustered and would have to ask for questions to be repeated, which… was just a stalling technique because the questions were turning the screw and putting him very much on the defense…" *Id.*

An expert may be labeled as a "bad" witness because of the lawyers, too. In one case, a juror complained that the lawyers in the case did not explain the connection of the expert's testimony to the case. Several jurors in another case reported that one expert, an economist, whose analysis was supposed to help the jury determine the award, experienced serious problems because the lawyers did not provide all of the information to him.

Expert Characteristics: Credibility, Credentials and Motives

Effective vs. Ineffective Experts

Ivkovic and Hans' study observed that jurors' comments about experts' credibility could be classified into two major types: comments about personal characteristics of the expert and comments about the testimony. *Id.* at 457–58. In terms of personal characteristics, jurors' comments were categorized as relating to the expert's credentials, motives, or general impressions. *Id.* at 458. As for testimony, the jurors' comments were categorized as those pertaining to the expert's content and style. *Id.*

The jurors associated the following characteristics with credible testimony: good credentials; lack of bias; a pleasant personality; a clear, objective, focused, not overly long presentation that utilizes diagrams and models; use of lay terms; a presentation that is complete, consistent, and not too complex; knowledgeability in the area of expertise; and familiarity with the case. *Id.*

Jurors can be influenced by an expert's credentials, such as: professional activity (such as presenting papers at conferences and seminars), their formal education, and their research activity. *Id.* at 461. The first interaction that a juror may have with an expert witness and an attorney in the courtroom is when the attorney establishes the witness's credentials. *Id.* at 459. Typically, the jurors who used credentials as the basis for their judgment of the expert's credibility thought that the experts with good credentials were credible witnesses. *Id.* Having an expert witness with a long list of credentials, however, is not an automatic guarantee of credibility. *Id.* The jurors mentioned credentials and used it as a factor most often when they compared the credibility of experts from the same field. *Id.* Interestingly, when jurors did contrast the credentials of experts, they usually found little discrepancy. *Id.*

Jurors can be influenced by perceived motives. Many jurors attempt to determine the motives that an expert may bring to the witness stand. *Id.* at 464. The jurors in the study focused primarily on characteristics that reduced an expert's credibility, such as an expert's potential motive for bias, the magnitude of his or her fees, the frequency with which he or she testified, and the expert's relationship to a party.

Jurors' General Impression of Expert Witnesses

Also instructive were jurors' comments about expert witnesses that were outside the categories of credibility, credentials, and motive. *Id.* at 468. The authors called this category "general impressions of expert witnesses," and it included comments about age ("He was an older doctor"), gender ("the lady doctor"), nationality ("I believe he was the Irishman"), physical appearance ("He's a tall man with blonde hair, wasn't he?"), and dress of expert witnesses ("One of them wore bowties. Which one was that?"). *Id.* Other factors that were included in the general category by the authors included the expert's personality and attitude, as well as any personal

acquaintance with the expert, and jurors' judgments about these factors did appear to influence their assessment of expert credibility. *Id.* at 469.

The jurors surveyed not only judged the experts as individuals, but also judged the presentation of technical material during testimony. *Id.* Jurors clearly preferred live testimony by experts over the reading of depositions. *Id.* Moreover, jurors' assessments appeared to be influenced by how experts presented their information. *Id.* at 470. For example, clarity of presentation was critically important, as was whether the testimony was boring or unclear. *Id.* It was noted that the jurors appreciated the use of some forms of technical aid as part of the expert's presentation, whether it was a model, chart, diagram, or X-ray. *Id.* Finally, jurors found it challenging where the pace was tedious or the presentation too long. *Id.* at 471. The authors concluded that jurors noticed the way the testimony was given and the facts presented, and they preferred clear presentation in lay terms, paced well, not too long, given enthusiastically, and supported with technical aids. *Id.* at 472.

