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Expert Evidence, the Adversary System, and the Jury

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ABSTRACT

Many assertions have been made about the competence of juries in dealing with expert evidence. I review the types of expert evidence that jurors hear and the impact of adversary legal procedure on the form and manner in which evidence is presented.

Empirical research indicates that jurors understand the adversary process, that they do not automatically defer to the opinions of experts, and that their verdicts appear to be generally consistent with external criteria of performance. Conflicts between the American adversary system and changes in trial procedures that might assist the jury in its task are also considered here.

INTRODUCTION

In the United States, many highly visible and contentious disputes are decided by a jury, a group of randomly conscripted laypersons chosen to hear evidence and render a verdict. From its inception in England to the present day, praise of the basic wisdom and good sense of juries has been countered by critics who charge them with incompetence and irresponsibility.[1] In particular, critics level charges that juries are confused or otherwise led astray by the testimony of scientific and medical experts. Much of the criticism has been based around anecdotal accounts. Claims about "junk science" in the courtroom have helped fuel this perception.[2] In *Science on Trial*,[3] a book devoted to breast implant litigation, Marcia Angell asserted that while expert medical and scientific testimony is difficult for judges, "For a jury it is especially difficult, because its members usually have no competence in the area. They are often left to make judgments largely on the basis of emotional appeals of the lawyers and their expert witnesses."

Although the Supreme Court avoided a direct discussion of jury competence in its *Daubert* trilogy of cases (other articles in this symposium review the *Daubert* trilogy of cases on expert evidence; to avoid redundancy, I do not discuss them in detail here), a 1999 federal appeals court decision in *Allison v McGahn Medical Corp*[4] may have stated the Supreme Court's implicit reasoning:

> While meticulous *Daubert* inquiries may bring judges under criticism for donning white coats and making determinations that are outside their field of expertise, the Supreme Court has obviously deemed this less objectionable than dumping a barrage of questionable scientific evidence on a jury, who would likely be even less equipped than the judge to make reliability and relevance determinations and more likely than the judge to be awestruck by the expert's mystique.

Are juries confused by expert opinions and do they surrender their fact-finding function by uncritically accepting experts' opinions? Do they rely on superficial characteristics of the expert witness rather than analyzing the reliability and validity of the testimony? How do juries fare in comparison to trial judges, who are the main alternative to the jury? Even if the jury is confused on some issues involving expert evidence, to what degree and how often does it make a difference in the ultimate verdict rendered?

In contrast to anecdote, a large body of empirical research conducted over the past 50 years has addressed issues of jury behavior and performance,[5,6] including research that speaks directly to concerns about expert evidence.[7,8]

PURPOSE, PROFILE, AND CENTRALITY OF EXPERT EVIDENCE AT TRIAL

A legal trial is not exclusively about truth in the scientific sense, but rather about the balance of contested facts and about bringing closure to a dispute.[9] In jury trials, an additional goal is to allow community standards and values of fairness and equity to be a part of legal decisions through citizen participation.[1] American law uses an adversarial procedure for settling both criminal and civil disputes that proceed to trial.[10,11] Both sides in the dispute are responsible for finding and producing witnesses to bolster their position in the dispute and presenting evidence at trial. Neither judge nor jury can independently call any evidence, even if they deem it germane to deciding the dispute. The trial is primarily oral in nature, and jurors are often prohibited from seeing the written data or authorities on which expert witnesses rely. Jurors have typically been discouraged from asking questions during trial and often from taking notes.[12,13]

The jurors do receive guidance. Opening statements by both parties outline the basic nature of the case. The judge instructs the jurors on what is and what is not evidence, about evidence that can be used only for a limited purpose, about the distinction between direct and circumstantial evidence, and about the guidelines to be used in assessing credibility of witnesses, including experts.[7] At the end of the trial, the presiding judge instructs jurors on the law they should apply in rendering their verdict.

