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Juror Questions During Trial: A Window into Juror Thinking

Shari Seidman Diamond, Mary R. Rose

Beth Murphy, Sven Smith

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Allowing jurors to submit questions for witnesses during trial provides a potentially valuable tool for jurors, as well as a window into juror thinking. Our study of juror questions is based on a close examination of the 829 questions jurors submitted during 50 civil trials and the videotapes of the jury deliberations in those cases. The vast majority of the juror questions demonstrate a problem-solving approach consistent with the jurors' role as fact-finders, rather than as advocates. Jurors use questions to thread their way through the conflicting evidence presented at trial and produce a plausible account of the events that led to trial. Their questions generally do not add significant time to trials. Jurors tend to focus their questions on the primary legal issues in the cases and to direct them to witnesses providing testimony on central issues. A substantial number of juror questions reflect efforts to clarify witness testimony and fill in gaps, but, in addition, almost half of the questions enlist an approach we call "Cross-Checking". "Cross-Checking" occurs when jurors use a process of comparison to evaluate the credibility of witnesses and the plausibility of accounts offered during trial. Discussion regarding answers to juror questions does not dominate deliberations. Rather, the answers to juror questions appear to supplement and deepen juror understanding of the evidence. In particular, the questions jurors submit for experts reveal efforts to grapple with the content, not merely the trappings, of challenging evidence. Few juror questions suggest an effort to prove a point rather than to gather information.

The procedures used to guide the questioning process can be crucial. Drawing upon observations of juries in Arizona and the federal Seventh Circuit, we describe procedures to optimize the use of juror questions.

Juror Questions During Trial: A Window into Juror Thinking⁺

Shari Seidman Diamond,^{*} Mary R. Rose,^{**}
Beth Murphy,^{***} & Sven Smith^{****}

I.	CLAIMS ABOUT THE BENEFITS AND COSTS OF PERMITTING JUROR QUESTIONS	1931
II.	THE ARIZONA FILMING PROJECT	1935
A.	<i>Background of the Project</i>	1935
B.	<i>Selection of Jurors and Cases</i>	1936
C.	<i>The Videotaping Procedures and Data Collection</i>	1936
D.	<i>The Final Sample of Cases</i>	1937
E.	<i>The Data</i>	1938

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	1.	The Trials	1938
	2.	Juror Questions	1938
	3.	Data from the Jury Room.....	1938
III.		JUROR QUESTIONS AND ANSWERS.....	1938
	A.	<i>Witnesses and Questioning Patterns</i>	1938
		1. Witness Testimony	1938
		2. Patterns in Juror Questioning	1939
		3. Time Spent During Trial on Juror Questions	1941
	B.	<i>Juror Talk about Questions in the Jury Room</i>	1942
	C.	<i>Answers about Questions: What Jurors Ask</i>	1946
		1. Legal Issues	1949
		2. Juror Evaluation of Contested Facts: Credibility Assessment and Cross-Checking.....	1954
		3. Questioning Experts.....	1962
		4. Argumentative Juror Questioning	1964
IV.		STRIKING A BALANCE: PROCEDURES FOR HANDLING JUROR QUESTIONS.....	1965
	A.	<i>Too Many Questions?</i>	1967
	B.	<i>Too Few Questions?</i>	1969
	C.	<i>Appropriate Questions and Court Intervention?</i>	1970
V.		CONCLUSION.....	1971

The jury has undergone a dramatic transformation from its earliest incarnation when jurors acted as witnesses, investigators, and tribunal. In the modern American jury trial, the parties determine what jurors learn during the proceedings. Jurors of today, assigned the role of audience members until deliberations begin, typically speak in the courtroom only during jury selection and through their verdict at the end of the trial. In light of their enforced silence throughout the trial, jurors have no opportunity to clarify or check on their interpretation of the evidence and they provide few external indications about their thinking as the trial unfolds. Although post-trial juror interviews and jury simulations contribute to our understanding of how jurors react to evidence, these indirect sources are not the "on-line" reactions of jurors during trial. The modern veil on juror participation that conceals juror thinking during trial, however, is being lifted partially in a small, but increasing, number of American courtrooms. In these courtrooms, jurors are permitted to submit questions for witnesses during trial. The questions that the jurors submit provide a unique window into juror thinking during the trial.

The practice of allowing juror questions during trial was familiar at common law,¹ but fell into disuse over time. The 2005 ABA Principles for Juries and Jury Trials recently endorsed it,² and a few states now even require judges to tell jurors that they may submit questions during trial.³ Most jurisdictions, however, leave the choice to the judge's discretion⁴ and several explicitly forbid juror questions during trial.⁵ Current general practice in jury trials is to limit juror questions to those submitted to the judge during deliberations. In a recent national survey of jury trials conducted in the past twelve months, judges and attorneys reported that juror questions during trial were permitted in 15% of state and 11% of federal trials.⁶

Proponents of allowing juror questions suggest that the opportunity to submit questions will enhance juror comprehension and encourage deeper involvement by jurors so that they pay more attention to the proceedings.⁷ Opponents argue that permitting juror questions may upset the adversary system, delay the trial process, distract juries, and cause jurors to "assume the role of advocates and lose their impartiality."⁸ Moreover, judges sometimes express concern

1. *United States v. Bush*, 47 F.3d 511, 514-15 (2d Cir. 1995).

2. AMERICAN BAR ASSOCIATION, PRINCIPLES FOR JURIES & JURY TRIALS, Principle 13(C) (2005) ("In civil cases, jurors should, ordinarily, be permitted to submit written questions for witnesses. In deciding whether to permit jurors to submit written questions in criminal cases, the court should take into consideration the historic reasons why courts in a number of jurisdictions have discouraged juror questions and the experience in those jurisdictions that have allowed it.").

3. *E.g.*, ARIZ. R. CIV. P. 39(b)(1); ARIZ. R. CRIM. P. 18.6(e); *Ashba v. State*, 816 N.E.2d 862, 866 (Ind. Ct. App. 2004) (construing IND. R. EVID. 614(d)); *see* COLO. R. COUNTY CT. CIV. P. 347(u) ("Jurors shall be allowed to submit written questions to the court for the court to ask of witnesses during trial . . ."); COLO. R. CRIM. P. 24(g); *Medina v. People*, 114 P.3d 845, 851-52 (Colo. 2005) ("[S]everal states specifically provide for juror questions in court rules or state statute.").

4. *E.g.*, *Bush*, 47 F.3d at 514-15; *People v. Bacic*, 608 N.Y.S.2d 452, 452 (N.Y. App. Div. 1994); *State v. Doleszny*, 844 A.2d 773, 786 (Vt. 2004).

5. *State v. Costello*, 646 N.W.2d 204, 214-15 (Minn. 2002) (criminal); *Wharton v. State*, 734 So. 2d 985, 990 (Miss. 1998) (criminal); *State v. Zima*, 468 N.W.2d 377, 380 (Neb. 1991) (criminal and civil); *Morrison v. State*, 845 S.W.2d 882, 889 (Tex. Crim. App. 1992) (criminal).

6. E-mail from Paula Hannaford-Agor, Director, Center for Jury Studies, National Center for State Courts, to author (Sept. 21, 2006) (on file with author) (State of the States survey results on 11,752 trials: state courts: criminal = 14%, civil = 16%; federal courts: criminal = 11%, civil = 11%).

7. *E.g.*, B. Michael Dann, "Learning Lessons" and "Speaking Rights": *Creating Educated and Democratic Juries*, 68 IND. L.J. 1229, 1253 (1993); MARY DODGE, SHOULD JURORS ASK QUESTIONS IN CRIMINAL CASES? A REPORT SUBMITTED TO THE COLORADO SUPREME COURT'S JURY SYSTEM COMMITTEE 2 (2002), <http://www.courts.state.co.us/supct/committees/juryreformdocs/dodgereport.pdf> (last visited Sept. 10, 2006).

8. DODGE, *supra* note 7, at 2; *see United States v. Ajmal*, 67 F.3d 12, 14 (2d Cir. 1995) ("When acting as inquisitors, jurors can find themselves removed from their appropriate role as neutral fact-finders. If allowed to formulate questions throughout the trial, jurors may

that jurors will hold it against one of the parties if the judge does not permit the witness to answer a juror's question.⁹ Our purpose here is two-fold. First, we evaluate juror use of procedures that enable them to submit questions during trial in light of the predictions of proponents and critics of the procedures. Next, we analyze what juror questions reveal about how jurors think. To understand how jurors use the opportunity to submit questions and the role that jurors' questions and answers play in deliberations, we examined the 829 juror questions submitted in 50 civil jury trials in Arizona, where the opportunity to submit questions is mandated by court rule.¹⁰

The questions submitted by jurors in these trials open a unique window on juror reasoning because we have not only the questions, but also videotapes of both the trial testimony and the jury deliberations for these cases. The few previous researchers who have analyzed juror questions submitted during trial or deliberations have not had direct access either to the trial testimony that stimulated the questions or to jury deliberations.¹¹ As a result, earlier analyses were based solely on information that could be gleaned from the questions on their face. It was not possible, for example, to identify the target of a juror question (e.g., a particular party or expert) unless the content of the question made that clear. Without the context from the trial, a question like one we observed in the Arizona Filming Project—"How tall is Mr. X?"—would be difficult to interpret or categorize (in this instance, it was a question for an expert who used Mr. X as a model for the plaintiff in reconstructing the effect of the accident). Moreover, even with the benefit of the trial context, juror questions by themselves may provide only an ambiguous glimpse into juror thinking. Here we were able to look for further insights from a close

prematurely evaluate the evidence and adopt a particular position as to the weight of that evidence before considering all the facts. The practice also delays the pace of trial, creates a certain awkwardness for lawyers wishing to object to juror-inspired questions, and runs a risk of undermining litigation strategies." (citations omitted)).

9. N. Randy Smith, *Why I Do Not Let Jurors Ask Questions in Trials*, 40 IDAHO L. REV. 553, 564 (2004).

10. The Arizona rule authorizing the practice of juror questioning in civil cases specifies that "Jurors shall be permitted to submit to the court written questions directed to witnesses or the court. Opportunity shall be given to counsel to object to such questions out of the presence of the jury. Notwithstanding the foregoing, for good cause the court may prohibit or limit the submission of questions to witnesses." ARIZ. R. CIV. P. 39(b)(10). Consistent with this language, the standard practice in Arizona is to permit juror questions, and jurors were so instructed in all 50 of the cases we studied.

11. E.g., Nicole L. Mott, *The Current Debate on Juror Questions: "To Ask or Not to Ask, That Is the Question,"* 78 CHI.-KENT L. REV. 1099, 1111-12 (2003) (examining juror questions collected by judges and post-trial surveys of jurors, judges and attorneys reporting on their experience with juror questions).

analysis of the jurors as they discussed (or did not discuss) the topic dealt with in the question during their deliberations.

We begin in Part I by considering the claims made by supporters and opponents of permitting juror questions during trial in light of previous research on juror questions. We also provide a preview of the results from our study of juror questions submitted in Arizona. Part II describes the data from the Arizona Filming Project. In Part III, through the lens of the 829 questions that jurors submitted in the Arizona Project and an analysis of their use during deliberations, we present a picture of how jurors go about analyzing and evaluating the conflicting evidence that is presented in a trial. Our results show that juror questions generally do not add significant time to trials and tend to focus on the primary legal issues in the cases. Jurors not only use questions to clarify the testimony of witnesses and to fill in gaps, but also to assist in evaluating the credibility of witnesses and the plausibility of accounts offered during trial through a process of cross-checking. Talk about answers to juror questions does not dominate deliberations. Rather, the answers to juror questions appear to supplement and deepen juror understanding of the evidence. In particular, the questions jurors submit for experts reveal efforts to grapple with the content, not merely the trappings, of challenging evidence. Moreover, jurors rarely appear to express an advocacy position through their questions. Part IV addresses situations in which permitting juror questions can raise difficulties for both courts and jurors. Based on the results from Arizona, where the state courts regularly permit juror questions, and the experience with juror questions in federal trials in the recent Seventh Circuit Pilot Project, we show that such situations rarely arise and suggest ways to limit their occurrence and control them when they do occur. Finally, in Part V we conclude with some observations about the jury, as revealed in juror questions.

