The Debate over Jury Performance

Observations from a Recent Asbestos Case

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The Debate over Jury Performance
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Molly Selvin, Larry Picus

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Foreword

In the recent policy debate about the costs and benefits of the tort liability system, the role of the jury has come under increasing scrutiny. Champions of the current system see the jury as the defender of the injured party's rights to compensation and the protector of society's interest in deterring negligent behavior. Critics contend that the jury is a weak link in the tort liability mechanism: emotional and erratic in its compensation decisions, biased and unreasonable in its punitive decisions. Little is known, however, about how civil juries decide tort liability and other disputes involving money damages.

Research on civil jury verdicts by the ICJ and others has described what civil juries have decided—in which cases they have ruled in favor of plaintiffs or defendants, how much in compensation damages they have awarded to plaintiffs in different kinds of cases, how often and in what circumstances they have awarded punitive damages against defendants—but these studies do not go very far toward explaining why juries made these decisions. More sophisticated statistical analyses provide an empirical basis for inferring how certain case characteristics—the severity of the plaintiff's injuries, for example, or the financial wherewithal of the defendant—may influence juror behavior, but they do not explain why juries react the way they do. Better understanding of jury motivations in civil dispute processing is essential to clarifying the debate about the role of the jury as an institution; this goal can be achieved only with the help of empirical analysis of jury behavior.

This report is a small step in that direction. It describes in some detail a single instance of jury decisionmaking in a set of four asbestos worker injury cases tried in East Texas. Interviews with the jurors on these cases shed light on the how of the jury process, indicating the seriousness with which the jurors approached the task, their sensitivity to the dual responsibilities of compensating the injured and deterring future negligent behavior, their experiences coping with complex and sometimes contradictory medical evidence, and their understanding and interpretation of judicial instructions.
The authors intended this description of the Texas jury to be a starting point for a review of research on jury decisionmaking, much of it conducted in laboratory settings, and an analysis of the issues underlying the debate about the role of the civil jury. Although they found some explanations for the Texas jury's behavior, their review uncovered more questions than answers. Moreover, a close analysis of the arguments in favor of and against civil juries indicated a surprising lack of consensus about the standards that have been set for civil jury decisionmaking. Much work remains to be done before the role of civil juries can be fully understood.

Gustave H. Shubert
Director, The Institute for Civil Justice
Executive Summary

BACKGROUND AND STUDY OBJECTIVES

Recent verdicts in lawsuits arising from widespread exposure to toxic substances and large compensatory and punitive awards in more traditional liability cases have revived old debates and complaints about the competency of lay juries. In response, legal scholars, practitioners, and others have generated reform proposals directed either toward improving the performance of lay juries or limiting the cases they are permitted to decide. Yet despite the intensity of complaints about "runaway" awards and juror inability to comprehend complex technical information, there is little empirical research to ground discussion of how juries actually deliberate or of the "quality" of those deliberations. Moreover, there is little consensus among those debating jury performance as to the standards against which the process of deliberation and the verdict reached should be judged. This report is a preliminary attempt to address these issues.

Our inquiry centers on an interview we conducted with the jury that decided an asbestos products liability case in the U.S. District Court, Eastern District of Texas in 1984. Although this case was unusual, Charles Newman et al. v. Johns-Manville et al. illustrates many of the problems that complex civil litigation, particularly toxic tort litigation, presents for jurors. The four plaintiffs in this case—all insulators or the widows of insulators—alleged that they had asbestosis, and each sued the same ten asbestos manufacturers for failure to warn of the health hazards associated with asbestos exposure.1

After deliberating approximately one day, the jury found each of the defendants liable for the plaintiffs' injuries and awarded the four plaintiffs in this first case a total of $3.9 million in compensatory

1Judge Robert M. Parker, who presided over this trial, had consolidated 30 asbestos cases and had selected four of the 30 as the first set to be tried together before the jury on both liability and damages.
damages—$700,000 to $1.2 million each. In addition, the panel awarded a total of $4 million in punitive damages against four of the ten defendants. The total award, $7.9 million, is high in comparison with the findings of previous ICJ research on asbestos compensation.2

At Judge Robert M. Parker's invitation, we observed the trial of Newman v. Manville in October and returned in December 1984 to interview the jury about their deliberations. We directed our interview questions toward the steps by which the jurors arrived at their verdict and computed the awards. We also probed jurors about their understanding of and reaction to the evidence, witnesses, and attorneys they had heard.

Our case study of the Newman jury provides a useful reference point against which to compare previous (largely experimental) research on the process and outcomes of jury deliberations—to attempt to summarize what we know and do not know about how juries behave. And because of the size of the jury's award in relation to average asbestos recoveries, our Newman interview serves as a means to discuss an issue at the heart of the current debate over the performance of lay juries: that of the implicit criteria or standards by which we determine a verdict to be "acceptable" or "unacceptable."

THE NEWMAN TRIAL AND DELIBERATION

Asbestos Cases Before Juries

Asbestos litigation and litigation resulting from exposure to other types of toxic substances differ in important ways from traditional personal injury lawsuits. These differences present problems for judges and juries charged with deciding these cases.

In the first place, scientific and medical experts disagree on or do not fully understand some complex medical issues that repeatedly arise in asbestos litigation, including the specific mutagenic process by which asbestos causes cancer, the relationship between cigarette smoking and the development of asbestos disease, the amount of asbestos exposure necessary to produce disease, why some individuals exposed do not become sick while others do, the point at which observable physiological changes constitute evidence of an "injury" or disease, and why the progression of, for example, asbestosis can vary dramatically from minimal or modest disability to death. Given the extent of uncertainty and disagreement among experts, it is not surprising that these issues also prove problematic for lay jurors.

2All 30 cases consolidated as part of Newman v. Johns-Manville were subsequently settled for a total of $12 million.
And there are difficult legal issues as well: Plaintiffs can establish liability only by proving exposure to a defendant’s product. Yet most asbestos plaintiffs typically worked for several companies over a long working life. They used many products but would be unlikely to have noticed or remembered the manufacturer of those materials. Further, to find liability, plaintiffs must show that defendants manufactured or marketed an asbestos product without providing adequate warning of the risks associated with its use. Thus evidence on what the defendants knew about asbestos-related injuries and when they knew it is of central importance in asbestos litigation. Finally, the long latency period for the onset of disease combined with the varied work histories of most asbestos plaintiffs complicates the determination of each defendant’s relative responsibility for a particular claimant’s injuries.

The Trial

The legal issues raised in the *Newman* trial, the claims made, and the witnesses and evidence each side marshaled to support its contentions were typical of those raised in other asbestos jury trials.

To prove exposure to the defendants’ products, plaintiffs’ attorneys relied primarily on the employment records that each plaintiff compiled, on each plaintiff’s oral testimony, and on the testimony of another insulator. The defendants challenged these exposure claims primarily through cross-examination of each plaintiff; they attempted to discredit the plaintiffs’ memories by raising discrepancies between their testimony in court about products and employers and information they had provided earlier in depositions.

The jury had to decide whether the pulmonary changes observed in each plaintiff upon examination—including pleural thickening, plaques, and calcification—were evidence of disease, in this instance asbestosis, or simply bodily changes. To prove that each plaintiff had developed asbestosis, plaintiffs’ counsel relied on the testimony of two doctors who had each examined all four plaintiffs. The defendants presented two medical experts who testified that three of the four plaintiffs did not have asbestosis and proposed that cigarette smoking might possibly be responsible for some of the plaintiffs’ symptoms.

To find liability, the plaintiffs had to show that the defendants failed to market their products with an “adequate warning” of the dangers associated with their use. The defendants claimed they did not know shipbuilders and insulators were at risk from exposure to disease until the publication of research results by Dr. Irving Selikoff in 1964 and 1965. At that point, they began to issue warnings to insulators. The defendants contended that before 1964, they were aware
that exposure to asbestos was dangerous to factory workers who often worked with raw fibers, but they did not know it was also harmful to insulators who handled products with much lower concentrations of asbestos fibers.

The plaintiffs' attorneys asserted that Texas product liability law holds the manufacturer of a product to the knowledge and skill of an expert, and that there was clear evidence as early as the 1930s that asbestos was harmful if the fibers were inhaled. The plaintiffs therefore claimed that manufacturers were aware of the dangers to all asbestos workers, including insulators, well before 1964 and should have taken steps to protect and warn individuals working with asbestos materials.

To support their punitive damage claims, the plaintiffs' attorneys introduced documentary or deposition evidence indicating that each of the four defendants against whom punitives were sought knew of the dangers that asbestos exposure posed to asbestos workers as early as the 1930s. The plaintiffs focused particularly on the results of scientific research, some of which was partially funded by the defendants, that pointed to health risks associated with asbestos inhalation. The defendants contended that the results of these research projects did not unequivocally demonstrate the risk of asbestos inhalation specifically to insulators, asserted in some instances that they did not receive the final results of such research, or contended that their products were not in fact insulation (as opposed to textile) products.

The Jury Deliberates

Our interview with the Newman jury provides some insight into the process by which the jury reached its verdict on the major legal issues in this case.

How well did the jurors recall and understand the information presented during trial? What did they remember? Individual jurors apparently left the trial with a general memory that asbestos is a dangerous substance, but the jury's collective memory of the specific scientific and medical information about asbestosis presented contained several errors. The jurors' failure to understand, for example, that not everyone exposed to asbestos develops asbestosis and their belief that each of the plaintiffs would eventually become as sick as the sickest plaintiff were of major consequence in their computation of compensatory awards.

How did jurors perceive the testimony and behavior of the witnesses, parties, and attorneys in this lawsuit? The Newman jurors seemed to have formed opinions as to the merits of a witness's testimony or an
attorney's argument based not only on the substance of the testimony or evidence presented but also on their perception of that individual's characteristics, personality, and behavior. The ethnicity of one plaintiff, the jury's general skepticism of the defense's medical experts (fueled partly by its perception of the income these experts earned), and the large number of attorneys who appeared for the defendants all may have influenced both the jury's finding of liability and variation in the size of the four compensatory awards it made.

How and when did individual jurors decide? How did the jury as a group reach a verdict? Most of the *Newman* jurors entered the jury room with at least the tentative belief that the asbestos manufacturers had ignored the results of scientific research demonstrating the hazards of asbestos exposure and were thus liable for the injuries of the four plaintiffs in that case. They thus had little difficulty reaching a consensus. Our interview reveals that this jury reached its decisions with remarkably little dissent or difference of opinion. The *Newman* deliberation was less a process of persuasion than the aggregation of the individual decisions jurors reached prior to deliberation.

How well did the jury understand and remember Judge Parker's instructions? The *Newman* jurors had difficulty in three instances remembering and following the judge's instructions. They applied evidence incorrectly, awarded compensation for expenses they were not supposed to consider, and considered extralegal factors in determining liability and punitive awards.

How did the jury compute its damage awards? The *Newman* jury used basically the same procedure for determining each plaintiff's compensatory award: the jurors calculated and summed each component of that award and then added a sum for legal fees. The panel had little difficulty agreeing to award punitive damages and seemingly without much discussion assessed the four defendants subject to punitive damages $1 million each.

**HOW DO JURIES DECIDE? THE NEWMAN CASE STUDY**

Our interview with the *Newman* jury highlights two issues central to the debate over jury performance: First, is the process of jury deliberation or decisionmaking unpredictable, as some fear, or are there identifiable principles that may guide jury behavior? If so, does the process by which the *Newman* jury reached its verdict illustrate those norms?

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3 All of the plaintiffs were represented by two partners from a rural Texas firm while each of the defendants had one or more attorneys present in the courtroom during the entire trial.
There is a consensus among researchers using experimental⁴ and
descriptive⁵ methods, about certain aspects of jury behavior: Jurors, by
and large, do not have full or accurate memories for trial testimony;
like all individuals, they have trouble understanding and making deci-
sions based on statistical or probabilistic information, they often enter
the jury room with a tentative belief as to guilt or liability, and they
often deviate from the judge’s instructions.

The behavior of the Newman panel (given the limitations of our
interview) is consonant with these experimentally based observations.
Yet these observances are of limited value in explaining why the New-
man jury reached its specific decision. Moreover, in some important
respects—most notably in the way it computed its large compensatory
damage awards—the Newman panel’s behavior was inconsistent with
previous findings about jury behavior.

HOW WELL DO JURIES DECIDE? WHAT ARE
THE STANDARDS?

In addition to concerns about unpredictability, much of the contem-
porary criticism of lay juries centers on a second issue, the fear that
the deliberation process may not be “fair” or “accurate” and that the
resulting verdicts are “too high,” “too low,” or simply “irrational.”
What is the basis for making these judgments?

We believe that five implicit and explicit notions as to such criteria
or standards may underlie the current debate over the performance of
lay juries: When we criticize or applaud civil jury verdicts we speak
with reference to outcomes in similar jury trials (in terms of both a
finding of liability and the monetary damages awarded); to judicial
decisions on the proper elements of the deliberation process; to the
jury’s adherence to or deviation from popular sentiments on the law or
policy at issue, to the outcome if a judge had decided the case instead
of a jury, and to the judge’s instructions in that particular case.

Yet, there is little consensus about which of the standards listed
above are most appropriate. Some argue, for example, that the prob-
able decision of a judge is an appropriate standard against which a
jury’s decision should be measured. Others disagree. Some argue that
past jury awards in similar cases are a useful standard against which to
judge the fairness of an individual jury’s award. Others might argue for
some other standard of compensation.

