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Beyond Fantasy and Nightmare: A Portrait of the Jury

SHARI SEIDMAN DIAMOND†

INTRODUCTION

The jury is a magnet for popular and legal scrutiny. The focus on the jury is not surprising, since we entrust to the jury some of our most difficult and important decisions. Attention, of course, does not mean careful analysis or systematic study, but it can stimulate vigorous reaction. Widespread interest in the jury has generated a host of images and beliefs, some of them inconsistent and most of them based on little or no evidence. It is only in the past forty years that scholars have been conducting systematic empirical research on the jury. This research provides a basis for questioning the claims typically made about jury behavior. Here I review some of these claims, outline the various approaches taken to test their accuracy, and discuss what we have learned (and not learned) from empirical studies of the jury.

I. TEN COMMON IMAGES OF THE JURY

1. Juries in Civil Cases Tend to be Pro-plaintiff

The typical civil case tried by a jury is a tort action in which the plaintiff claims the right to be compensated for injuries allegedly caused by the defendant. The incidents that give rise to these jury trials range from the ubiquitous automobile accident to consumer injuries allegedly arising from a defective product and patient injuries allegedly

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caused by the negligence of physicians and other medical personnel. Popular culture, encouraged by the insurance industry,\(^1\) views the jury as unreasonably sympathetic to the injured plaintiff, eager to compensate or overcompensate both imaginary injuries and misfortunes not attributable to the actions of the defendant.

2. Juries are Generally Made Up of Uneducated Citizens Who Can’t Figure Out a Way to Get Out of Jury Duty

This image of the jury is often accompanied by the complaint from educated citizens or corporate executives that they cannot possibly be tried by a “jury of my peers” because the jury pool fails to draw on middle and upper class citizens. A contrary image is also prevalent: citizens who are poor, less educated, or minorities are underrepresented on the jury. The ideal of a democratic jury, whose commonsense justice is informed by a diversity of perspectives, conflicts with both of these images.

3. The Case Begins and Ends with Jury Selection

In determining whether prospective jurors will serve in a particular trial, they are questioned by the judge and/or the attorneys. Litigants, through their attorneys, can ask the judge to remove jurors who indicate bias in responding to these questions (challenges for cause) and parties are also permitted to excuse a limited number of otherwise eligible citizens from the panel without giving reasons for those decisions (peremptory challenges). The claim is made that this opportunity to question and to challenge jurors permits a skilled attorney, sometimes aided by a jury consultant, to produce a jury that will be sure to deliver a favorable verdict for the attorney’s client.

4. Citizens Set Aside their Prejudices and Biases When They Take on their Roles as Jurors

Trial court judges and politicians frequently express this view of citizens as transformed by the mantle of jury service. After all, the judge instructs jurors that they should rely only on the evidence that is presented in the courtroom and the law as the judge describes it to them in reaching their verdict. Appellate courts presume that the jury follows the judge's instructions on the law.

5. The Opening Statements Determine the Verdict Because Jurors Make Up their Minds by the Time that Opening Statements are Concluded

Attorneys craft their opening statements to be persuasive messages that will frame jurors' understanding and interpretation of the evidence. The claim is made that by framing the issues, providing meaning and explanations, and supplying jurors with a story that favors their client, a skilled attorney can gather support that the evidence and legal instructions that follow will be unable to dislodge.

6. Jurors Will Uncritically Accept the Claim of a Highly Credentialed Expert who Presents Complex Testimony that the Jurors are Unable to Understand

The legal system allows a witness to offer an opinion rather than confining the testimony being offered to directly observed events if the witness can demonstrate through experience and/or training that he or she qualifies as an expert on a relevant issue. Experts are expected to have knowledge that will "assist the trier of fact." Apparent expertise is a powerful source of credibility outside the jury-room, so concern is often expressed that jurors, impressed and misled by the jargon of an apparently knowledgeable witness with an extensive resume, will uncritically accept the expert's claims.

7. Jurors Generally Ignore the Judge's Instructions on the Law and Rely on their Own Standards to Reach a Verdict

Although jurors are instructed on the law they are to apply, the jury verdict is determined by what the jurors choose to do during their deliberations. Thus, if their standards or prejudices conflict with the judge's outline of the applicable law, the jurors have the power, if not the right, to reject the legal directives and arrive at a verdict based on their own standards or lack of standards.

8. The Foreperson is a High Status Juror who Controls the Jury’s Deliberations and Determines the Jury’s Verdict

Jurors are generally given little or no guidance in how to arrive at a verdict once the evidence is in and they have been instructed on the applicable law. In most states, however, jurors are told to select a foreperson who will preside over their deliberations. With no other information or standards to rely on, it is assumed that jurors will choose or allow an apparently high status (usually male) member to seize control of the foreperson's position. The image is that by strategically manipulating discussions and votes, the foreperson then controls the course of the jury's deliberations and its ultimate verdict.

9. The Most Talkative Juror Dominates the Jury’s Deliberations and Has the Strongest Influence on the Jury’s Verdict

This portrait of the jury presents a picture of the long-winded juror who occupies center stage in deliberations, dominating discussion and thereby inhibiting the flow of productive exchange among jurors. The overbearing behavior of this juror wears the other members of the jury down and the verdict reflects not the persuasive arguments of an effective communicator but merely the views of an active and persistent talker.

3. In a few states, New York for example, the identity of the foreperson is not determined by the jury. See N.Y. CRIM. PROC. LAW § 270.15 (McKinney 2006) (explaining that the juror whose name is drawn first and not excused will be designated by the court as the foreperson).
10. Deliberations are Mere Window-dressing: The Verdict of the Jury Will be the Position of the Majority of Jurors Before the Deliberations Begin

The final image on this list is of jurors who know the verdict they support before they begin to discuss the case with their fellow jurors. A vote at the beginning of deliberations reveals where the majority stands, and all that remains is to convince those in the minority that either they are wrong or that they should simply accept the position of the majority.

A careful reading of this list reveals that many of the claims made about juries are inconsistent. For example, if jury selection determines the verdict, then opening statements, evidence, and judicial instructions can have no effect on the outcome of the trial. Similarly, if the most talkative juror is the most influential, the foreperson cannot determine the verdict unless the foreperson always talks the most. Further, neither the most talkative juror nor the foreperson can be the most influential if the majority at the beginning of deliberations determines the verdict unless the juror who will be the most talkative juror or the foreperson is always in the majority when deliberations begin.

How, then, might we evaluate the accuracy of these claims? Social scientists interested in the jury have used a variety of tools described in Part II of this Essay. Be forewarned, however, although some of the tools are quite powerful, none provides a "truth pellet" enabling the researcher to produce unequivocal results or findings that are susceptible to only one interpretation. It is fair to say, however, that the skilled application of a combination of the methods outlined below has reduced our uncertainties and made some claims and interpretations more plausible and others less plausible. Moreover, what we have learned by combining these various approaches provides a far firmer basis for drawing inferences about the jury than the anecdotal approach that frequently grounds public discourse on the jury.
II. WAYS TO STUDY THE JURY

The jury conducts its work in a partially public setting. The jury is generally selected in a public courtroom and watches the trial in the full view of the judge, attorneys, parties, and spectators who are present in the courtroom. At the end of the trial, the door closes. The jury retires to deliberate in the privacy of the juryroom, emerging occasionally to ask a question, but more commonly, only to report its verdict. The court records the verdict and keeps some records on the trial and the jury. For example, docket sheets reflect the nature of the case, when the trial began, and when the jury delivered its verdict. A court reporter generally takes down everything that occurs in the courtroom, but the court reporter will not produce a transcript of the proceedings unless someone pays to have it produced (e.g., in a high stakes case if the parties order a daily transcript or if there is an appeal). In contrast, jury deliberations occur outside the presence of any non-juror and courts do not record the conversation that occurs in the juryroom. The jury in the United States gives no explanation for its verdict and the jurors return to their pre-trial lives without revealing any information about how they arrived at their decisions.

In our efforts to understand jury behavior, researchers have used a variety of methodological approaches. The primary methods are: (1) observing jury deliberations, (2) ar-

4. Some judges supplement the public questioning of prospective jurors with an additional interview in chambers when a juror indicates that a question opens an area of inquiry that would cause him or her embarrassment to address in a public courtroom. Some judges routinely question jurors individually in chambers with only the attorneys present. Gregory E. Mize, On Better Jury Selection: Spotting UFO Jurors Before They Enter the Jury Room, 36 Ct. Rev. 10 (1999).

5. The newly re-introduced Spanish jury is required to give a rationale for its verdict. See Stephan Thaman, Europe's New Jury Systems: The Cases of Spain and Russia, 62 Law & Contemp. Prob. 233 (1999). Questions are often raised about the extent to which the written opinions of judges reveal how they have arrived at their verdicts. The rationales provided by the Spanish juries suggest that the group rationale of a lay jury may be even less illuminating.

6. The judge generally tells the jurors in high profile cases that they have no obligation to speak to members of the press who may contact them and may even advise the jurors not to speak to the press. Jurors, however, may choose to answer questions if and when they are approached.
chival research on jury decisions, (3) post-trial interviews with jurors, (4) surveys of other trial participants (judges, attorneys), and (5) experiments with real and simulated juries. All of them have contributed to our knowledge about the jury; none provides complete information.