Thus, in deference to legal policy goals of promoting autonomy for the disputing parties and other fairness issues, jurors are placed in a unique role that is different from decision-makers in almost any other setting. They are forced to be passive decision-makers, exclusively dependent on others for the evidence on which they must make their decision and the rules under which they operate.[7,11]

Experts are important witnesses in a high percentage of civil and criminal trials.[14,15] At trial, "experts" are persons who have knowledge that is "beyond the ken" of the average person. Expert opinion is not intended to supplant the jury's decisionmaking role, but rather is intended only to assist the jury in understanding certain disputed facts. To be qualified as an expert, the judge has to rule that the proposed expert has credentials making her competent to testify about a particular subject, whether the testimony is relevant to the main issues in the case and will assist the jury, and whether the impact of the testimony will be more probative than prejudicial.[9]

Debate about juries and experts often centers on examples of instances in which the expert evidence is asserted to be of great import with respect to guilt or liability, such as when a defendant's DNA matches with semen samples taken from a murder victim. In many cases, however, expert testimony is only one piece of evidence among many others that need to be weighed by the jury. Lawyers sometimes introduce expert evidence to attempt to substantiate peripheral issues in the dispute. In other instances, an expert's

opinion may be contradicted by much more compelling evidence. In one case, a woman accused of killing her husband by driving her car over him asserted that the death was an accident. An accident reconstruction expert called by the defense testified that tire track analysis indicated that the husband was struck just once. However, two eyewitnesses who saw the incident from different vantage points testified that the defendant drove her car over his body three separate times.

In short, the role of expert evidence may vary from central to peripheral in its relevance to the main issues to be decided by the jury. The expert's testimony may be exactly contrary to the testimony of another expert. Cross-examination by an opposing lawyer may uncover inconsistencies in the testimony or show it to be of marginal relevance to the disputed issues.

Recognition that expert evidence may be only one element in the dispute is recognized by jury instructions that direct the jury to consider expert evidence like other evidence, weigh it like other evidence, and evaluate it in the total context of all other evidence.[7,16]

Recognition of what the law expects and instructs jurors to do is central to evaluating claims about juror responses to experts. This is particularly true with regard to the assertion that jurors give undue attention to expert credentials and disregard other evidence. The first step is to consider what jurors are instructed to do. For example, one set of civil jury pattern instructions directs the jurors as follows:

> In deciding the facts in this case, you may have to decide which testimony to believe and which testimony not to believe. You may believe everything a witness says, or part of it, or none of it.
>
> In considering the testimony of any witness, you may take into account: (1) the opportunity and ability of the witness to see or hear or know the things testified to; (2) the witness' memory; (3) the witness' manner while testifying; (4) the witness' interest in the outcome of the case and any bias or prejudice; (5) whether other evidence contradicted the witness' testimony; (6) the reasonableness of the witness' testimony in light of all the evidence; and (7) any other factors that bear on believability. The weight of the evidence as to a fact does not necessarily depend on the number of witnesses who testify.[16]

Addtional instructions may be given in the case of experts, for example, explaining to jurors why expert opinion is allowed and how it should be weighed in the light of other evidence.[7] Jury decisions cannot be evaluated independently of the total context in which the jurors are asked to perform their task.

JURY PERFORMANCE

Agreement Between Judges and Juries

A "jury trial" is in fact a "trial by judge and jury." The judge not only provides procedural guidance and instruction to the

jury, he or she sees and hears the same evidence as the jury. Thus, one way of assessing jury performance is to ask trial judges how they would have decided the case. This was the main methodology used in Kalven and Zeisel's classic studies that were carried out in the 1950s and reported in *The American Jury*.[17] The research involved samples of over 2000 criminal trial cases and over 4000 civil trial cases. In each case, while the jury was still deliberating, the presiding judge was asked how he or she would rule in the case, to rate the difficulty of the evidence, and to indicate the degree to which the evidence favored one side over the other. The judge's "verdict" was then compared to the jury's verdict. For both civil and criminal cases, judge and jury agreed approximately 80% of the time. In the 20% of cases in which judge and jury disagreed, Kalven and Zeisel found that the disagreement was *not* related to the difficulty of the evidence as assessed by the judge, but rather to the application of different perspectives to the evidence or the application of different norms reflecting community values of fairness and responsibility.

Kalven and Zeisel's research was conducted a half century ago. Trials have arguably become more complicated and technical. It could be that the findings no longer apply. However, more recent studies conducted with approximately the same methodology led to similar conclusions.[18,19] For example, Eisenberg et al. conducted a study of 300 criminal jury cases occurring in four locations across the country in 2000 and 2001.[20] In addition to obtaining the judge's "verdict," the study obtained the judge's rating of legal complexity and both judge and jurors' ratings of evidentiary strength and evidentiary complexity.[20] Judge and jury agreement was not significantly different than that found by Kalven and Zeisel almost 50 years before. There was little support for a conclusion that legal complexity or evidentiary complexity accounted for disagreement between judge and jury. More general surveys asking national samples of state and federal judges to evaluate jury performance indicated that the overwhelming majority of judges expressed high agreement with jury verdicts.[5]

Agreement Between Juries and Independent Experts

An alternative way to assess jury performance is to measure the extent to which jury verdicts on liability agree with independent assessments by experts. In medical malpractice cases, it has been asserted by an American Medical Association working group that juries make decisions differently than doctors would make because juries do not understand the medical issues.[21] Several research studies allow an independent, albeit indirect, test of this claim.