Ivkovic and Hans concluded their study by looking at how jurors remarked about the content of the testimony of the expert witness. When the jurors examined the content of the testimony, they considered many factors, such as completeness, consistency, and complexity. *Id.* at 477. In order to get a better understanding of complex expert witness testimony, they relied on presentation style. *Id.* The jurors concluded that with everything else being equal, the clearer the presentation, the better they understood the evidence. *Id.*

One study noted that, "when there are competent experts on both sides, and they offer contradictory or confusing opinions, jurors may resolve the differences by relying on general impressions of character and veracity." Dennis J. Devine, *Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups*, 7 Psychol. Pub. Pol'y & L. 622, 624 (2001).

The Education Factor

Saks and Wissler found that as a juror's educational level rose, he or she was less likely to believe expert witnesses. Michael J. Saks and Roselle L. Wissler, *Legal and Psychological Bases of Expert Testimony: Surveys of the Law and Jurors*, 2 Behavioral Sci. & L. 361, 435 (1984). The authors attributed their test findings to the fact that a more educated juror was more likely to have a critical appraisal of an expert's competence. *Id.* at 445.

A different study found that the more educated a mock juror is, the more likely the juror is to participate actively in deliberations and to recall evidence accurately. Reid Hastie, Inside the Jury, 137–38 (1983).

The Gender Factor

Saks and Wissler reached no clear conclusion about the relationship between juror perceptions of expert testimony and gender. *See* Saks and Wissler at 446. Ivkovic and Hans' study concluded that 82 percent of male jurors compared to 64 percent of female jurors agreed that lawyers could always find a compliant expert. *See* Ivkovic and Hans at 453.

Other research on the juror thought process found that in solving problems, males tended to "refer to abstract and rational concepts of fairness, whereas [females] tended to refer to relationships and principles of affiliation and responsibility." Anne Bowen Poulin, *The Jury: The Criminal Justice System's Different Voice*, 62 U. Cin. L. Rev. 1377, 1395 (1994).

It has been reported that male jurors approach decision making with a win-lose attitude not present in female decision making. *See* Hastie at 142. It was found that male jurors were more vocal about factual and legal issues, while female jurors focused more on the verdict. *Id.* This same study also concluded that women were more defense oriented than men. *Id.* at 128.

The Age Factor

One study did not find a strong correlation between age of the prospective juror and a tendency to believe or disbelieve expert testimony. *See* Saks and Wissler at 448. However, the authors observed that younger prospective jurors tended to find psychologists and psychiatrists more credible than older jurors did, while older jurors tended to believe expert witnesses more than younger jurors. *Id.*

Another study indicated that mock jurors between the ages of 34 and 57 took a more active role in the decision making process. Jurors who were older than 57 tended to take the legal process more seriously than younger jurors did; however, they failed to recall the information as accurately. *See* Hastie at 142.

The Occupation Factor

In the late 1970s and early 1980s, Arthur D. Austin analyzed the role of two juries that heard complex expert evidence and arguments in the same Cleveland antitrust suit. Arthur D. Austin, *Jury Perceptions on Advocacy: A Case Study*, 8 Litigation 15 (1982). The first trial ended in a hung jury, the second trial ended in a verdict for the defendant. Austin had attended both trials and, at the end of each, interviewed the jurors. After interviewing the jurors and analyzing their comments, Austin's premise was that both juries were rather skeptical of the experts from both trials. *Id.* The jurors from the first trial, comprised of primarily "blue-collar" individuals, were quite suspicious of management. *Id.* Moreover, the jurors felt that the experts were "talking down to them" and the fact that the experts' qualifications were repeated over and over again to them was "needless and tasteless self-praise." *Id.* at 16.

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The members of the second jury were also "blue-collar" employees, however, this group was employed in supervisory jobs. *Id.* at 15. The members of this jury showed more of an inclination to support a more "management-oriented perspective." *Id.* It is important to note that although Austin's conclusions about the impact of jurors' occupations is interesting, it relates only to the analysis of the jury and the experts from only one case.