I. CLAIMS ABOUT THE BENEFITS AND COSTS OF PERMITTING JUROR QUESTIONS

The primary claim made in favor of permitting juror questions is that it promotes juror understanding of the evidence.¹² To the extent that jurors are like students in their attempts to understand the material presented to them at trial, answers to juror questions, like those given to students in a classroom, offer the opportunity to correct sources of confusion, clarify misunderstandings, and improve

12. Dann, *supra* note 7, at 1253.

comprehension and recall. Some support for this proposition comes from a national field experiment in which 160 cases in 33 states were randomly assigned to permit or not permit juror questions.¹³ Jurors who were permitted to submit questions rated themselves as better informed than those who were not permitted to submit questions.¹⁴ Similarly, in a Colorado field experiment involving 239 criminal trials, jurors who were permitted to submit questions were more likely to agree that they had sufficient information to reach a correct decision.¹⁵

Another potential advantage of juror questions is that they can signal to counsel, as they do to an instructor in a classroom, that some issues need to be addressed further. It is unclear how often this occurs, but judges who have permitted juror questions¹⁶ and attorneys who have tried cases in which questions were permitted¹⁷ report instances in which the juror questions assisted attorneys in presenting their cases clearly. Similarly, judges report that jurors appear more attentive and involved when questions are permitted.¹⁸ Both judges and attorneys who have experimented with juror questions have generally become more enthusiastic about permitting juror questions after trying out the procedure.¹⁹ Jurors also appreciate having the opportunity to submit questions.²⁰

Critics of juror questioning have suggested that permitting juror questions might upset court decorum and consume unnecessary court time. The procedures described below in Part III were designed to prevent any disruption from the addition of juror questions. Prior estimates of the amount of time added when jurors can submit questions during trial have varied. Respondents surveyed in a pilot test in New Jersey estimated that questions added on average thirty

13. Larry Heuer & Steven Penrod, *Juror Notetaking and Question Asking During Trials: A National Field Experiment*, 18 LAW & HUM. BEHAV. 121, 122 (1994).

14. *Id.* at 142-43.

15. DODGE, *supra* note 7, at 40.

16. See, e.g., Warren D. Wolfson, *An Experiment in Juror Interrogation of Witnesses*, CHI. B. ASS'N REC., Feb. 1987, at 12, 17.

17. Howard Ross Cabot & Christopher S. Coleman, *Arizona Jury Reform: A View from the Trenches*, ARIZ. J., April 1999; Bill Hethcock, *Lawyers Glad Jurors May Query Witnesses*, THE GAZETTE (Colorado Springs), Jan. 3, 2006.

18. See, e.g., Mark Frankel, *Judge Frankel on Jurors Questioning Witnesses*, 60 WIS. B. BULL. 23, 24 (1987).

19. See, e.g., Leonard B. Sand & Steven Alan Reiss, *A Report on Seven Experiments Conducted by District Court Judges in the Second Circuit*, 60 N.Y.U. L. REV. 423, 476 (1985); see also Gregory E. Mize & Christopher J. Connelly, *Jury Trial Innovations: Charting a Rising Tide*, 41 CT. REV. 4, 5-6 (2004) (providing a review of findings from several studies).

20. Larry Heuer & Steven Penrod, *Increasing Juror Participation in Trials Through Note Taking and Question Asking*, 79 JUDICATURE 256, 260-62 (1996).

minutes per trial.²¹ Estimated time added by juror questions during trial was higher in a Colorado study in which judges specifically informed jurors at the end of each witness's testimony that the court would allow time for them to prepare and submit questions.²² In both instances, the measures were estimates based on the survey responses from case participants rather than actual counts, so it is difficult to know how accurate they were. Moreover, the procedures used in the New Jersey and Colorado studies differed, and the procedures that courts use in permitting juror questions are likely to influence both the number of questions jurors submit and the amount of time the questions take.²³ For example, if the judge uses a sidebar to consult with the attorneys in the courtroom but outside the hearing of the jury, the jury need not be excused during the process and the procedure consumes little additional time. However, if the judge sends the jury out of the courtroom while the judge confers with the attorneys, additional time is required. The Arizona Filming Project, *infra*, enabled us to more directly measure the time required to handle juror questions. Our results closely track the New Jersey estimates.

A separate set of concerns raised about permitting juror questions is that jurors may react unfavorably if their questions are not answered.²⁴ Do jurors take offense or experience unnecessary embarrassment when their questions are not answered? Do jurors draw inappropriate inferences when the court does not allow a juror question? Juror surveys find no evidence to support these concerns,²⁵ but these self-reports about socially undesirable reactions may not fully capture what occurs in the jury room. The Arizona Filming Project, however, made it possible for us to examine the questions that jurors submitted during trial that the judge did not allow and to assess how jurors actually reacted when a question was not answered. We found that jurors generally were philosophical, only rarely expressing surprise, let alone offense, when the judge did not answer or permit witnesses to answer a question.²⁶

Finally, critics have expressed concern that jurors given the opportunity to submit questions may become argumentative, lose their

21. BARBARA BYRD WECKER ET AL., A REPORT BY THE JURY SUB-COMMITTEE OF THE SUPREME COURT'S CIVIL PRACTICE COMMITTEE 6 (2001), <http://www.judiciary.state.nj.us/reports/civappa.pdf> (last visited Sept. 10, 2006).

22. See DODGE, *supra* note 7, at 33.

23. See *infra* Part V.

24. See Smith, *supra* note 9, at 564.

25. See, e.g., Heuer & Penrod, *supra* note 20, at 260-61.

26. Shari Seidman Diamond et al., *Jurors' Unanswered Questions*, 41 CT. REV. 20, 27 (2004).

objectivity and become advocates. These critics argue that jurors may be transformed by the procedure, changing from neutral triers of fact who refrain from any evaluation of the merits of each side's case until the end of the trial to zealous quasi-attorneys who are aligned early in the trial with one side or the other. Neither of these contrasting images of the juror comports with what research has shown about how jurors and juries decide cases.²⁷ Jurors do not simply record and store the evidence for later use as they receive it. Rather, they actively select and organize the trial evidence to construct an account of how and why events unfolded as they did. They form impressions as they are exposed to the evidence, although those impressions may change over the course of the trial as new evidence is presented. As our close look at juror questions and the way they are used during deliberations reveals, jurors focus primarily on how to thread their way through the conflicting evidence presented at trial to produce a plausible account of the events that led to trial. They use their questions to get information based on sources the jurors conclude are likely to be reliable. Their questions seek additional and clarifying information, explore the plausible alternative explanations for the events that produced the dispute they are charged with resolving, and reflect attempts to identify additional indicators that will enable the jurors to evaluate the quality of uncertain sources. Few juror questions reveal efforts to prove a point rather than to gather new information.²⁸

To examine in detail the role played by juror questions during trial and jury deliberations, we turn now to the juries in the Arizona Filming Project.

27. See, e.g., W. LANCE BENNETT & MARTHA S. FELDMAN, RECONSTRUCTING REALITY IN THE COURTROOM: JUSTICE AND JUDGMENT IN AMERICAN CULTURE 64-65 (1981); Shari Seidman Diamond & Jonathan D. Casper, *Blindfolding the Jury to Verdict Consequences: Damages, Experts, and the Civil Jury*, 26 LAW & SOC'Y REV. 513, 557 (1992); Shari Seidman Diamond et al., *Juror Reactions to Attorneys at Trial*, 87 J. CRIM. L. & CRIMINOLOGY 17, 43 (1996); Nancy Pennington & Reid Hastie, *A Cognitive Theory of Juror Decision Making: The Story Model*, 13 CARDOZO L. REV. 519, 519 (1991); Nancy Pennington & Reid Hastie, *Explaining the Evidence: Tests of the Story Model for Juror Decision Making*, 62 J. OF PERSONALITY AND SOC. PSYCHOL. 189, 189 (1992); Dan Simon, *A Third View of the Black Box: Cognitive Coherence in Legal Decision Making*, 71 U. CHI. L. REV. 511, 583 (2004).

28. See *infra* Part IV.C.4.

II. THE ARIZONA FILMING PROJECT

A. Background of the Project

In 1995, Arizona introduced a controversial rule permitting juror discussions about the evidence during the trial.²⁹ This rule constituted a break with the traditional practice of admonishing jurors to refrain from all case discussion until the end of the trial. Under Rule 39(f) the court informs the jurors that they can discuss the evidence amongst themselves in the jury room during the trial. To assist in evaluating the innovation, in 1998, the Arizona Supreme Court sanctioned a videotaping experiment in the Pima County Superior Court in Tucson. In the experiment, cases were assigned to one of two conditions. Jurors either were told that they could discuss the case during breaks in the trial or they were told that they should refrain from any discussion of the case until the end of the trial. As part of the evaluation, we were authorized to videotape the juror discussions and deliberations in these trials.³⁰

The project required an elaborate set of permissions and security measures. In addition to the judges who agreed to participate in the project, the jurors, litigants, and attorneys in each case in the study had to give their consent.³¹ All participants were informed of the Arizona Supreme Court order that ensured strict confidentiality and limited use of the tapes exclusively to the research sanctioned by the court.

29. For a description of the rationale and controversy surrounding juror discussions during trial, see Shari S. Diamond et al., *Juror Discussions During Civil Trials: Studying an Arizona Innovation*, 45 ARIZ. L. REV. 1, 6-14 (2003).

30. For a complete description of the Arizona Filming Project and the results of the evaluation, see generally *id.* at 16-81.

31. Supreme Court of Arizona Administrative Order 98-10 reads in part:

[T]he materials and information collected for the study, including audio and videotapes may be used only for the purposes of scientific and educational research. The Court shall take all measures necessary to ensure confidentiality of all materials. All tapes shall be stored using appropriate security measures. The materials and information collected for the study, including audio and videotapes, shall not be subject to discovery or inspection by the parties or their attorneys, to use as evidence in any case, or for use on appeal.

In re Civil Jury Filming Project, Admin. Order 98-10, at *1 (Ariz. Feb. 5, 1998), <http://supreme.state.az.us/orders/admorder/orders99/pdf98/9810.pdf> (last visited Sept. 10, 2006). As part of their obligations of confidentiality under the Supreme Court Order as well as additional assurances to parties and jurors undertaken by the principal investigators, the Authors of this Article have changed certain details to disguise individual cases. The changes do not, however, affect the substantive nature of the findings that are reported.

B. Selection of Jurors and Cases

Jurors were told about the videotaping project when they arrived at court for their jury service. If they preferred not to participate, they were assigned to cases not involved in the project. The juror participation rate was over 95%. Attorneys and litigants were less willing to take part in the study. Some attorneys were generally willing to participate when they had a case before one of the participating judges; others consistently refused. The result was a 22% yield among otherwise eligible trials.³²

C. The Videotaping Procedures and Data Collection

In each case, the entire trial was videotaped from the opening statements to the closing arguments and jury instructions. Arizona does not audiotape or videotape court proceedings, so an unobtrusive camera was installed in each participating judge's courtroom. The camera was focused on the witness box in order to capture as much of what the jurors saw as possible.³³

In the jury rooms used for the research, two unobtrusive cameras were mounted in opposite corners of the room at the ceiling level. These cameras made it possible to see jurors seated around the rectangular table on a split screen without disrupting their normal seating arrangement. Unobtrusive ceiling microphones recorded the discussions. An on-site technician was instructed to tape the conversations in the jury room whenever at least two jurors were present.³⁴

32. We defined an eligible trial as one that (1) was presided over by a judge who agreed to participate in the project, (2) began at a time when two participating trials were not already occupying the video technician, (3) occurred in a courtroom that had been wired for taping near an available jury room that had also been wired for taping, and (4) was not expected to last longer than twelve days. Diamond et al., *supra* note 29, at 17-18 & n.41. Two otherwise eligible longer trials were excluded to avoid tying up the video-eligible rooms for an extended period in an effort to maximize the number of cases in the study. *Id.* To avoid any bias in computing the response rate, we did not include trials that were assigned on the eve of trial to pro tem judges, although we were able to tape four of them. *Id.* We excluded all of the pro tem cases in computing the response rate because these cases were difficult to track (i.e., permission from the pro tem judges generally could not be solicited in advance, and the pro tem judges often sat in courtrooms that were not camera-ready). *Id.* We did include the data from these four cases in our analyses of case results. *Id.*

33. When the camera malfunctioned or was not turned on, we ordered a transcript from the court reporter. *Id.* at 18 n.42.