⁴Much of this research involves small groups assembled as shadow or simulated juries.
⁵We have also drawn to a limited extent upon the published accounts of deliberations
in five other recent civil cases. The cases from which these accounts emerged do not by
any means represent a random sample of jury deliberations. They are complex civil
cases involving notable figures, extraordinary sums of money, or novel legal theories.
Further, the standards we have identified do not speak to all of the concerns expressed in the debate over civil jury performance. Much of the contemporary debate over the performance of juries in civil—particularly complex civil—cases reflects concern about the process of deliberation. Criticism that the size of a jury’s damage award is “too high” or “too low” often derives from the perception that the process of decisionmaking that led the jury to a finding of liability and a calculation of damages was inadequate. Yet the standards we have identified focus on outcome alone—the amount of compensation awarded, the extent to which the outcome reflects or deviates from both public opinion and the judge’s instructions, or the extent to which the jury verdict is consistent with a judge’s probable decision in that same case. Judges have rendered few affirmative edicts regarding the process of jury deliberation, instead emphasizing issues that precede deliberation itself—jury representation, jury selection, juror impartiality, and the circumstances under which a case can be taken away from a jury.

Finally, problems of measurement abound in the discussion of any criteria against which to gauge jury performance. How do we measure whether the Newman jury’s deliberation of the evidence was “fair and reasonable” as one federal court dictated in a recent case? Court decisions are not generally instructive on this issue, and existing empirical research, such as comparing jury decisions with those of a “judge-baseline,” has serious methodological limitations.

IMPLICATIONS FOR THE DEBATE OVER JURY PERFORMANCE

The case of Charles Newman v. Johns-Manville Sales is long since over. Yet many of the problems that Newman posed to the jury in that case continue to confront other juries in courtrooms around the country. The number of toxic tort cases—involving an increasing number of substances—is growing, and future verdicts in this area will continue to generate debate and dissatisfaction over the “performance” of lay juries. Because of the sometimes extreme disparity in compensation among toxic tort claimants with similar injuries caused by exposure to the same substances produced by the same set of manufacturers, jury verdicts (as well as bench judgments and settlements) in this area strike many as particularly “unfair.”

In response, some observers have called for greater restrictions on the right to jury trial, including removing certain categories of claims or cases from decision by jury or from the tort system altogether. Others advocate providing additional assistance to jurors, particularly in
the deliberation of complex cases, as an alternative to further restrictions on the right to jury trial.

Yet the adoption of any particular plan devised to address the perceived deficiencies of the existing system implies that we have reached some broader, societal consensus about "standards." We found no evidence for such a consensus.
Acknowledgments

We would particularly like to thank Judge Robert Parker, U.S. District Court, Eastern District of Texas. Judge Parker’s invitation to interview the jury that decided *Newman v. Johns-Manville* was the stimulus for this report. His staff, including Price Ainsworth and Carolyn Freeman, was also most helpful in facilitating our observation of the trial and in arranging for our interview with the *Newman* jury.

Judith Resnik, an ICJ colleague and member of the law faculty, University of Southern California, and Reid Hastie of Northwestern University carefully read earlier drafts of this report and offered numerous suggestions for improvement.

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I. INTRODUCTION

"I wonder what the foreman of the jury, whoever he'll be, has got for breakfast," said Mr. Snodgrass. . . . "Ah!" said Perker, "I hope he's got a good one." "Why so?" inquired Mr. Pickwick. "Highly important—very important, my dear Sir," replied Perker. "A good, contented, well-breakfasted juryman, is a capital thing to get hold of. Discontented or hungry jurymen, my dear Sir, always find for the plaintiff" (Dickens, Pickwick Papers, 1838).

"Write that down," the king said to the jury, and the jury eagerly wrote down all three dates on their slates, and then added them up, and reduced the answer to shillings and pence (Carroll, Alice in Wonderland, 1865).

RESEARCH OBJECTIVES

Recent verdicts in litigation arising from widespread exposure to toxic substances and involving complex technical or legal information along with large compensatory and punitive awards in more traditional liability cases\(^1\) have revived old debates and complaints about the competence of lay juries. Concerns about the proper role and performance of the civil jury have been voiced in this country since the founding of

\(\text{\textsuperscript{1}}\)Some examples from 1986 that have drawn media attention in large part because of the size of the juries’ awards are: In March, a Wichita, Kansas federal jury awarded the largest verdict in the history of toxic shock litigation: $1 million in compensatory damages and $10 million in punitive damages against International Playtex, Inc. The trial judge later reduced the punitive award to $1.35 million (O’Givie v. International Playtex Inc., No. 83-18848-K); later the 10th Circuit overturned the verdict and ordered a new trial. In April, an Oakland, California state court jury returned a $125 million verdict against ComputerLand Corporation in a commercial dispute. This verdict included the largest punitive award—$110 million—in California history (Micro/Vest Corp. v. ComputerLand Corp. et al., No. A023847). In May, a Hawaii Circuit Court jury awarded $5.1 million, including $3 million in punitive damages, in connection with the death of a shipyard worker exposed to asbestos (Kaaouli v. Johns-Manville Sales Corp., No. 58147). In the same month, a Wichita state court jury returned a $9.2 million verdict against the A.H. Robins Co. for injuries sustained by a woman who wore the Dalkon Shield, an intrauterine contraceptive device (Tetuan v. A.H. Robins Co., Inc., No. 82-C304). In July, a San Jose, California state court jury awarded TRW Inc. about $4.9 million in compensatory damages and $2.5 million in punitive damages plus interest in TRW’s suit against GTE Sylvania Electric Equipment. The case resulted from the explosion of a GTE light bulb, igniting a fire that caused damage to two military satellites under construction (TRW Inc. v. GTE Sylvania, No. 447941). In November, a Texas state court jury awarded Pennzoil Inc. $7.53 billion in compensatory and $3 billion in punitive damages in a breach of contract suit against Texaco Inc. The $10.53 billion award is reported to be the largest damage award in history (Pennzoil v. Texaco, No. 84-05905).
the Republic. But criticism of lay juries has escalated in recent decades because of the increasing incidence of complex litigation, particularly that arising from exposure to toxic substances; federal decisions permitting juries of fewer than 12 persons to hear civil and criminal trials; the often dramatic variation in awards for similar injuries; and cross-jurisdictional trends toward increasingly high monetary awards.

In response, legal scholars, practitioners, and others have generated reform proposals directed toward either improving the performance of lay juries or limiting the cases they are permitted to decide. Some advocate allowing jurors to take notes, submit questions, and have a copy of the court's charge during deliberation, rather than restricting the right of jury trial in complex civil cases (Higginbotham, 1977; Huttner, 1979; Lempert, 1981; and Sperlich, 1979). Some propose granting judges broader discretion to manage and structure the issues and claimants presented to juries in cases involving exposure to toxic substances. Others advocate structural changes in the civil justice system including caps on compensatory damage awards, and financial penalties for exorbitant compensatory requests or for vexatious defense practices (Brill, 1986; and Nesson, 1986). Still others, including former Chief Justice Warren Burger, express reservations about the ability of the average juror to understand and to decide difficult factual or scientific issues. Many who express such reservations prefer bench (judge)

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2Mark Twain criticized the jury as "the most ingenious and infallible agency for defeating justice that human wisdom could contrive," insisting that the "jury system puts a ban upon intelligence and honesty, and a premium upon ignorance, stupidity and perjury" (Twain, 1875). On the historical debate over the role of lay juries in the United States, see Sperlich (1962).

3A complex civil case often defies easy definition. Several factors may contribute to the complexity of a case although a case can be considered complex without all or many of these ingredients. Complex cases generally involve multiple causes of action; novel or sophisticated legal theories; and difficult medical, technical, or scientific information. Suits arising from asbestos exposure are generally considered to be complex cases, as are suits involving exposure to other products or substances capable of causing latent injuries including the Dalkon Shield, DES, benzene, and Agent Orange ("The Right to a Jury Trial in Complex Civil Legislation," Harvard Law Review, Vol. 92, 1979, pp. 898-918).

4The U.S. Supreme Court has ruled that six-member juries are permissible in state criminal and civil trials (Williams v. Florida, 399 U.S. 78, 1970) and in federal civil trials (Colgrove v. Battin, 413 U.S. 149, 1973).

5Previous ICJ research analyzed trends in civil jury verdicts in San Francisco, California and Cook County, Illinois from 1960 to 1984. Although the median jury award for personal injury cases remained roughly the same between 1960 and 1979 (after adjusting for inflation), jury awards for seriously injured plaintiffs doubled in both jurisdictions during the 1970s. Moreover, juries in both jurisdictions increased awards in medical malpractice, defective products, and street hazard cases, regardless of the injuries (Peterson, 1984, 1985; and Shanley and Peterson, 1983).
over jury trials for some categories of complex litigation; they advocate the creation of panels of so-called "neutral" experts to decide these cases, or they support removing these cases from the tort system entirely and compensating plaintiffs instead through a legislative or private program (Abraham and Merrill, 1986; Burger, 1985; Green, 1962; Luneberg and Nordenberg, 1981).

Despite the intensity of complaints about "runaway" awards and juror inability to comprehend complex technical information and of the debate over these reform proposals, there is little empirical research to ground discussion of how juries actually deliberate, of the quality of their decisions (particularly in comparison with a judge), and of how juries should deliberate. There is little or no consensus as to the standards by which we judge the process of deliberation and the verdict reached as acceptable or unacceptable beyond the consensus of those jurors deciding individual cases.

This report is a preliminary attempt to address these questions; we will review the behavior of a recent federal jury and, using the large body of empirical research on jury behavior and decisionmaking, explore the extent to which that jury is representative or peculiar. We will discuss not only how juries deliberate but also how we may believe they should deliberate; we will explore the implicit standards by which we gauge the acceptability of a jury's verdict. We have reached no "findings" or firm conclusions in this report; rather, we will inevitably raise more questions than we answer.

METHODOLOGY

Our research centers on an interview we conducted with a six-person jury that decided an asbestos products liability case in the U.S. District Court, Eastern District of Texas. Although this case was unusual,

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As of December 1984, the U.S. District Court, Eastern District of Texas, had 1200 pending asbestos cases and 2200 cumulative cases and was one of the ten courts around the country with the largest concentration of asbestos cases. Before then, Judge Robert M. Parker and his colleagues on that court had used several innovative techniques in asbestos cases in an effort to expedite the disposition of this court's large asbestos caseload (Hensler et al., 1985, pp. 26,60–66). After the trial we observed, Judge Parker consolidated 893 asbestos personal injury cases into one class action, Jenkins et al. v. Raymark et al. (Civ. No: M-84-190-CA). Judge Parker certified this class action against 13 defendants to decide the issues of liability, general causation, and punitive damages. Trial in this case began March 10, 1986 but a settlement totalling $107.2 million was reached with the 763 plaintiffs remaining in the case after five weeks of trial. (Additional settlements totalling $25.6 million were reached before the trial started.) The settlement also included an agreement for the resolution of future asbestos cases filed in this court using "alternative resolution techniques" including settlement negotiations, arbitration, and resolution by special masters (Asbestos Litigation Reporter [ALS]: March 21, 1986; June 20, 1986; and July 3, 1986).
Charles Newman et al. v. Johns-Manville et al.\textsuperscript{7} illustrates many of the problems that complex civil litigation, particularly toxic tort litigation, presents for jurors. The trial in Newman v. Johns-Manville took place in October 1984 in Marshall, Texas and lasted seven days. Judge Robert M. Parker, who presided over this trial, had consolidated 30 asbestos cases and selected four of the 30 to be the first group to be tried together before a jury that would consider both liability and damages. Each of the 30 claimants—all insulators or the widows of insulators—alleged that they had asbestosis,\textsuperscript{8} and each sued the same asbestos manufacturers for failure to warn of the health hazards associated with asbestos exposure. These ten defendants were Celotex Corp., Raymark Industries (successor to Raybestos-Manhattan), Fibreboard Corp., Armstrong World Industries, Eagle-Picher Industries, Pittsburgh Corning Corp., Standard Insulators, Keene Corp., Owens-Illinois, and Nicolet Industries.

After deliberating approximately one day, the jury found each of the ten defendants liable for the plaintiffs' injuries and awarded the four plaintiffs a total of $3.9 million in compensatory damages—$700,000 to $1.2 million each. In addition, the panel awarded a total of $4 million in punitive damages against four of the ten defendants. The total award, $7.9 million, is high compared with the findings of previous ICJ research on asbestos compensation.\textsuperscript{9}

Judge Parker had hoped that a plaintiffs' verdict in this first trial of four claimants would prompt a settlement of all 30 cases, which it did.\textsuperscript{10} He had scheduled the next nine cases for trial beginning on December 1, 1984. On that date, he held a day-long settlement conference with all of the defendants, which resulted in the settlement of all 30 cases for a total of $12 million.\textsuperscript{11}

At Judge Parker's invitation, we observed the trial of Newman v. Johns-Manville in October and returned in December 1984 to interview

\textsuperscript{7}Charles H. Newman et al. v. Johns-Manville Sales Corporation et al., U.S. District Court, Eastern District of Texas, Marshall Division (Civil No: M-79-124-CA). Newman originally filed this case in 1979. However, because the Manville Corporation, successor to the Johns-Manville Corporation (JM), filed for bankruptcy in August 1982, all litigation against JM has been stayed since that date and JM was not a defendant in this trial.

\textsuperscript{8}See Sec. II for a discussion of asbestos-related diseases.

\textsuperscript{9}Analysis of closed asbestos claims between January 1980 and August 1982 found that the average total compensation for each claim that resulted in a plaintiff’s verdict was $388,000; the average total compensation per claim settled before trial began was $53,000; and the average total compensation for all closed claims (settled as well as tried) was approximately $60,000 (Kakalik et al., 1983, pp. 18-20; 1984, p. 20.

\textsuperscript{10}Interview with Judge Parker, December 19, 1984.