1. Observing Jury Deliberations

An obvious way to study the behavior of any decision-making body is to watch it as it reaches its decisions. Opportunities for courtroom observation are insufficient to reveal patterns in jury decision-making. Thus, to learn how a jury reaches its verdict, a natural approach would be to put the jury behind a one-way mirror, watch it deliberate, and record how its behavior varies with the composition of the jury and the characteristics of the case that the jury is charged with deciding. The early efforts to study the jury included a version of this approach. Harry Kalven, Jr. and Hans Zeisel at the University of Chicago, with support from the Ford Foundation, mounted the first major study of juries in the United States. As part of their research, they audiotaped several civil jury deliberations. The effort was short lived. After one of the tapes was played at a judicial conference, an uproar ensued that resulted in legislation that prohibits the recording of federal jury deliberations for any purpose, including research. Although not all states have legislation that bars access to jury deliberations, there have been only a few instances in which deliberations have been observed or recorded because courts have been reluctant to permit observation even when no law forbids it. Researchers interested in the jury have generally been forced to study the jury using less direct methods of access. In the single exception to this pattern, a team of researchers, with permission from the Pima County Superior Court in Ari-

7. Additional approaches include attempts to model jury behavior based on various assumptions about, for example, how initial votes are distributed and how they are likely to be combined, and shadow juries, a rarely used method, probably due to its high cost, in which a simulated jury sits through an actual trial. See Hans Zeisel & Shari Seidman Diamond, The Effect of Peremptory Challenges on Jury and Verdict, 30 STAN. L. REV. 491 (1978).


9. Id. at vi-vii. For a more detailed account of the reaction, see JAY KATZ, EXPERIMENTATION WITH HUMAN BEINGS 86 (1972).
zona and the cooperation of jurors, attorneys, and litigants, were allowed to videotape fifty actual civil jury trials and deliberations in order to examine the effect of recent jury reforms on jury behavior. All other jury research has used more indirect methods to study the jury.

2. Archival Research

One method, common to much of the research on jury behavior, is to examine jury verdict patterns. Thus, researchers have looked at court statistics across jurisdictions to determine jury conviction rates and to evaluate whether conviction rates have changed over time. They have also collected information on case characteristics and jury verdicts in an effort to understand how the two are related. These archival studies have shown, for example, that award size increases with the severity of the plaintiff's injury and that black defendants who were convicted of killing white victims were more likely to receive the death penalty than were black defendants convicted of killing black vic-


Researchers have also been able to take advantage of the various local commercial jury verdict reporters that compile information on individual jury verdicts and case characteristics to examine, for example, win rates and average damage levels in various types of cases.\textsuperscript{14}

All of these studies avoid the weakness of the single case anecdote or the limited sample of a handful of cases. They can provide a rich description of patterns in jury verdicts and rates of jury trials. They are limited, however, in two important ways. First, archival data reflect only the cases they are able to track and the sources that provide those data. Most commercial jury verdict reporters depend on the reports of the litigating attorneys for information on the cases, so that the reporter may obtain incomplete data because those sources (1) fail to provide information on some cases, and (2) do not provide accurate information on the reported cases. Studies of the jury that are based on jury verdict reporters reveal a systematic underrepresentation of cases resulting in findings of no liability and low damage awards.\textsuperscript{15}

A second weakness of archival studies as a source for understanding jury behavior is that the attributes of the case and the jury that they reveal are limited to the attributes that are recorded. Thus, the archival studies that draw their data from sources with more comprehensive coverage of verdicts than the commercially available jury verdict reporters (e.g., official reports of courthouse filing or searches of courthouse records) generally can report on only a limited number of variables.\textsuperscript{16} The trade-off between archival studies and other data sources is that archival studies of jury behavior are able to describe a large sample of cases, while other methods that require original data collection measure more attributes of a smaller group of cases.

\begin{itemize}
\item \textsuperscript{14} Stephen Daniels \& Joanne Martin, \textit{Civil Juries and the Politics of Reform} (1995).
\end{itemize}
3. Post-trial Reports of Jurors

After a trial is concluded, researchers (and journalists) often attempt to reconstruct what occurred during deliberations. The advantage of this research approach is that the respondents were present during deliberations and thus in a position to observe what occurred. The disadvantage is that they were participants, involved in deciding the case rather than in carefully tracking the behaviors that occurred in the course of the discussions. Moreover, researchers are often interested in questions that even the most attentive observer would need training to assess. For example, when did the first vote take place? This deceptively simple question requires that respondents have paid attention to the timing of voting or are able to reconstruct when it occurred from their recollection of the timing of other events. Moreover, they must understand what the researcher means by a vote. The researcher can easily explain that a vote may be by secret ballot or verbally or by a show of hands, but the explanation gets more complicated: is it a vote if only six of the twelve jurors vote and then someone raises a question and the jury turns to a discussion of the evidence, voting only an hour later by a show of hands from the group as a whole? And what does the vote have to be about? In an automobile accident case, a jury might have to decide whether the defendant was negligent, whether the negligence caused the plaintiff's injury, and the extent of the injury caused by the defendant's negligence. Does a vote on whether the defendant was negligent constitute a vote? What if the foreperson says, "Are we all agreed that the defendant was speeding?" and several jurors nod, and the group then moves on to discuss whether the defendant's negligence caused injury to the plaintiff? Has a vote occurred? In a criminal case involving alternative verdicts (first degree murder, second degree murder, manslaughter, acquittal), does agreement that the defendant did not have the mental state required for first degree murder constitute a vote? These complexities and potential ambiguities illustrate why it should be no surprise that researchers find substantial disagreement on post-trial interviews and ques-
tionnaires about what occurred in jury deliberations from jurors who served on the same jury.\textsuperscript{17}

Two further obstacles arise when researchers depend on post-trial juror reports. First, it is rarely possible to interview jurors immediately when the trial ends, so that memory decay may impair juror recollection. Second, and more importantly, jurors are limited in their perspective on deliberations by being participants in the process. They are answering questions and providing information through the filter of their own understanding of what occurred. Post-trial interviews and surveys can control for many of these potential weaknesses. If researchers interview multiple jurors from the same case, they can compare the reactions across jurors. Thus, if a substantial majority of the jurors on the same case recall that the jury discussed the judge's instructions on reasonable doubt, that report is more likely to be accurate than if a single juror recalls that the instructions were discussed. Some juror responses, however, even those from a majority of the jurors, may systematically distort actual events. For example, if jurors are admonished by the judge that they are not to consider insurance, post-trial interviews may fail to reveal that the jurors adjusted their award because they concluded that the defendant was insured; the jurors may be unwilling to disclose this violation of the judge's instructions. In addition to motivations that distort juror responses are cognitive effects that may alter the perceptions of the most cooperative interviewee or survey respondent. Jurors are being questioned about the process that produced the verdict they ultimately voted for and they know how the trial came out. The outcome can have a powerful impact on jurors, leading them in retrospect to view the verdict ultimately arrived at as inevitable and thereby affecting their recall of the process that produced it.\textsuperscript{18}


4. Surveys of Other Trial Participants (Judges, Attorneys)

When researchers question judges and attorneys about the jury trials they have participated in, these knowledgeable respondents can provide an informed perspective on the characteristics of the trial and the behavior of the jury. As with any other informants, the perspective of these observers influences what they report about the trial and the jury. For example, the defense attorney characterizes the defendant in a trial as the crucial witness while the prosecutor identified another witness as more important. If the responses from both attorneys can be compared, at least the range of opinion can be assessed, even if there is no direct evidence from either response on which witnesses actually influenced the jury more (note that the verdict cannot answer the question, since witnesses can influence the jury either positively or negatively). If the two attorneys agree, that agreement offers substantially better grounded evidence than either alone would provide.

Some of the influences on informants are less obvious and more difficult to control for. For example, in their classic study of the jury, Kalven and Zeisel surveyed trial judges, asking them for each jury trial they presided over to report on the characteristics of case, the jury's verdict in the case, how the judge would have decided the case, and, if the judge disagreed with the jury's verdict, why they thought the jury arrived at a different verdict. If judges generally filled out the questionnaire after they knew the jury's verdict, it is likely that they were somewhat influenced by the jury's verdict not only in their assessment of how they would have decided the case, but also in their reports about characteristics of the case, such as the attractiveness of the defendant. The size of that influence is impossible to gauge. A few researchers have attempted to overcome these limitations or at least to measure their effects by obtaining the responses of multiple informants or to measure the ways in which post-verdict and pre-verdict responses from judges differ.


Many questions about juries are causal questions (e.g., how does a unanimity versus a majority decision rule affect jury verdicts?) and questions about jury decision-making processes (e.g., how do juries go about resolving their differences?). Some of these questions have been posed in the context of proposed jury reforms. For example, what are the effects of permitting jurors to ask questions or to discuss the evidence before the end of the trial? Experiments, whether field or simulated, provide the strongest evidence on causal inference. In a successful experiment, the only difference between groups receiving the experimental treatment (e.g., permitting jurors to ask questions) and those not receiving it is the experimental treatment itself. Thus, any difference in outcomes can be directly attributed to the experimental treatment.

In a field experiment, actual trials are assigned to varying conditions (e.g., jurors in some trials are permitted to ask questions, jurors in other trials are not permitted to ask questions). When these experiments involve jury trials, they require substantial cooperation from the courts and close monitoring to ensure that random assignment to experimental conditions is being successfully implemented. Not surprisingly, therefore, field experiments on jury trials are relatively rare and the measures collected to assess effects are generally limited.