34. A crucial question is whether the jury behavior we observed was affected by the fact that the jurors were aware that their discussions and deliberations were being filmed. *Id.* at 22. The jury experience is a gripping one for most citizens and the compelling interaction with their fellow jurors captures their attention. *Id.* at 75. Moreover, the videotapes reveal some

In addition to the trial, discussion, and deliberation videotapes, additional data on each trial were collected: exhibits, juror questions (including questions that jurors submitted during the trial but which the judge did not answer or allow a witness to answer), judicial instructions on the law, and jury verdict forms. At the end of each trial, all of the trial participants—jurors, judge, and attorneys—were asked to fill out brief questionnaires on the trial and on their personal reactions to the case.³⁵

D. The Final Sample of Cases

Complete data were obtained on a sample of 50 cases.³⁶ The sample consisted of 26 (52%) motor vehicle cases, four (8%) medical malpractice cases, seventeen (34%) other tort cases and three (6%) contract cases. This distribution is similar to the breakdown for civil jury trials for the Pima County Superior Court for the year 2001: 62% motor vehicle tort cases, 8% medical malpractice cases, 23% other tort cases and 6% contract cases.³⁷

The 47 tort cases in the total sample varied from the common rear-end collision with a claim of soft tissue injury to cases involving severe and permanent injury or death. Plaintiffs received an award in 65% of the cases.³⁸ Awards ranged from \$1,000 to \$2.8 million dollars with a median award of \$25,500.

conversations and behaviors that jurors presumably would not want to risk being made public or available to any of the trial participants, suggesting they were not inhibited by the presence of the cameras. *Id.* at 22. Previous research on the effects of videotaping on interactive behavior in non-therapeutic sessions suggests that any initial reactions to being videotaped dissipate rapidly. Karl E. Weick, *Systematic Observational Methods*, in 2 THE HANDBOOK OF SOCIAL PSYCHOLOGY 357, 372 (Gardner Lindzey & Elliot Aronson eds., 2d ed. 1968). Thus, although it is impossible to answer this question definitively, we have no reason to believe that the videotaping affected the way jurors reached their decisions in these trials. Diamond et al., *supra* note 29, at 23.

35. The judge and attorneys were asked to complete their questionnaire while the jury was deliberating, that is, before they knew the jury verdict. *Id.* at 18. The jurors were asked to fill out their questionnaires when they had completed their deliberations. *Id.*

36. One additional case settled during the trial. *Id.* at 18 n.43.

37. These statistics were provided by the National Center for State Courts. E-mail from Nicole L. Waters, Court Research Associate, National Center for State Courts, to author (Aug. 2, 2004) (on file with author).

38. In our sample, 65% was 30.5 of 47 cases, treating the one hung jury as .5 of a plaintiff verdict and .5 of a defense verdict. Diamond et al., *supra* note 29, at 19 n.45. This appears to be the standard pattern for Pima County. E-mail from Nicole L. Waters, *supra* note 37. According to data from the National Center for State Courts, the plaintiff win-rate in Pima County for 2001 was 64%. *Id.* Motor vehicle jury trials nationally tend to have a higher than average plaintiff win-rate among tort jury trials (57% versus 48% for jury trials in all tort cases). Carol J. DeFrances & Marika F.X. Litras, *Civil Trial Cases and Verdicts in Large Counties, 1996*, BUREAU OF JUST. STAT. BULL., Sept. 1999, at 6, available at <http://www.ojp.usdoj.gov/bjs/pub/pdf>

E. The Data

1. The Trials

We transcribed the opening and closing arguments in each case from the trial videotape. We also created a very detailed "roadmap" of the trial from the videotaped trial to describe the actual order in which testimony occurred, to reconstruct in substantial detail what each witness said, and to indicate whether the testimony emerged on direct examination, cross-examination, or re-direct.

2. Juror Questions

The trial roadmaps included the questions that jurors submitted to the judge that were subsequently asked of witnesses, along with the witnesses' responses. We also obtained copies of the written versions of the questions submitted by the jurors in the case. The result was a total of 829 questions, 632 (76%) that the judge permitted a witness to answer and 197 that jurors submitted and the judge did not answer or allow a witness to address.

3. Data from the Jury Room

To facilitate our analyses of jury behavior in the jury room, we created quasi-transcripts of the discussions that occurred during breaks in the trial and verbatim transcripts of all deliberations. The result was 2,502 pages of discussion quasi-transcripts and 5,276 pages of deliberation transcripts for the fifty trials.

III. JUROR QUESTIONS AND ANSWERS

A. Witnesses and Questioning Patterns

1. Witness Testimony

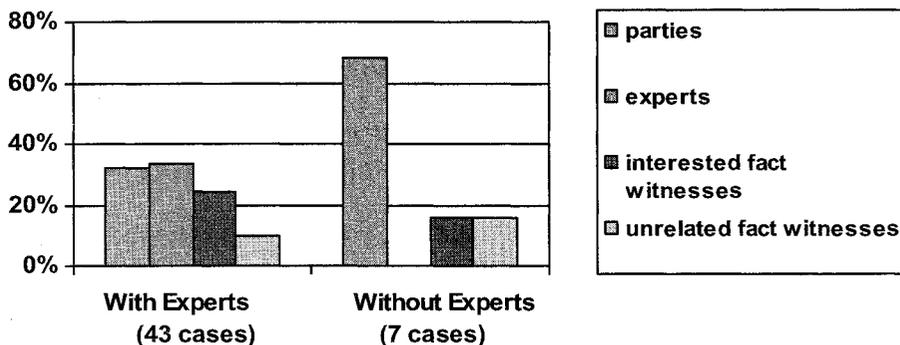
A total of 438 witnesses (Mean = 8.76 per trial) testified, 392 in person and 46 through deposition testimony. Because jurors could not

/ctcvlc96.pdf (last visited Sept. 10, 2006). Pima County also has an unusually high representation of motor vehicle cases among its tort jury trials, 60% for Pima County versus the national level of 51% estimated in the Department of Justice study. *See id.*; E-mail from Nicole L. Waters, *supra* note 37.

submit questions when a witness testified only by deposition, our focus here is on the 392 live witnesses.

Witnesses can be classified in three primary categories: (1) parties, (2) experts, (3) other fact witnesses. Parties were the group most likely to testify. Plaintiffs appeared as live witnesses in all cases, and the defendants testified or were represented by a live witness³⁹ in 44 of the cases.⁴⁰ Experts were also called frequently to give live testimony. Experts appeared in 43 of the trials, and both sides called experts in 24 of the trials. Experts appeared more often for the plaintiff (77 plaintiff experts in 41 trials) than for the defense (45 defense experts in 26 trials). The other live fact witnesses were either interested (e.g., related to the parties as relatives, friends, or employers), or they were unrelated (e.g., the passerby who happened to see the accident). Interested fact witnesses testified in 36 of the trials; unrelated fact witnesses testified in 21 of the trials. Figure I shows the breakdown of types of witnesses appearing in the 50 trials:

**Figure I. Witnesses Giving Live Testimony
(N=392)**



2. Patterns in Juror Questioning

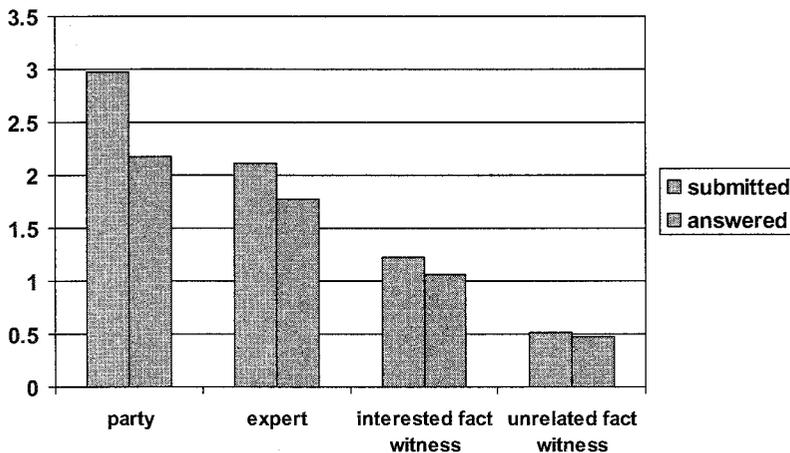
The 829 questions submitted during the 50 trials produced an average of 16.6 questions per trial (median = 10).

39. If one of the parties was an organization, such as a corporation or governmental agency, we considered a witness to be representing the party if the witness was either an executive, administrator, or was centrally involved as a participant rather than an observer in the events that led to the trial (e.g., the driver of the defendant's company car involved in the automobile accident that allegedly injured the plaintiff).

40. In one of the no-live-defendant-witness cases, the defendant's testimony was by deposition.

The jurors were selective in where they directed their questions. Trials include a variety of witnesses, some more or less central to the issues in the case. Some of the witnesses are experts who provide technical and opinion testimony; others are strictly fact witnesses. Although jurors submitted at least one question in 48 of the 50 cases, they did not submit questions for every witness who testified. Instead, they posed questions for 173 (44%) of the 392 live witnesses (median = 2.11 questions per live witness).⁴¹ The number of questions submitted to the witness increased with the length of time the witness testified ($r = .37$).⁴² As Figure II indicates, on average, parties and experts stimulated more juror questions than did other witnesses, both questions that the judge permitted a witness to answer and questions that were not answered:

Figure II. Number of Juror Questions Per Witness Submitted and Answered



41. The jurors also submitted 13 questions for the judges.

42. ($p < .001$). This correlation is based on all 388 live witnesses for whom we were able to measure length of testimony. We defined the length of time of testimony as the real time of each witness's testimony, including direct, cross, redirect and re-cross, exclusive of side bars, juror questioning and follow up questions by the attorneys. This length measure thus represents the amount of testimony that the jurors heard before submitting a question for the question. We calculated length of testimony for all witnesses in 30 of the cases based on the videotaped testimony. In the remaining cases, we had full trial court reporter transcripts in 9 cases and a combination of trial tapes and transcripts in 11 cases (we obtained transcripts when the trial occurred in a courtroom unequipped with a camera or when a camera malfunctioned). We calculated the real time of testimony from the transcripts by taking the average number of minutes per page of witness testimony for four witnesses from two cases in which we had both real time tapes and corresponding transcripts. Their testimony averaged 1.4 minutes per transcript page.

Juror questions for parties were least likely to receive answers from the witness,⁴³ in part because impermissible juror questions about insurance, attorney's fees, or litigation management were generally directed to one of the parties.⁴⁴

3. Time Spent During Trial on Juror Questions⁴⁵

Prior studies of juror questions have had to depend on the survey responses of trial participants to estimate the time required for allowing jury questions. In the Arizona Filming Project, we videotaped the complete trial testimony in 30 cases and obtained partial (11 cases) or full (9 cases) transcripts in the remaining cases, thereby allowing us to measure in real time or estimate from the length of the transcript the time spent during trial on juror questions. We measured the length of time it took for the judge to handle juror questions, which included the time taken for sidebars in which the judge discussed the questions with the attorneys (an average of 15.1 minutes per trial),⁴⁶ the time used to ask the questions and obtain answers from the witness or to inform the jurors that a question could not be answered or would be addressed later (12.2 minutes per trial), and the time required for any follow-up questioning that occurred before the witness was excused (6.0 minutes per trial). The result was a total of 33.6 minutes per trial, which amounted to 1.5 minutes per hour of trial. This amount of additional time actually used for juror questions in Arizona is consistent with the estimates from

43. Jurors submitted an additional 20 unanswered questions. The questions appeared only in handwritten form in the file for the case, and the judge did not read the questions aloud or share them with any witness during the trial. We were not able to match these questions to a particular witness.

44. Diamond et al., *supra* note 26, at 23.

45. We are grateful to the American Bar Foundation Jury Project Advisory Committee (Dennis Drasco, Robert Grey, Maurice B. Graham, Judge James Holderman, Rebecca Kourlis, Eugene Pavalon, Patricia Lee Refo, and Justice Miriam Shearing) for suggesting this analysis, and to Melissa Fitzpatrick for laboriously measuring each element.

46. Of the 392 live witnesses, 352 testified and either received no questions or no break occurred in the trial between the time jurors submitted their questions and the witness answered any follow-up questions and left the stand. In those cases, we could be certain that we had captured any time spent by the judge and attorneys in vetting the questions. For the remaining 40 live witnesses, we could not directly determine the length of the sidebar because the content of the sidebar was not recorded on the trial transcript or a break occurred after the questions were submitted and before the witness completed testifying, so some discussion may have occurred during the break. In these cases, we estimated the length of the sidebar by applying the maximum length of the sidebar required to deal with that number of questions in the cases in which we were able to directly measure the sidebar length. We used the maximum to avoid underestimating the time used to vet these questions. The imputed values for these 40 witnesses averaged 9.9 minutes per witness, while the average for the remaining 133 witnesses with at least one juror question averaged 2.7 minutes per witness.

participants in the New Jersey pilot study.⁴⁷ Based on this evidence, fears that trial time will be extended substantially by permitting juror questions appear unwarranted, at least when the courts and attorneys manage the process efficiently. We will return to the issue of procedures for handling questions in Part V.

B. Juror Talk about Questions in the Jury Room

Jurors use the questions they submit and the answers they receive in multiple ways during deliberations. First, jurors may refer explicitly to a question and the specific information it generated to provide background, fill in gaps, or justify a position the juror favors. More generally, when the question concerns a central issue in the case (e.g., the assessment of the plaintiff's injury), the answer to a juror's question may inform talk about the case during deliberations even if the jurors do not refer specifically to the question itself. A third use of juror questions can occur when the answer to a juror's question provides information that enables the jury to eliminate an issue from consideration. For example, if a witness clarifies why a doctor did not conduct a particular test or why a possible cause could not have affected the plaintiff's injury (e.g., alcohol use could not have contributed to the injury), the answer may obviate the need to discuss the idea expressed in the question. Such questions thus can exert influence on what does *not* get discussed, and may influence juror impressions of a witness (e.g., a doctor's competence) or redirect jurors to other cues (e.g., other indicators of the cause of injury). Because we know only what the jurors said in deliberations as an indicator of their thoughts, we cannot measure how often this more indirect influence occurred.