\textsuperscript{11}Terms of the settlement other than the total have not been made public.
the jury about their deliberations.\textsuperscript{12} We conducted this 3-1/2 hour group interview with all six regular jurors.\textsuperscript{13} Our interview questions were designed to lead the jurors through the steps by which they arrived at their verdict and computed the compensatory and punitive damage awards. We also directed our questions to their recall and understanding of the evidence and witnesses they had heard and on the role of counsel at trial.

Most research on juries has involved experimentation with simulated and shadow juries. This experimental research has produced a limited set of conclusions about the way jurors behave. Yet there are several inherent limitations to the experimental methodologies, and much of the research in this area treads over familiar substantive ground.\textsuperscript{14} Our case study of the \textit{Newman} jury’s deliberation offers a means of exploring the applicability of experimental findings to an actual jury. In recent years, researchers and journalists have also interviewed or debriefed several actual juries following their deliberations.\textsuperscript{15} This approach also has obvious limitations depending on the completeness and quality of the transcripts and the purposes for which the interviews were conducted. We have drawn upon the accounts of jury deliberations in five recent cases—written by others—to both support and challenge our observations from the \textit{Newman} interview. Each of these other cases clearly falls under the rubric of complex civil litigation; the monetary damage awards in these cases approach and often overshadow those in \textit{Newman v. Johns-Manville}.

Our case study of the \textit{Newman} jury provides a useful reference point against which to compare previous research on the process and outcome of jury deliberations—to attempt to summarize what we know and what we do not know about how juries behave. And because of the size of the jury’s award in relation to average asbestos recoveries, our \textit{Newman} interview serves as a means to discuss an issue at the heart of the current debate over the role of lay juries: that of the implicit criteria or standards by which we determine a verdict to be “acceptable” or “unacceptable.”

\textsuperscript{12}Judge Parker waited until December to issue this invitation because he wanted the other 26 cases to be concluded prior to our discussion.

\textsuperscript{13}One of the four alternate jurors also took part in our interview. She heard the entire trial but did not take part in the deliberations.

\textsuperscript{14}See discussion of the experimental literature in Sec. IV.

ORGANIZATION OF THIS REPORT

Section II will discuss the problems that asbestos litigation—and other complex litigation—pose for judges and particularly for juries who decide these cases. We will then offer a narrative account of the *Newman* trial and the jury’s deliberations in that case as reconstructed through our interview.¹⁶ In Sec. III, we will present the results of our interview with the *Newman* jury. In Sec. IV we will review the *Newman* jury’s deliberation and verdict in light of the results of experimental research and jury interviews in five other complex civil cases. Section V raises a set of questions generally not addressed in previous research: How do we decide when a verdict is worth respecting? What standards have we adopted—either deliberately or implicitly—to determine whether the deliberation process and resultant verdicts in cases such as *Newman* were “fair”? Is there a consensus as to such standards? If not, what are the implications of this lack of consensus for the current concern about jury performance and proposals for reform?

¹⁶Obviously, we conducted this research somewhat backwards. Our interview with the *Newman* jury prompted us to explore the extent to which the behavior of this jury—the process by which it deliberated and the verdict it produced—comported with the findings of existing research on jury behavior. Because we defined the objectives of this research after we attended the *Newman* trial and interviewed the jury, we cannot address some major issues pertinent to jury performance because we either did not observe the trial or interview the jury with them in mind. For example, we have little information on the backgrounds or personal characteristics of individual jurors in the *Newman* case. Moreover, we do not have a transcript of the trial nor did we take careful notes on the content and organization of the opening and closing statements or on the cadence and accents of the attorneys and witnesses (see Lind and O’Barr, 1979; and Lind and Ke, 1985). Consequently, we can make only limited statements, based on the recollections of the *Newman* jurors, as to the impression these individuals created in the courtroom, hence in the jury room. In hindsight, it would also have been useful to have preceded our group interview of the *Newman* jury with individual interviews of each juror. This might have provided a cross-check for accuracy, measures of the extent of agreement of jurors, and an assessment of each juror’s difficulty with the case.
II. ASBESTOS IN THE COURTS: THE NEWMAN TRIAL AND VERDICT

ASBESTOS LITIGATION AND JURIES

Because of the number of plaintiffs in *Newman v. Johns-Manville* and the method by which Judge Parker chose to try their cases, the *Newman* jury heard a somewhat atypical asbestos case. Yet, the issues in this case and the problems that they presented for the jury in terms of comprehension and decisionmaking are typical of most other asbestos cases. The problems posed by asbestos litigation are, in turn, also representative of those confronting juries in litigation arising from the exposure to or use of several other toxic substances including Agent Orange, Diethylstilbestrol (DES), Bendectin, and the Dalkon Shield.

The *Newman* jury's comprehension of the evidence presented at trial, the process by which it deliberated, and the content of its verdict together make a useful case study of the challenge posed by complex litigation—in this instance toxic tort litigation—to juries. This section will provide background on asbestos litigation and review the problems such cases as well as those arising from exposure to other toxic substances present to judges and lay juries. We will then describe the *Newman* trial, summarize the judge's instructions, and provide a brief narrative account of the deliberations.

Asbestos is a fibrous mineral that is mined. It has been used for decades in numerous industrial settings, in schools, in ships, and in homes across the country. Its heat absorbing qualities make it useful for insulation, brake linings, roofing products, and many other purposes.

Asbestos is also known to cause several diseases, including asbestosis, mesothelioma, and lung cancer. Each of these asbestos-related diseases can have a latency period of 20 years or more. Many workers who were exposed to asbestos years ago now have seriously disabling injuries, and many have died of asbestos-related diseases. Many more

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1Asbestosis, which each of the *Newman* plaintiffs alleged they had developed, is a clogging and scarring of the lungs resulting from the inhalation of asbestos fibers. Asbestosis can be quite variable; it can reduce breathing capacity so much as to be completely disabling—even fatal—to the victim. It can also cause only minimal disability. Asbestos is also one of the known causes of mesothelioma, a rapidly fatal cancer of the lining of the chest and abdomen. Finally, inhalation of asbestos fibers has been linked to an increased incidence of lung cancer.
may become ill and die in the future as a result of diseases attributable to asbestos exposure.\(^2\)

Although medical knowledge on the nature and extent of the association between asbestos exposure and disease developed slowly; by the 1930s studies in Europe and the United States had established a link between exposure and disease. Moreover, there is substantial evidence that at least some producers knew then about the dangers of asbestos exposure but neither producers nor employers informed workers of these risks (Castleman, 1984).

Since the early 1970s, over 30,000 claims have been filed in courts across the country against asbestos manufacturers to compensate asbestos workers for exposure-related injuries.\(^3\) Over the next several decades, tens of thousands more may be filed (MacAvoy et al., 1982; Selikoff, 1981). By the end of 1982, about $1 billion had been spent for compensation and litigation expenses of asbestos claims (Kakalik et al., 1983, p. 38). Estimates of future costs have ranged from $4 billion to $87 billion (Conning & Company, 1982; MacAvoy, 1982). In response to these financial demands, several asbestos manufacturers, including the Manville Corporation (formerly Johns-Manville), filed for reorganization under Chapter 11 of the federal Bankruptcy Act.

Asbestos litigation and litigation resulting from exposure to other types of toxic substances differ in many important ways from traditional personal injury lawsuits. These differences present problems for judges and particularly for juries charged with deciding these cases.

There are complex issues of medical causation, diagnosis, and prognosis. That these medical issues have proven problematic for jurors should not be surprising in view of the extent of disagreement within the medical and scientific community. The specific mutagenic process by which asbestos (and certain other substances) causes cancer is not well understood (Brennan and Carter, 1985, pp. 46–50). Moreover, it is not currently possible to establish how much asbestos exposure causes any of the diseases associated with that exposure. Finally, not everyone exposed to asbestos develops an asbestos-related disease.

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\(^2\)Estimates of the number of "excess deaths" due to asbestos exposure through the end of the century range between 200,000 and 450,000 (MacAvoy et al., 1982; and Selikoff, 1981).

\(^3\)Asbestos cases have thus far generally been filed by three classes of claimants: shipyard workers, plant workers, and insulation workers. The *Neuman* plaintiffs were either insulation workers or the widows of insulators. Insulation workers were employed in large refineries, power plants, and other facilities putting asbestos insulation around pipes and fittings, or insulating blast furnaces with asbestos cement materials. Earlier ICI research found that among cases closed between 1980 and 1982, shipyard workers accounted for 37 percent of the cases, asbestos plant workers 35 percent, and insulation workers 21 percent. Other or unknown industries accounted for 7 percent (Kakalik et al., 1984, p. 26).
Scientists use probabilistic statistical data to discuss these epidemiological issues of mutagenesis, exposure, and incidence; but jurors must sometimes apply these and other data to the diagnosis and prognosis of individual claimants. Although asbestos is a "signature disease," caused only by the inhalation of asbestos fibers, lung cancer and mesothelioma may develop for reasons other than asbestos exposure.\(^4\) For instance, many asbestos workers have a history of cigarette smoking, also linked to the development of lung cancer. Consequently, although there is a statistical association between asbestos exposure and the development of nonsignature asbestos diseases, physicians may legitimately differ as to whether a particular plaintiff's lung cancer was caused by asbestos exposure or by cigarette smoking. Furthermore, because of the wide variation in the severity of asbestosis, physicians may also disagree as to whether a plaintiff has indeed sustained an injury as a result of his or her exposure. Finally, the course of asbestosis is progressive, but it can also be quite variable. The disease may be severely disabling in some patients and arrested in others. Many of these same problematic medical issues have arisen in litigation resulting from mass exposures to other toxic substances (Abraham and Merrill, 1986; and Brennan and Carter, 1985).

Apart from this thicket of medical issues, asbestos litigation raises complex issues regarding proof of exposure, grounds for proving liability, and the basis upon which damages should be apportioned that are also present in other toxic tort litigation. Most plaintiffs attribute their injuries to exposures that may have occurred many years before the development of their disease. Asbestos plaintiffs typically sue the companies that mined, manufactured, supplied, or processed the asbestos products; the average claim names 20 defendants (Kakalik et al., 1984, p. 5).\(^5\) Yet to prove liability, plaintiffs must prove that they were exposed to the defendants' products. Most asbestos plaintiffs worked on several projects during their careers. Consequently, it is difficult for them to remember each of the specific job sites where they worked or all of the products they used. The identification of specific products is further complicated by the fact that workers frequently used whichever materials were available in the stockroom that met the job specifica-

\(^4\) The vast majority of mesothelioma victims have been exposed to asbestos, although some individuals developed these tumors without a history of asbestos exposure.

\(^5\) Claimants frequently settle with some or all of the defendants before the beginning of a trial; and generally by the time a trial occurs, the number of defendants has been reduced substantially from the number named in the complaint.
tions. They would have had little reason to have noticed or remembered which manufacturer had produced the material.\textsuperscript{6}

Juries must also determine whether and to what extent defendants are liable. Many recent asbestos product liability cases, including the \textit{Newman} case, have been brought on a theory of strict liability rather than negligence. Under strict liability, a defendant is held liable if he is shown to have manufactured or sold a “defective product” that caused the plaintiff’s injury. Product defects can include defects in design and manufacture, as well as inadequate product warnings. Consequently, evidence on what defendants knew about asbestos-related injuries and when they first knew it—the state of the art or the state of knowledge—is of central importance in asbestos litigation. In the \textit{Newman} case, the jury had to decide whether corporate officials—many of whom are long deceased—concealed information about the dangers associated with the use of their products, whether they issued warnings when they first became aware of the dangers of asbestos, and whether the warnings they issued were “adequate.”\textsuperscript{7}

Finally, the long latency period for the onset of disease, combined with the fact that most claimants worked in a number of locations and were exposed to the products of many manufacturers, makes it difficult to determine relative responsibility for each claimant’s injury. This problem of apportioning liability and damages has also characterized litigation, such as that involving the drug DES, where more than one manufacturer produced the same product.\textsuperscript{8}

\textbf{THE NEWMAN TRIAL}

\textbf{The Parties}

The 30 plaintiffs in the \textit{Newman} case were represented by Rex Houston and Paul Sadler of the law firm of Wellborn, Houston, Adkison, Mann and Sadler in Henderson, Texas. The four plaintiffs whose cases were tried in October 1984 represented the range of illness and disability that can result from asbestosis—from visibly and

\textsuperscript{6}The problem of product identification is even more difficult in wrongful death suits where a widow seeks compensation for her husband’s death from an asbestos-related disease or in cases—such as that of one of the \textit{Newman} plaintiffs—where a widow claims injuries from exposure to asbestos dust while washing her husband’s work clothes. It is unusual for a widow to know which products her husband was exposed to. In these cases plaintiffs often rely on the testimony of others who worked with the plaintiff’s husband.

\textsuperscript{7}See below for Judge Parker’s definition of “adequate warning” in the \textit{Newman} case.

severely disabled to considerably less disabled—but each plaintiff exhibited some pulmonary changes\(^9\) upon physical examination. These plaintiffs were:

- **Charles Newman**: A former insulation worker, Newman was the oldest (67 at the time of the trial), the sickest of the four plaintiffs, and the only one visibly disabled. The defendants agreed that he had asbestosis. Newman worked as an insulator from 1941 to 1943 and from 1947 until 1977 when his illness prevented him from working any more.

- **Velma Howell**: A housewife, Howell claimed she acquired asbestosis as a result of washing her husband’s and sons’ work clothes, which were covered with asbestos dust. Her husband, an insulator, died in 1968 from what she contended was an asbestos disease.

- **Fred Goodson**: Goodson worked as a ship insulator for two years in the 1940s and then again beginning in 1964. He was 58 years old at the time of the trial.

- **Elverado Flotte**: Flotte started working as an insulator in 1966. At the time of the trial he was 50 years old.