Taragin et al. obtained access to confidential liability insurer files for lawsuits that occurred in New Jersey between 1977 and 1992.[22] In each case, whenever a medical incident that might constitute malpractice was reported to the insurance company, one or more physicians made an assessment of whether negligence had occurred. Among cases that eventually went to trial, physician ratings of whether negligence had occurred were positively related to jury verdicts at a statistically significant level. Two other similar studies yielded results consistent with the Taragin et al. findings.[23,24]

Lempert closely examined thirteen complex cases.[25] He concluded that in two of the cases, the expert

evidence was so difficult and esoteric that it is unlikely that either jurors or judges could have understood it. For the remaining cases, Lempert concluded that there was little evidence of juror irrationality, and he found no instance where the jury seemed to unthinkingly adopt an expert's conclusion as its own.

Patent cases can involve incredibly arcane technical testimony. Moore examined verdicts in all patent cases that reached trial between 1983 and 2000, a total of 533 jury trials and 676 trials by judge alone. She then compared the respective sets of verdicts with the rates with which appellate courts affirmed the trial decisions.[26] In the first part of her analysis of the data, Moore concluded the following:

> At first blush, the results of the study suggest that complaints about jury bias and incompetency are unfounded. Judges and juries decide some issues differently. For example, juries are significantly more likely to find patents valid, infringed and willfully infringed than judges. The differences, however, are not as profound and pervasive as one might expect. Judges and juries find patents enforceable with similar frequency. Additionally, juries seem as "accurate" in their decisionmaking as judges are, as measured by appellate affirmance rates.

There are usually selection biases in cases tried by judges versus those tried by juries.[27] Moore acknowledged this problem as well as the fact that drawing inferences about "accurate" decisionmaking without analysis of the trial material itself was scientifically improper. Then, however, she attempted to parse her data in different ways and concluded that juries are inferior or biased. Her conclusions are open to serious alternative explanations because of the selection problem, her reliance on verdict statistics alone, and because some of her data suggest that jury cases often revolve around "willfulness," that is, a decision that requires judgments about the motivations of human actors rather than highly technical decisions. Many of the technical issues in patent cases are decided by the judge, often with assistance from experts called "special masters." The parts of cases that juries decide involve testimony and documents that bear on the issue of whether the defendant purposefully set out to violate the patent.

Although serious challenges can be made to Moore's ultimate conclusion, especially because it is contradicted by the appellate outcome data in the first part of her analyses, her article points to one area of jury decision-making about which no reliable data exist, but in which serious prima facie challenges to the competence of juries can be made. Possibly other types of cases can be identified, but at present such studies do not exist.

Data from Systematic Juror Interviews

Schuman et al. interviewed lawyers, testifying experts, and jurors about how the juries responded to expert testimony presented in large samples of trials.[28] Schuman et al. found little evidence of superficial responses to experts. The jurors reported that the factors they considered were such things as the expert's tendency to draw firm conclusions, his or her reputation, familiarity with the facts of the case, reasoning, and appearance of impartiality, including bias associated with the party that called the expert. In summarizing the findings of their series of studies, Schuman and Champagne concluded, "We did not find evidence of a 'white coat

syndrome' in which jurors mechanistically deferred to certain experts because of their field of expertise. Instead we found jurors far more skeptical and demanding in their assessments."[29]

Vidmar conducted detailed interviews with jurors in five medical malpractice cases.[21] The interviews indicated that in four of the cases, a significant number of the jurors could articulate the main medical issues in the case and recognized the basic points made by the opposing experts. The interviews demonstrated that the jurors actively and critically evaluated the experts and their testimony. They were able to identify basic disagreements between the experts and considered the absence of evidence and incompleteness of their testimony. The jurors scrutinized possible motives behind each expert's testimony, including their fees and the possibility that defense experts might be biased to favor a fellow physician. They had a basic understanding of the burdens of proof and where the expert testimony fit into assessment of that burden.