The deliberations do allow us to analyze what jurors said about the questions they submitted and the answers they received. The clearest evidence of how the jurors made use of questions during deliberations came when jurors "announced" that their particular line of thinking or argument was influenced by a question they or some other juror posed (e.g., "That's why I asked that question. . ."). In a medical malpractice case, an expert testified that the physician should have prescribed a particular medication to the plaintiff. A juror submitted a question asking how long it would take to see improvement after administering that medication. In the course of deliberations, as the jurors discussed whether the drug would have saved the patient's life, the juror who submitted the question

47. See WECKER ET AL., *supra* note 21, at 7.

explained that she had asked how long it would take for the drug “to become active,” noting that the expert had claimed it would take effect almost immediately. Another juror observed: “But we have no way of knowing whether [it] would have worked. . .”

To analyze the juror questions and their use by the jury, we identified and examined each explicit reference to each question during discussions or deliberations. To qualify as an explicit reference, a juror had to mention the question or that the answer was generated by a juror question. For example, a juror said: “Here’s the thing. I was the one that asked the question [about whether the party’s actions were required by a professional mandate].” Another juror responded: “Yes, very good question.” The first juror continued: “And. . . he [the defendant] said, “I believe that you have to do it.” The jurors then discussed what the defendant meant by his response.

Across all 50 deliberations, the jurors explicitly referred to 11% of the questions they submitted.⁴⁸ When they were permitted to discuss the case during breaks, jurors sometimes mentioned the questions they had submitted during those breaks. The opportunity to mention the questions during breaks reduced their references to some of the questions during deliberations. As a result, the jurors were more likely to refer explicitly to their questions during deliberations in trials in which they were admonished not to talk about the case during trial (15.9%) than in trials in which they were permitted to discuss the case during breaks in the trial (8.9%).

The explicit references to juror questions during deliberations provide a conservative estimate of the extent to which jurors incorporate the information they receive into their decision making. They do, however, capture all instances in which a juror claimed that the answer to a particular question deserved the group’s attention. This modest frequency of explicit references to juror questions during deliberations belies the claim that jurors permitted to submit questions during trial focus primarily on the answers to those questions. Rather, the evidence is more consistent with an image of jurors supplementing what they learn from the trial with answers to their questions that help them to clarify ambiguities and to understand apparent omissions and inconsistencies. At the same time, the references during deliberations indicate that, with at least 1 out of

48. During deliberations, the jurors explicitly referred to 11.2% of 632 questions that the judge answered or permitted a witness to answer and 11.1% of the 197 questions that did not produce an answer. Most of the references to the unanswered questions during deliberations were perfunctory. In cases in which jurors were permitted to discuss the evidence among themselves during breaks in the trial, jurors made additional explicit references to both answered and unanswered questions during those breaks.

9 questions, jurors find it useful to discuss what they have learned as a result of their questions during trial.

Juror questions in general tended to focus on central issues in the case (section IV.C. 1 *infra*). As a result, jurors frequently discussed topics touched on in juror questions even when they did not refer to the question. A reliable, precise estimate of how often a jury discussed a topic implicated by a juror question would depend on how narrowly or broadly a "topic" was defined. For example, in response to testimony on the plaintiff's prognosis, a juror asked about the effects of his medication on recovery. A broad definition of the topic implicated by this question might include all discussion of the plaintiff's future activities. A narrow definition might focus strictly on discussion of the effects of his medication. No matter what standard was used to define related discussion, however, these discussions may or may not have been informed by the juror questions or the answers they stimulated. For example, one juror submitted a question for an expert asking whether it was possible to tell the age of the injury from the tests the expert had done. The expert said it was not possible. The jurors never explicitly referred to the question or the expert's answer. They did, however, discuss how old the injury likely was. We cannot determine whether that discussion was influenced by the question or whether the same discussion would have occurred even if no juror question had been submitted. The deliberations reflected topics that the jurors thought worth discussing, and while some of the talk during deliberations may have been influenced by the juror questions, other talk no doubt occurred quite independently.

To illustrate how juror questions appear to be used more broadly during deliberations than the frequency of explicit references would indicate, we offer the following five case examples:

Case One: This case involved a claim of interference with a business. The plaintiff testified about the history and practices of its own business and about the actions the defendant allegedly took to undermine this work; however, the plaintiff gave considerably less detail about precisely *how* the business had been negatively affected by the defendant's actions. A juror submitted a question on this point, asking the witness to state specifically what the resulting loss had been. During deliberations, the information generated by the question was highly relevant because several jurors saw the plaintiff's loss as quite small, making it difficult for them to see how the defendant's actions could actually have interfered with the business. The deliberations generated 11 separate references to the amount of damage suffered by the plaintiff. However, these comments never explicitly linked the assessment to the juror question.

Case Two: The plaintiff fell after being hit by a large metal object controlled by the defendant and claimed that the accident caused serious and permanent injury. The defendant conceded negligence, but disputed both the way in which the accident occurred and that the incident in question could have caused such extensive injuries. One of the jurors asked about the distance between the plaintiff and the object before it struck him; another asked someone who had been present at the accident to characterize the speed of the object as it hit the plaintiff. The jurors discussed both the object's likely motion and the plaintiff's proximity to the object during deliberations nine different times as they attempted to piece together the physics of the incident, the manner in which the plaintiff may have been hit, and what type of fall likely ensued. No juror ever explicitly referenced either of the juror questions that addressed these issues.

Case Three: The plaintiff hired the defendant to repair his furnace. The defendant repaired the furnace, but informed the plaintiff that she needed to replace it due to its age. The plaintiff adjusted some wiring next to the furnace after the defendant completed the repair. When the furnace caught fire a short time later, the plaintiff alleged that the defendant was responsible. One juror asked the defendant how long he had spent in repairing the furnace. Although much of the deliberation focused on the cause of the fire, a second theme was the timing of the events and a crucial basis for the defense verdict was that the jurors were not convinced that the repairman had been careless or negligent. One element of that impression may have been his description of the time he spent repairing the furnace, although, as one of the jurors pointed out, the repairman's word was the only evidence they received on the amount of time the repairman spent testing the operation of the furnace.

Case Four: In a rear end accident, the plaintiff claimed that he had extensive soft tissue injuries to his neck and back as a result of the collision. The defendant admitted negligence, but argued that no damage had occurred. The plaintiff's expert testified that the injuries were causally related to the accident and required several months of treatment. The defense expert testified that no literature supported a claim of injury at such a low impact. The jurors questioned the defense expert about resistance to force in a stationary car and reaction time in order to compare this accident to a simple bump sustained in driving over a curb. During deliberations, the jurors discussed both how a body reacts to different levels of force and how a driver in a low impact accident is capable of reacting in time to prevent any head or neck injuries. Without explicitly referring to the juror questions, the

jury used this information in three separate discussions of damages, concluding that the plaintiff could not have sustained enough injury to warrant all of the medical follow-up that occurred.

Case Five: In a medical malpractice suit, the plaintiff claimed that he suffered partial paralysis from nerve damage produced by a medical procedure. The plaintiff's expert testified to a reasonable degree of certainty that the injuries were caused by the treatments received from the defendant over an extended period of time. The defense medical expert attributed the injury to an infection and/or other ailments. Faced with the competing explanations for the injury, the jury focused on the temporal proximity of the injury to the treatment provided by the defendant. In one of the juror questions, a juror asked how long it would take for the paralysis to manifest itself after the nerve damage. The defense expert responded that the paralysis would be immediate. The jurors discussed this information on three separate occasions, along with information on the plaintiff's other activities, without directly referring to the juror's question. They concluded that the symptoms would have appeared immediately if the defendant had caused the injury and that other factors were responsible for the temporary paralysis. The jury delivered a defense verdict.

As these examples indicate, jurors frequently discuss and reason in ways that may be informed by the answers to their questions without mentioning the questions themselves.

C. Answers about Questions: What Jurors Ask

The primary source of information presented during most civil trials is the testimony of witnesses who have observed the events that stimulated the litigation, including the circumstances surrounding the event itself and the follow-up experiences of the plaintiff that allegedly resulted from the event. The trial setting generally presents jurors with two types of evidence about the occurrence and its fall-out. The first is uncontested evidence that gives the jury the background and context for the controversy between the parties. The second is conflicting evidence that the jurors must evaluate in order to decide which account or accounts are most persuasive. Faced with conflicting testimony, the jurors must decide who is lying or mistaken and who is providing accurate information.

Whether the testimony is contested or uncontested, jurors build their account of the events that led to the trial from what they understand the witnesses to be saying. The one-sided communication format used in the traditional trial puts jurors in the role of audience

members until they begin deliberations. Yet often, the testimony at trial includes technical terms or phrases. As the jurors listen to the evidence, they may have questions about the meaning of unfamiliar terms (e.g., meniscus) or standards (e.g., “reasonable medical certainty”). In addition, testimony is necessarily selective, guided by the questions that the attorneys choose to ask, so jurors may crave a more complete, or at least different, description of what occurred and when each event took place.⁴⁹ When jurors have the opportunity to submit questions for witnesses during trial, many of their questions reflect these attempts to fill in gaps or clarify evidence that is not contested. Requests for clarification, including definitions (e.g., “Define actual vs. residual dent.”) or to fill in background facts (e.g., “On what date did you move to [that address]?”) were common, accounting for a quarter of all juror questions. The frequent submission of these clarification questions is consistent with the claim that the opportunity to pose questions during trial can enhance juror understanding and recall.

Juror questions and talk in the jury room, however, provide some additional insights about juror thinking in the course of the trial. They reveal the nature of the processing that takes place during trial beyond simply bolstering recall or clarifying testimony already presented. Previous research on simulated juries has shown that jurors are active, rather than passive, audience members in a trial.⁵⁰ The juror questions provide some evidence of what jurors are thinking during trial, or at least a picture of some of the ideas they express through their questions. These juror questions and talk in the jury room show: (1) the extent to which jurors in ordinary cases have an early fundamental sense of the legal issues in the case; (2) the efforts of jurors to evaluate credibility and to “cross-check” the conflicting information they obtained from the witnesses called by the parties in the adversarial trial setting; (3) how jurors use questions to engage with the expert witnesses who pose the greatest challenge to juror comprehension; and (4) the sparse evidence that jurors engage in argumentative questioning characteristic of an advocate and inconsistent with the assigned neutral role of juror.

We used two measures to describe the nature of the juror questions. The first measure identified law-related questions and tracked the extent to which the juror questions reflect legal issues in the case (e.g., causation) even before the jurors receive their final jury

49. Although a sequence of events is easier to understand if it is presented in chronological order, evidence in a trial generally emerges in a more patchwork fashion. Pennington & Hastie, *supra* note 27, at 190.

50. See sources cited *supra* note 27.

instructions on the law. We discuss the juror questions concerning these legal issues in section C.1, *infra*. The second measure categorized juror questions according to their focus on background factual material (definitions and other background facts) and their reflection of efforts to evaluate witness claims. We discuss these categories in section C.2, *infra*. Table 1 shows the distribution for all of the questions:⁵¹

51. We assessed the reliability of our coding system by having two raters read the same subset of cases. A "kappa" statistic indicated the extent to which any two raters agreed on which coding category applied to a question, correcting for how likely two raters would have agreed on a category by chance alone. See J. Richard Landis & Gary G. Koch, *The Measurement of Observer Agreement for Categorical Data*, 33 *BIOMETRICS* 159, 163 (1977). Kappa values exceeding .61 reflect "substantial" reliability for a coding system; values above .81 reflect "almost perfect" reliability. *Id.* at 165. The categories that described the topic of the question (e.g., definition, standard, insurance) showed substantial reliability. Kappa values ranged from .71 to .73 across sets of raters who all coded at least 55 questions in common (two coded 65 questions each). The values were even higher (.75 to .81) if raters received credit for coding a question similarly but not exactly the same (e.g., both called it a question that asked for a standard but disagreed about which type of standard. See Jacob Cohen, *Weighted Kappa: Nominal Scale Agreement with Provision for Scaled Disagreement or Partial Credit*, 70 *PSYCHOL. BULL.* 213, 213 (1968)). The process of determining the legal issue implicated in a question also showed good reliability, with kappa ranging from .62 to .87 across sets of raters (n = 56 questions).