In simulation experiments, by far the most widely used method of studying the jury, jurors or juries are also randomly assigned to experimental conditions, but the trials are simulated (although they may be drawn from real trials). Simulation experiments combine control with the opportunity to examine the process of decision-making. Simulations vary in the degree to which they approximate the conditions of a real trial. In the closest approximations they include videotaped trials that include witnesses, arguments and instructions, jurors who participate during their jury service, and deliberations. The extent to which behaviors observed in the less elaborate simulations, or indeed in the more elaborate simulations, mirror the behavior of real ju-
ries is unknown, although much evidence suggests substantial correspondence between results from simulations and from other research approaches.

III. WHAT WE'VE LEARNED, HOW WE'VE LEARNED IT, AND OBSTACLES ALONG THE WAY

All of the ten jury images described in Part I have been the subject of empirical research using at least one of the approaches described in Part II. Researchers have been selective in their research strategies, in part because not all of these beliefs about the jury are susceptible to investigation by all methodological approaches. For example, archival research is only possible when someone has decided that a particular measure was worth recording and is only useful if those assigned to record the information have done so diligently. Thus, researchers cannot use archival data to study the distribution of final votes on the jury in jurisdictions that do not require unanimous verdicts unless the courts have recorded them. In considering the available evidence pertaining to each of the ten jury images, I will discuss the strengths and weaknesses of the evidence in light of the methodological approach chosen by the researchers who have examined them.

1. Pro-plaintiff Juries?

Although the popular press recently has portrayed jurors as indiscriminately pro-plaintiff, archival research produces a different picture. In tort cases decided by juries, estimates based on cases sampled from court files in the seventy five most populous counties suggest that plaintiffs prevail on average in 51% of cases, a percentage that varies from 26% in medical malpractice cases to 69% in cases of animal attacks. Moreover, the plaintiffs' success rate is


artificially inflated because liability is either uncontested or only partially contested in some percentage of the cases counted as plaintiff victories.24

One can, of course, construct an explanation for this pattern that is consistent with the pro-plaintiff jury: anticipating that the jury will be pro-plaintiff, defendants settle the cases they are likely to lose, taking their chance with a jury only when the evidence strongly favors them. Nonetheless, as a descriptive statement of what juries do with the cases that they are asked to decide, it is inaccurate to say that juries generally find for the plaintiff. In addition, when we examine the behavior of simulated juries, review post-trial interviews with real jurors, or watch real juries deliberating, we find jurors who are highly suspicious of plaintiffs and unsympathetic when they encounter complaints from individuals they suspect may be whining or greedy.25 Moreover, the few studies that have compared the liability verdicts of judges with those of jurors have shown no tendency for jurors to be more inclined to find for the plaintiff than are judges.26

Even if juries are not pro-plaintiff when it comes to liability, are they over-generous in awarding damages? Here the picture is more mixed, when we compare jurors and judges and when we interpret the meaning of the results. Some researchers have found no difference,27 while others have found that jurors tend to make somewhat higher awards. For example, Kalven and Zeisel found that judges agreed with the jury on liability 78% of the time, and among cases in which they disagreed, the jury found for the plaintiff half the time.28 When the judge and jury agreed on


24. Diamond et al., Juror Discussions, supra note 10, at 19 n.45.

25. Id. at 13; see also VALERIE P. HANS, BUSINESS ON TRIAL: THE CIVIL JURY AND CORPORATE RESPONSIBILITY (2000).


28. KALVEN & ZEISEL, supra note 8, at 63-64.
liability, however, juries on average awarded 20% more than the judges reported that they would have awarded. Similarly, in a recent large scale survey of jury-eligible citizens, attorneys, and judges involving case summaries, Roselle Wissler and her colleagues found that the jury-eligible respondents in Illinois on average gave higher awards for pain and suffering than did the judges, while in New York, the award levels did not differ. In both Illinois and New York, the jurors’ average awards were between those of the plaintiffs’ attorneys and those of the defense attorneys. In both jurisdictions, injuries that were given larger awards by one group also tended to receive larger awards from the other groups. What explains these differences and similarities? Studies of the decision-making processes of both jurors and judges suggest that they rely on similar injury attributes and use them in similar ways in reaching judgments about injury severity. Jurors in the Wissler study, however, did see the injuries as somewhat more severe than did other respondents. The final quagmire is that the appropriate level for a pain and suffering award is ambiguous. If jurors give awards that are less than the plaintiff’s attorney thinks are adequate and more than the defense attorney thinks are appropriate, and the jury bases its award on a defensible combination of relevant criteria, is it accu-


30. Id.

31. Id.


33. Wissler et al., supra note 29, at 774-75.

34. A similar question arises for punitive damages, which occur in 3% of jury trials. Thomas H. Cohen & Steven K. Smith, Civil Trial Cases and Verdicts in Large Counties, 2001, tbl.2, Apr. 2004, http://www.ojp.usdoj.gov/bjs/abstract/ctcvcic01.htm (3% obtained by multiplying the overall win rate of .526 by the percentage of cases with punitive damages when plaintiff wins (.057) in Table 2). Punitive damage awards attract a disproportionate attention in the debate about allegedly pro-plaintiff jury behavior due to a small number of unusually high awards. Shari Seidman Diamond & Mary R. Rose, Real Juries, Annual Rev. Law & Soc. Sci. 255, 264 (2005).
rate to characterize the jury’s behavior as pro-plaintiff even if judges would award somewhat less? Or are the judges merely conservative or pro-defendant?

2. How Representative is the Jury?

Jury composition has changed dramatically over time. The early English jury was composed of male property owners summoned to decide a case because they were familiar with the facts. The modern American jury is the product of a multi-stage selection process that typically begins with a list of potentially eligible jurors drawn from voter registration lists and often supplemented by individuals holding drivers’ licenses in the general geographic area where the court sits. If the list has not been recently updated, it becomes less representative of the population from which it is drawn. For example, according to one estimate, a master list of voters updated every four years would exclude two-thirds of the potential jurors under thirty. Disproportionate losses also occur for minorities due to higher geographic mobility.

Once the master list is compiled, the court mails qualification questionnaires to the addresses of individuals randomly selected from the list. A substantial number (over 20% in Dallas, an average of 12% according to a national survey of state court administrators) of questionnaires are returned by the post office as undeliverable and others are simply not returned. Individuals returning the questionnaires may fail to qualify for jury service if they are not citi-


zens or if they indicate that they cannot read or write English. Others may be excused from service if they are infirm, or if they are the primary caretaker for a sick or elderly individual or for young children. Until recently, most states excluded from jury service individuals in particular occupations (e.g., physicians, lawyers, clergy). Currently, over two-thirds of states have fewer occupational exemptions and half have no automatic exemptions. Where juror pay is low (e.g., $6 per day in Dallas until recently) and a prospective juror works on commission or for low wages with an employer who will not pay the juror during jury duty, judges are more willing to grant an excuse for economic hardship. In some jurisdictions, the jury summons is part of the juror qualification questionnaire. In most, however, the court sends a jury summons to prospective jurors after it has determined, based on the qualification questionnaire, that they are qualified to serve. An estimated 20% of those who receive a jury summons do not respond to it, although a failure to respond constitutes a violation of the law. A few courts have begun to prosecute jurors for a failure to respond (e.g., New York), but most courts simply summon enough jurors to obtain a yield that will fill their needs.

The loss of prospective jurors at each stage of the qualification and summons process is not random. A comparison of the demographic characteristics of the adult citizenry of a geographic area with the jury pool in the court that draws from that area reveals a systematic underrepresentation of


41. Id; see also Anne Skove, Jury Management: Exemptions from Jury Duty, May 2, 2006, http://www.ncsconline.org/WC/Memos/JurManExemptionsMemo.htm. For example, as of July 2006, Indiana eliminated all automatic exemptions. Previously, licensed dentists and veterinarians were excused, as well as members in active service of the armed forces, elected or appointed governmental officials, honorary military staff officers appointed by the governor or in the guard reserve forces authorized by the governor, members of the board of school commissioners of the city of Indianapolis and members of police or fire departments. IND. CODE ANN. § 33-28-4-8 (West 2006).

minorities, younger individuals, and those at lower income levels.\textsuperscript{43}

The composition of the jury pool does not represent the final stage in jury selection. That stage occurs when the prospective jurors from the jury pool are brought into the courtroom and questioned to determine whether they will serve in the particular case. Those who express clear preconceived notions about what the verdict in the case should be or have a connection with the parties that indicates a conflict of interest are excused by the judge (the challenge for cause). In addition, the parties can excuse a limited number of prospective jurors (the peremptory challenge). Although peremptory challenges do not require any justification, the U.S. Supreme Court has ruled that challenges based on race or sex violate the Constitution and are thus prohibited.\textsuperscript{44} The actual composition of juries compared with the composition of the jury pool has received little attention, but the limited data available suggest that the distribution of jurors who end up serving on trials does not differ substantially from the distribution of those who appear at the courthouse on race, gender, occupation, and educational background. In an analysis of over a thousand qualified members of the jury pool in Cook County, Diamond and Casper found that 18.1\% of jurors reported that they had previously served on a jury.\textsuperscript{45} Men and women were equally likely to report they had served on a jury, and the rate did not differ between white non-Hispanic jurors and minority jurors.\textsuperscript{46} Similarly, jurors with professional or managerial occupations were as likely to report that they had previously served on a jury as were jurors with other occupations. Reports of prior service on a jury increased with juror


\textsuperscript{46} These rates compared whether a juror had served on a jury at least once and not how often, so they may not reflect differences between groups in the probability of being selected for a single trial.
age, reflecting the longer period of jury eligibility for the older jurors. Retired jurors were more likely than other jurors to report that they had previously served on a jury, but that rate was consistent with the elevated rate of prior service among older jurors generally. The only other background characteristic on which jurors and non-jurors differed significantly was education, but the least and most well-educated were similar in their record of prior service. Jurors with a college degree but not graduate training were somewhat less likely to report that they had served (11.0%), in contrast with those who had no more than a high school diploma (22.4%), some college (18.9%) or graduate training (19.3%).