Ivkovich and Hans conducted interviews with a sample of 269 jurors who decided cases involving business and corporate defendants.[8] They selected interviews with 55 jurors who served in one of seven trials for closer analysis, including two medical malpractice cases, two workplace injury cases, a product liability case, an asbestos case, and a motor vehicle case. At the outset of the trial most jurors expressed some reservations about experts. The majority of the jurors tried to critically evaluate the content of the expert testimony by looking at its completeness, consistency, and complexity. The jurors did pay attention to the presentation style of the expert, but primarily in the sense of the expert being able to coherently present a clear position. Ivkovich and Hans concluded that the criteria that jurors used to evaluate experts were substantially the same ones that judges and lawyers use. Jurors evaluated both the messenger and the message. Thus, claims that jurors attend only to subjective and superficial characteristics of expert testimony vastly oversimplifies jurors' complex evaluation processes.

Several case studies of complex trials have led the authors of those studies to conclude that the jurors did not understand epidemiological and other evidence that was tendered at trial.[30–32] Yet, on the whole, interview studies, including those that found juror inadequacies, have reached common conclusions. These studies have shown that, regardless of difficulties and complexity of evidence, jurors as a group take their tasks seriously. They clearly understand the nature of the adversary system and recognize the potential bias in testimony that may result from it. Most of the evidence suggests that jurors attempt to evaluate the testimony on its merits rather than deferring to an expert's credentials, likeability, or other peripheral factors. Furthermore, jurors' responses to experts appear to be complex and nuanced.

Jury Simulation Experiments

Experimental research involving simulating jurors has shed light on particular issues relating to jury performance through its ability to isolate variables and contrast them with control conditions. There is an extensive body of simulation research bearing on juror responses to experts that has been reviewed elsewhere.[7,8,33] A brief summary of some of those findings serves as an important supplement to the field research reported above.

Responses to statistical and other technical evidence. The Bendectin cases in the civil justice system and criminal trials involving DNA evidence are reminders that some forms of expert evidence involve estimates that the likelihood of entity X is or is not associated with entity Y. Similar problems are encountered with evidence involving fiber or fingerprint matches, epidemiological evidence, and estimates of lost market share.

A small body of research evidence suggests that simulating jurors are not very competent in using probability estimates when they are presented in the form of abstract evidence bearing on guilt or liability.[7] Koehler et al.[34] and Schklar and Diamond,[35] for example, conducted experiments showing that mock jurors were likely to give less than optimal weight to the possibility of a laboratory error when it was accompanied by low random match probability. These studies suggested that the results were partly because the jurors did not understand probabilities of error in the match and probabilities of error in the laboratory. All of these studies, as the authors cautioned, lacked the rich context of a real trial and the jurors did not deliberate. Nevertheless, the data raise interesting issues that require further exploration.

In a series of simulation studies that realistically mimicked actual trial processes, ForsterLee et al. found that written summaries of complex evidence assisted jurors in understanding the testimony compared with control subjects who did not have this information.[36,37] They found that the jurors considered the totality of the evidence when attempting to decide issues, especially general causation.[38,39] Diamond and Casper conducted an experiment in which expert estimates about damages were presented in one of two forms, by a regression model or by a more cognitively concrete "yardstick" model.[40] The jurors showed reasonably good comprehension of both forms of testimony, but the abstract regression model testimony was more difficult to understand than the concrete form of testimony.

Psychiatric experts. Psychiatrists and other mental health professionals testify in many trials regarding issues of insanity, diminished capacity, and other mental states. Finkel has drawn attention to the fact that legal concepts such as insanity and self-defense are often at variance with laypersons' understanding of mental states.[41] A number of experiments varying the amount, type, and form of psychiatric testimony suggests that while jurors consider the testimony to evaluate mental states, beliefs about mental states held prior to trial often override or modify interpretations of that evidence.[7,42,43] In interviews with jurors who decided death penalty cases, Sundby found that they reported expressly ignoring the testimony of mental health experts when it differed substantially from their own preconceived notions of abnormal mental or emotional behavior.[44] Finkel's program of research contains additional experiments and studies showing that expert evidence that bears on mental states is interpreted in light of jurors' own social-cognitive schemata about what constitutes abnormal behavior.[44]