Table 1. Nature of Juror Questions*

Nature of Juror Question:	Also implicates a legal issue (%)	Does not also implicate a legal issue (%)	Total (%)
Factual background	26.7%	34.2%	28.1%
Definition	1.3%	4.5%	1.9%
Other background fact	25.4%	29.7%	26.2%
Evaluation	64.1%	49.6%	61.4%
Motivation/character	14.1%	27.1%	16.5%
Credentials/experience	1.5%	9.0%	2.9%
Cross-checking:	48.6%	13.5%	42.0%
Methods/measures	9.8%	4.5%	8.8%
External standards	6.2%	1.3%	5.3%
Other comparison bases	32.5%	7.7%	27.9%
Prognosis/Prediction	5.2%	0.0%	4.2%
Insurance	3.3%	.6%	2.8%
Litigation management	.7%	7.7%	2.1%
Simply unclear	0.0%	7.7%	1.4%
Total	100.0%	99.8%	100.0%
(N)	(674)	(155)	(829)

*Due to rounding, component percentages do not always add to 100%

1. Legal Issues

The jury's ultimate task is to apply the law to the facts as the jury sees them. In the course of a trial, jurors develop accounts, or stories to re-construct and explain the events that led to trial.⁵² The

52. For a description of the accounts and stories that jurors construct, see, e.g., BENNETT & FELDMAN, *supra* note 27, at 41-65 (describing jurors' accounts based on grammatical convention, causal order, and other cognitive operations); Diamond & Casper, *supra* note 27, at 516-17, 556-58 (applying the "story model" to show how jurors actively interpret and assimilate evidence during trial); Shari Seidman Diamond et al., *Juror Judgments About Liability and Damages: Sources of Variability and Ways to Increase Consistency*, 48 DEPAUL L. REV. 301, 314-16 (1998) (finding that a juror's calculation of damage awards is predicted in part by the juror's background experiences and attitudes); Diamond et al., *supra* note 27, at 30-31 (tracing the responsiveness of jurors to changes in evidence over the course of a trial); Pennington & Hastie, *supra* note 27, at 521-29, 537-39 (1991) (explaining the story model generally); Nancy Pennington & Reid Hastie, *Explanation-Based Decision Making: Effects of Memory Structure on Judgment*, 14 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY, AND COGNITION 521, 527-31 (1988) (discussing how jurors spontaneously construct a story to summarize the evidence in a trial).

facts the jury must find, however, and the standards they must apply in deciding whether or how much to award in damages, are not unrelated. For example, developing an account of what happened may include determining the legal element of whether the defendant's action caused the plaintiff's injury. Jurors receive little or no instruction on the specific law of the case until the end of the trial and thus do not hear from the judge until the point that they must, for example, identify the cause of the plaintiff's injury. Nonetheless, the jurors are indirectly exposed to potentially relevant legal issues through the evidence presented during trial and framed in attorneys' opening statements. Moreover, jurors come to their task with a commonsense understanding of the circumstances under which injured parties are entitled to compensation.⁵³

Of the 829 jurors questions submitted in these 50 cases, 674 questions implicated legal issues. For example, a juror asked a plaintiff who was rear-ended, "Were you stopped prior to the collision?". The question focused on the force at impact, bearing on whether the plaintiff was injured in the accident. The defendant in this case had admitted negligence but contested liability, claiming the plaintiff had not been injured at all.

In the tort cases, which account for 47 of the 50 trials, central legal issues for the jury include the reasonableness of the parties' behavior,⁵⁴ causality, and damages. Juror questions relating to the negligence or reasonableness of the specific behavior leading to an event included questions in which jurors gathered information on the effort or care (or, in some cases, recklessness) that the defendant appeared to be putting forth when the alleged tort took place. For example, in a case in which the plaintiff claimed that a repairman had damaged his property, a juror submitted a question for the defendant asking for "the total amount of time spent working" on the project.⁵⁵

The issue of causality is implicated when the jurors ask for assistance in evaluating alternative explanations for the alleged damages. For example, one juror asked, "Can someone have physical back pain due to emotional or psychological stress, psychosomatic

53. In a future article on jury instructions, we will describe situations in which jurors' commonsense understandings diverge from the legal instructions they are asked to apply.

54. The reasonableness of the plaintiff's behavior is a central issue in a comparative negligence case. *E.g.*, Special Project, *An Analysis of the Legal, Social, and Political Issues Raised by Asbestos Litigation*, 36 VAND. L. REV. 573, 627 (1983).

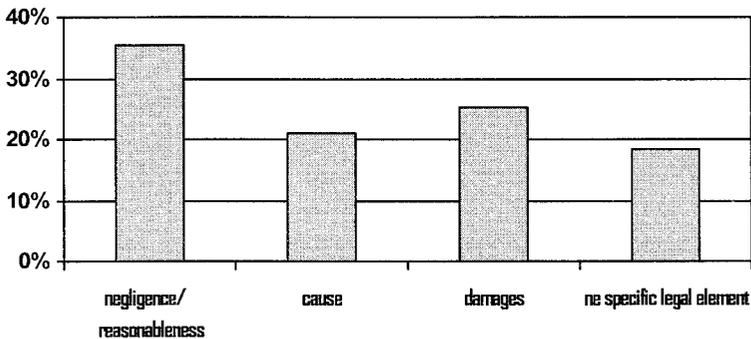
55. In a number of cases, principally those involving soft-tissue injuries, the defendant argued that the plaintiff had not been injured at all in the accident or that the injuries were preexisting rather than caused by the defendant's actions. We coded juror questions on the issue of whether the defendant's behavior had caused any damage at all as questions concerning causation.

stress symptoms, or can stress exacerbate pain?”. In assessing causality, jurors frequently expressed interest in knowing the condition of the plaintiff before the event occurred. For example, jurors asked treating physicians for more information on the health of the plaintiff prior to the events that led to the trial, and they asked plaintiffs about their prior activities.

Finally, questions relevant to damages included those that focused on the extent and duration of injury that the plaintiff allegedly suffered. These included, for example, a question for the plaintiff about whether he had regained use of his right arm and questions for physicians on the therapeutic course they pursued or, in the case of defense experts, would have pursued, in treating the plaintiff's injuries.

Figure III shows the distribution of law-related questions among the 788 questions jurors submitted during the 47 tort trials in which the three legal elements could be relevant. As the figure indicates, these legal issues were implicated in 643, or 81.6%, of the questions that the jurors submitted:

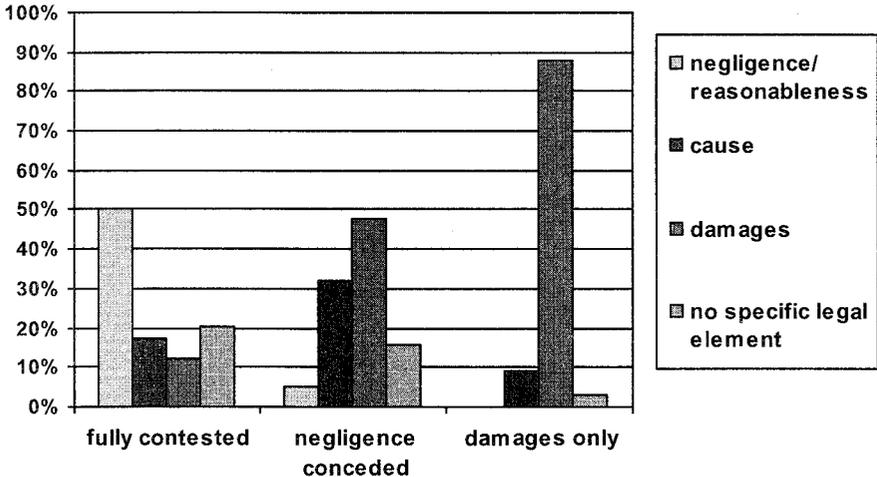
Figure III. Questions about Legal Elements



It is important to note, however, that not all legal issues were actually at issue in these cases. Thus, for example, in a case in which fault is conceded and the dispute is solely about damages, jurors (and juror questions) should focus on the plaintiff's injury rather than on the defendant's behavior. To examine the extent to which juror questions tracked the relevant legal issues in the case, we divided the trials into three categories: those in which liability was fully contested, and thus all of the three legal issues were potentially on the table; those in which negligence was conceded, but fault was at issue

because the defense disputed the claim that the negligence had caused any injury; and those in which fault was conceded and only damages were at issue. As Figure IV indicates, juror questions were distributed substantially in accordance with the relevant legal issues involved in the case:

Figure IV. Distribution of Juror Questions by Legal Issue in Tort Trials



In the 26 fully contested cases with juror questions, cause and damages took a second seat to the negligence/reasonableness category, which accounted for 50.4% of the juror questions. When negligence was conceded (15 cases), the 223 juror questions shifted primarily to the issues of causality (31.8%) and damages (47.1%). Finally, in the 4 cases in which only damages were contested, questions about damages accounted for the lion's share (87.9%) of the 33 juror questions.

In a small number of instances, jurors asked about legal issues that appeared to be uncontested. While judges permitted witnesses to answer 76% of juror questions overall, they permitted answers to less than half (only 6 of 14) of these questions. Three of the 11 questions about negligence that jurors posed when the defendant had conceded negligence came from the same case and concerned the condition of the defendant's machinery before the accident occurred. The judge used the occasion of the questions to remind the jurors that the defendant in the case had already admitted negligence. This admonition may have helped the jurors focus on the legally relevant issues. They never referred to these questions during deliberations or discussed the condition of the machinery. In a second case in which

the defendant had conceded negligence, the jurors also submitted three questions on negligence, but the issue they focused on was actually legally relevant. The case involved a claim of comparative negligence and the questions all touched on the issue of whether the plaintiff could have been wearing a seatbelt, thus either preventing or reducing the injury.⁵⁶ One of the other questions in this category reveals a legal issue that jurors frequently struggled with. The judge informed the jurors at the beginning of the case that the defendant had conceded negligence. A juror asked:

"Somewhere along the way I feel at a loss of the difference between negligence and fault. How can you be negligent and not be at fault? Is that going to be explained as we go through this?"

The judge responded:

"Later in the trial if you have a question about the definition of negligence and the definition of fault, perhaps I will give you some additional information."

No juror submitted a further question on this issue in the case. The confusion between negligence and fault, omitting recognition of the need to prove that the defendant's negligence caused injury to the plaintiff, mirrors the looser use of the terms in everyday speech. In deliberations, jurors frequently use the term fault to describe the failure of the defendant to take reasonable care, even when they also express an awareness of the need to prove causality and injury as well.

The remaining four questions concerned background facts that implicated negligence of either the plaintiff or defendant, but had no bearing on causality or damages (e.g., Did [the defendant] recall engaging his left hand turn signal?).

In the cases in which the amount damages to be awarded was the sole legal issue, jurors submitted no questions focusing on negligence and three questions on causality. Two of their questions concerned the cause or existence of a particular type of injury (whether a memory loss was caused by medication; whether an MRI or CAT scan could show soft-tissue damage). In the third, the juror asked about the potential role of the plaintiff's work in predisposing him

56. The one question that specifically made the connection between wearing the seatbelt and the nature and extent of injury also implicated the issues of causality and damages. We coded it as a negligence question because negligence was also involved. The few questions that implicated both causality and damages were coded under causality. The rationale for this approach is in part temporal (i.e., negligence precedes causality, which precedes damages) and also reflects a conservative count of the legal relevance of the jurors' questions.

toward injury from the accident.⁵⁷ Thus, it could also be considered a question about the extent of injury from the accident rather than a question about causality.

This breakdown of the questions submitted by the jurors at trial reveals that jurors in the tort cases directed four out of five questions specifically to legal issues that represent the common elements in tort cases. Moreover, the vast majority of these questions—98%—focused on the central legal elements in the particular trial.

Another indicator of the extent to which jurors focused their questions on central issues is the identity of the particular witnesses who attracted the most questions. We asked the judges to indicate on their post-trial questionnaires the names of any witnesses who were “particularly important or crucial” on the issue of liability for the plaintiff’s case and for the defendant’s case. Judges named one or more liability witnesses in 24 of the cases,⁵⁸ 25 witnesses identified as important to the plaintiff’s case and 29 as important to the defendant’s case. Jurors submitted an average of 2.57 questions per witness for the 200 live witnesses in these cases who testified at least in part on the issue of liability. The jurors asked substantially more questions of the witnesses named as most important by the judge than of witnesses the judge did not identify as most important (3.77 vs. 2.15, $t = 2.31$, $p < .05$), providing additional evidence that jurors tend to focus on the central testimony in a case more than on peripheral testimony.