During the trial, only counsel Houston and Sadler and their paralegal sat at the plaintiffs’ table in the courtroom. Each plaintiff attended the entire trial. The plaintiffs and their families sat in the courtroom’s first two rows of public seating.

Each of the ten manufacturing defendants\(^{10}\) in the *Newman* trial was represented by at least one attorney. Counsel for Fibreboard, Dan Mayfield, was lead counsel, but each lawyer took responsibility for a different facet of the trial. Every day of the trial there were between 15 and 20 lawyers representing the defendants in the courtroom. Because there was not sufficient room at the defense counsels’ table, they spilled over into the first row of public seating and along the side wall of the courtroom.

**The Trial Begins**

Judge Parker began the proceedings by telling the jury that he had consolidated 30 cases for trial in order to increase efficiency and elim-
inate the need for 30 separate trials.\textsuperscript{11} He advised the jurors that he intended to apply many of their findings from this first trial of four plaintiffs to the remaining 26.

The judge briefly discussed the concept of preponderance of evidence, the standard of proof the jury was to use in reaching its verdict. He also told the jurors that they could “consider any matter in evidence that tends to indicate to you whether a particular piece of evidence [or] witness is credible... [including] a witness's manner and demeanor on the stand, ... background, experience, [and] the opportunity a witness might have had to observe what he may be testifying; consider any relation the witness has to either side of the case, what they have to gain or lose” (see Court’s Charge, p. 18).

Judge Parker briefly summarized the nature of the plaintiffs’ claim in this case and the questions jurors would be asked to decide. He focused particularly on the question of whether defendants had provided adequate warning of the hazards of asbestos exposure (Court’s Charge, pp. 1–19).

At the beginning of the trial, Judge Parker gave each juror a notebook containing a list of all the asbestos products manufactured by each of the defendants and the dates of manufacture. In addition, the notebook contained copies of the warnings defendants placed on the products and the dates these warnings were first used.\textsuperscript{12} Judge Parker allowed the jurors to use the notebooks for reference both during the trial and in their deliberations. Judge Parker also allowed the jurors to take notes during the trial.

The legal issues raised in the *Newman* trial, the claims made, and the witnesses and evidence each side marshaled to support its contentions were typical of those raised in other asbestos jury trials. In his opening statement, plaintiff attorney Rex Houston summarized his case as follows:

- Medical evidence indicated that all four plaintiffs had asbestos
- Each of the plaintiffs had been exposed to asbestos-containing materials manufactured by each of the defendants
- The defendants knew of the dangers of asbestos as early as the 1930s

\textsuperscript{11}An edited version of Judge Parker’s pre- and post-trial instructions to the jury and the verdict forms may be found in the appendix.

\textsuperscript{12}The judge’s staff prepared these notebooks from the defendants’ answers to interrogatories before the trial. Each defendant had an opportunity before distribution to correct information in the notebook.
• The jury should award punitive damages against four of the defendants, Raymark, Owens-Illinois, Nicolet, and Pittsburgh Corning.

Steve Patterson, representing Eagle-Picher Industries, made the defendants’ opening statement. He argued:

• Except for Charles Newman, whom the defendants conceded had asbestosis, the plaintiffs did not suffer from asbestos-related diseases
• The defendants did not know of the dangers of asbestos inhalation to insulators until 1965 when they began to issue adequate warnings to insulators
• The plaintiffs contributed to the risk of developing asbestosis by agreeing to work in the insulation business and by smoking cigarettes.

Exposure

The defendants did not contest the fact that Newman, Goodson, Flotte, and Mrs. Howell’s husband were insulators and had been exposed to asbestos fibers (Court’s Charge, p. 29). But for the jury to find the defendants liable for their injuries, the plaintiffs had to prove that they were exposed to asbestos products manufactured by the defendants. Plaintiffs’ attorneys Houston and Sadler relied primarily on the employment records that each plaintiff compiled and on each plaintiff’s oral testimony to prove exposure. Although the defendants challenged the admission of these employment records as hearsay evidence, Judge Parker allowed them to be used.13 These records listed not only the employers for whom each plaintiff had worked but also the products he worked with.14

To further strengthen their case on exposure, the plaintiffs called C. L. Funk as a witness. A former insulator, Funk described the work done by insulators, the method by which they were exposed to asbestos-containing materials, and the level of dust in the work environment. Funk also testified that insulation workers generally did

13Defendants contended that these records, often reconstructed largely on the basis of the plaintiffs’ memories, undoubtedly contained inaccuracies. Judge Parker overruled these objections on the ground that they constituted the only available evidence on the plaintiffs’ employment and product exposure histories.

14In Mrs. Howell’s case, Judge Parker allowed only evidence based on her family’s collective memory about where Mr. Howell worked and excluded evidence regarding products he might have used. Mrs. Howell admitted during trial that she did not remember which products her husband had used.
not pay attention to the brand or manufacturer of the product they were using. Finally, Funk testified that he had worked with Mrs. Howell's husband on several projects before his death.

The defendants contested the plaintiffs' case on exposure primarily through cross-examination of each plaintiff; they attempted to discredit the plaintiffs' memories by raising discrepancies between their testimony in court about products and employers and information they had provided earlier in depositions. In addition, attorneys for some individual defendants called witnesses who testified as to the limited production and distribution of particular asbestos-containing products.15

Proof that Plaintiffs' Disease Was Asbestos Related

The jury had to decide whether the pulmonary changes observed in each plaintiff upon examination—including pleural thickening, plaques, and calcification—were "merely body changes" or evidence of disease, in this case, asbestosis (Court's Charge, p. 30). To prove that each plaintiff had developed asbestosis, plaintiffs' counsel Rex Houston presented the testimony of two doctors from Houston, Texas: Dr. Milton Gray, a radiologist, and Dr. Eric Comstock, an internist. Houston read the testimony of both doctors into the record from depositions. Neither doctor appeared at the trial in person. Dr. Gray's review of the chest x-rays and pulmonary function tests conducted on each plaintiff led him to conclude that all four individuals had asbestosis.16 Based on his examinations of each plaintiff, Dr. Comstock concurred in that diagnosis.17 Neither physician testified as to the possibility that the plaintiffs could develop cancer in addition to asbestosis in the future. Judge Parker had prohibited plaintiffs' counsel from raising the "fear of cancer," but indicated that if any of the plaintiffs did develop cancer he would allow another trial on that matter.

15For example, Emmett Hines, Jr., an official of Armstrong World Industries, testified that Armstrong only made one asbestos product, Armorspray. He said employees of Armstrong Contracting and Supply Company were the only people to use this product and that none of the four Newman plaintiffs had been Armstrong Contracting and Supply Company employees.

16The defendants had expected Gray to testify by deposition and conducted a cross-examination in the same manner, reading additional passages from his deposition that they felt weakened Gray's diagnoses.

17Several defense attorneys told us that they had been able to minimize Comstock's effectiveness as a witness on the stand in previous asbestos cases through cross-examination. But to the defendants' surprise, Comstock testified through his deposition, severely limiting the defendants' ability to weaken his credibility. Moreover, the judge refused to admit Comstock's testimony during cross-examination from a previous trial, as requested by defendants, because it had not been listed on the pre-trial order.
Instead of having Gray and Comstock testify regarding all four plaintiffs at once, plaintiff’s attorney Rex Houston received a ruling from Judge Parker allowing each plaintiff to testify immediately following Comstock’s and Gray’s deposition testimony about that plaintiff. Each of the four plaintiffs took the stand during this portion of the trial and testified as to their work histories and their current physical condition. Mrs. Howell testified not only as to her husband’s employment history and her medical condition but she also described washing her husband’s and sons’ dust-covered clothes.

The defendants relied on Dr. Paul Stevens of Houston, Texas to rebut Comstock’s and Gray’s testimony. The defendants used Stevens primarily to deny these physicians’ contention that each plaintiff had asbestosis. Dr. Stevens presented evidence on the statistical incidence of the disease, asserting that although asbestosis is “dose responsive”—that is, the more exposure the greater the likelihood of developing the disease—not everyone exposed to asbestos becomes ill. Moreover, because Dr. Stevens conceded that Mr. Newman did indeed have asbestosis, the defendants thought that the jury would believe him when he testified that the other three plaintiffs did not have asbestosis. Stevens presented a very detailed description of the symptoms of asbestosis and then discussed the results of his examination of each plaintiff.18 He asserted that the x-ray and pulmonary function test results on Goodson, Flotte, and Howell indicated asbestos exposure but not necessarily disease.

The defendants could have instead asserted, based on the apparent wide variation in the four plaintiffs’ disabilities, that even if they each had asbestosis, they would not necessarily each become as sick as Charles Newman. Dr. Stevens did discuss the variable, indeterminant progression of asbestosis; but the thrust of his testimony concerned his finding that Goodson, Howell, and Flotte did not have asbestosis. These experts, in other words, provided the jury with little information to assess the wide variability of the disease.

Dr. Stevens also testified that three of the four plaintiffs had a long history of cigarette smoking. He and another witness, Dr. Eugene Adams, a pulmonary disease specialist, devoted a substantial portion of their testimony to describing the dangers of smoking, and pointing out the similarities between the plaintiffs’ symptoms and those of smoking-related diseases. Adams testified that the symptoms Newman and Flotte exhibited could have been caused by smoking rather than asbestos exposure. Although Adams did not deny that Newman had

18 Under cross-examination, however, Stevens admitted that one of his partners rather than himself had actually examined two of the four plaintiffs.
asbestosis, he believed that some of Newman’s symptoms could have been caused by smoking.\textsuperscript{19}

**Grounds for Determining Liability**

One of the most important components of the defendants’ case in *Newman* and in most asbestos trials was the “state-of-the-art” defense. The defendants claimed they did not know shipbuilders and insulators were at risk from exposure to disease until the publication of research results by Dr. Irving Selikoff in 1964 and 1965.\textsuperscript{20} The defendants contended that before 1964, they were aware that exposure to asbestos was dangerous to factory workers who often worked with raw fibers, but they did not know it was also harmful to insulators who handled products with much lower concentrations of asbestos fibers. To support this contention, defense attorneys relied upon the testimony of Dr. Corwin Hinshaw, a retired pulmonologist who has testified in many asbestos trials, and several manufacturing company representatives, who each testified that their companies were unaware of the dangers to insulators until after 1964.

The plaintiffs’ attorneys, however, asserted that Texas product liability law holds the manufacturer of a product to the knowledge and skill of an expert, and that there was clear evidence as early as the 1930s that asbestos was harmful if the fibers were inhaled. The plaintiffs therefore claimed that the manufacturers knew of the dangers to all asbestos workers well before 1964, and that if they didn’t know, they should have known. In either event, the manufacturers should have protected and warned those working with asbestos materials. To support these contentions, Houston called Dr. Joseph Wagoner, an epidemiologist who formerly worked for the U.S. Public Health Service. Wagoner summarized medical research about the dangers of asbestos and claimed that if held to the knowledge of an expert, the asbestos manufacturers should have known of its dangers in 1946 with the publication of the Fleischer-Drinker report (Fleischer et al., 1946), which

\textsuperscript{19}Since the defendants admitted Newman had asbestosis, the purpose of Adams’ testimony was to induce the jury to reduce Newman’s compensatory award due to contributory negligence.

\textsuperscript{20}The first report (Selikoff, Hammond, and Churg, 1964), showing that insulation workers had a startlingly high likelihood of dying from asbestosis, lung cancer, and mesothelioma, is a major piece of evidence in nearly all asbestos trials. Defendants claim they had no knowledge of the danger of asbestos to insulation workers until the Selikoff report was published. Soon after publication of this report, the New York Academy of Sciences held a large conference on asbestos disease at which Selikoff and his co-workers reported that they found radiological evidence of asbestosis in 86 percent of the 392 insulators examined who had 20 years or more exposure (Selikoff, Churg, and Hammond, 1965).
found three cases of asbestosis among 51 insulators with ten or more years of exposure to products containing asbestos.

Punitive Damages

The *Newman* plaintiffs sought punitive damages against four defendants: Owens-Illinois, Raymark, Nicolet, and Pittsburgh Corning.

The plaintiffs' evidence in support of its punitive damage claim against Owens-Illinois was a series of letters from the director of the Saranac Lake Laboratory in Canada to officials of the Owens-Illinois Corporation reporting on the results of experiments the laboratory was conducting for Owens-Illinois on Kaylo. Kaylo is an insulating product containing approximately 15 percent asbestos. Kaylo was manufactured by Owens-Illinois beginning in the 1940s. Owens-Corning Fiberglas Corporation began distributing Kaylo in 1953 and bought the entire Kaylo line from Owens-Illinois in 1958. These studies, which began in the late 1930s and did not conclude until 1948, were designed to study the health effects of inhaling this product on rats. Those experiments found that when the dust produced by cutting and applying Kaylo was injected into the lungs of rats, fibrosis and lesions developed. Consequently, the plaintiffs contended that by November 1948 Owens-Illinois officials were clearly aware of the danger of asbestosis inhalation to insulators. Judge Parker instructed the jury to consider this evidence only against Owens-Illinois.

Owens-Illinois counsel, Art Stamm, countered this evidence with the deposition testimony of Thomas Mehan, a company official, that with its sale of Kaylo to Owens-Corning Fiberglas in 1958, Owens-Illinois no longer manufactured products containing asbestos. He then presented correspondence between Saranac Lake Laboratories and Owens-Illinois designed to demonstrate that the company did not know Kaylo was dangerous to insulators before selling Kaylo to Owens-Corning Fiberglas.