Although these results suggest that, at least in the aggregate, jury selection in the courthouse does not affect distribution on the jury, the aggregate picture may be somewhat misleading. Rose found that although the racial distributions on juries generally matched the distributions in the venires from which they were selected, African Americans were significantly more likely to be excused by the prosecution and Whites were more likely to be excused by the defense.\textsuperscript{47}

The result of this variety of shaping and sometimes cross-cutting forces is that juries tend to be somewhat more educated, wealthier and older, and less likely to include a representative number of minorities than the distribution of these groups in the adult population. The selection process that occurs before the jurors enter the courtroom is primarily responsible for the extent to which juries fail to be representative of the communities from which the jurors are drawn. Changes that would increase representativeness include use of up-to-date address lists that would reduce the impact of the greater mobility of lower income citizens, better follow-up on non-response to the court’s juror qualification questionnaires and summonses, increases in financial compensation for jurors, greater use of and publicity for one day/one trial, and increased enforcement of \textit{Batson} prohibitions on exclusions based on race.

\textsuperscript{47} Mary R. Rose, \textit{The Peremptory Challenge Accused of Race or Gender Discrimination? Some Data from One County}, 23 Law \& Hum. Behav. 695 (1999).
If the evidence in a case is not totally one-sided, people may have some difference of opinion in their evaluation of the evidence and in their views about what the appropriate verdict should be. Predictions of different potential outcomes drive the choice of trial rather than a settlement or guilty plea or dismissal of charges. Post-trial interviews with jurors suggest that disagreement among jurors on the first ballot is the rule rather than the exception.

Since jurors reacting to the same trial have been exposed to precisely the same evidence and instructions, variation in juror responses is the only possible explanation for that initial disagreement. Note that differences among jurors do not necessarily translate into differences among juries. If a majority of the total population of potential jurors would individually prefer a particular verdict, a sample of jurors randomly selected to judge the case would be likely to include a majority of individuals who would prefer that verdict.  

If the majority on the jury generally persuades the minority, then all juries hearing that case would be likely to reach the same verdict.

Juries, of course, are not randomly selected from the population of possible jurors and if there is variation in their verdict preferences, the composition of a particular jury can influence the outcome of the trial. The question is to what extent attorneys (alone or aided by consultants) can predict those variations based on juror characteristics that can be assessed during jury selection. Attempts to predict juror verdict preferences from background characteristics have generally been able to explain only a modest amount of variance in outcomes. Demographic characteristics like gender, race, and age generally account for very little of the variation in response. Attitudinal characteristics can be more powerful, albeit also modest, predictors. For example, Diamond and her colleagues found that the single attitudi-
nal question, "when plaintiffs sue in a lawsuit and receive money damages, would you say that in general they receive (on a scale from 1 to 7) 1 = too much through 7 = too little?" was a better predictor of liability verdicts for simulated jurors deciding a products liability case than the combination of ten background characteristics. What, then, accounts for variation among jurors in response to the same case? One possibility is that there are powerful, but as of yet unmeasured, individual differences that could be identified in advance and used to inform choices during jury selection. At least as likely, the differences result from variations in response to the evidence stimulated by a variety of unpredictable reasons. Thus, the juror (or judge) evaluating a witness who bears a resemblance to a friend (or enemy) may be more (or less) likely to believe that witness. The advantage of the jury as opposed to a single trier of fact is that any one of these various unknowable predispositional factors is unlikely to affect all of the jurors or affect them in the same way.

Simulation studies of the jury in which the investigators have examined individual differences across jurors have tended to examine reactions to a single ambiguous case in order to obtain a distribution of verdict preferences and outcomes. This approach has a weakness in producing a picture of disagreement rather than agreement. Studies examining the effect of the evidence on jury decisions across cases generally find that variations in the evidence strongly affect jury decisions. In a classic field study, Christy Visher illustrated the crucial role played by evidence as compared with juror characteristics. She found that characteristics of the evidence (e.g., whether there was testimony about the use of a weapon) in a sample of sexual assault cases ac-

50. Shari Seidman Diamond, Michael J. Saks & Stephan Landsman, Juror Judgments about Liability and Damages: Sources of Variability and Ways to Increase Consistency, 48 DEPAUL L. REV. 301, 306-13 (1998) (The single attitudinal item accounted for 6.9% of the variance in verdicts (9.2% using the less conservative Nagelkerke value); the ten background characteristics together accounted for 5.4% of the variance (Nagelkerke value = 7.2%)); see also Steven D. Penrod, Predictors of Jury Decision Making in Criminal and Civil Cases: A Field Experiment, 3 FORENSIC REP. 261 (1990). See generally REID HASTIE ET AL., INSIDE THE JURY (1983).

counted for 34% of the variance in verdict preferences.\textsuperscript{52} Victim, defendant, and juror characteristics together accounted for only an additional 10\%.\textsuperscript{53} Thus, variations in evidence were more influential than the make-up of the juries. Similarly, Stephen Garvey and his colleagues analyzed the reported first-votes and jury verdicts of three thousand jurors in four major metropolitan areas.\textsuperscript{54} Strength of the evidence as measured by the judge's rating was consistently a strong predictor of jurors' first votes, while juror demographic characteristics (age, gender, race, and ethnicity) had inconsistent and limited effects, with one exception: African-American jurors sitting on drug cases involving minority defendants in Washington, D.C. were more likely than white jurors in those cases to cast their first vote for acquittal.\textsuperscript{55} Both the generally low predictability of verdicts based on juror attributes and the consistently prominent predictor role of the evidence are of course inconsistent with the claim that jury selection predictably determines the outcome of a trial.

4. Setting Aside Prejudices and Biases

We have seen that jurors often vary in their individual verdict preferences. One potential source of these variations is prejudices and biases that may substitute for an evaluation of the strength of the evidence in light of the instructions on the law. Two ambiguities emerge from the contrast between prejudices and biases on the one hand, and evidence and instructions on the other. First, while some biases clearly represent inappropriate prejudices (e.g., racial bias), the characterization of other potential prejudices and biases is unclear—that is, where should the line be drawn between ordinary differences in expectations and reactions based on experience, and unacceptable prejudice or bias

\textsuperscript{52} Id. at 9.

\textsuperscript{53} Id. at 12.


\textsuperscript{55} These are precisely the cases that Paul Butler has argued are appropriate for race-based juror nullification. Paul Butler, \textit{Racially Based Jury Nullification}, 105 \textit{YALE L.J.} 677 (1995).
that leads to misusing or ignoring evidence? Second, if individual differences affect reactions to evidence, jurors are using the evidence to arrive at their decisions when they interpret the evidence in light of their expectations and beliefs about the world.

Suppose that a juror believes that many people bring unjustified claims to court in order to collect money that he or she is not really entitled to receive. The juror carefully scrutinizes the testimony of the plaintiff and is easily convinced that the plaintiff is exaggerating the pain she suffered in an automobile accident. Another juror whose brother has been suffering from a soft tissue injury that has left him with severe pain is more inclined to believe the plaintiff's testimony. Is either juror allowing prejudice or bias to affect their judgment, or are they merely reflecting beliefs and values—that is, the personal experiences and common sense knowledge about the world—that jury instructions tell them to apply in their role as jurors?

Now assume instead that the witness is a police officer and the juror is more or less inclined to believe the testimony based on beliefs about the police or personal observations of police behavior in the past. Prejudice? Bias? Relevant experience and commonsense? Beliefs about the world and preconceived notions about the likely credibility of particular witnesses affect juror reactions to the evidence at trial—indeed one rationale for the jury is that the institution invites multiple citizens with diverse backgrounds to pool their experiences and perceptions.

There is little doubt that expectations, beliefs, and values affect the way that jurors react to evidence. In that respect, jurors are no different from any other decision-makers, because people ordinarily scrutinize more carefully and are more likely to reject information that is inconsistent with their beliefs and expectations, because it is generally easier for people to remember theory-consistent in-

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formation than theory-inconsistent information,\textsuperscript{58} and because ambiguous information tends to be interpreted as theory-consistent.\textsuperscript{59}

Based on their survey of judges in criminal jury trials, Kalven and Zeisel suggested that values were implicated two-thirds of the time in the 22\% of cases in which the judge and jury disagreed on the verdict.\textsuperscript{60} The most frequently occurring values were an expanded version of the law of self-defense, contributory fault of the victim, and a sense that the offending conduct was de minimis. In general, the disagreement appeared to arise from a combination of values and the interpretation of the evidence.