2. Juror Evaluation of Contested Facts: Credibility Assessment and Cross-Checking

In evaluating the credibility of witness testimony that may or may not be accurate, jurors could in principle use several signals to reach their conclusions. Does the witness provide a Perry Mason moment and concede during cross-examination that the direct testimony was not accurate? Such moments are extremely rare. The jurors can also use non-verbal cues from the witness. Does the witness seem emotional, hesitant, evasive or nervous? Does the presentation seem rehearsed, too perfect, too slick? If Perry Mason moments and the use of nonverbal communication cues were the only, or even the principal way, that juries sorted through competing accounts of the events that led to trial, there would be some substantial reason to

57. As a future article on jury instructions will show, the law, or at least the legal instructions, on preexisting injury provides somewhat ambiguous guidance to jurors.

58. In the remaining 26 cases, either liability was not at issue or the judge did not complete the questionnaire or did not name a witness.

doubt the ability of jurors to assess what witness testimony was most accurate.

Research has shown that even motivated observers generally show little ability to detect lying. In a series of experimental studies, researchers asked observers to judge the accuracy of someone who had been told either to lie or to tell the truth (and had been provided with an incentive to be convincing).⁵⁹ These studies, however, were conducted in tightly controlled laboratory settings, and even if they adequately reflect the weakness of judgments based on presentation style and content, the studies do not provide the variety of other cues that the trier of fact can use in the courtroom. Juror attention to these additional cues about accuracy is revealed in the questions that the jurors submit during trial.

In the context of a trial, jurors (or judges) can evaluate the credibility of the testimony a witness gives in light of the witness's perceived interests. For example, jurors may discount a plaintiff's claims of injury on the assumption that the plaintiff is exaggerating in order to obtain a higher award. They may similarly discount the testimony of experts hired by the parties. These cues, however, may be weak at ferreting out the relative accuracy of opposing parties and experts, who generally offer conflicting testimony aligned with their apparent interest in the outcome of the case.

Jurors can also draw cues on credibility from the internal coherence and plausibility of the account offered by a witness. If the internal structure of a witness' testimony does not form a coherent story (e.g, it includes evidence or implies conclusions inconsistent with the primary claims of the witness), jurors may discount the credibility of the testimony.⁶⁰ The juror questions reveal efforts by the jurors to find explanations for pieces of evidence from a witness that do not appear to fit together. For example, in one case a plaintiff reported that he was severely injured, but he did not permit physicians to run a CT scan. A juror asked: "Do you remember why you refused the CT scan in the emergency room?" In another case, a juror wanted to know whether a client of the defendant was being paid to appear as a witness.

59. See, e.g., PAUL EKMAN, TELLING LIES: CLUES TO DECEIT IN THE MARKETPLACE, POLITICS, AND MARRIAGE (1992); see also George Fisher, *The Jury's Rise as Lie Detector*, 107 YALE L.J. 575, 707 (1997) ("We could perhaps regard the wonderful convenience of jury lie detecting with more equanimity if there were any sound evidence that juries are *good* at this task. But most of the evidence we have suggests that juries have no particular talent at spotting lies. . . . [E]xperimental subjects rarely perform much better than chance at distinguishing truth from falsehood. . . ." (emphasis added)). Fisher notes also that the experimental setting fails to replicate the circumstances of the trial. *Id.* at 707 n. 606.

60. Pennington & Hastie, *supra* note 27, at 527-29.

Of all juror questions, 16.5% focused on witness motivation or character. Only a few directly addressed the interest of the witness by asking whether the witness was being paid to provide testimony. The majority of the 137 questions concerning witness motivation or character asked witnesses about the choices they had made or their reason for taking or not taking a particular action. Some simply asked why the witness had or had not done something. For example, a juror asked one of the plaintiffs who claimed he had been bothered by the defendant's letters why he had not refused to accept them. In another case, involving a dispute with an employee, the defendant testified that problems with the employee's performance had arisen earlier. A juror responded by asking why the employee had not been fired earlier.

Jurors directed the majority of their motivation or character questions to the parties. Parties overall garnered more juror questions than did other types of witnesses, but their share of the motivation or character questions was disproportionately high.⁶¹ Jurors submitted almost two-thirds (64.7%) of their motivation or character questions to the parties, while submitting 48.8% of their other questions to them.⁶² This pattern is consistent with the central role played by the parties, and particularly with the conflicting claims the parties generally make during trial. Judging their credibility is a central and often difficult task, and jurors use the opportunity to submit questions to assist in evaluating the parties' claims.

The other category that reflected directly on judgments about witness credibility focused on the competence of the witness, either based on experience or education. Although this information was most relevant for expert witnesses (e.g., Have you diagnosed other [cases involving the plaintiff's alleged illness]? If so, how many?), experts generally begin testifying by describing their background and experience, which may explain why only 2.9% of the juror questions fell in this category. Nonetheless, of the juror questions about witness competence, 68.2% were directed to the experts.

The largest category of juror questions, which we have labeled Cross-Checking, accounted for nearly half of all questions (42%). Jurors use cross-checking to assist them in evaluating witness credibility and judging the plausibility of witness accounts, particularly those of interested witnesses whose credibility is in doubt. Jurors look for evidence from disinterested witnesses or non-witness

61.. Jurors also directed most of their questions about insurance and litigation management to the parties.

62. $X^2 = 10.95, p < .001$

sources of probative information to compare that information with claims from other sources. In cross-checking to test credibility, jurors apply a commonsense structure to evaluating potentially unreliable sources of information. Their behavior resembles a pattern identified by attribution theorists in describing the way that laypersons tend to draw causal inferences by checking for consensus and consistency across sources.⁶³ But here the application extends beyond causal attribution.⁶⁴ It reflects more broadly how jurors construct accounts in response to trial evidence. Another way of describing the process of cross-checking is that it represents an effort to ascertain the coherence of a story or portion of a story presented by a witness.⁶⁵ For example, jurors may use this process of checking for consistency to determine whether a particular behavior is reasonable by seeking information about the norms typically applied in that industry. Moreover, the questions jurors submit suggest an emphasis on particular alternative sources or other types of evidence that jurors perceive as less susceptible to the influences of interest that are omnipresent in the adversary setting of a trial. Some of these sources are judgments by others about what happened and who is responsible. Thus, jurors submit questions in auto accident cases to find out which of the parties received a citation (a judgment by a presumably disinterested police officer). Although the answers to this question and others like it may in fact be indicators, albeit imperfect ones, of liability or damages, the rules of evidence may not permit jurors to learn the answers to them. This is in part because the judgments of others are imperfect indicators, in part because those other judgments may be hearsay (e.g., "What did the Emergency Medical Technician say?"),

63. Attribution theory focuses on how people arrive at causal explanations for events. See, e.g., Harold H. Kelley, *Attribution in Social Interaction*, in *ATTRIBUTION: PERCEIVING THE CAUSES OF BEHAVIOR* 1, 1-24 (E.E. Jones et al. eds., 1972) (reviewing attribution theory in social interactions). In the trial context, the event is a claim by an interested witness. The task for the juror is to decide whether the claim is caused by the underlying truth of the claim (e.g., the claim by the plaintiff that she was injured is caused by the fact that she was indeed injured) or is attributable to some other cause (i.e., deception or mistake).

64. See Frank D. Fincham & Joseph M. Jaspars, *Attribution of Responsibility: From Man the Scientist to Man as Lawyer*, in 13 *ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY* 81, 82 (L. Berkowitz ed., 1980) (recognizing the potential breadth of attribution theory to describe the "process by which the layperson explains events").

65. See Pennington & Hastie, *supra* note 27, at 528 (describing how consistency, plausibility, and completeness contribute to the coherence and persuasiveness of a particular story).

and in part because they may usurp the jury's independent assessment.⁶⁶

Other juror questions about comparison standards are both probative and permitted. In fact, they constitute reasonable and accepted ways of navigating through conflicting accounts. In one case involving an allegation that one party was driving too slowly for conditions when the accident occurred, a police officer was permitted to answer a juror question about whether there was a minimum speed limit on the highway. In a second case, a juror asked to see a picture of one of the vehicles involved in the accident in an attempt to compare the damage done with the claims of the witnesses.

We identified three types of "cross-checking" questions posed by jurors. The first type of cross-checking occurs when jurors inquire about the methods or objective measures used, or that might be used, to shed light on the party's claims. Both juror questions and their deliberations reveal that jurors are skeptical about subjective reports from both lay witnesses and physicians. They prefer evidence that they perceive to be less susceptible to manipulation: (e.g., x-rays and MRIs as opposed to range-of-motion tests). Thus, some of their questions attempted to probe the method an expert used to arrive at the conclusion an expert witness offered about an injury. For example, in one case a juror asked "What is the basis for your determination that the nerve was permanently damaged?". In another case, two different jurors asked "Did the MRI or any x-rays show the [injury] that [the expert] said she could feel?". In a third case, a juror asked, "Are non-invasive technologies, such as, but not limited to CAT-Scans or MRIs, capable of revealing soft-tissue damage? If yes, what can this reveal and why weren't they used on the plaintiff?". A juror in a fourth case asked, "What test, or determination, besides subjective patient's 'say so' determined migraine?". Jurors submitted half (50.7%) of their questions about methods and measures to expert witnesses, who were more likely than other witnesses to have conducted, or decided not to conduct, tests or taken measurements.

The questions about methods and measures that jurors submitted to lay witnesses asked for documentary, quantitative, or other objective evidence to support the credibility of a claim. Rather than questioning a witness on a particular measure the witness used, the juror sought information on a measure that might assist in evaluating the claim. For example, a juror asked, "Can we see pictures

66. See Diamond et al., *supra* note 26, at 22-24 (listing types of disallowed jury questions, including those regarding legal standards, hearsay, lack of foundation, character determination, and management of the lawsuit in question).

of [the plaintiff] before the accident?" In another case, a juror requested information on the year of an automobile to evaluate whether it was likely that the vehicle had a seatbelt. In a third case, the jurors had to assess the value of an automobile and one of the jurors asked a witness to provide the mileage on the vehicle and the brand of radio that had been installed in upgrading it. In assessing the force and extent of injury involved in an accident, jurors asked for objective indicators. In one case, a juror wanted to know the weight of the machine that fell on the plaintiff. Jurors in two other cases asked whether the vehicles involved in the collisions had airbags.

The second type of cross-checking involves a reference to external standards and occurs when jurors pose questions about rules or norms, including questions about legal regulations or safety codes, generally as part of their attempt to assess the reasonableness of a party's behavior. Thus, jurors asked about the recognized professional or industry standards concerning note keeping, cleaning facilities where an accident occurred, or safe operation of equipment. Some of these standards arise explicitly or implicitly in testimony, usually when an expert testifies about industry regulations or norms. Other questions reflect juror inquiries about how the behavior at issue deviated or was similar to ordinary policy or professional guidelines. One juror, for example, asked whether the defendant's behavior in responding to a client matched that recommended by the professional association.

The third form of cross-checking sought information about other benchmarks for judging testimony or behavior, especially evidence of the consistency or inconsistency of a party's behavior or condition (e.g., state of health) over time and across situations. For example, a juror asked a witness who worked in an office in which the defendant allegedly inflicted emotional harm on another employee whether the witness had ever heard the defendant yell at anyone else. This attempt to judge whether an account was convincing was also implicated when jurors asked questions about how events tend to unfold in different circumstances. Thus, in trying to evaluate an expert's testimony on the impact of an accident, a juror asked: "How does this accident compare to a parking lot accident in which the vehicle would be backed into a light pole?" In a broad sense, the comparisons in this category reflect a reasoning process by jurors in which they evaluate a claim by comparing it to what is typical or expected in a given set of circumstances. For example, a juror wished to know how many complaints were received against the plaintiff as an employee compared to a new employee doing a similar job. We also included in this category questions for experts asking for their opinion

about what should or could happen in a particular situation. For example, a juror asked whether a person's job could predispose them to a particular type of injury. Questions like this essentially ask the expert to compare this case with the typical situation based on the expert's experience, in this instance asking whether people who work in the same type of job as the plaintiff would be at a similar risk.

In conducting this third form of cross-checks, jurors also looked for behavioral clues that reflected more than a witness's bare claim (e.g., about how injured they feel), attempting to be reassured that behavioral manifestations support the accuracy of those claims. Thus, one juror asked a plaintiff claiming continuing injury whether he was currently having regular check-ups with specialists. Another juror asked an expert testifying about the plaintiff's potential for rehabilitation whether a follow-up evaluation was planned for when the plaintiff became medically stable. In a third case, a juror asked the plaintiff whether he wore his brace at home and at work. Each of these jurors' questions cross-checked for consistency between the claim and more concrete evidence.

During deliberations, jurors often bemoan the absence of a witness to the events who is not associated with one of the parties, and would thus presumably offer a more trustworthy, or at least independent, account of the events that transpired. Sometimes the jurors have a specific witness in mind. Other times, the jurors are simply acknowledging the problem of depending on testimony from a single interested witness. In either instance, jurors are attempting to find a basis for judging the credibility of the claims being made by the conflicting interested witnesses in the trial. Some of these efforts emerged in the juror questions, as when jurors asked about the injuries to other passengers or other individuals involved in an automobile accident.