Stamm also called Harry Damopolis, a physician from Scarsdale, New York who had been hired by Owens-Illinois to review all of its correspondence with the Saranac Laboratory between 1943 and 1955. Damopolis testified that Owens-Illinois had initiated the Kaylo rat studies out of concern for the health of its employees and for that of insulators who might use the product. On the basis of his review of the Saranac Lake correspondence, Damopolis testified that after 30 months of exposure to asbestos dust (at levels higher than the existing workplace standards) there was no sign of illness among the rats. Although the Saranac Lake report concluded that asbestos was dangerous, he noted that it did not warn Owens-Illinois that it was dangerous to "end users" such as insulators. Thus Damopolis believed that the report
would not have led Owens-Illinois to fear that insulators were at risk when using Kaylo.

The punitive damage case against Raymark centered around the Sumner Simpson "papers," the deposition of William Simpson, Sumner Simpson's son, which describes correspondence between Sumner Simpson (then president and chairman of the board of Raybestos-Manhattan) and officials of the Johns-Manville Corporation. The papers indicate that as early as 1935, these defendants not only knew about the dangers of asbestos but took steps to keep that information from reaching the public. The admissibility of the Sumner Simpson papers was a major issue in this trial as in many other asbestos trials because of concern over their authenticity. 21 While Judge Parker allowed the Sumner Simpson papers to be entered as evidence against Raymark, he specifically instructed the jury to consider them as evidence only in the punitive damage portion of the trial and only against Raymark.

Attorneys for Raymark used Milton Scowcroft, a Raymark textile engineering consultant, to defend the punitive damage claim. He testified that all of the products containing asbestos manufactured by Raymark and its predecessor Raybestos-Manhattan, such as insulation tapes, are textile products rather than insulation products. He testified that these textile products do not create as much dust when cut as do block insulation, pipe covering, and asbestos cement, products made by other manufacturers. The plaintiffs' attorneys' contention of this point resulted in its presentation to the jury for decision. 22 Raymark also introduced correspondence to support its argument that the company did not know insulators were at risk from asbestos until the publication of Selikoff's results in 1964 and 1965. Raymark contended it willingly helped to fund the Saranac Lake Laboratory studies, that it was frustrated with the delays in finishing the study, and that it did not know of the danger of asbestos to insulators because it did not receive a copy of the final report. Counsel for Raymark did not discuss or rebut the Sumner Simpson papers.

The punitive damage case against Nicolet hinged on Nicolet's response to one question in the plaintiffs' pretrial interrogatories. Asked when Nicolet first became aware of the dangers of asbestos

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21 At the time of the Newman trial the Fifth Circuit Court of Appeals had ruled the Sumner Simpson papers inadmissible as evidence in James Jackson v. Johns-Manville Sales and Raybestos Manhattan, 750 F.2d 1314 (5th Circuit, 1982). However, the Jackson ruling had been appealed en banc to the Fifth Circuit, and at the time of the Newman trial a ruling had not been issued. After the Newman trial ended, the Fifth Circuit reversed itself in Jackson and allowed the Sumner Simpson papers to be admitted as evidence, 757 F.2d 614 (5th Circuit, 1985).

22 See Question 1 in discussion of Judge Parker's instructions to the jury.
contained in insulation materials, the company answered that it was aware of the danger of asbestos when the company was incorporated in 1939. As in the case against Raymark, the jury was instructed to consider this piece of evidence only against Nicolet. In its defense, Nicolet relied on cross-examination of the plaintiffs to attempt to prove that none of them ever used that company's products in their work as insulators.

The plaintiffs' case for punitive damages against Pittsburgh Corning centered on the often-used deposition of Richard Gaze, an official of the Cape Asbestos Company in England. Gaze stated that before Pittsburgh Corning's purchase of the Unibestos product line and its manufacturing facilities from UNARCO, he had warned officials of Pittsburgh Corning of the dangers of asbestos. Judge Parker instructed the jury to use the Gaze deposition only to decide whether punitive damages should be levied against Pittsburgh Corning.

In its defense, Pittsburgh Corning's Robert Buckley testified that his firm began manufacturing asbestos-containing insulation materials on July 1, 1962 following the purchase of the Unibestos product line from UNARCO. He testified that Pittsburgh Corning was not aware of the dangers of asbestos at that time but began placing warning labels on their products in 1968 when it realized that other companies were doing so.

JUDGE PARKER’S INSTRUCTIONS TO THE JURY

The judge took over an hour to instruct the jury. He repeated his earlier instruction that the jurors were to use the preponderance of the evidence as the standard in determining whether an allegation had been proven. He defined this standard as “whether it's more likely so than not so. In other words, . . . such evidence when compared and considered, compared with the evidence against it produces in your minds that what is sought to be true is more likely true than not true, tipping of the scales, one way or the other” (Court’s Charge, p. 22).

Judge Parker then told the jury that under Texas products liability law, it is the duty and responsibility of the manufacturer to inform and warn users of the dangers of using their product. He amplified his pretrial discussion of warnings, advising the jury that in deciding whether a warning is necessary, the manufacturer is assumed to have the "knowledge and skill level of an expert, which means at a minimum the manufacturer must keep abreast of the relative, technical and scientific knowledge, discoveries and advances relating to the product." In addition, if a warning is determined to be necessary, it must be timely,
sufficiently emphatic to convey a fair indication of the danger or risk involved in use of the product, and it must be “conspicuous, comprehensible and understandable to the mind of the average user and reasonably calculated to reach those likely to use the product” (Court's Charge, pp. 25–26).

The judge then told the jury that if they found for the plaintiffs, they would be asked to rule on the question of assumption of risk. If they determined that the plaintiffs should have known about the dangers of working with asbestos, they could reduce the award by an appropriate percentage.

At this point, Judge Parker handed out four verdict forms; the jurors were asked to decide:

- **Question 1:** Whether any of the products manufactured by two of the defendants, Raymark and Celotex, was “an asbestos-containing insulation product capable of producing dust containing asbestos fibers sufficient to cause harm in its application, use or removal.”

- **Question 2:** Whether any of the defendants' manufactured products were defective as marketed and unreasonably dangerous because of the manufacturer's failure to provide adequate warnings. The verdict form provided a definition of adequate warnings and allowed the jury to decide either that all of the defendants' products were defective or that only the products of certain manufacturers were defective in this manner.

- **Question 3:** From the preponderance of the evidence, the date upon which each defendant knew or should have known that insulators were at risk of contracting an asbestos-related injury or disease from the application, use, or removal of asbestos-containing insulation products.

- **Question 4:** From the preponderance of the evidence, what date the manufacturers knew or should have known that household members of insulation workers were at risk of contracting an asbestos-related disease.

The actual verdict forms are reproduced in the appendix.

Finally, the judge discussed the components of the damage awards. If the jury found the defendants liable, it could award compensatory damages for past and future lost income, future medical expenses, pain and suffering of the plaintiff, and loss of consortium for Mrs. Newman

\[23\] This question resulted from the disagreement between plaintiff and defense attorneys as to whether these products, which the manufacturers claimed were textile products and not insulation products, caused a level of dust sufficient to be a hazard to insulators.
and Mrs. Goodson. The judge specifically instructed the jurors not to award damages for past medical expenses because the plaintiffs had made no claim for nor introduced evidence as to those expenses but allowed them to award compensation for future medical expenses (Court's Charge, p. 38). The judge also described the standard of proof that the jury was to use in deciding whether to award punitive damages. "The Plaintiff must prove that the Defendant demonstrated a conscious indifference to the rights of insulators ... in a callous and intentional, reckless disregard for their well-being" (Court's Charge, p. 73). Judge Parker also told the jury that if they decided to award punitive damages, there must be a reasonable relationship between the actual and punitive damages awarded.

THE VERDICT

At approximately 4:30 p.m. on the seventh day of the trial, the case went to the jury. The jury elected a foreperson and then, according to our interview, decided to go home for the evening and begin its deliberations the next morning. When they reconvened the next morning, the jurors decided to read portions of the evidence before discussing the questions on the verdict forms. The jurors spent most of the morning reviewing the documentary evidence and depositions about the dangers of asbestos and each plaintiff's employment and medical records. According to our interview, they paid particular attention to the Sumner Simpson papers, the Saranac Lake report, and the Gaze deposition. By approximately 1 p.m. the jurors had completed the verdict forms that Judge Parker had given them. In fairly rapid succession, they decided that:

- each of the Celotex and Raymark products listed on Question 1 was capable of producing asbestos dust sufficient to cause harm;
- each of the defendants' products listed on Question 2 was defective as marketed and unreasonably dangerous because of the absence of an adequate warning;
- each of the defendants listed in Question 3 should have known by 1945 that asbestos exposure was dangerous for insulators;

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24 Since she was not a wage-earner, Judge Parker instructed the jury that Mrs. Howell was not entitled to compensation for past and future lost income.

25 Houston had paid for each of the plaintiffs' pretrial medical examinations.

26 Judge Parker said, "exactly what the relationship is ... will be ... exclusively for you to determine. ... The general requirement is that punitive damages must not so greatly exceed the actual damages as to indicate ... that the jury has been guided by passion or prejudice rather than by reason" (Court's Charge, pp. 74-75).
• and each of the defendants listed in Question 4 should have known by 1945 that asbestos exposure was also dangerous for household members of insulation workers.

Before determining their compensatory and punitive awards, the jurors returned to the courtroom. Judge Parker repeated and amplified his earlier instructions as to the components of these awards and issued special instructions applying to individual plaintiffs and defendants. The jury resumed its deliberation at approximately 2:30 p.m. and returned its damage verdicts just before 6 p.m. that same evening. The compensatory damage awards were as follows:

Charles Newman  
$1.0 million  
$250,000  
Actual Damages  
Loss of consortium for Mrs. Newman

Velma Howell  
$700,000  
Actual Damages

Fred Goodson  
$850,000  
$250,000  
Actual Damages  
Loss of consortium for Mrs. Goodson

Elverado Flotte  
$850,000  
Actual Damages

In addition, the jury awarded each of the plaintiffs $1 million in punitive damages and divided the punitive damage burden as follows among the four defendants against whom punitives were sought:

Charles Newman  
Owens-Illinois  
$500,000
Nicolet  
$250,000
Raymark  
$250,000

Fred Goodson  
Pittsburgh Corning  
$500,000
Nicolet  
$250,000
Raymark  
$250,000

Velma Howell and Elverado Flotte (each)  
Owens-Illinois  
$250,000
Nicolet  
$250,000
Raymark  
$250,000
Pittsburgh Corning  
$250,000

Finally, the jury decided that there should be no reduction in the awards because of negligence on the part of the plaintiffs.
III. THE NEWMAN DELIBERATION

The somewhat serendipitous manner in which this research originated precludes a systematic review of each juror's views on the issues raised in the *Newman v. Johns-Manville* trial or of their recall and understanding of key facts and legal principles. Nonetheless, our interview provides some insight into how and why the jury made its decisions on the major questions in this case: whether the plaintiffs were exposed to the defendants' products, whether the plaintiffs' injuries were asbestos-related, whether the defendants' products were defective as marketed, and whether four of the defendants were liable for punitive damages. This section will discuss the *Newman* jury's day-long deliberation by examining the following questions:

- How well did the jurors recall and understand the information presented during the trial? What did they remember?
- How did jurors perceive the testimony and behavior of witnesses and the parties to the lawsuit?
- How did jurors perceive the behavior of the attorneys in the trial?
- How did individual jurors decide? When did individual jurors decide? How did the jury as a group reach a verdict?
- How well did the jury understand and remember Judge Parker's instructions? To what extent did it deviate from the law, as instructed, in its verdict?
- How did the jury compute its damage awards?

We have grounded our assessment of the jury on our observation of the trial, our understanding of the evidence presented, and Judge Parker's instructions. In the next section, we will use the same set of questions to discuss what other researchers have observed with regard to the behavior of mock or shadow juries.

We reiterate that we conducted our interview two months after the deliberation in this case. Because the jurors' memory and understanding had undoubtedly deteriorated from what it had been during those deliberations it is difficult to determine the extent to which jurors had difficulty with recall during the deliberation or two months after the deliberation. Similarly, we cannot be sure that our interview elicited a sense of how the jurors perceived the witnesses, parties, and attorneys who appeared at trial *at the time of their deliberation*. Nor can we be certain that our interview resulted in an accurate reconstruction of the
process by which the jury reached consensus on its verdict or computed the damage awards. Finally, because we conducted only a group interview rather than individual as well as group interviews we cannot assess the extent to which the jury’s collective memory and understanding was more accurate or complete than that of individual jurors.

MEMORY AND UNDERSTANDING

Our interview indicated that individual jurors left the trial with a general memory that asbestos is a dangerous substance. However, the jury’s recollection of the specific scientific and medical facts presented in this case and its understanding of the medical issues discussed contains several errors. Most significantly, because of the defendants’ trial strategy the jurors seemed to misunderstand the nature of asbestosis, the wide variation in its progression, and the incidence of the disease. As noted in Sec. II, the breathing impairment resulting from asbestosis is modest in most cases and progression of the disease to the severe disability exhibited by Charles Newman is unusual. Yet, since the defendants emphatically denied that Goodson, Howell, and Flotte had asbestosis, they introduced limited evidence that, even if these three plaintiffs had asbestosis, they were statistically unlikely to become as sick as Newman. Neither the defendants’ nor the plaintiffs’ attorneys introduced evidence regarding the statistical probability of the disease’s progression. As a result, the Newman jurors failed to understand the variability of the disease.

Interviewer: What was your impression of how sick each of these plaintiffs were? Both at the present time and how sick those people would be in the future.

Juror 5: I figure that Charlie Newman was in bad shape.

Juror 3: There was not any discussion on that really.

Juror 2: No ... all the doctors, they agreed that he had asbestosis.

Interviewer: What about Mr. Goodson? Did you think he would be as sick as Mr. Newman?

Juror 6: I did.