Social framework testimony. One of the fastest growing forms of expert evidence involves what has been labeled "social framework" testimony.[45] This category of expert evidence encompasses testimony about eyewitness reliability, battered woman syndrome, rape trauma syndrome, child sex abuse syndrome, a host of other post-trauma stress disorders, and reactions to discrimination or harassment. In contrast to

psychiatric testimony, which is based on a diagnosis of a particular individual or individuals, the evidential base of social framework testimony involves the application of general research studies about mental states that are similar to the conditions at issue for a litigant. Thus, for example, an expert testifies about conditions under which witnesses in general do not have reliable perception, about studies showing that many women do not immediately report a rape or that children recant testimony, or about typical responses to sexual harassment. The legal rationale for allowing the testimony is that jurors may hold beliefs or stereotypes that are inconsistent with the bodies of research findings. It is assumed that the expert's knowledge will assist them in making judgments about the credibility of civilian witnesses. However, some courts and legal scholars have voiced concerns that such testimony may be more prejudicial than probative. Some fear that it may cause jurors to defer entirely to the expert, ignore other evidence that may be contrary to expert testimony, or be confused by a "battle of experts."

Many studies have been conducted on juror reactions to social framework testimony.[46] The research findings indicate that jurors use the information conveyed by social framework experts in the limited way that the law expects them to use it. This is particularly true when evidentiary rules restrict the testimony to general education and prevent the expert from making judgments about the ultimate issues that are properly decided only by the jury.

The Performance of Legal Professionals in Simulation Experiments

The experimental studies do raise some questions about juror abilities. Jurors do not perform well when faced with abstract tests of their statistical and methodological reasoning ability. These findings, however, should not be viewed independently of the question of how legally trained persons respond to the same types of tasks.

Kovera and McAuliff [48] provided a sample of 144 Florida circuit judges with the abbreviated version of an award-winning sexual harassment study. Most of the judges were not sensitive to factors that affect the validity of such research. Judges who had had some training in scientific methods tended to perform better than those who did not, but many of them were not sensitive to such obvious methodological problems as lack of control groups or experimenter bias.

Wells conducted experiments to test the ability of laypersons to make probability inferences from basic statistical data.[49] The jurors did not perform very well on the tasks. However, Wells also gave the same tasks to a sample of judges and found that they performed at approximately the same level as laypersons. Guthrie et al. conducted an experiment with 167 federal magistrate judges.[50] The judges were asked to make judgments about five types of situations in which laypersons and many professionals have been shown to make cognitive judgment errors by relying on the mental shortcuts that psychologists call "heuristics." The judges were susceptible to these errors in all five situations, and on three out of the five they performed no better than laypersons and persons from other professions.

Gatowski et al. surveyed 400 state trial court judges representing all 50 states about their understanding of

the basic scientific criteria outlined in *Daubert*.[51] Their data are generally consistent with the simulation studies. Only 4% of the judges could give a clear explanation of "falsifiability," and 35% gave answers that were unequivocally wrong. Only 4% could explain error rate, and 86% gave answers that were unequivocally wrong.

In short, simulation experiments showing that jurors are prone to statistical and methodological errors need to be compared to real-world settings involving the full richness of trial, including cross-examination of the experts who present the evidence. In addition, the findings need to be contrasted with the alternative, namely having judges make those decisions. When judges and other legal professionals are given similar tasks, they also do not perform well. The fact that judges can sometimes take more time to consider decisions or consult authorities must be weighed against the fact that juries are composed of between six and twelve persons who can pool their perspectives and insights.

Some Examples of Juries at Work

Legal expectations for jurors include the following psychological assumptions: they are collectively capable of understanding the substance of the evidence, they will be motivated to do so, they will apply their respective life experiences to interpreting that evidence, they will follow the judge's instructions on how the evidence is applied under the law, and they will collectively render a verdict from all of the above.[7] The various studies summarized above give a generally positive picture of the ability of juries to deal with expert testimony, but additional insight can be gained by studying real juries at work.

The Arizona Jury Project involved a unique study that videotaped the jury room discussions and deliberations of 50 actual civil juries.[52,53] In addition, the trial itself was videotaped and most of the documentary evidence was copied. The data provide important insights into the thinking and interactions of jurors with respect to experts.

Questions to expert witnesses. During trials, jurors had many questions about expert evidence. The questions were in written form and vetted by the judge before they were put to witness. The degree of question-asking varied across trials, but 94% of juries asked at least one question during trial. The number of questions per trial varied from 0 to 110; more questions tended to be asked in complex and longer trials. The following are some selected questions about expert testimony.