An unrelated juror study compared and contrasted the ratings given by jurors to assess different classes of witnesses and different categories of jurors in 50 trials. David Linz and Steven Penrod, *The Use of Experts in the Courtroom* (1982) (paper presented at the annual meeting of the

Academy of Criminal Justice Sciences). The jurors reported that policemen and women appearing as witnesses were the most believable, honest, likeable, confident and understandable. *Id.* The study went on to note that these experts were the least likely to be discredited as opposed to the other types of witnesses. *Id.*

Interestingly, another study of potential jurors' opinions of expert witnesses found that the respondents ranked physicians, chemists, and firearms experts as the most believable, honest, and experienced type of experts, followed by accountants, psychiatrists, psychologists, and eyewitnesses. Saks and Wissler, *supra*. Police officers, handwriting experts, and polygraph experts were ranked the lowest. *Id.* at 442. It is important to note that the respondents answered hypothetical questions and did not view any of the experts on the witness stand. *Id.*

The cross examination of the plaintiff's expert witness is often the first instance that the defense has to challenge the expert's opinion.

An Expert's Independent Involvement

In 1989, the American Bar Association Special Committee on Jury Comprehension conducted an in-depth study of jury decisions involving four highly complex cases—three of which included expert evidence. ABA Special Committee on Jury Comprehension, Jury Comprehension in Complex Cases 40, 42 (1989). The ABA committee concluded that the most believable experts had an "independent involvement" with the issue on which they were testifying. *Id.* However, the jurors rejected experts who seemed to be "hired guns." *Id.* For example, the jurors questioned one of the expert's impartiality because his information about the plaintiff had come directly from the plaintiff without the expert doing any outside research. *Id.* Thirty-five percent of the juror respondents stated that payment of the expert by the lawyers meant the expert could not be trusted to be unbiased. *Id.* Studies have shown that the lack of independent involvement in a subject area, such as performing independent research, can raise significant credibility issues.

One study explored the importance of testimony's complexity by varying the testimony's actual content and the strength of the experts' credentials. Joel Cooper, Elizabeth Bennett, and Holly Sukel, *Complex Scientific Testimony: How Do Jurors Make Decisions?*, Law and Human Behavior 20: 379–94 (1996). Interestingly, the study found that the personal characteristics of the experts, such as their credentials, played an important role only when the evidence was complex and the mock jurors had a difficult time evaluating it. *Id.*

These studies confirm what the authors have learned during the course of their trial careers. A skillful cross examination, coupled with exposing an expert's bias, weak credentials and inconsistencies in his or her testimony is the recipe to debunking the plaintiff's expert witness successfully. It is well known that jurors tend to decide for the plaintiff or the defense early in the trial—with a majority of jurors making up their minds after the opening statements. With the exception of the opening statement, the cross examination of the plaintiff's expert witness is often the first instance that the defense has to challenge the expert's opinion.

The Decision-Making Process for Jurors

"[T]he most widely adopted approach to juror decision making process is the 'story' model, wherein jurors attempt to assemble the evidence into a coherent whole that is consistent with the facts of the case and makes sense given their existing knowledge." *See* Devine at 624. In other words, members of the jury are more apt to gather as much information as possible from the facts of the case, the parties, and expert witness testimony, and will create a story that provides them with an understanding of what happened and why.

"Storytelling is one of the most powerful ways of communicating with other people… [S]ince the time we were babies, storytelling has been the fundamental way for us to learn about life." Richard C. Waites, Courtroom Psychology and Trial Advocacy, 535–37, 535 (2003). Every story is composed of facts. Therefore, undermining the plaintiff's "story" can be critically important for success at trial.

The story model asserts that jurors do not approach the trial with a blank slate. Rather, they utilize their past experiences to filter and understand the various pieces of evidence as the evidence is presented and to develop alternative interpretations, or "stories," about the events that led to the dispute now on trial. Nancy Pennington and Reid Hastie, *A Cognitive Theory on Juror Decision Making: The Story Model*, 13 Cardozo L. Rev. 519, 523–24 (1991). These alternative stories are then weighed against one another to determine which one is most consistent and logical. The preferred story is then considered under the instructions about the law provided by the trial judge. *Id.* at 530–31.