Juror 3: I figure all of them going to be that way, if they don’t find anything that will cure that ... [i]f they have asbestosis, its a progressive, fatal disease
that's going to kill you. They're going to die from it.\footnote{A transcript of the interview with the \textit{Newman} jury is available from the authors. We have kept the identities of the \textit{Newman} jurors private. All names have been removed from the transcript. Instead we randomly assigned each juror a number. In addition, we transcribed our interview as accurately as possible given the limits of our tape recording equipment. Consequently, the excerpts quoted here contain a number of false starts and uncorrected grammatical errors.}

Thus, although the jurors' failure to understand the variability of asbestosis is not surprising, as we will discuss later it was of major consequence in their computation of the plaintiffs' compensatory damage awards.

The jurors also had difficulty understanding the limited evidence the plaintiffs' counsel introduced regarding the incidence of the disease in an effort to prove liability and that the plaintiffs' injuries were asbestos-related. The development of asbestosis depends on exposure to asbestos. Dr. Stevens, who appeared for the defendants, testified that not everyone exposed to asbestos develops asbestosis; yet one of the jurors concluded, "every one of them [the plaintiffs] had the exposure and the length of time, so that is how I figured they had it" [asbestosis]. This juror may not necessarily be wrong. But his statement indicates that he may have regarded the statistical evidence on incidence as setting forth criteria that, when met, proved the existence of disease rather than discussing probabilities.

Curiously, although they had difficulty with these important points, the jurors did remember that a diagnosis of asbestosis depends on the outcome of several diagnostic tests. The physicians who testified discussed the results of each plaintiff's x-rays, pulmonary function tests, and other tests. The plaintiffs' doctors, Drs. Comstock and Gray, believed these tests demonstrated that each plaintiff had asbestosis; the defendants' experts, Drs. Stevens and Adams, used the same battery of tests to insist that three of the four plaintiffs did not have asbestosis. Presented with this extraordinarily confusing medical evidence, one juror recounted his memory of this testimony, aided by his trial notes.

\textbf{Juror 6:} I wrote \ldots down that Goodson wasn't a good x-ray, and that Flotte wasn't a good x-ray, and I kind of made a chart on what, like, Comstock thought he had it and then Dr. Gray had the two x-rays, and over here they said he was not disabled, and that was their numbers [a reference to the grading of x-rays], and those we didn't really \ldots understand \ldots we did not go for how they one over one and one
over two [another reference to the x-ray gradings], things like that didn't agree with how . . . the Flotte, even, their number . . . had the one, two, three and four, and his three and four was right at 80 and the other one was at 70, which is right at the line but yet it was on the borderline but yet it said he was not.

Although this juror remembered a morass of fragmented pieces of information, based on our observation of the trial the general conclusions she mentions are accurate: The doctors disagreed about the significance of x-ray readings and pulmonary function tests on one of the plaintiffs because those tests were on the border of being abnormal.

The Newman jurors also failed to understand that, as the defense claimed, cigarette smoking could have contributed to the plaintiffs' breathing difficulties. Three of the plaintiffs had smoked; some had substantial smoking histories. All had obstructive lung disease, which, in the case of those who smoked, could theoretically have been caused by smoking and could have accounted for their breathing difficulties. About half of the jurors smoked; several of them viewed the evidence presented on smoking as little more than an attempt to divert attention from the misdeeds of the defendants.

Juror 3: [T]hey kept trying to throw that smoking thing into us, and I thought that was nothing but a smoke-screen . . . because they kept trying to seem like move your attention from what was going on medically over onto another subject that would get your mind off of this and onto smoking.

Juror 6: I feel that smoking wasn’t really the case here, but they kept throwing it up there, trying to make that smoking was really their problem.

Juror 7: It didn’t mean nothing to me, whether they brought up smoking or not. I was going on the evidence.

PERCEPTION OF WITNESSES AND PARTIES

The Newman jurors seemed to have formed opinions as to the merits of a witness's testimony based not only on the substance of his or her testimony but also on their perception of that witness's characteris-
tics, personality and behavior. These perceptions had a major consequence on the damages awarded in that case. The jury's perception of plaintiff Elverado Flotte is the most blatant example of such influence. Flotte was the only nonwhite plaintiff among the group of four; he is a native Mexican who had moved to the United States in 1956. Flotte testified that his wife still lives in Chihuahua, Mexico and he also said that although he could still work as a supervisor, his asbestosis precluded continued employment as an insulator. The Newman jurors recounted that they used the same formula to compute Flotte's compensatory damage award as for the others (see section below) but they subsequently reduced Flotte's total. Flotte's ethnicity was partly responsible for the jury's decision.

Juror 6: It just . . . it did not seem fair in our minds that we could give him the same amount as Mr. Newman. The man would never—I know this probably should not, I don't know what's supposed to enter in your decisions—the man would never earn a million dollars in his lifetime, we didn't figure. He was an unskilled laborer . . . His work record, the fact that . . . he was possibly not illegal alien, but . . . the fact that more than likely he was going to go back to Mexico and never work again over here . . . you know, these things came in . . . But his family was not here and just different things like that came into . . . why we cut him back.

The Newman jurors were also generally skeptical if not negatively disposed toward many of the medical experts who testified in this case. Confronted with so much complex and confusing information, the jurors tended to evaluate the credibility of these witnesses in large part on their personal characteristics rather than on the information they presented. Juror 3 devalued the testimony of one medical expert because, "he . . . talks kind of funny. I don't know where he's from, but I'm not going there. I thought he was from San Francisco . . . I didn't put a lot of faith in what he said." In addition, because the jurors failed to understand the defendants' contention that there can be a relationship between smoking and the development of breathing difficulties, they tended to discredit the medical experts who testified.

2Recall that before the trial the judge had instructed that they “should consider a witness's manner and demeanor on the stand,” among other evidence (Court's Charge, p. 18).
on this point. Juror 6 recalled of one of the defendants’ medical experts, “it just seemed like they tried to get, you know, he didn’t even know anything about asbestos or asbestosis, he just knew about something else.”

The jurors also reacted somewhat skeptically to the plaintiffs’ counsels’ conscious attempts to draw sympathy to the individual plaintiffs. Charles Newman’s wife testified on his behalf during the trial and mentioned that the following day would mark their 44th wedding anniversary. Juror 3 remembered her remark somewhat sarcastically as “another little thing they threw in to try and make you feel sorry.”

The jurors also evaluated the credibility of witnesses in part based on their perception of those witnesses’ social status and the amount of income they earned from repeated testimony in similar cases. The jurors’ perception of C. L. Funk, the former insulator who testified for the plaintiffs on the issue of exposure, is in contrast with their assessment of some of the defense’s medical experts. One juror remembered Funk as the man “that had to borrow your coat that didn’t have a tie on.”

Juror 6: ... not that he didn’t seem smart enough to lie, but he was more . . . he was believable.
Juror 5: To me there was nothing fake about him . . . .
Juror 6: He was not rehearsed.
Juror 1: He was an honest man, you might say.
Juror 5: He’s a good old boy.
Juror 6: [Y]ou knew he had been briefed and he had gone over this, but it wasn’t like some of the others. Some of the others, you wondered how many . . . they’d probably get up at night saying what they said . . . You’ve got all of them get in there in front of the mirror and combing their hair saying what they were going to say.

PERCEPTION OF ATTORNEYS

The number of defense counsel in the Newman case as well as some of their trial tactics negatively impressed the jury.3 As noted in Sec. 2,

3Curiously, our questions as to the tactics and demeanor of both plaintiffs' and defense counsel generally elicited only negative comments about the defense counsel rather than positive comments about the plaintiffs’ counsel.
between 15 and 20 lawyers representing the *Newman* defendants sat in the courtroom during the entire trial. This was in sharp contrast to the two plaintiffs’ lawyers (from the same firm) who represented all four plaintiffs (as well as the larger group of 30). The contrast in numbers was not lost on the jury:

**Juror 3:** I felt like they [the defense lawyers] were hot-shot company lawyers.

**Juror 5:** The lot of them scared me to death when I looked at them.

**Juror 6:** When we were talking about the money ... you know ... I thought ... if they put all that money that they’re paying all those guys to sit there. You know, you begin to wonder about that.

**Juror 4:** You know, the man said that the lawyers made him [Fred Goodson] feel like a rat ... between two chickens.\(^4\)

**Juror 6:** That’s exactly what I would have thought, and I would have said it too.

**Juror 3:** I think we mentioned something about it when we were down there deliberating it.

Several of the *Newman* jurors claimed to have viewed the entire defense presentation quite skeptically, as less a defense of the plaintiffs’ allegations than an attempt to divert attention from the wrongdoing of the asbestos manufacturers. This juror’s thoughts were representative of those of his colleagues:

**Juror 3:** To me ... the truth [is] I don’t really think they have a defense at all. I said, they’re just trying to bring up some stuff that is more or less irrelevant, they’re trying to make theirself look good when they’re not really, and I really didn’t think they

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\(^4\)This juror is referring to the testimony of plaintiff Fred Goodson as to his work history, the products to which he was exposed, and the extent of his injuries. The defense attorneys who cross-examined Goodson succeeded in getting him to contradict several statements he had made earlier in his deposition. At one point during this cross-examination, Goodson announced that the reason he had “lied” at his deposition was because when he came into the room where it took place he felt like a mouse who had just come out from a hole in the floor to face a bunch of hungry housecats and someone had blocked his way back into the hole. The jurors clearly remembered this remark but either did not remember or discounted the fact that before Goodson’s comment, the defense attorneys seemed to have successfully forced Goodson to contradict himself.
presented any type of defense that would change my mind whatsoever.\footnote{This juror viewed one defense attorney's bitter cross-examination of one of the plaintiffs' experts, Dr. Joseph Wagoner, in a similar vein:}

The skepticism with which some jurors regarded the defense's position permeated their perception of individual trial tactics and the evidence defense attorneys introduced. Jurors reported that they were negatively influenced by the defense's attempt to discuss the relationship between smoking and breathing impairment, to challenge the plaintiffs' claims as to injuries and lost wages, and to raise the state-of-the-art defense.

For example, the defendant's attempt to introduce the issue of whether cigarette smoking contributed to or was responsible for the plaintiffs' injuries backfired completely. The \textit{Newman} jurors decided that smoking was not responsible for and did not contribute to the injuries of these particular plaintiffs, but they also seemed not to understand that smoking \textit{could} have contributed to asbestos-related disease. Instead, the jurors viewed the introduction of this issue entirely as a defense tactic or "smokescreen."

Similarly, the jury reacted negatively to the defendant's attempt to challenge the plaintiffs' claims as to both the extent of their injuries and their lost wages. When defense attorneys questioned plaintiff Goodson about the income he received from some chickens he kept, jurors recalled:

\begin{itemize}
  \item \textbf{Juror 6:} Now . . . the thing I also didn't like, I didn't think had anything to do with was Mr. Goodson and his chickens.
  \item \textbf{Juror 3:} Yeah, they made a big deal out of the chickens.
  \item \textbf{Juror 6:} . . . And that . . . was just his hobby. It'd be the same if he had had saws and he made rocking horses.
  \item \textbf{Juror 3:} . . . the defense was trying to show that he wasn't unable to do work . . . This was the way he made his living now, was chickens.
\end{itemize}
Juror 2: You can't hardly make a living raising chickens though.

Finally, the jurors responded quite skeptically to evidence defense attorneys introduced as to when the defendants first learned that asbestos was dangerous to insulators. The jurors feared that defense attorneys or their witnesses read excerpts out of context from research reports and misinterpreted the evidence. Once in the jury room, as noted in Sec. II, the jurors said they devoted a substantial portion of their deliberation to reading these reports.

Juror 3: We figured that they let us know what they wanted us to know in court but after we got the evidence downstairs we looked and see what we wanted to read in them.

Juror 6: Like the sentence before what they read to us or the sentence after that they just kinda read out of context what they wanted to.

Juror 3: ... [O]ne lawyer read the part that they didn't die from asbestosis and he stopped right there and see, that's all. But we got to read further on what the rest of it was.

OPINION AND CONSENSUS FORMATION

Most of the Newman jurors entered the jury room with at least the tentative belief that the asbestos manufacturers had ignored the results of scientific research demonstrating the hazards of asbestos exposure and thus were liable for the injuries of the four plaintiffs in that case. One juror recalled how his views on the defendants' liability changed during the course of the trial.

Juror 5: When I first started out you know at the beginning I thought well it would go one way and then it, the further we got and I got to seeing some more and hearing some more and then I kinda got, you know, undecided and then when we started all reading.

However, before the deliberations began, several of this juror's colleagues had generally concluded that the manufacturers were liable.

Juror 3: Everybody had the same thing in their mind more or
less when we went down there, they felt like, I will speak for myself I don’t know, [name deleted] probably feels the same way. I felt like the companies were liable . . . when I left this courtroom . . . but I wanted to read and check on the evidence to see if there was any doubt in my mind.

Interviewer: What about the rest of you?

Juror 4: When I went down there my mind, I wanted more convincing that what I heard in the courtroom, I wanted to review . . .

Interviewer: That they were liable?

Juror 4: Yeah, the evidence . . .

Interviewer: Were any of you leaning the other way when you went down there?

Juror 3: You mean against the plaintiffs?

Juror 7: I wasn’t.

Juror 2: I wasn’t.

Given their individual pre-deliberation opinions, the Newman jurors had little difficulty reaching a consensus not only on the issue of whether each plaintiff had asbestosis but also on the specific questions submitted to them and the computation of damage awards. Our interview reveals that this jury reached its decisions with remarkably little dissent or difference of opinion. The Newman deliberation was less a process of persuasion than the aggregation of the individual decisions jurors reached before deliberation.

The jurors discussed and voted on each of the four verdict questions in turn. They apparently spent little time on the first question, concerning whether Raymark and Celotex had manufactured asbestos-containing insulation or textile products.