In one case, the plaintiff asserted severe back and leg pain from an injury. He had pre-existing injuries and health problems. The treating physician and another physician testified for him regarding tests performed and prescribed treatment. Jurors asked the following questions of a medical expert:

> Why no medical records beyond the two years prior to the accident? What tests or determination besides subjective patient's say so determined [your diagnosis of] a migraine? What exact symptoms did he have regarding a migraine? Why no other tests to rule out other neurological problems? Is there a measurement for the amount of serotonin in his brain? What causes serotonin not to work properly? Is surgery a last resort? What is indothomiacin? Can it

> cause problems if you have prostate problems?[54]

In an automobile injury case, an overweight plaintiff alleged injury to her knee that required surgery. Her diagnostic radiologist testified and so did an accident reconstruction expert. The radiologist was asked the following questions by jurors:

> Did you see the tears in the meniscus? Do you see degeneration in young people and what about people of the plaintiff's age? Is a tear in the meniscus a loosening, lack or gash in the cartilage? Can you tell the age of a tear due to an injury? Can you see healed tissue in an MRI? Do cartilage tears heal by themselves? Can healed tears appear younger than they really are?[54]

A defense medical expert in the same case was asked the following:

> Could the plaintiff have sustained a blunt meniscal tear during the accident? Could one tear cause another tear?[54]

Questions to the plaintiff's accident reconstruction expert in that case included the following:

> Not knowing how she was sitting or her weight how can you be sure she hit her knee? Would these factors change your estimate of 15 ft/sec travel speed? If a body in motion stays in motion, and she was continuing motion from prior to the impact, how did this motion begin and what do you base this on? How tall is the person who sat in your exemplar car to reconstruct the accident and how heavy was he? What is the error in your 10 mph estimate? Is the time of 50–70 milliseconds based on an estimate of the size of the dent? Do you conclude that the Olds was slowed and pushed to the left by the Lincoln and [if so] how would the plaintiff move to the right and forward?[54]

Bearing in mind that these are selected examples, they nevertheless are consistent with conclusions of post-trial interview studies indicating that jurors attend to the content of expert testimony.

Juror interaction processes. Section II introduced jury instructions, including instructions to apply "tests that are used in everyday life" and "in the light of reason, common sense and experience." A substantial body of experimental simulation research has demonstrated that, consistent with these admonitions, jurors use their past experience to filter and understand the evidence presented at trial. They then develop alternative explanations, or "stories" about the various contested issues at the trial. These alternative stories are subsequently weighed against one another under the legal criteria set forth by the judge.[7,55]

The Arizona data from real juries illustrates how jurors put the pieces together. Jurors interactively review, interpret, evaluate, and speculate about the evidence.

Example 1 (a motor vehicle trial; discussion of medical testimony)

Juror 2: When did the independent medical exam occur?

Juror 7: July 1998.

Juror 2: Right.

All jurors talking at once.

Juror 3: And [plaintiff] had all of those prior injuries he didn't disclose.

Juror 2: I thought that was weird. It wasn't like they had to go to different doctors. It was all in one file.

Juror 5: It's not unusual for doctors to disagree.

Juror 7: His [treating doctor's] ability to treat patients seems to just prescribe more drugs.

Juror 2: It is just my opinion but [the plaintiff's] doctor wasn't very good, and at least this witness today [another doctor] knew. . .

Juror 6: I would like to see exhibit A again, which was the medication chart. I just want to see what happened after the accident.[54]

Example 2 (jurors discussing the conflicting opinions of two experts in another accident case)

Juror 1: [Explaining the expert engineer's testimony] If you're rear-ended, the first thing you do. . .

Jurors 5 and 7 interrupt: You go backwards.

Juror 1: You go backwards, but then you get the recoil going forward. And that's when the seatbelt catches you and stops you. What [the experts are] having arguments on. . .

Juror 7: Is whether he went forward first?

Juror 1: Is, one . . . did [the plaintiff's car] go forward instantly? Did it accelerate? If it accelerated, you get the same thing . . . it's like you've been rear-ended: You're going to go back first and then go forward, recoil. If you all of a sudden decelerate, that means the car keeps going forward, I mean, the car also stops, but you're going to keep on going forward. And that's when you're going to hit. And the engineer was claiming that the time before they actually hit, when they crumpled each other and then when they started to turn, the time it took the crumple, the car was absorbing energy and . . .