Pulling It All Together

The story model is widely accepted as a general description of how jurors process information and reach their decisions. It has many implications that bear on juror decision making. It is important to note that the various parts of trial evidence that include the testimony of experts are not viewed in isolation. Instead, they are integrated into "stories" derived from preexisting cognitive frameworks and from the other trial evidence, including the testimony of plaintiffs, defendants, and other witnesses.

Experts who are willing to reach a firm conclusion about the issue on which they are testifying are deemed more readily believable and add credibility to the "story." However, the expert's lack of independence in the discipline in which he or she is involved, for example, performing independent research, can raise significant credibility issues. It is important to undermine the appearance that the plaintiff's expert has the expertise and objectivity to justify the jurors' trust. Finally, establishing that the expert's methodology/opinions are not generally accepted in the discipline involved can be decisive at the trial level and/or appeal. The cross examination of the plaintiff's experts should seek to capitalize on this body of information concern-

ing jurors' decision making and receptivity to expert testimony.

Trial Strategies for Impeaching the Expert Witness

Goals of Cross Examination

In addition to the traditional, time-honored goals of cross examination, the examination of an expert witness should involve an additional goal: securing concessions from the expert that his or her opinion (or even a component thereof) is "speculative," "unreliable," and/or "conjectural." In short, it does not support the plaintiff's "story line" themes of the case. Any such concession can be of particular import to undermine the expert's credibility in the eyes of the jury. As outlined below, this paramount goal may be accomplished by questioning the validity of the "facts" upon which the expert has relied, questioning the expert's selective use or application of the facts, or pointing to contrary facts, or facts that were not taken into consideration by the expert.

A Sample Cross Examination

What follows is a brief summary of a case tried by the authors. A portion of the cross examination of the plaintiffs' expert witness is provided to demonstrate techniques that can be used to secure concessions of uncertainty from the expert based on the findings on juror psychology discussed above.

This litigation arose from a fire at a residence in a large city, in which a 12-year-old child was found dead in a position adjacent to his bunk bed. The plaintiffs alleged that the fire was caused by a fan that was on the floor of the room of origin.

The plaintiffs placed the cause of the fire in the fan's motor. Specifically, the plaintiffs alleged that the bearings of the motor seized, thereby stalling its rotor. Additionally and independently of the alleged bearing failure, the plaintiffs hypothesized that the motor's thermal cutoff (TCO) failed to open, thereby allowing the motor to heat to such a degree that it ignited the plastic of the fan body.

The defendants asserted that the plaintiffs' theory of the cause and origin of the fire was without merit, scientifically indefensible, and inconsistent with the credible testimony and information developed in the case. The plaintiffs' theory of liability was heavily reliant on a fire scene reconstruction and investigation performed by the city fire department that reached its conclusions prematurely and without a complete and valid fact-gathering process.

There was no evidence that a locked rotor condition existed in the fan motor at the time of the fire, that the motor's TCO malfunctioned, or that any failure or defect in the fan caused the fire.

The plaintiffs' witness, a lieutenant and assistant fire marshal in the city fire department, was in charge of the fire scene investigation. He drafted the fire department's formal report. In his report, the lieutenant opined that based on the physical examination of the scene and the interviews conducted, the fire was the result of an electrical breakdown in the floor fan, resulting in the ignition of bedding material.

Exposing Incomplete or Inaccurate Factual Basis

For an expert's opinion to be reliable and valid, it must be based on an accurate understanding of the facts. A fundamental premise of this article is that even an uneducated juror can quickly appreciate the unfairness that will occur if the juror attaches credibility to an expert's opinion that is based on an incomplete or inaccurate view of the facts.

It is important to remember that every "story" is composed of facts. The focus of the initial cross examination of the plaintiff's expert witness, therefore, was to demonstrate that the expert's view of the facts was incorrect, and to undermine the plaintiffs' "story" critically.