Juror 6: . . . [L]ike on the first one whether each of the products listed . . . was capable of producing dust there was no question in our minds . . . We just talked about what something was if it was cloth . . . and

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6The reader should remember, however, that our interview took place two months after the jury’s deliberation and the passage of time may have dimmed memories of disagreements. Hindsight may have caused jurors to misremember their initial views on issues so as to conform to the final verdict. Moreover, the fact that we did not also conduct interviews with individual jurors may have stifled juror accounts of dissent.
used, I guess, our own reasoning as what it could do like tearing the cloth and things.

The second question, whether the defendants had issued adequate warnings, generated more discussion but little dissent. As discussed above, the jurors spent most of the morning of their deliberation reading the documentary evidence the plaintiffs’ attorneys had introduced regarding research on the health risks of asbestos exposure and the manufacturers’ knowledge of the results of that research. This material apparently convinced each juror that the defendants had acted duplicitously.

Juror 2: ... all through the letters, they were trying to hide something ... They know that asbestos was killing rats, ... but they was trying to hide it ...

Juror 6: It's all these companies.

Juror 3: ... disregarded people's safety and well-being, and that's really the feeling I got from it.

But the jurors did have some difficulty with the language of the second question, specifically as to the definition of an "adequate" warning.

Juror 6: [W]e tried to know like whether it was defective as marketed, unreasonably dangerous, whether that meant what we thought it meant in different words. By this time I think we were all getting a little crazy, I think that we were worried that we weren't going to understand ... [W]e discussed on whether "adequate" meant, did the person who used the finished product ... get absolutely all the materials that was maybe sent out with it.

Interviewer: Now was there disagreement on that initially?

Three jurors: No [simultaneously].

Interviewer: So if I understand ... it took ... a while before you all came up with a definition that you felt comfortable with.

Juror 6: Right ... I think that we pretty well decided that all the products were defective.
Juror 3: I didn’t think any of them had adequate warnings at that time.

The jurors apparently spent somewhat more time on the third and fourth questions, determining the date by which the defendants should have known that asbestos inhalation was harmful to both insulators and their families. They agreed on 1945 in both instances—the year before publication of the Fleischer-Drinker report, which discussed the incidence of asbestosis among insulators. The jurors reasoned that manufacturers who diligently kept abreast of relevant research would have learned of such important findings prior to their publication.

Interviewer: . . . [W]as there a lot of disagreement at first about what the date should be? . . .

Juror 3: I think everybody hit pretty close on the same year you might have got a year or two here or there but it all worked out to where this was more of an average.

Juror 6: Yeah, that’s more what I think how we came, an average instead of trying to do each company, because some of them may have known it three months ahead of time more than that or even 18 months but it all basically came at the same, or for sure this was the last date that they should have known.

The panel also had little apparent difficulty deciding to award punitive damages although they were initially confused about the purpose of the award. In response to questions the jurors had submitted on this issue, Judge Parker issued further instructions.

Juror 3: . . . [W]e had a small disagreement on exactly what the law said.

Juror 6: We did not know whether punitive damages was a reprimand against the companies or whether it was a money value for the plaintiff.

Interviewer: . . . [W]as there a discussion as to whether or not you should award punitive damages, did anybody feel that there shouldn’t be a punitive damage award?

Juror 5: I think everybody agreed.

Four jurors: Everybody agreed [simultaneously].
As we will discuss below, the jurors had more difficulty devising a formula to allocate the punitive damages among the four defendants subject to punitives than in deciding whether to award punitive damages at all.

DEVIATIONS FROM THE LAW

The *Newman* jurors had difficulty in three instances remembering and following the judge's instructions. They applied evidence incorrectly, awarded compensation for expenses they were not supposed to consider, and considered extralegal factors in determining liability and punitive awards. The jurors did not have a copy of the judge's instructions during deliberation; however, they did receive additional oral instructions from him on the issue of punitive damages.

The *Newman* jury applied crucial documentary evidence incorrectly in determining whether to award punitive damages. Judge Parker specifically instructed the jury to consider the evidence presented against each of the four defendants only with regard to the punitive damages claim against that defendant (Court's Charge, pp. 42-44). Yet the jurors told us that they considered the Sumner Simpson papers, which were only to be used as evidence against Raymark, and the Saranac Lake report, which was only to be used as evidence against Owens-Illinois, to be the most important pieces of evidence in determining that all ten defendants were liable for damages to the plaintiffs.

The *Newman* jurors also deviated from the language and intent of Judge Parker's instructions in their compensatory awards. They awarded legal fees to each plaintiff as part of the compensatory damage award. In general, juries are not supposed to consider legal fees in determining an award and judges frequently instruct juries specifically not to consider them (Kalven, 1964, pp. 1069-1070). Although Judge Parker's instructions are silent on the subject of legal fees, he instructed the jury to "consider the following elements of damage and none other." Judge Parker then specified the permissible components of the jury's compensatory award (Court's Charge, p. 36). The *Newman* jury also awarded each of the plaintiffs compensation for past medical expenses (see discussion below) even though Judge Parker specifically instructed them to award future but not past medical expenses.

Finally, in determining Flotte's award, they considered extralegal factors such as his ethnicity.

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7See discussion below on the method by which the jury computed these fees.
COMPUTATION OF AWARDS

Recall that the panel decided that all ten defendants were liable for the plaintiffs’ injuries, that each of the four plaintiffs had asbestosis, and that they believed each would eventually become as sick as the sickest. To determine its compensatory damage award for each plaintiff, the jury calculated and then summed past lost earnings, future lost earnings, past medical expenses (which Judge Parker had specifically instructed them not to consider), future medical expenses, and past and future pain and suffering. Table 1 displays the jury’s compensatory award calculations for each plaintiff.

The jurors estimated that Newman and Goodson would have each earned $30,000 a year and Flotte $23,000 a year if they had not become sick. In addition, they calculated that each of these three men could have earned $5,000 a year in miscellaneous income after they retired. To calculate past and future lost earnings, then, the jury used information entered as evidence as to each plaintiff’s employment history and life expectancy. Since Howell had not been a wage earner, the jury did not, in accordance with the judge’s instructions, calculate lost earnings for her.

The jurors then calculated medical expenses for all four plaintiffs. They estimated each plaintiff’s past medical expenses (which were not to be included in their award) at $12,000 a year and future medical expenses at $15,000 a year. The jury awarded past expenses from the last year in which the plaintiff worked before the trial and future medical expenses from the trial forward. It based its future medical awards on the estimated life expectancy data entered as evidence.

The jury made a final award to each plaintiff for pain and suffering. The jurors had some difficulty determining a dollar figure to compensate for past and future pain and suffering but finally decided on $5,000 per year.

Juror 3: It took a lot of discussion to get this down to where we could figure it . . .

Juror 6: Because it said that was the love, sex, and happiness, and it was kind of . . . that’s kind of hard to put a money bag on . . .

Juror 4: It was just hard to come up with an amount.

Juror 6: I don’t think it was so much like $500 a month. It really didn’t equal out to be that. We just kind of

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8The panel apparently used the estimates made by the plaintiffs’ medical experts for computing future medical expenses.
<table>
<thead>
<tr>
<th>Item</th>
<th>Newman</th>
<th>Goodson</th>
<th>Flotte</th>
<th>Howell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working years lost due to illness</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>5a</td>
</tr>
<tr>
<td>Future life expectancy</td>
<td>10</td>
<td>15</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>Lost past earnings ($ per year)</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$23,000</td>
<td>NA</td>
</tr>
<tr>
<td>Value of lost past earnings</td>
<td>$210,000</td>
<td>$60,000</td>
<td>$46,000</td>
<td>NA</td>
</tr>
<tr>
<td>Lost future earnings at $5,000 per year</td>
<td>$50,000</td>
<td>$75,000</td>
<td>$110,000</td>
<td>NA</td>
</tr>
<tr>
<td>Past medical expenses at $12,000/year</td>
<td>$42,000</td>
<td>$12,000b</td>
<td>$30,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Future medical expenses at $15,000/year</td>
<td>$150,000</td>
<td>$225,000</td>
<td>$330,000</td>
<td>$225,000</td>
</tr>
<tr>
<td>Past and future pain and suffering</td>
<td>$120,000</td>
<td>$180,000c</td>
<td>$276,000</td>
<td>$210,000</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$572,000</td>
<td>$552,000</td>
<td>$792,000</td>
<td>$480,000</td>
</tr>
<tr>
<td>Rounding</td>
<td>$600,000</td>
<td>$550,000</td>
<td>$800,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>Legal fees</td>
<td>$400,000</td>
<td>$300,000</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Reduction</td>
<td>NA</td>
<td>NA</td>
<td>$150,000</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>$1,000,000</td>
<td>$850,000</td>
<td>$850,000</td>
<td>$700,000</td>
</tr>
</tbody>
</table>

aThis represents the number of years since her illness was diagnosed.
bIt is not clear why the jury used $12,000 rather than $24,000.
cIt is not clear why the jury calculated $180,000 rather than $102,000.
came to a round figure of like, $6,000 a year, which divided by 12 equals $500 a month. It was more of a . . .

Juror 3: Guestimation.

Juror 6: Yeah, that just seemed fair.

Once they had calculated each element of the compensatory award for each plaintiff, the jurors rounded it up to an even total. For example, the original sum for Newman came to $572,000, which the jurors then rounded up to $600,000.

But this total is still $400,000 short of the jury's actual damage award. We asked where the rest came from.

Juror 3: I don't even want to tell them this . . . [laughter]

Juror 6: . . . $400,000 to pay the lawyer.

Juror 3: We figured everything in when we figured. Why should they take what we figured they should have and give half of it or so to the lawyer?

Interviewer: Why did you pick $400,000 as a figure? Was there a . . .

Juror 5: A certain percent would probably go to the lawyers.

Juror 6: Yeah, that's how we came by . . .

Juror 2: That's 40 percent of it, and . . .

Juror 6: . . . we figured they were going to get so much percentage of it . . .

Juror 3: 40 to 50 percent.

Although the jury did not always add an amount equal to 40 percent of the total, they did add a considerable sum of money to each award.

We did not specifically ask the jurors why they added legal fees and past medical expenses to each plaintiff's compensatory award; however, our transcript does provide some inkling as to their motivation.

Juror 6: This is just something . . . we came up with . . . we didn't think it was fair . . .

Juror 3: If he just got $572,000 and had to give the lawyer half of it, then he wouldn't have the money that maybe he needs for his medical expenses for the rest of the time he's going to be alive, and I didn't think,
personally, that he should have to pay out of his pocket for hiring a lawyer to take the company to court.

Juror 5: ... I get it that some of these expenses had already been paid for by some of the lawyers or some of these.

Juror 3: Well, they sent the bill...

Juror 2: To the lawyers.

Juror 3: But that doesn't mean he's going to pay for them. He is just absorbing that expense that's going to come out of his money... I felt like that the man may get the bill back anyway if he wins the case... [H]e paid for this man's medical expenses... he's going to give it right back to him, and say well this is your purse.

As the jury calculated its compensatory award for each plaintiff, it made a few changes in its procedure. For example, after calculating a total compensatory award of $1,000,000 for Flotte, the jury reduced it to $850,000. As discussed above, they did so because they realized that their formula gave Flotte more money than even Newman because he had a longer life expectancy, because they believed Flotte wasn't as sick as the others, and because of ethnic prejudice.

In addition to the substantial actual damage awards, the panel had little trouble agreeing to award punitive damages. Seemingly without much discussion, the jury assessed the four defendants subject to punitive damages $1,000,000 each.

Interviewer: What made you pick that figure?

Juror 3: We figured that would be a large enough amount to deter the companies from doing this again.

Interviewer: Were there other serious dollar figures that you thought about for punitive damages besides a million?

Two jurors: No [simultaneously].

Juror 5: It would make them think again.

Juror 3: We had to get something that would, like I say, that was a deterrent for the companies. And I think that's more or less what come up.
Much later in our interview, one juror voiced some hesitation as to this figure.

Juror 4: I think that it [the punitive award] was high. I really did. But still, I went along one hundred percent.

The jurors considered their sense of the defendants’ financial resources in deciding to assess each defendant $1 million.9

Interviewer: Did . . . any of you have any concerns when you made these awards about the ability of the companies to make those kinds of payments?

Two jurors: No [simultaneously].

Juror 6: I don't feel like a million dollars to a national or international company means the same thing it does to me.

Dividing the punitive damage awards up among the plaintiffs proved to be a bit of a problem for the jury. They wanted to award each plaintiff $1 million and fine each of the four defendants $1 million, yet each of the defendants was not liable for injuries to all of the plaintiffs. Although “it took some scribbling,” the jurors eventually determined how to divide the punitive among defendants and plaintiffs in order to reach their objective.10

SUMMARY

In sum, our interview with the six men and women on the Newman panel reveals that they had little difficulty reaching agreement on the issues of exposure, illness, liability, and compensatory and punitive damages. The jury apparently experienced few difficulties with the standard of proof Judge Parker defined; they did not seem to have had trouble weighing or balancing the preponderance of evidence particularly with regard to questions of liability and punitive damages. Rather each juror apparently came to the same conclusions quickly and easily.

9There was no evidence introduced during the trial as to the defendants’ financial resources.
10See Sec. II on the final division of punitive damages among the four defendants and plaintiffs.
The panel relied heavily on the employment records entered into evidence and the testimony of C. L. Funk to determine that each of the plaintiffs was exposed to products from each of the defendants. They were unpersuaded by defense arguments that some products were less dangerous than others concluding, "it was all the same stuff it just had different names on it."

Because neither the plaintiffs' nor the defendants' attorneys had provided the jury with much information on the variable nature of asbestosis, once the jurors decided each plaintiff did indeed have asbestosis, they concluded that each would eventually become as sick as Charles Newman. The jurors' generally negative perception of defense attorneys and medical experts, particularly their discussion of the relationship between cigarette smoking and the development of lung disease, did little to change that belief.