Some types of cases are more likely than others to implicate strongly held beliefs or values. Diamond and Casper found in their antitrust case that few jurors brought strong views or expectations to the price-fixing conflict between two businesses.\textsuperscript{61} In contrast, jurors on their death penalty case expressed positions on the death penalty and views about the appropriate punishment for the typical murderer that were strong predictors of their views of the evidence and their verdict preferences. This strong relationship between predisposing death penalty values (i.e., how strongly the juror supports the death penalty and whether the juror believes that a person who commits the typical murder should receive the death penalty) and predeliberation verdict preferences occurred even though jurors were removed from the sample if they would not have been qualified to serve in a capital case because of their extreme views on the death penalty.\textsuperscript{62} Although death penalty cases probably rep-


\textsuperscript{60} Kalven & Zeisel, \textit{supra} note 8, at tbl.30.

\textsuperscript{61} Diamond & Casper, \textit{supra} note 45.

\textsuperscript{62} Id. Jurors were removed if they said they were opposed to the death penalty, if they said that their reservation about the death penalty would substantially interfere with their voting for a death sentence no matter what the facts of the case were, or they would always vote for the death penalty if the defendant was found guilty of a murder for which the law allowed the jury to impose a death sentence.
resent the extreme end of the continuum of cases in which values are implicated, they provide a sobering example of the human elements of legal decision-making. We do not have a comparable study of judicial death penalty decisions, but it may not be overreaching to point to disagreements on the United States Supreme Court in the application of legal rules in death penalty cases as some evidence that values affect justices' as well as jurors' decisions.63

5. Opening Statements

Both lawyer lore and social science theory anticipate an influential role for opening statements.64 Although some scholars have taken issue with this claim65 and judges regularly admonish jurors to avoid becoming committed to a position before hearing all of the evidence and the judicial instructions, a long history of research reveals the crucial role played by first impressions in organizing and influencing later information-processing and judgments.66 The well-documented primacy effect suggests that information presented early may be particularly important.67 Opening statements can create thematic frameworks, or schemata, that guide jurors during the trial and deliberations in their observation, organization, and retrieval of evidence.68 More-

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68. See John H. Lingle & Thomas M. Ostrom, Principles of Memory and Cognition in Attitude Formation, in COGNITIVE RESPONSES IN PERSUASION 399 (Richard E. Petty, Thomas M. Ostrom & Timothy C. Brock eds., 1981); Thomas J. Pyszczynski, Jeff Greenberg, David Mack & Lawrence S. Wrightsman, Open-
over, opening statements inconsistent with the evidence may influence verdicts by causing jurors to recall the evidence inaccurately. Pyszczynski and his colleagues conducted a simulation study in which the defense attorney either promised or did not promise an alibi witness who never appeared. The promise, even though unfulfilled, reduced guilt preferences.

On the other hand, both theory and evidence suggest limitations on the persuasive power of opening statements. In an interview study of jurors who had sat in civil trials, Hans and Sweigart found that 63% said they remained neutral after the opening statements. Moreover, in ten of the fourteen cases on which they sat, a majority of jurors interviewed said they had not been drawn to either side after openings statements. The jurors attributed the fact that they were not drawn to one side or another to several factors: judicial instructions to attempt to remain neutral until all the evidence had been presented; the jurors' own sense that they had not heard the evidence at the time opening arguments were completed; their desire to resist the impulse to be swayed by their emotions; and the fact that they were in fact undecided at that point in the trial. Although we might be skeptical of these socially desirable self-report data, they are consistent with results obtained using other methodological approaches. For example, Hughes and Hsiang report tracking data from simulated trials in which respondents' positions were assessed at various points in the trial. Their findings suggest substantial change in juror verdict preferences during the course of evidence presenta-

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69. Pyszczynski et al., supra note 68, at 437.

70. Id. at 440, 442. Guilt preferences were measured on a scale that combined the dichotomous verdict choice (guilty/not-guilty) with a confidence rating.


72. Id.

73. Id. at 1310-11.

tion. In three of the four cases they studied, jurors were more likely to change their verdict preferences as evidence was presented than they were to retain their post-opening statement verdict.\textsuperscript{75}

There are also theoretical reasons for caution about assertions that the opening statement is a pivotal event in juror decision-making. For example, framing effects may be tempered in an adversary setting. A clear intent to persuade tends to reduce the influence of a communicator on a highly involved audience,\textsuperscript{76} and in the adversary system jurors are well-aware of counsel's intent to persuade. Thus, in the study of the effects of promises made in opening statements discussed above,\textsuperscript{77} the advantage gained by the defense by promising a defense alibi witness disappeared when the prosecutor drew attention to the unfulfilled promise. In general, one might expect the influence of claims substantially inconsistent with the evidence to be tempered in a real trial where opposing counsel will be eager to point them out.

Tracking studies, in which juror reactions are assessed at multiple points in the course of a simulated trial, provide the most direct evidence on the impact of opening statements. If the opening statement is as powerful as some claim, we would not expect to see verdict preferences changing after the opening statements are completed. Of course, jurors may not change after the opening statements simply because they accurately preview what the evidence will show, so that a change measure in a tracking study probably provides a conservative measure of change. Diamond and her colleagues measured juror verdict preferences in a death penalty hearing after the prosecutor's opening, the defense attorney's opening, the prosecutor's case, the defendant's case, the closings, and after judicial instructions.\textsuperscript{78} They computed the percentage of jurors who consistently

\textsuperscript{75} Id. at 67 tbl.1.


\textsuperscript{77} See Pyszczynski et al., supra note 68, at 442.

maintained the same verdict they rendered after opening arguments. Approximately two-thirds of the jurors reached a verdict after the prosecutor's opening which remained constant for the rest of the trial. 79 An additional 4% changed following the defense opening and thereafter remained constant. 80 The remaining 30% of the jurors changed their verdict as a result of new information provided after the opening statements. 81 Of those who changed, 18% ended up giving a different verdict than they had favored at the end of opening statements; 12% returned to the verdict they had favored after opening statements. 82

The 30% rate of change in this study represents a conservative estimate of the potential influence of the evidence. First, our initial measure of juror verdict preferences followed the prosecutor's very complete foreshadowing of his evidence. If his opening statement had been less accurate or less complete, the effect of the evidence might have been greater. In addition, because the tracking study did not include deliberations, the 30% does not include any changes in position brought about by discussing the evidence during deliberations. The rate of change measure is incomplete in another way as well. Jurors in the course of the trial changed not only their verdicts but also their confidence in their verdicts. Thus, "94% of the jurors changed their verdict and/or their confidence ratings in the course of the trial, suggesting they were open and responsive to the evidence, whether or not it was enough to make them change their vote."

Finally, the rate of change in verdict only partially reveals the overall consequence of the verdict change in shifting the overall distribution of juror preferences. Although 39% of the jurors were prepared to vote for death following

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79. Id. at 30. The prosecutor presented an accurate and quite complete picture of the evidence his witnesses would later provide.

80. Id.

81. Id. Although most verdict instability is probably due to evidence and argument, some portion of it may also be the result of measurement error.

82. Id.

83. Id. at 31. It is hard to know whether this level of fluctuation would occur in other kinds of cases. One might argue that fluctuation should be least likely to occur when the decision implicates a strong value position like the juror's view of the death penalty.
the opening arguments, that percentage fluctuated throughout the trial, rising to a high of 54% after the prosecution expert's direct examination, falling to 43% after the defendant's direct examination, and ending after the judge's instructions at 48%. Thus, although opening statements may play a crucial role in channeling and molding juror verdicts, the claim that "the lawyer who hasn't hooked them by [the end of opening statement] might as well forget about winning" is clearly overstated.

6. Reactions to Experts

Trials increasingly involve the testimony of experts who present technical and scientific evidence. Such complex evidence presents a challenge for the experts who must communicate with a lay audience, for the judge who acts either as a gatekeeper in ruling on which experts can testify and what they can say or as the trier of fact, and for the lay jury. How do juries handle expert testimony? Are jurors generally confused or misled by experts? Are they likely to be overwhelmed and uncritical, impressed by jargon they do not understand and overawed by experts with impressive credentials? Do they simply ignore expert testimony, turning to less complex evidence as a basis for their decisions? Surveys of jurors indicate that they find expert testimony to be useful, but they are wary of experts. For example, in a survey of jurors, 30% said that "experts provided biased testimony." Similarly, Diamond and Casper found that jurors view experts as relatively competent and likely to be knowledgeable, but they also expect experts to be influenced by the side that called them. Credibility of a communicator is influenced by the communicator's expertise and trustwor-

84. Id. "At the end of opening statements, 39% favored death; after the prosecution's witnesses testified, 51% favored death; at the end of the defense testimony, 47% favored death." Id. at 31 n.57.