Q: And to just talk candidly about this, given the amount of time that you had, before you made your determination in this case, you didn't have the time to determine what the circumference of the fan was; true?
A: That's true.
Q: You didn't even determine what its height was?
A: No.
Q: You didn't determine what percentage of it was made of metal?
A: That's correct.
Q: And you didn't determine what percentage of it was made of other materials?
A: That's correct.
Q: You didn't know what the burn time of any of the components of the fan were; true?
A: That's correct.
Q: You didn't know what the ignition temperature of them would be; true?
A: Correct.
Q: And you couldn't possibly know if it either ignited or was attacked and caught on fire, how high the flames could go; true?
A: That's correct.
Q: And you don't know whether this electrical item, this fan, was a grounded fan or not a grounded fan?
A: That's very true.
Q: Consequently, you don't know under what circumstances it might arc or not arc?
A: You're absolutely correct.
Q: So, in fairness to everybody, with regard to the object that we've now learned was in what you determined to be an area of origin, at the time you made your determination, you knew virtually nothing about it?
A: You're correct.

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Q: You didn't consider it your assignment to analyze the motor in a detailed way to determine what the precise cause of the failure was if the fan was the failure mechanism; true?
A: That's absolutely correct.
Q: You didn't participate in the many hours of artifact examination, for disassembling, microscopic examination, exemplar testing that the various other experts in this case have engaged in; true?
A: That is correct.

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Q: How many fires have you investigated?
A: I've investigated more than 4,000.
Q: At the point where an overhaul should be stopped upon the finding of a dead individual, you would not expect a Battalion Chief to be there at this point?
A: Yeah. I don't think that he personally gave the order, "Oh, we have a body here. Stop everything."
Q: And that's based in part upon your vast experience?
A: Yes.

Q: So you made an assumption? You made an assumption based upon thousands of investigations; and your Fire Marshal's documentation will indicate, if you look at it, that you're incorrect. Can you take a look and confirm what I said to be true, that, indeed, Battalion Chief X was the individual who put an end to the overhauling at the scene?
A: Yes, sir.
Q: What does it say?
A: I was mistaken. It says that at 1:27, a call was put in by Battalion Chief X which said, "Limit overhaul until arrival of F.M.".

Attacking Witness's Credentials

As noted earlier, one of the primary methods of impeaching an expert witness is to cast doubt on his or her qualifications. Demonstrating that the expert is a professional witness or potentially biased will undoubtedly cause the jury to wonder whether the witness is a "gun for hire."

It is possible to shatter the expert's facade by raising the inference during the cross examination that the expert is:

- testifying outside the scope of his or her qualifications;
- using methodology that is not generally accepted;
- giving opinions that are generally not accepted; and
- giving opinions that lack independent research.

Set forth below are pertinent portions of a cross examination of an engineer in a product liability case. The issue in controversy is an alleged defect in the design of a garbage truck.

Testifying Outside the Scope of His or Her Qualifications

Q. Now, you're a mechanical engineer?
A. That is correct.
Q. And not all mechanical engineers are design engineers; is that true?
A. That is true. Not all engineers are design engineers.
Q. And the fact of the matter is, a fair amount of your work has not been involved in design at all; isn't that true?
A. Yes, sir.
Q. And indeed, with regard to design engineering, very little new design of products has been part of your work activities for many, many years?
A. I have not done much in the way of new design in about the past 15 years.
Q. Okay. So, as distinguished from having expertise in the roll-off and waste transport industry, you've told people you have expertise on machinery design, true.
A. Yes, sir.
Q. Let's just talk about some of the areas that you've maintained you're an expert in. Do you remember testifying in a case where you maintained and told folks you were an expert with regard to rifles and bullet explosions and shells?
A. Yes, sir. Most of that expertise comes from my personal use of them, not from being an engineer.
Q. Okay. And you've represented that you're an expert in fire cases? You gave testimony in a soap factory product case?
A. I am not an expert in fire cases.
Q. All right. You've been involved in a case as an expert concerning deer stands?
A. Yes, sir.
Q. How about Ferris wheels?
A. Yes, sir. I've designed them.
Q. And trailer jacks?
A. I'm an expert on the buckling phenomenon of the trailer jack.
Q. And what about an event associated with a silo collapse, are you an expert on that?
A. Yes, sir.
Q. What about press ties, are you an expert on that?
A. Only from the standpoint of the fracture of the metal or the corrosion of the metal.
Q. What about garage doors, are you an expert on that?
A. On the mechanism that raises and lowers it, the pulleys, yes.
Q. Okay. So, what's the standard that applies to garage doors?
A. I don't recall the name, the number of the standard.
Q. Okay. Well, what's the name of it?
A. I don't recall the name of the standard.
Q. What's the standard that applies to press ties? Tell the juror the standard name, please.
A. I do not know of any that's associated with a press tie.