The cross-checking focus of many juror questions represents a reasonable approach by jurors to the adversary setting, where a primary task for the jury is to sort through the testimony of conflicting witnesses and incomplete evidence to arrive at a verdict. And although the judge could not permit witnesses to answer all of the "cross-checking" questions that jurors posed (e.g., did anyone get a citation?), jurors did receive answers to most (83%) of them.⁶⁷

Juror questions in the final three categories were least likely to be answered. Together they accounted for only 10.1% of all juror questions, but they illustrate the ways that the rules of evidence set limits on what jurors might reasonably want to know. Two of the

67. Judges allowed answers to 71.1% of other types of juror questions ($X^2=16.01$, $p<.001$).

categories, prognosis and insurance, reflect issues that jurors view as helpful in determining what compensation the plaintiff might be entitled to receive. When a plaintiff claims to have a continuing injury, jurors recognize that they may have to face the task of determining future medical expenses. Questions about plaintiff's prognosis (e.g., How much time and effort would it take to treat [plaintiff's alleged injury]?) constituted 4.2% of the submitted questions. Some of them called for speculation, particularly when they were directed to a non-expert, and judges allowed only 57% of these questions about prognosis to be answered.

Questions about insurance reflect an interesting dilemma for jurors. Jurors recognize that if they find for the plaintiff they will have to determine compensation, so they frequently wonder about alternative sources of compensation for the plaintiff, as well as insurance coverage more generally.⁶⁸ Indeed, insurance is a frequent topic during deliberations.⁶⁹ For example, jurors express concern about over-compensating a plaintiff who has already received money from insurance.⁷⁰ Some juror concern about determining the appropriate level of compensation is reflected in their questions about insurance, which represented 2.8% of the submitted questions. Because the rules of evidence preclude testimony about insurance in most situations, judges refused to allow witnesses to answer any of the juror questions about insurance or attorneys fees.

Finally, jurors asked several questions about the management of the litigation (2.1%). Some of these questions appeared to implicate credibility assessments (e.g., "Did you go to [Dr. X] because your lawyer told you or was it your idea?"), but for others it was unclear precisely why the juror submitted the question (e.g., "What was the date of the deposition?").

The overall distribution of juror questions reveals active efforts by the jurors to use their questions to unpack and understand the factual underpinnings of the case and evaluate the evidence. The deliberations indicate that the jurors use what they learn from answers to their questions, but the questions do not dominate the deliberations.

68. For a discussion of the role of insurance in the jury deliberations, see Shari Seidman Diamond & Neil Vidmar, *Jury Room Ruminations on Forbidden Topics*, 87 VA. L. REV. 1857, 1874-95 (2001).

69. See *id.* at 1876 (stating that juries discussed insurance during deliberations in 85% of the cases studied).

70. See *id.* at 1878-79 (providing examples of when juries limited a plaintiff's damage award because of plaintiff's insurance coverage).

3. Questioning Experts

Complex expert testimony presents a challenge to both judges and juries.⁷¹ Triers of fact are asked to assess the persuasiveness of technical information from credentialed sources talking about unfamiliar topics. Commentators have expressed concern that jurors will be impressed by jargon and so overawed by credentials that they may be misled by "its aura of special reliability and trustworthiness"⁷² and as a result uncritically accept expert testimony as true. Experts are common in civil litigation, and the 122 experts who gave live testimony in the Arizona Filming Project included physicians and mental health professionals, as well as engineers, financial analysts, and academic scientists. Many of the physicians who testified for the plaintiffs were treating physicians who also gave factual testimony. Juror questions during trial provide an "on-line" indicator of how jurors process expert testimony.

Research on cognitive processing distinguishes between two reactions to persuasive attempts.⁷³ The first is peripheral or heuristic processing which occurs when decision makers are either unmotivated or unable to evaluate the arguments that a communicator is making. Under those circumstances, the decision maker is inclined to use a short cut, a heuristic, to decide whether or not to accept the claims being made. The prestige of the communicator—her occupation or education—provides a peripheral cue to the decision maker that, all other things being equal, he should accept the claims that the high prestige communicator, the expert, is making. If jurors were motivated to avoid the effort of evaluating expert evidence, or if they simply were unable to process the information an expert was offering, they could simply defer and accept the conclusions without engaging in any deeper processing. Jurors would be engaged in peripheral processing if they merely compared the credentials of two opposing experts and accepted the opinions of the more prestigious source.

A second form of processing, central or systematic processing, occurs when a decision maker is motivated to understand and evaluate a persuasive communication, scrutinizing the quality of the arguments and not simply deferring to the claims of a prestigious

71. *Daubert v. Merrell-Dow Pbarms., Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995); Shari Seidman Diamond, *Truth, Justice, and the Jury*, 26 HARV. J.L. & PUB. POL'Y 143, 153-54 (2003).

72. *United States v. Amaral*, 488 F.2d 1148, 1152 (9th Cir. 1973).

73. ALICE H. EAGLY & SHELLY CHAIKEN, *THE PSYCHOLOGY OF ATTITUDES* 326-27 (1993). Shelly Chaiken, *The Heuristic Model of Persuasion*, in 5 *SOCIAL INFLUENCE: THE ONTARIO SYMPOSIUM 3* (Mark P. Zanna et al. eds., 1987); RICHARD E. PETTY, *COMMUNICATION AND PERSUASION: CENTRAL AND PERIPHERAL ROUTES TO ATTITUDE CHANGE 3* (John T. Cacioppo ed., 1986).

source.⁷⁴ The questions jurors submitted to the experts provide a picture of how jurors attempted to deal with expert testimony as it was being presented during trial.

The clearest evidence of peripheral processing would emerge if jurors failed to submit questions to the expert witnesses at all or if they asked only about credentials or experience. In fact, jurors submitted questions for almost half (47.5%) of the expert witnesses, averaging 2.11 questions per witness. Only 15 (5.8%) of the 257 questions concerned credentials or experience. Instead, the nature of the questions generally reflected attempts by the jurors to understand and evaluate the content of the testimony. Many of the questions focused on alternative possible causes for the plaintiff's injury. For example, in a medical malpractice case a juror asked: "What were other potential causes for the. . . damage that you observed and why were they less plausible causes for [the plaintiff's injury] than the cause that you have ascertained?" Others simply tried to clarify what the witness had said. For example, in one case involving a claim of infliction of emotional distress, a juror asked the psychologist, "What does the term 'reasonable psychological probability' mean?". In some of the questions, jurors probed the basis for the expert's conclusions. In a motor vehicle case, a juror asked the engineer who testified about what occurred as a result of the impact, "Not knowing how he was sitting, or his weight, how can you be sure he hit his shoulder?". In a products liability case, the jurors questioned a scientist on his methods for testing and evaluating the product. And in several cases, experts testified about standards of reasonable care and jurors submitted questions asking whether specific governmental or industry regulations applied and, if so, what the codes or regulations said. In sum, the questions as a group reflect a picture consistent with central rather than peripheral processing. In some cases, the expert testimony did not turn out to be pertinent for the jurors in reaching their verdicts (e.g., when a physician testified about the extent of a plaintiff's injury and the jury concluded that the defendant had not been negligent), but in others the jurors discussed the content of the expert testimony extensively during deliberations.⁷⁵ Although engagement of the juror questions with the content of the expert testimony does not mean that jurors reached their decisions based on the information that emerged in response to these questions, it adds

74. Chaiken, *supra* note 73, at 3; see generally Ronald J. Allen & Joseph S. Miller, *The Common Law Theory of Experts: Deference or Education?*, 87 NW. U.L. REV. 1131 (1993).

75. In a future article we will analyze the ways that jurors talk about expert testimony during deliberations.

further evidence that the jurors did not avoid directly dealing with the content of the expert testimony.

4. Argumentative Juror Questioning

The most controversial aspect of juror questioning during trial arises from the concern that a juror given the opportunity to submit questions will assume the role of an advocate, taking sides early and expressing opinions through the questioning process. Although the jurors, whether or not they are permitted to submit questions during trial, form impressions and consider alternative explanations as they listen to the witnesses throughout to course of the trial,⁷⁶ there is a difference between being an active decision maker and assuming the role of an advocate attempting to prove that one side deserves to win.

The prototypical argumentative question is a leading cross-examination-style question that calls for a yes or no answer. Such questions may take the form "Isn't it true that..." or "Wouldn't you agree that..." or "Won't you admit that..." We would not expect jurors, even when they are being argumentative, to express themselves as a cross-examining attorney would, and we found no instances of such questions from the jurors. Argumentative questioning by the jurors took a less direct form, so our definition of argumentative questioning had to be based not on form, but on the substance of the answer that the question was likely to produce. We examined each question, as well as any discussions of the question by the jurors in the jury room, for evidence that a juror posed the question to prove a point. For these argumentative questions, the answer to the question was predictable or assumed that the witness could not give a reasonable answer, and tended to favor one side.

Some questions were argumentative rather than information-seeking on their face. Examples included, "Why didn't you see a doctor until the next day if you were hit that hard?" [for plaintiff]; and "Would weight reduction of a patient with knee problems reduce the incidence of future problems?" [for plaintiff's expert; the plaintiff in this case was substantially overweight]. Others, in context, expressed suspicion about the witness's testimony (e.g., "If he was that bad, why would you not communicate that information to other employers?" [for defendant]) or suggested that the witness had engaged in bad behavior (e.g., "If you were present, why didn't you help him?" [for defendant]).

76. See *supra* pp. 9-10.

Of the 829 questions jurors submitted during trial 69 (8.3%) appeared argumentative.⁷⁷ In the majority of cases (30 of the 50 cases), jurors did not submit any argumentative questions. In 10 of the cases, a single argumentative question was submitted. Strikingly, one case was responsible for 10 of the argumentative questions, and the same juror probably submitted 8 of those 10.⁷⁸ This pattern, while based on a small sample, suggests that concerns that jurors permitted to submit questions during trial will generally become adversarial and argumentative in their questioning are unfounded. Although an occasional juror may exceed reasonable bounds in suggesting questions, the court retains control to intervene in such a situation, declining to allow excessive or inappropriate questioning.

IV. STRIKING A BALANCE: PROCEDURES FOR HANDLING JUROR QUESTIONS

When courts discuss whether it is advisable to permit juror questions, they sometimes appear conflicted. Judges may acknowledge that jurors appreciate the opportunity to submit questions and be convinced that juror questions can help the jury understand and evaluate the evidence. They also quite naturally wish to avoid any changes in court procedures that unnecessarily increase trial time or may threaten the neutrality of the jury.⁷⁹ The trials and the behavior of the jurors we observed provide little evidence that permitting juror questions significantly adds to the length of trials or transforms jurors into advocates. The juror questions in Arizona required only a modest commitment of court time and nearly all of the questions reflected attempts by jurors to fill in and check their understanding of the evidence, rather than to attack or defend a particular position or side, to obtain information rather than to prove a point. No attorney on cross-examination would take such an open and inquiring approach.

The procedures used to handle questions from jurors, however, are crucial to creating an environment in the courtroom that will ensure efficient and effective use of juror questions, maximizing the likelihood that juror questions will contribute to juror understanding, while minimizing the likelihood that a juror will step outside the

77. Two raters read 68 questions and agreed 92% of the time on whether the question had an adversarial tone or not. The kappa value for this pair was .66.

78. The juror explicitly mentioned submitting 4 of the 10; the handwriting on the other questions suggested that the same juror was responsible for 4 of the other argumentative questions submitted in the case.

79. *Spitzer v. Haims & Co.*, 587 A.2d 105, 113 (Conn. 1991) (citing courts' concerns in allowing the procedure, but concluding that jury questioning is not prohibited); *State v. Fisher*, 789 N.E.2d 222, 229 (Ohio 2003).

appropriate boundaries of the juror's role as trier of fact. When jurors in modern American courts are permitted to submit questions for witnesses during trial, they generally can do so only under controlled circumstances. In some respects, the procedures used are similar across courts and jurisdictions. Jurors are instructed that questions should be submitted in writing, that the judge will discuss the questions with the attorneys, and that legal rules might prevent the judge from permitting some questions. In other ways, jurisdictions and individual judges differ in the extent to which juror questions are encouraged and in the procedures used to allow jurors to write down and submit their questions.

The Arizona procedures attempt to carefully strike a balance, enabling but not provoking juror questions. Judges administer a standard preliminary instruction:

If you have a question you would like to ask a witness or me during the trial, write your question down, but do not sign it. Hand the question to the bailiff during a recess. If you have a question for a witness who is about to leave the witness stand, signal the bailiff or me before the witness leaves the stand.