85. GUINThER, supra note 65, at 60.


87. See Diamond & Casper, supra note 45.
thiness, so that the expectation of potential bias acts as a brake on the persuasiveness of an expert.\textsuperscript{88}

Jurors typically work hard at trying to understand the content of expert testimony. Motivation, however, is not enough to ensure success and jurors often express concern about their ability to handle complex evidence.\textsuperscript{89} Although jurors are sometimes confused by expert testimony,\textsuperscript{90} they generally are not beguiled and misled by the complexity of expert evidence. Moreover, the jury uses reasonable strategies to evaluate expert testimony\textsuperscript{91} and draws on the expertise of their most competent member to assess the strength of the evidence.\textsuperscript{92}

Jurors are instructed to base their verdicts on the evidence and legal instructions, but their ability to fully process the evidence may be reduced if the expert fails to teach as well as to attempt to persuade. When faced with technical testimony, jurors look for cues about the trustworthiness of the source, sometimes using the language itself as a cue. When a decision-maker accepts a persuasive message in response merely to cues like the prestigious credentials or complicated language of the source of the message, however, and has \textit{not} processed and evaluated the message itself, the decision-maker is engaging in peripheral (or heuristic) processing in contrast to the central (or systematic) processing of the expert testimony that would be entailed in


\textsuperscript{92} See Diamond & Casper, supra note 45.
a thorough evaluation of the evidence. There is little evidence to suggest that jurors adopt the position of an expert based solely on peripheral cues. What is more likely to happen is that the juror will reject unintelligible expert testimony, a pattern that should create an incentive for experts (and for the attorneys who hire them) to maximize the clarity of the expert's presentation.

When jurors do understand the expert's testimony, impressive credentials and technical language can boost the influence of an expert. When the expert's lack of clarity prevents jurors from understanding the testimony, jurors who do not understand it are less likely to be influenced by it. This pattern is consistent with the literature on persuasion, which indicates that use of obscure and unusual words reduces persuasiveness, and with models of attitude change that emphasize reception as a precondition to yielding. Moreover, jargon may also lead jurors to give less credence to an expert who displays other evidence of potential bias, such as an unusually high rate of pay.

Expert testimony represents a challenge for both judges and jurors. Although judges are legal experts, at least as compared to most juries, neither judge nor jury is likely to be an expert on the technical substantive content that an expert may offer. Moreover, a jury of twelve (or even six) is more likely to have at least one member who has a relevant


95. See Diamond & Casper, supra note 88, at 542-43.


substantive background in, for example, engineering. In
general, there is no evidence that complexity induces a
greater rate of disagreement between judges and juries on
the appropriate verdict.99 Thus, while complexity presents a
challenge to legal decision-making in general, the challenge
may be unavoidable and not unique to juries.

7. The Judge's Instructions on the Law

In theory, jurors are expected to apply the law as the
judge describes it to the facts as the jury finds them. A ver-
dict itself rarely reveals whether the jury has applied the
judge's instructions on the law, or whether the jury has ap-
plied them accurately.100 Thus, trial and appellate courts
are left to assume that the jury has followed the judge's in-
structions when the verdict is consistent with the law under
at least one possible interpretation of the facts. Questions
about the jury's use of the legal instructions typically arise
at the appellate level only in the context of questions about
whether the trial court has stated the legal standard accu-
rately. If the statement of the law comports with the legal
standard, questions are rarely raised about whether it fails
to communicate the standard clearly and to convey effec-
tively how the legal standard should be applied. Research-
ers, in contrast, have not relied merely on verdicts and an
examination of legal instructions to assess how jurors han-
dle instructions on the law.

Jurors may fail to follow the judge's instructions on the
law if they are either unmotivated or unable to apply the
instructions. Empirical studies of the jury give no indication
that juries simply neglect the instructions. Simulations,
post-trial interviews with real jurors, and the analysis of
jury behavior during deliberations in real trials show that
jurors see themselves as obligated to apply the law, and
that they spend a significant portion of their time during
deliberations discussing the law.

99. Kalven & Zeisel, supra note 8; see also Heuer & Penrod, supra note 26,
at 49.
100. A rare exception occurs when the jury in a civil case is given a set of
interrogatories that the jury answers inconsistently. When that outcome occurs,
the jury either misunderstood the instructions or decided to apply them incon-
sistently.
Yet there is also evidence that legal instructions as they are typically given often fail to provide jurors with helpful legal guidance.\textsuperscript{101} Over twenty years ago, Elwork and his colleagues examined juror comprehension of several frequently used jury instructions.\textsuperscript{102} They showed not only that comprehension was low, but also that it could be significantly improved when the instructions were rewritten using a combination of psycholinguistic tools and common sense.\textsuperscript{103} More recent work has demonstrated additional ways to facilitate comprehension. The traditional approach to jury instructions is to tell the jury only what it is supposed to do, and to avoid directing attention to any concern that the jury should ignore. But failing to address the erroneous beliefs that jurors do have does not make those beliefs go away and it does not neutralize them. For example, if jurors are worried about whether a defendant not sentenced to death will be eligible for parole, avoiding any mention during jury instructions can leave jurors believing that a swift release is likely.\textsuperscript{104} Jurors come to court with expectations, beliefs, and schemas that can powerfully affect perceptions, attention, and recall.\textsuperscript{105} When instructions fail to correct inaccurate legal impressions, they miss the opportunity to provide jurors with a meaningful legal framework.

Although the most common source of deviations from legal standards is a failure of the legal instructions to convey clearly what the appropriate legal standard is, jurors also may deviate from the path outlined in the instructions due to cognitive biases or motivational obstacles. Jurors admonished to disregard particular information may find it difficult to do so. In Diamond and Casper's antitrust re-

\textsuperscript{101} See Joel D. Lieberman & Bruce D. Sales, What Social Science Teaches Us About the Jury Instruction Process, 3 PSYCHOL. PUB. POL'Y & LAW 589, 589 (1997).

\textsuperscript{102} See Amiram Elwork, Bruce D. Sales & James J. Alfini, Making Jury Instructions Understandable (1982).

\textsuperscript{103} See id. at 145-81.

\textsuperscript{104} See Shari Seidman Diamond, Instructing on Death: Psychologists, Juries, and Judges, 43 AM. PSYCHOLOGIST 423, 429 (1993); Diamond & Casper, supra note 45 (22% predicted release in less than ten years; a total of 56% predicted release in less than twenty years).

search, jurors learned that their award in a price-fixing case would be automatically trebled by the judge. In one version of the instructions, they were told nothing further and they reduced their damage awards to avoid a plaintiff windfall. In a second version, they were simply admonished not to alter their award because it would be trebled. The result was that the admonition failed to stop the jurors from reducing their awards. In contrast, when a third group of jurors was provided with the admonition accompanied by a rationale—that the trebling provision was designed by Congress to punish and deter—the jurors followed the instruction and did not reduce their damage awards.

Other legal instructions may ask the jurors to engage in mental gymnastics that are not easy to perform—e.g., to use a defendant’s criminal record only to assist in evaluating his credibility, but not as evidence of bad character; to forget that they learned about damaging evidence that the judge ruled inadmissible—and jurors may be unwilling or find it impossible to perform the required cognitive adjustments. A series of simulation experiments have illustrated how such inadmissible evidence can affect juror decisions. The remaining question is whether these failures are significantly less likely when the trier of fact is a judge, or whether they represent heuristic patterns of using information that neither can overcome.

Finally, jurors may depart from the judge’s legal instructions when the application of the legal standard to the particular case so substantially violates the jurors’ sense of justice that they are persuaded to temper the letter of the law in that case. Kalven and Zeisel attributed most of the

107. Id.
108. Id.
disagreements they found between judge and jury to evidentiary disputes, reporting that the jury is engaged in only a modest rewriting of the law in cases that are close on the evidence.\textsuperscript{111} Yet even if it is rare, explicit jury nullification of the application of the law plays a central role in conceptions of the jury and has been a source of extensive debate. Although courts have long recognized the power (as opposed to the right) of the jury to nullify, courts and commentators have argued about whether juries should be told about that power.\textsuperscript{112} Empirical research indicates that the distinction between the power and the right matters: when jurors are explicitly instructed that they have the right not to apply the law as the judge describes it, they are more willing to reach verdicts that temper the literal application of the law.\textsuperscript{113}

Jury instructions rarely receive the attention from the parties and their lawyers that is consistent with the attention that the instructions receive from the jury. Juries may not always follow the instructions but a primary cause of that failure is the inadequacy of the instructions rather than a willful disregard by the jury.

8. Foreperson Selection and Influence

The only instruction that jurors typically receive about how to conduct their deliberations is to select a foreperson.\textsuperscript{114} Although the foreperson’s role is not clearly defined, the license to organize the group may confer an enhanced opportunity to influence outcomes. Thus, the choice of foreperson is potentially a critical event in deliberations.

\textsuperscript{111} Kalven & Zeisel, supra note 8, at 106-07, 119.


\textsuperscript{114} The American Judicature Society responded to this vacuum by producing a short manual that provides jurors with some suggestions on how to handle deliberations. AM. JUDICATURE SOC’Y, BEHIND CLOSED DOORS: A RESOURCE MANUAL TO IMPROVE JURY DELIBERATIONS (1999).
If the foreperson is particularly influential, we would expect to find a higher correlation between the foreperson’s predeliberation verdict preference and the jury verdict than between the verdict preference of non-forepersons and the jury verdict. Unlike an observational study of real juries in which no predeliberation verdicts are available, or a post-trial interview study in which jurors must reconstruct their predeliberation verdict preferences, simulations provide an opportunity to test that hypothesis directly by comparing independent and contemporaneous predeliberation verdict preferences and jury verdicts. Diamond and Casper found a correlation of .44 between forepersons’ predeliberation award preferences and their jury’s award and a significantly lower correlation of .22 between non-forepersons’ predeliberation award preferences and their jury’s award. The apparent enhanced influence of the foreperson did not arise because the foreperson’s original position reflected a particularly accurate representation of the juror’s predeliberation verdict preferences. Forepersons’ predeliberation awards were on average 25% higher than the median predeliberation awards of the juries.