Using Methodology That Is Not Generally Accepted

Q. Do you know what the scientific method is?
Q. Would you agree that the scientific method is recognized in fields of science across the scientific spectrum?
Q. Would you agree that a correct statement of the scientific method consists of the following steps?
1. Gather all of the available evidence that one can to assess a problem.
2. The second step, after you gather the relevant information, is to analyze that information using the knowledge that you bring to the task.
3. The third step is to prepare a hypothesis based on the facts that you have gathered and the analysis that you perform.
4. The fourth step is to test the hypothesis that you have created.

Q. Subjective or speculative information cannot be included in the analyses.
Q. If the hypothesis cannot stand the test of a serious challenge, it should be described as un-provable and a new hypothesis tested.
Q. At the time you reached your opinions you had not gathered/analyzed all of the relevant evidence.
Q. You did not do anything to test your hypothesis.

Giving Opinions That Are Not Generally Accepted

Q. ANSI is an agency that is involved in the creation of standards.
Q. They also test products to those standards.
Q. You recognize ANSI as an authority, correct?
Q. Do you agree that standards promulgated by ANSI are based upon research of sound engineering principles?
Q. They are based upon records of tests.
Q. They are based upon field experience.

Q. They are based upon information from manufacturers.
Q. They are based upon information from users.
Q. They are based upon information from governmental entities.
Q. ANSI Standard is a consensus standard.
Q. All those groups agreed with the standard.
Q. You are the only person who doesn't.

Giving Opinions That Lack Independent Research

Q. A design engineer is an engineer who starts from scratch with a piece of paper and a pencil to figure out some characteristic or aspect of a part.
Q. The parts that you would design would then go to a laboratory to be tested.
Q. Then they would be prototyped and further tested.
Q. You would then evaluate them and modify them as necessary.
Q. That operation and modification process is typically referred to as development.
Q. You do that to be sure it works and is safe.
Q. You have not undertaken any of those functions with regard to the design you have offered in this matter.

Conclusion

Throughout every trial, jurors are always searching for the essential meaning contained within the evidence, arguments of the attorneys, and the expert witnesses' interpretation of the facts and their opinions regarding the key issues of the case. It is thus imperative that an effective cross examination of a plaintiff's expert witness debunk the expert's credibility. Defense counsel must create an atmosphere during cross examination that enhances the likelihood the jury will discount the plaintiff's expert's testimony by showing that the expert's opinions are flawed, the expert does not know the facts of the case, the expert is biased, and finally, that the expert is not considering applicable standards.

Experts who are willing to reach a firm conclusion are deemed more readily believable by jurors. Therefore, it is important to establish that the expert's methodology/opinions are not generally accepted in the discipline involved. This can be decisive at the trial level and/or appeal.

There is no room for *speculation* or *conjecture* in connection with expert testimony under *Frye*. Indeed, speculation, surmise, and conjecture are the logical antitheses of reliable and valid premises. The "average juror" may not be able to appreciate subtle cross examination concerning complex scientific principles fully; the juror will, however, be able to recall a concession from an expert witness that his testimony is speculative. The buzz words here are surmise, conjecture, and speculation. It should, therefore, be a primary goal of the cross examiner to elicit from the witness that at least some component of his or her testimony is *speculative*, *conjectural*, *uncertain*, or *unreliable*. Whether the defense is trying the case to a jury, or attempting to convince a trial court or appellate court that the expert's testimony fails to meet *Frye*, simple admissions elicited from the plaintiff's expert may irrevocably debunk his or her testimony. FD