I will discuss the question with the Lawyers. If I decide the question is proper, an answer will be provided at the earliest logical opportunity. Keep in mind, however, that the rules of evidence or other rules of law may prevent some questions from being asked. I will apply the same legal standards to your questions as I do to the questions asked by the lawyers.

If a particular question is not asked, do not guess why or what the answer might have been. The failure to ask a question is not a reflection on the person asking it, and you should not attach any significance to the failure to ask a question.

After each witness, before the witness steps down from the witness stand, the judge turns to the jury to see if there are any questions. When a juror submits a question, the judge then consults with the attorneys out of the presence of the jury, usually at a sidebar, and determines whether to ask the witness the juror's question. If proper, the judge puts the question to the witness.⁸⁰ On occasion, the judge may reword the question in order to clarify the meaning or put it in a form that will make it proper for the witness to answer (e.g., changing "Is [the plaintiff's] stamina back to pre-injury level?" to "Is [the plaintiff's] stamina, based on your observation of her, back to her pre-injury level?"). Attorneys are permitted to ask any necessary follow-up questions. Arizona judges are accustomed to the procedure and the process moves along efficiently.

80. Although an American Bar Association principle suggests that the court may permit a party to ask the juror's question, *see supra* note 2, the better practice is for the court to ask the question. Kristin DeBarba, *Maintaining the Adversarial System: The Practice of Allowing Jurors to Question Witnesses During Trial*, 55 VAND. L. REV. 1521, 1548 (2002).

Other jurisdictions provide less guidance. Most in principle permit juror questions during trial, but leave both the decision whether to permit questions in a particular trial and the procedures used to implement the questioning process to the discretion of the judge. The effect of this open-ended approach is that when judges permit questions, they use a variety of procedures that can affect both the type and number of questions that the jurors submit.

The procedures used are important. As laypersons, jurors look to the court for guidance throughout the trial. Courts, by providing guidance, can create an optimal environment for productive use of juror questions, addressing almost all of the objections typically raised about juror questions through the procedures they use in their courtrooms. The goal is to strike a balance, both facilitating appropriate juror participation and discouraging juror inquiry that exceeds reasonable bounds. The key is a clear initial instruction for the jurors, with follow-up as needed during the trial. Based on the data from the Arizona Filming Project and a pilot project on jury trial innovations recently conducted by the Seventh Circuit Bar Association,⁸¹ we consider three issues that may arise when courts permit juror questions, and the procedures courts can use to address those issues.

A. Too Many Questions?

In the Arizona Filming Project, jurors submitted an average of 16.6 questions per trial (median = 10); in the Seventh Circuit Pilot Project, 11 federal judges permitted questions in 20 federal civil jury trials and jurors submitted an average of 29 questions per trial (median = 15.5). In both jurisdictions, the number of questions was directly related to the length of the trial ($r = .55$ in Arizona, and $r = .54$ in the Seventh Circuit). The federal trials tended to be longer, and when we control for the number of days of trial, the rate of questions in the two jurisdictions was strikingly similar. The Arizona jurors submitted an average of 5.3 questions per trial day (median = 3.8) and the Seventh Circuit jurors submitted an average of 5.5 questions per trial day (median = 3.9). Other reports of the number of questions

81. One of us (S.S.D.) is a member of the Seventh Circuit Bar Association's American Jury Project Commission, charged with conducting the Pilot Project. After examining the questions and interviewing the judges, she reported on the experiences with juror questions at the 7th Circuit Conference in May, 2006. See James R. Figliuolo, *7th Circuit Jury Project*, FED. JUDGES ASS'N NEWSL., June 30, 2006, available at https://www.federaljudgesassoc.org/egov/docs/newsletters/38_47_391.asp (last visited Sept. 10, 2006).

submitted by jurors have not controlled for trial length, so it is difficult to directly compare them with these numbers.⁸²

The optimal number of juror questions, whether per case, or per trial day, or per witness, should vary across cases and witnesses, reflecting the clarity, difficulty, and importance of the testimony that generates the questions. As shown in the analysis of questions from the Arizona Filming Project, the questions from jurors do tend to focus on central issues⁸³ and witnesses.⁸⁴ Although the judges in a majority of the trials in the Seventh Circuit Pilot Project in which jurors submitted questions reported that the number of questions was either just right (60%) or there were too *few* questions (10%),⁸⁵ judges did preside over some cases in which they thought jurors submitted too many questions (30%). The cases they labeled as having too many questions averaged 9.9 questions per day of trial, those labeled as about right averaged 4.1 questions a day, and those they thought produced too few jurors questions averaged less than 1 (.2) per day. Judges did, however, use more than the raw number of questions submitted in deciding whether the number was appropriate. For example, the same judge who found 11.8 questions per day to be too many in one trial, reported that 12.5 questions per day in another trial was just right.

It is impossible to determine out of context precisely how many questions are too many, too few or "just right." Nonetheless, based on the data from Arizona study, we can suggest some broad guidelines for judging when jurors are likely to have exceeded a reasonable number. In the Arizona cases we studied, 87% of the 392 live witnesses received 5 or fewer total questions from the jury. Only 16 of the witnesses drew more than 10 questions, but these 16 witnesses received a majority (51%) of the argumentative questions that jurors submitted. Moreover, the questions they received were twice as likely to be argumentative (14% of their questions) as the questions submitted for other witnesses (6%). This pattern suggests that courts can discourage both unreasonable and excessive numbers of questions by giving jurors some expectation about the level of questioning that is appropriate. Recognizing that the value of juror questions varies across cases and witnesses, it would not be advisable to set a particular limit on the number of juror questions permitted. Indeed,

82. Mott, *supra* note 11, at 1113 (reporting a median of seven questions per case).

83. See *supra* Part IV.C.1.

84. See *supra* Part IV.C.

85. Judges, jurors, and a majority of the attorneys who participated in trials in which questions were permitted responded positively to the experience. FigliuIo, *supra* note 81; see James F. Holderman, *Trying the ABA's Jury Principles*, 32 LITIG. (forthcoming 2006).

one of the witnesses in the Arizona study who received more than 10 questions was an expert whose testimony was clarified considerably by juror questions. Instead, appropriate guidance can be supplied by an instruction that tells the jurors: "Based on our experience with juror questions, you are unlikely to have more than a few questions for a single witness."

As we demonstrate in the following section, jurors can be easily discouraged from submitting questions, so it is important in conveying an expectation about limited questioning that courts do not inadvertently discourage jurors from submitting any questions (e.g., by suggesting that a question from a juror would be unusual or rarely needed).

B. Too Few Questions?

Some evidence indicates that jurors can be inappropriately discouraged from submitting questions that would help them to understand and evaluate the evidence by the procedures court use. In the Seventh Circuit Pilot Project, the jurors in 20 trials submitted questions. In 7 additional trials, the judge gave an instruction at the beginning of the case indicating that juror questions were permitted, but none of the jurors ever submitted a question. The crucial difference between the two groups of trials was whether or not the judge mentioned the possibility of juror questions again *after* the initial introduction. In the 20 trials in which jurors submitted questions, 10 of the 11 judges asked the jury after each witness if there were any questions; the 11th asked only after the first witness and received questions only for that witness. But the 3 judges who presided in the 7 remaining trials in which no questions were submitted mentioned juror questions only in their initial introduction before testimony began and never again mentioned the possibility of juror questions. It turned out that when the judges only mentioned juror questions in their introductory remarks, many jurors simply did not realize that questions were an option when the time for questions came. On their post-trial questionnaires, only a third (38%) of the jurors in these cases reported that they were permitted to submit questions.

By contrast, among jurors who sat on trials in which the judge mentioned the possibility of submitting questions during the trial, 99% understood that questions were an option. When the judges mentioned only at the outset of the trial that jurors would be permitted to ask questions, jurors received their only information about questions at the same time that they received other important

and sometimes complex information. When the judge never reinforced the message about juror questions during the trial, most jurors did not recall the embedded instruction. Moreover, by not turning to the jurors to check for question after a witness finished testifying, judges inadvertently made it necessary for a juror to essentially interrupt the proceedings in order to submit a question. None did.

The experience of the Seventh Circuit Pilot Test with juror questions demonstrates that a real opportunity to submit questions is created only when jurors know it is there and when the jurors have a reasonable opportunity to actually submit the questions they have. It is apparent that a single mention of the procedure at the outset of a trial is not sufficient.

C. Appropriate Questions and Court Intervention?

We saw relatively few instances of argumentative questions, but those few questions may be avoidable if jurors receive some initial advice on the kind of questions that are appropriate. The judge can provide the jurors with a sense of the boundaries they should consider in posing questions in their role as jurors. One possible (but as yet untested) approach might include the following language:

During the trial, you may find it useful to submit a question for a witness to clarify or help you understand the evidence. You should always phrase any questions in a neutral way that does not express an opinion about the case or a witness. Remember that at the end of the trial, you will be deciding the case. For that reason, you must keep an open mind until you have heard all of the evidence and the closing arguments of counsel, and I have given you final instructions on the law.⁸⁶

On the rare occasions that a juror submits an argumentative question, the judge should either rephrase the question or should not ask it, even if the question would otherwise be proper. Jurors are always told at the beginning of the case that some of their questions may not be asked and they generally accept it philosophically when the question is not asked.⁸⁷ Out-of-role questions should be recognized as in this category. If the judge has instructed the jury earlier on the appropriately neutral form that juror questions should take, an argumentative question may also be an occasion for reminding the jurors of that earlier instruction.

When courts permit jurors to submit questions for witnesses during trial, they increase the satisfaction of the citizens who serve as jurors and can foster greater juror understanding of the evidence.

86. Adapted from language suggested by the Honorable David Hamilton, Southern District of Indiana, and the Honorable William Donnino, Nassau County, State of New York.

87. See Diamond et al., *supra* note 26, at 27.

However, this does not mean that courts should relinquish the ordinary control they exercise in the courtroom. By guiding jurors with clear instructions on the procedures that will be used and the kind of questions that are permissible, courts can both promote juror satisfaction with the trial process and encourage informed decision making.

V. CONCLUSION

Juror questions submitted during trial provide an unusual opportunity for both attorneys and researchers to learn about how jurors are reacting to the trial. At the same time, it is possible to read too much into the questions the jurors pose. The juror questions that are submitted during trial, as opposed to juror questions submitted during deliberations, come from individual jurors and do not always reflect what the jury as a whole thinks about the case. Even the individual questioners may ultimately come to focus on other issues in deciding the case.⁸⁸

Juror questions and jury talk about the topics covered in those questions do, however, provide valuable insights about where jurors focus their attention during trial, what they struggle with, and how they attempt to deal with the frequently incomplete and inconsistent evidence that emerges in a trial. The primary focus of juror questions is on understanding and evaluating the evidence relevant to central legal issues in the case. In the course of that effort, the jurors sort through the evidence looking for reliable sources of information, comparing for consistency among sources and probing available measures and standards. This commonsense cross-checking approach reveals a palpable consciousness of the adversary nature of the courtroom setting. Moreover, the jurors recognize that ultimately it will be up to them to draw conclusions about the competing claims. Jurors' questions reflect, sometimes awkwardly, but often insightfully, their attempt to resolve the ambiguities and uncertainties that competing accounts naturally evoke. The questions reveal that, rather than assuming the role of advocates during the trial, jurors are instead intensely engaged in the task of problem-solving.

88. In their closing arguments, attorneys in 20 of the cases referred to the questions the jurors submitted during trial, focusing on specific questions in 18 of the cases. During the deliberations, jurors in only 4 of these cases explicitly talked about a question mentioned in closing arguments.

Jurors tend to be enthusiastic about the opportunity to submit questions during trial.⁸⁹ As one of the jurors from the Arizona Filming Project commented to the other members of her jury, “I think it’s good that juries can ask questions because they are the ones that have to decide.” Attorneys and judges have initially approached the prospect of juror questions with some trepidation, but generally become more favorable after they have had some experience with the process and the nature of the questions that the jurors ask.⁹⁰ What do these results imply about the value for the trial process of permitting juror questions during trial, beyond that of assisting the jury? An observation from Judge Frank Easterbrook is relevant here.⁹¹ Arguing that counsel appearing before an appellate court should be happy to focus on court questions rather than on attorney presentations, he writes: “Far better to learn of the judge’s qualms while time remains to give the answer, than to be shocked when the opinion appears.”

89. B. Michael Dann & Valerie P. Hans, *Recent Evaluative Research on Jury Trial Innovations*, 41 CT. REV. 12, 28 (2004) (reporting on findings from various studies).

90. *Id.* at 15.

91. Interview by Howard J. Bashman with Frank Easterbrook, Judge, U.S. Court of Appeals for the Seventh Circuit (Aug. 2, 2004), http://howappealing.law.com/20q/2004_08_01_20q-appellateblog_archive.html (last visited Sept. 10, 2006).