The selection of the foreperson proceeds swiftly. For example, Diamond and Casper found that selection was generally completed within the first few minutes on two different types of simulated juries—in both an antitrust case involving six person juries and a death penalty case involving twelve person juries. Similar speed marked selection on real juries in the Arizona Filming Project (a median time to selection of 1.5 minutes, with 80% selected within the first five minutes). Although swift, selection is not random. In addition to visual cues about age, gender, socioeconomic class, and race, by the time deliberations begin, jurors have listened to each other’s conversation—during voir dire and in conversations during breaks. In an early study of decision-making by simulated juries, Strodtbeck

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115. Diamond & Casper, supra note 88, at 547.
116. Id. at 549.
117. Diamond & Casper, supra note 45.
and his colleagues found that males, higher status jurors, jurors with prior jury service, and those sitting at the end of the table were over-represented as forepersons.¹¹⁹ When their data were collected in the 1950s, gender was strongly correlated with status and it is not clear whether gender and status independently contributed to predicting foreperson selection. Moreover, jurors in this simulation, as in most others, did not go through voir dire or sit through trial breaks where they had an opportunity to learn more about one another before deliberations began than what could be gleaned from visual cues.

Forty-five years later, on the real civil juries in the Arizona Filming Project, males and jurors with professional or managerial occupations were more likely to become forepersons, and the effect of gender persisted even after controlling for occupation. Diamond and Casper, however, found some additional features in the pattern of foreperson selection in their elaborate simulation study conducted in a courthouse using members of the jury pool.¹²⁰ The jurors were sent to lunch together before their deliberations began in order to give them a chance to get acquainted, as they would in a real trial, before deliberations began. As in a real trial in most jurisdictions, they were instructed not to discuss the case during lunch. As in earlier research, forepersons were significantly more likely to be jurors who spoke first or were seated at the head of the table. Although jurors have some control over both of these characteristics, neither was significantly correlated with the other characteristics that predicted the choice of foreperson. While prior jury service was among the variety of criteria that were mentioned in the course of choosing a foreperson, prior service did not predict the choice of foreperson.¹²¹ Other significant

¹²⁰ Diamond & Casper, supra note 45.
¹²¹ Strodtbeck and Lipinski, as well as Kerr, found that jurors with prior jury service were more likely than first time jurors to become forepersons, while Ellsworth did not find that prior jury experience increased the probability of becoming foreperson. Compare Fred L. Strodtbeck & Richard M. Lipinski, Becoming First Among Equals: Moral Considerations in Jury Foreman Selection, 49 J. PERSONALITY AND SOC. PSYCHOL. 927 (1985), and Norbert L. Kerr, Douglas L. Harmon & James K. Graves, Independence of Multiple Verdicts by Jurors and Juries, 12 J. APPLIED SOC. PSYCHOL. 12, 24 (1982) with Phoebe C. Ellsworth, Are Twelve Heads Better Than One?, 52 LAW AND CONTEMP. PROBS. 205, 213 (1989).
predictors varied with the type of case. Occupational status predicted foreperson selection in the antitrust case, but gender was not related to choice of foreperson. In the death penalty case, gender predicted foreperson selection, but occupational status had no predictive value. Additional predictors reveal a nuanced pattern of foreperson selection. In the antitrust case, one of the central witnesses was a statistician who used a regression model to arrive at an estimate of what the price of the defendants' product would have been in the absence of the price-fixing agreement. Higher education and whether a juror had taken a statistics course made independent contributions in predicting foreperson selection on the antitrust juries. This choice offered some potential benefits: jurors with higher educational levels and those who had taken a statistics course demonstrated a better understanding of the statistical expert's testimony on individual comprehension tests.

Does this pattern of selection merely reflect a tendency to select higher status jurors as forepersons? The contrast with the choice pattern in the death penalty case suggests that it does not. While on both the antitrust and death penalty cases, jurors with higher levels of education were more likely to be selected as forepersons, education was a stronger predictor of foreperson identity on the antitrust case, which included complex quantitative testimony, than on the death penalty case. Moreover, after position at the table, a juror's report that he or she had taken a course in statistics was the strongest predictor of who the foreperson would be on the antitrust juries, while on the death penalty case, once education was accounted for, a statistics course did not increase the likelihood that a juror would be selected as foreperson.

In the jurisdictions in the Strodtbeck and Kerr studies, jury service lasted several weeks, providing multiple opportunities for recent prior service. As a result, jury experience was common (34% and 42% had served previously) and salient. See Strodtbeck, supra at 930. In contrast, Diamond and Casper's research was conducted in a jurisdiction using a one day/one trial system, so that any prior jury experience would necessarily have been at least a year earlier.

122. Diamond & Casper, supra note 88, at 552-53; Diamond & Casper, supra note 45.

123. Diamond & Casper, supra note 88, at 553; Diamond & Casper, supra note 45.
The final step in evaluating the foreperson's role is to test whether the foreperson's apparent enhanced influence is affected by the personal attributes associated with the selection of the foreperson. On their antitrust juries, Diamond and Casper compared the correlations between individual predeliberation award preferences and jury awards for forepersons and nonforepersons who had or lacked characteristics associated with the choice of a foreperson.\textsuperscript{124} These comparisons revealed that neither sitting at the head of the table nor speaking first modified the enhanced influence of the foreperson.\textsuperscript{125} Nor did these behaviors affect the influence of nonforepersons. Similarly, forepersons who had professional or managerial occupations were no more influential than those who did not. In contrast, a prior statistics course significantly increased the influence of forepersons, producing a correlation of .63 between the individual verdicts of forepersons with a statistics course and the verdicts of their juries.\textsuperscript{126} When the foreperson had no course in statistics, the foreperson was no more influential than any other juror. Task-relevant expertise thus increased the likelihood that a person would be selected as foreperson, and when such a person was chosen, the foreperson appeared to exert an unusually strong impact on the jury's outcome.

Consistent with the view that forepersons not randomly chosen for the position\textsuperscript{127} generally tend to exert a disproportionate influence on jury verdicts, jurors on both the antitrust and death penalty juries rated the forepersons as significantly more influential than the average nonforeperson.\textsuperscript{128} How that influence comes about, however, is crucial. According to the death penalty jurors, who were asked to rate the open-mindedness of each juror as well as their influence, forepersons were also viewed as significantly more open-minded than the average juror. The picture that

\begin{enumerate}
\item[124.] Diamond & Casper, \textit{supra} note 88, at 552 tbl.7.
\item[125.] \textit{Id.}
\item[126.] \textit{Id.}
\item[127.] In Hastie, Penrod, and Pennington's jury simulation, the experimenter randomly appointed one of the jurors as the foreperson if no member of the jury had previously served as a jury foreperson. Although the foreperson on average spoke more than other jurors, the appointed foreperson had no enhanced influence on the jury's verdict. \textit{See generally} \textit{HASTIE ET AL., supra} note 50.
\item[128.] Diamond & Casper, \textit{supra} note 88, at 548.
\end{enumerate}
emerges is that juries that select their presiding juror do not randomly pick a leader they follow blindly, but rather that they are inclined to select leaders who help them either substantively or procedurally or both.

9. The Most Talkative Juror

Both simulations and our current observations of real juries provide an opportunity to examine the process of deliberation, making it possible to identify and measure the contributions of each juror. Like people outside the jury room, jurors vary in how much they talk, but there is little support for the image of the long-winded juror who occupies center stage in deliberations, dominating discussion while inhibiting the flow of productive exchange among jurors. Diamond and Casper found that the most active juror apart from the foreperson spoke on average three times as much as the average juror on the twelve-member juries in a death penalty case. In an antitrust case, among six jurors, the most active juror apart from the foreperson spoke on average twice as much as the average juror. These jurors also tended to contribute more information to the deliberations, in each case responsible on average for bringing up three times the number of basic facts than the average juror mentioned during deliberations. On average they were perceived as more influential than less talkative jurors, and in the antitrust case their predeliberation verdict was a stronger predictor of the jury's verdict than was the average juror's initial position. On the death penalty case, however, the most talkative juror was no more or less likely to change their position than the average juror. Moreover, the most talkative jurors were four times as likely as the average juror to be perceived as the most open-minded member of the jury, and no more likely to be perceived as least open-minded.

None of this suggests that attempts to dominate the jury do not occur. We have seen instances in both simulations and on the real juries in the Arizona Filming Project, in which a talkative juror persistently attempts to seize the floor during discussion. The outcomes we have seen from these attempts, however, are not captured juries, but rather

129. Diamond & Casper, supra note 45.
temporary toleration and ultimate loss of attention from the other members of the group. Talkative jurors who are influential are likely to be jurors who show higher rates of comprehension for both evidence and instructions, are perceived as more open-minded, and contribute productively to the group's deliberative process.

10. Do Deliberations Matter?

Deliberations resulting in a group verdict distinguish the jury from its chief alternative, the trial court judge. By requiring agreement from multiple jurors, the jury verdict in principle reduces the likelihood that the decision will represent an idiosyncratic view of a single deviant decision-maker. Moreover, in theory, deliberations give the jury an opportunity to profit from the resources of its multiple members and to pool its knowledge and sensibilities and to resolve differences, ultimately producing a verdict that reflects more than what could be achieved either by a single decisionmaker or by mechanically combining or averaging the preferences of the individual members.