Juror 5: That's when he went forward.

Juror 1: He had enough time to go forward, before the car started turning. That's why when I asked those questions, he said "No, no, he'll have time to go forward and [injure himself] before he starts going forward and backwards," which I don't know is truly the case.

Juror 5: But I think the question we were hearing from the other side is: if the hit was like this [hands are indicating diagonal impact at side of car], doesn't the [striking car] contribute some more energy to that sort of general forward movement in the car? Because it's not at right angles, and it's not head-on.

Juror 1: My general impression is that that's true. If you have something going at an angle [makes same diagonal diagram with his hands], you have some motion going perpendicular to the car and you have some motion going along the car. And when you get hit, you get shoved [hands indicate motion to the side] and you also get shoved forward. And, at least for a short while, before friction, your car would actually go forward for a little while as it got hit, and you would go back. And that's why I was asking him and I was, like, "That seems a little strange." And he's saying there's something actually happening in between, while it's crumpling. And he didn't make that particularly clear. Hopefully we can read his report [Juror 5 agrees]. Because they keep referring to all the reports, and I say: Give me the dumb report and we'll read it.[54]

A third example involves jurors attempting to understand the plaintiff's pre-accident medical condition in the light of civilian and expert testimony and their own world experience.

Example 3

Juror 4: The witness started to say something about her insurance and then dropped it. So there are a lot of things we may never find out about.

Juror 5: That was a lot of force [that struck plaintiff].

Juror 8: Oh yeah, that's what I was thinking.

Juror 4: And you know how hard her work is.

I have no doubt this woman has pain.

Juror 8: That whole issue of degenerative disk disease. She probably has it but it should not factor in . . . and if she was in the type of pain she was in yesterday . . . [referring to a life in the day of plaintiff videotape.]

Juror 2: Yes, if that was really her level, geez . . .

Juror 8: I have a friend who is going in for back surgery and his pain varies from day to day. I mean it will be interesting to watch the whole videotape. Are we going to watch the whole

thing?

Juror 3: A lot of people go to work with fused backs.

Juror 1: Doesn't this degenerative back disease really hurt her chances? I mean they have not really proved to me that this was one instance that caused her back problem.

Juror 8: Well, I think that at the end the judge will instruct us on what to consider and what not to. We haven't seen the whole thing yet.

Juror 1: I thought the doctor's testimony was most useful. I mean, her daughter could never have seen what actually happened.[54]

These examples clearly demonstrate real jurors actively attending to the content of expert and other evidence during trial. They also demonstrate the processes by which jurors pool their perspectives in attempts to understand evidence.

CONCLUSIONS

Claims about jury incompetence, irresponsibility, and bias in responding to expert evidence is not consistent with a review of the many studies that have examined these issues from various methodological perspectives. Moreover, critics often simplistically ignore the fact that jurors are given explicit instructions to attend to expert credentials as part of their evaluation of credibility, that rules of evidence often limit the scope of expert opinions, and that trials under the adversary system allow each side to cross-examine witnesses, call opposing witnesses, and make final arguments about the meaning of expert evidence. The critics' assertions ignore legal instructions to the jurors that call for assessing the expert evidence in light of other evidence. With respect to this last factor, as discussed earlier, it is often the case that the expert testimony is not dispositive of all the contested facts at trial. Furthermore, critics tend to ignore the fact that jury verdicts are a result of a deliberation process in which jurors pool their collective wisdom and perspectives on the evidence.

Critics also tend to ignore the reality that problems in understanding the evidence often lie with the experts who present that evidence or with the lawyers who provide the experts and orchestrate their testimony before and during trial. Criticisms of juries downplay the fact that, despite their legal training and experience, judges—the alternative to juries—may lack the scientific training to understand certain evidence and may be susceptible to the same biases. Juries, composed of between six and twelve persons, have the advantage of collective perspectives and evaluation of the evidence.

This leads to a final observation. Critics of the jury system, including those who claim scientific expertise

and objectivity in their own professional realms, have relied exclusively on anecdotes and appeals to "common sense" rather than on systematically collected data in making their assertions that juries cannot competently deal with expert evidence. More research needs to be conducted on the subject, and it may well turn out that juries may not perform as optimally as a judge with respect to some types of expert testimony. Nevertheless, the existing body of research, and it is a substantial body, indicates that juries do generally perform the assigned tasks well and that the claims that juries simply defer to experts are without foundation.

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Footnotes

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