The extent to which deliberations actually do affect jury verdicts, however, is in dispute. Some scholars have suggested that jury verdicts are predetermined by the initial predeliberation vote distribution,\textsuperscript{130} so that deliberations play only a mechanical role in transforming predeliberation preferences to verdicts. Both simulation studies and post-verdict interviews provide evidence for the importance of the predeliberation vote distribution as a predictor of jury verdicts, but the evidence also indicates that deliberations can play an important role in decision making on the jury. Post-verdict reports of jurors about the distribution on the first vote were the basis for Kalven and Zeisel's claims about deliberation.\textsuperscript{131} Yet more recent research suggests a significant weakness in using that source to estimate the transition between predeliberation voting and verdict: jurors do not generally take a closed ballot vote at the begin-

\textsuperscript{130} See Kalven & Zeisel, supra note 8, at 489 (comparing deliberations to a developer that brings out the picture from exposed film: the outcome, like the picture, is predetermined).

\textsuperscript{131} See id.
ning of their deliberations, the only procedure that would reveal independent vote preferences.\textsuperscript{132}

If discussion precedes a vote, and it usually does, that vote will reflect any changes that have occurred as a result of the discussion. The deliberation process revealed in jury simulations indicates that the majority of juries do not use a verdict-driven deliberation style in which jurors take an immediate vote without discussing the evidence.\textsuperscript{133} In the Hastie, Penrod, and Pennington study, 28% of the juries took an immediate vote;\textsuperscript{134} in the Diamond and Casper research, 21% of the antitrust juries did, and 21% of the death penalty juries did.\textsuperscript{135} Sandys and Dillehay report an even lower rate (3%) of immediate voting on real juries, at least according to post-trial juror interviews.\textsuperscript{136} Moreover, juries tend to delay voting precisely when deliberations are likely to be most influential. In the Arizona Filming Project, the longer the trial, the longer jurors discussed the evidence before taking an initial vote (\(r = .54\)).\textsuperscript{137}

A comparison of the predeliberation vote distributions and verdicts obtained from jury simulations reveals a number of systematic shifts that result from deliberations. The trial that Hastie and his colleagues studied presented jurors with four verdict possibilities.\textsuperscript{138} The modal verdict

\begin{itemize}
  \item \textsuperscript{132} If jurors do take a preliminary vote by, for example, going around the table, the expressed verdict preferences of those voting first can influence the votes of those who express their verdict preferences later. See James H. Davis, Mark Stasson, Kaoru Ono & Suzi Zimmerman, \textit{Effects of Straw Polls on Group Decision Making: Sequential Voting Pattern, Timing, and Local Majorities}, 55 \textit{J. Personality \& Soc. Psychol.} 918, 923 (1988).
  \item \textsuperscript{133} Verdict-driven juries, in contrast to evidence-driven juries, also tend to engage in less vigorous discussions. HASTIE ET AL., supra note 50, at 165.
  \item \textsuperscript{134} Id. at 164 ((19/69) = 28%).
  \item \textsuperscript{135} An immediate vote was defined as a vote within ten minutes for the twelve member Hastie, Penrod, and Pennington juries and the Diamond and Casper death penalty juries. HASTIE ET AL., supra note 50, at 164; Diamond \& Casper, supra note 45. It was defined as a vote within five minutes for the six member antitrust juries. Diamond \& Casper, supra note 45. Diamond and Casper found that a juror frequently \textit{called} for a vote very early in the deliberations, but that voting, even if agreed to by some of the other jurors, was ordinarily derailed by discussion. Id.
  \item \textsuperscript{136} Sandys \& Dillehay, supra note 17, at 186.
  \item \textsuperscript{137} Diamond et al., \textit{Juror Discussions}, supra note 10, at 62.
  \item \textsuperscript{138} HASTIE ET AL., supra note 50, at 21 fig.2.3.
\end{itemize}
preference of the juries was not the most frequent individual predeliberation verdict preference, although it was the verdict preferred by a set of legal experts. The median predeliberation damage award in Diamond and Casper's antitrust case was the best predictor of the jury's award, but it was accompanied by a systematic increase in the damage level (on average, an increase of 27%). As jurors discussed the evidence about damages caused by the price-fixing agreement, they tended to see the behavior as more damaging. Finally, a series of studies in criminal cases suggest that a leniency bias stemming from the "beyond a reasonable doubt" standard emerges during deliberations, so that when the jury is close to evenly divided, jurors favoring an acquittal are more likely to influence the jury's verdict.

In the film Twelve Angry Men, the jury began deliberations with a single juror favoring an acquittal and ended with a not guilty verdict. Although it might be believable that juror Henry Fonda could exercise such persuasive powers, most juries probably do end up with a verdict that reflects the majority that is visible by the time most of the jurors have expressed a verdict preference in deliberations. The majority, using both normative and informational pressure, persuades the minority to accept its position. The situation is more complicated when there are multiple ver-


141. TWELVE ANGRY MEN (Orien-Nova Productions 1957).

dict choices.\textsuperscript{143} We are at the early stages of understanding how juries resolve their differences when faced with a large variety of potential outcomes, but it is clear that, contrary to some earlier claims, deliberations can play an important role.

IV. WHAT WE STILL DON’T KNOW

Despite the yield from empirical research conducted on juries, there are significant gaps in our knowledge about jury behavior, in part because there are so many questions to ask about it, in part because most of the time we can study it only indirectly, and in part because data have not been collected to address many questions. For example, we only recently conducted any systematic research on hung juries despite repeated claims suggesting that hung juries are common, that they result from a single recalcitrant juror who refuses to accept what the evidence clearly shows, and that the rate of hung juries demonstrates a failure of the legal system. The researchers at the National Center for State Courts (NCSC) set about to learn some basics about hung jury rates and discovered that no national data were available in state courts because most court systems view hung juries as merely interim case outcomes.\textsuperscript{144} Moreover, when the NCSC researchers attempted to collect the information from each state court, they learned that even in states that did record hung jury rates, there was ambiguity on precisely what was being counted. Should a jury be considered “hung” if it reached a verdict on the most serious charge and could not agree on one of the lesser counts? Thus, Hannaford and her colleagues were appropriately modest in their claims about the accuracy of their estimate of a rate of 6.2% based on the hung jury rates they were able to get for criminal trials in thirty urban jurisdictions.\textsuperscript{145}

\textsuperscript{143} See HASTIE ET AL., supra note 50, at 160-61 (reporting on a study in which juries chose among three levels of homicide plus self-defense). See generally Diamond & Casper, supra note 88 (reporting on a study in which juries decided damages in a civil case).


\textsuperscript{145} Id.
Further information about the hung juries presented an even bigger problem. If no court was regularly keeping a record of what the final vote distribution was when a jury failed to reach a verdict, there was no way to learn how often a single holdout produced the hung jury. A simulation approach to the study of hung juries has some inherent weaknesses. Simulations, unlike real trials, must generally limit the time provided for deliberations, so that the number of hung juries is likely to be inflated and their characteristics are unlikely to accurately represent those of hung juries in real cases.

This story has a successful conclusion. Hannaford and her colleagues were eventually able to collect data on approximately 382 criminal cases in four jurisdictions, yielding twenty seven cases that hung on all counts, and another ninety seven that hung on at least one count. They found that hung jury rates varied substantially across jurisdictions, and according to the measure used. Through their post-trial juror and judge surveys, they found, among other things, that a majority of hung juries had more than two jurors in the minority on the final vote, and that both the jurors and the judges rated the evidence in cases that resulted in hung juries as more evenly balanced as opposed to favoring one side or the other.

Other questions remain unaddressed. Some examples: what is the effect of sequestration on jury deliberations? How does giving jury instructions before rather than after closing arguments affect jury deliberations? Unanswered questions about the jury may generate research opportunities for those of us who are fascinated by this ancient institution and interested generally in questions about judgment and social influence, but the gaps also create obstacles for policymakers who are willing to turn to scientific research to ground, at least in part, their policy decisions. In the wake of the trials involving O.J. Simpson, the Rodney King beatings, the McDonald’s coffee case, and the Vioxx verdicts, jury reform is on the public agenda and the proposals are frequently grounded in little more than anecdo-


147. Id. at 67.
tional speculation about the jury. Research on the jury offers one way to respond to the uninformed reform frenzy. A progressive judiciary and an imaginative research community can form productive partnerships in generating knowledge. Thus, Heuer and Penrod, with the cooperation of the Wisconsin judiciary, were able to institute an experiment in permitting jurors to submit questions for witnesses during trial. The experimental reform reduced attorney reluctance and delighted jurors. The Arizona Filming Project provided researchers a chance to work with the court to examine how jurors handle an invitation to discuss the case amongst themselves during breaks in the course of the trial. In both the Wisconsin and Arizona cases, the research was designed to evaluate an innovation, but also provided an opportunity to examine other aspects of jury behavior, advancing both basic research and policy agendas.

Researchers have accumulated a large body of empirical work on the jury. Although the available theory and data are often incomplete, they offer a substantial corrective to both the fantasy and nightmare versions of the jury that emerge from the anecdotal and unrepresentative accounts that the public and policy-makers generally receive.

148. Heuer & Penrod, supra note 26, at 34.
150. See generally Diamond & Vidmar, supra note 10; Diamond et al., Juror Questions During Trial, supra note 10.