Each juror apparently entered the jury room with a tentative belief in the defendants' liability for the plaintiffs' injuries. Their reading and discussion of the research reports and correspondence entered into evidence strengthened their individual beliefs and the group's collective consensus as to liability. They were unpersuaded by the defendants' claims of ignorance as to the dangers that asbestos exposure posed to insulators until the 1964 publication of the Selikoff report. Moreover, they responded negatively when asked about their perceptions of defense attorneys and the defense witnesses called during the liability phase of the trial. The jury awarded substantial compensatory damage awards to each plaintiff based on their computation of each component of that award. Contrary in one instance to the intent and in another instance to the explicit instructions of the judge, the jury awarded substantial compensation to each plaintiff for legal fees and past medical expenses. The jurors also adjusted one of the compensatory awards downward based on that plaintiff's ethnicity and his apparent lack of disability relative to the sickest of the group.

The jury had little difficulty deciding to award punitive damages or settling on an award of $1 million per defendant. Their review and understanding of the documents on manufacturer knowledge of the dangers of asbestos exposure and their negative reaction to the state-of-the-art defense as "an attempt to make theirselves look good when they're not really" resulted in the jury's quick decision on this issue.
IV. HOW DO JURIES DECIDE? IS THE 
NEWMAN JURY ILLUSTRATIVE?

INTRODUCTION

Concerns about what some perceive as the randomness or unpredictability of civil jury decisionmaking is an important aspect of the contemporary debate over jury performance and alternatives to the current jury system. Is the process by which the *Newman* jury deliberated peculiar or is it representative of how juries generally understand the evidence, evaluate the parties who testify during the trial, reach a verdict, and compute damage awards? What principles or behavioral norms seem to guide jury behavior? Does the *Newman* jury conform to these norms?

In this section we will review the existing literature on jury behavior in order to explore how and why the *Newman* jury decided as it did and the extent to which that panel was illustrative of what is known about how juries generally decide. In Sec. V we will examine questions related to the quality of jury decisionmaking, an issue we believe is also at the heart of the debate over civil juries.

Research on how humans process information has a long history. Much of that research has taken the form of experimentation using small groups often assembled as mock juries and assigned a decision-making task. Some of the literature using shadow and simulated juries1 examines the effects of individual juror characteristics on both the deliberative process and the outcome. Most, however, centers on the deliberative process itself.2

We have also drawn to a limited extent upon published accounts of the deliberations in five other civil cases. Although the notion that a

1A simulated or mock jury does not attend an actual trial but instead watches a simulated trial conducted live or segments of a trial on video tape. The jurors then “deliberate” and are questioned as to the group’s verdict and comprehension. Unlike a simulated jury, a shadow jury attends an ongoing trial and is exposed to the full courtroom drama. Shadow jurors are then questioned, often daily, to assess their comprehension and reactions.

2There are many inherent problems associated with the use of simulated and shadow juries. The subjects are sometimes unrepresentative of the actual jury pool. The method in which the simulated trial is presented may lack the drama of an actual trial. Moreover, a mock jury may not have the opportunity to develop the interactive synergy that “educates and colors the thinking of a real jury.” Additionally, some argue that since mock and shadow jurors do not have the responsibility to reach a verdict, “their attention span is suspect.” Frequent debriefings can also affect the jurors’ responses by emphasizing the artificial nature of the research (Austin, 1984, p. 9; and Levine, 1985).
jury deliberates in secret is still taken for granted by every American jurisdiction, retrospective questioning of jurors about their deliberation is occurring more frequently.\(^3\) It is now almost commonplace for journalists to solicit the jurors’ comments in reporting on the outcome of an important trial. Scholars have also tried to move inside the jury room in recent years through extensive post-deliberation interviews designed to reconstruct the process by which jurors reached a verdict.\(^4\) Not surprisingly, there is a wide range in the depth and quality of jury interviews; some recent interviews have been carefully structured, others seek quick, quotable comments revealing the “reason” for the verdict, and many more span the spectrum between these poles.

Table 2 displays the outcome and some of the characteristics of the jury deliberation accounts we reviewed. The cases from which these accounts emerged do not by any means represent a random sample of jury deliberations. They are each complex civil cases involving notable figures, extraordinary sums of money, or novel legal claims, yet they include a mixture of state and federal cases on quite different legal issues. The quality and completeness of these interviews vary greatly as well. Nonetheless, these accounts both challenge and support some of our observations from the Newman interview and the largely experimental literature.

There are, as Elizabeth Loftus has written, “certain normal and natural memory processes that occur whenever human beings acquire, retain and attempt to retrieve information” (Loftus, 1981, p. 116; Nisbett and Ross, 1980). When individuals are assembled as a jury, however, they must go one step further: They must reach an agreement or arrive at a collective decision about the information they heard, retained, and processed. This is a continuous process—jurors listen to the evidence presented at trial knowing that they will have to decide as to guilt or liability. Yet, for the purposes of this analysis, we have

\(^{3}\)Public Disclosures of Jury Deliberations," Harvard Law Review, Vol. 96, 1983, pp. 886-906. There are inherent limitations in retrospectively interviewing actual jurors about their deliberations. Individuals may not remember the trial or deliberations accurately. Moreover, memory is selective, and people often reconstruct events in a way that presents them in a positive light. Because jurors are repeatedly instructed to remain objective, they may refrain from revealing what really affected their thinking. In addition, limitations result from the structure of juror interviews as well as from the interviewer’s skill. For instance, the number of jurors who consent to be interviewed may color the account of the deliberations that emerges; group interviews may produce a more complete account of the deliberations than may individual interviews but may also suppress the recounting of disagreement; and the interviewer’s ability may be key to eliciting conversation and recall (Levine, 1986).

\(^{4}\)In one instance, cameras did literally move inside the jury room. In April 1986 the Public Broadcasting Service aired a film, produced by a University of Wisconsin law professor, showing a real jury deliberating an actual criminal case ("Film Takes an Inside Look at Deliberation of Jurors," National Law Journal, April 14, 1986, p. 8).
<table>
<thead>
<tr>
<th>Case and Trial Date</th>
<th>Allegation</th>
<th>Length of Trial</th>
<th>Length of Deliberation</th>
<th>Verdict</th>
<th>State or Federal</th>
<th>Number of Jurors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland v. CEI I (1980)</td>
<td>Sherman Antitrust Act violation</td>
<td>2 weeks</td>
<td>13 days</td>
<td>Mistrial</td>
<td>F</td>
<td>6</td>
</tr>
<tr>
<td>Cleveland v. CEI II (1981)</td>
<td>Sherman Antitrust Act violation</td>
<td>&gt;3 months</td>
<td>&lt;6 hours</td>
<td>Defense verdict</td>
<td>F</td>
<td>6</td>
</tr>
<tr>
<td>Tavoulareas v. Wash. Post (1982)</td>
<td>Libel</td>
<td>20 days</td>
<td>2-1/2 days</td>
<td>$265K comp. + $1.8m pun. dam. v. Wash. Post</td>
<td>F</td>
<td>6</td>
</tr>
<tr>
<td>Newman v. Johns-Manville (1984)</td>
<td>PI/Products liability (Asbestos)</td>
<td>7 days</td>
<td>1 day</td>
<td>$4m comp. + $4m pun. damages for 4 plaintiffs</td>
<td>F</td>
<td>6</td>
</tr>
<tr>
<td>Penzoil v. Texaco (1985)</td>
<td>Breach of contract</td>
<td>4 months</td>
<td>3 days (9 hrs.)</td>
<td>$7.53b comp. + $3b pun. dam. v. Texaco</td>
<td>S</td>
<td>12</td>
</tr>
</tbody>
</table>
broken that process down into recalling, understanding, and making decisions about information.

MEMORY AND UNDERSTANDING

How well do jurors recall facts presented during the trial? What do they remember? Psychological theory indicates that when presented with complex information or a great number of facts, individuals generally perceive one or a few generalizations that summarize and provide meaning for the information rather than the specific details. As a result, memory is "reconstructive;" people recall the general impression of an event or the information presented along with some of the details. From this base, they infer or reconstruct other details (Peterson, 1976, pp. 16–17). The Newman jurors clearly entered the jury room with the general belief that asbestos is dangerous and that the defendants may have ignored information on the health risk it posed to insulators. They then seemed to "reconstruct" or fit much of the specific evidence presented as to the illnesses of individual plaintiffs and the culpability of individual defendants within the context of these two major beliefs.

How well do jurors understand what they remember about the trial? Judges questioned as part of the Chicago Jury Project\(^6\) concluded that juries in criminal trials they observed generally understood the facts of the case (Kalven and Zeisel, 1966, p. 149). However, others who have studied civil trials assert that the use of legal jargon inhibits understanding and that jurors have particular difficulty understanding statistical evidence and other types of technical testimony presented by expert witnesses (Forston, 1975, p. 60; Vinson, 1982b, p. 1246; Market Facts, 1981, pp. 13–16; and Goodman, Greene and Loftus, 1985).\(^7\)

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\(^5\)Most research on jury memory and recall, relying on criminal case simulations, indicates that although individual jurors have a "remarkably poor" memory of facts and information presented during the trial, the collective memory of the jury is more complete (Hastie et al., 1983, p. 80). Jurors most frequently forget specific types of information, generally involving technical or medical facts, and specific parts of the trial, generally the events and testimony during the middle of the trial (Hastie et al., 1983, p. 81; Vinson, 1982a, p. 20; and Market Facts, 1981, pp. 14–15).

\(^6\)See discussion of the consistency of judge-jury decisions below.

\(^7\)The jury's collective understanding of information, along with its memory, may be better than the understanding of most of the individual jurors. Such collective understanding may be enhanced by discussion in the jury room (Erlanger, 1970, p. 247). However, some researchers have recently demonstrated that in terms of understanding, juries rarely perform up to the ability of their best member (Davis, 1980, p. 161; and Stasser and Titus, 1985). "The very nature of the adversary system is a significant source of interference with juror comprehension" (Austin, 1985, p. 15). The "fight" between attorneys often diverts attention away from the information and testimony presented and
The understanding and application of statistical and probabilistic information presents problems for jurors, judges, and even professional social scientists. In addition, the increasing incidence of litigation arising from mass exposure to toxic substances, involving complex and uncertain links between exposure and illness, has generated debate within the legal community as to whether such information should be introduced as evidence at trial, in which circumstances, and in which types of cases.8

Psychologists have identified certain principles or predictable outcomes when individuals or groups are asked to reason from statistical or probabilistic information. Sometimes they dismiss statistical evidence altogether if they fail to understand the concepts on which the statistics are based. In general, however, people tend to overvalue statistical information. They may be swayed by the "mystery and precision of the numbers;" such evidence may overshadow "equally probitive but less dramatic, nonstatistical information" (Goodman, Greene, and Loftus, 1985; Tribe, 1971). For example, people consistently attach too much weight to inferences from small samples; they make predictions (such as determining an individual's occupation or the future profits of a company) by selecting the outcome that is most representative of the input (such as the description of a person or a favorable depiction of a company); and they make judgments about the statistical frequency of an occurrence or event based on the ease with which familiar instances or occurrences can be brought to mind (Tversky and Kahneman, 1974, 1981; and Nisbett and Ross, 1980).

These biases are not limited to laymen. "Experienced researchers are also prone to the same biases—when they think intuitively" (Tversky and Kahneman, 1974). Some observers, writing specifically about toxic tort litigation, have been particularly critical of judges for their failure to use such information or to use it appropriately.9

8Brennan and Carter (1985), Kaye (1979), and Tribe (1971) hold quite different views on this matter based partly on the very different types of cases—toxic torts and criminal felonies—they discuss.

9Brennan and Carter (1985, pp. 54–55) note that although "most cases dealing with toxic substance exposures end in pre-trial settlement, or go unreported as jury decisions, those cases that do yield judicial opinions tend to support the theory that courts will attempt whenever possible to avoid considering statistical evidence.... [I]t is difficult to find any cases at all in which a court has dealt straightforwardly with the issue of probability when exposure was alleged to be one out of multiple causes for an injury." Nelson argues that although Judge Weinstein did explicitly consider probabilistic evidence in the
In the Newman case, the jurors faced two questions requiring them
to reason from information on statistical probabilities. First, did plain-
tiffs Goodman, Howell, and Flotte have asbestosis, and second, if they
were indeed sick, how sick would they eventually become?10 Our inter-
view with the Newman jury is not particularly enlightening as to how
it answered these two questions. Moreover, the defense’s decision to
demphasize discussion of how sick the three plaintiffs would become,
admitting they might be sick, meant that the jury had little informa-
tion with which to weigh the second question. Nonetheless, the litera-
ture on human reasoning and choice does provide some insights into
this jury’s decisions on these issues. The jurors may have disregarded
the statistical evidence altogether and based their decisions on other
information, including their subjective perceptions. At the same time,
Charles Newman’s testimony as to the extent of his disability and his
visibly debilitated condition may have served as a powerful frame of
reference through which the jurors evaluated the statistical evidence
regarding the incidence and progression of asbestosis relative to the
other three plaintiffs. Newman was a familiar instance that the jurors
easily brought to mind during their deliberations. If people attach too
much weight to inferences from small samples and make predictions by
unconsciously selecting the outcome that conforms to the input, then
the jury’s decisions that all four plaintiffs had asbestosis and were
likely to become as sick as Newman are not startling.11
Accounts of deliberations in the Washington Post case12 and the first

*Agent Orange* class action case, *In re "Agent Orange" Product Liability Litigation*, 506 F.
Supp. 762 (E.D.N.Y., 1979), he did so inappropriately. He insisted on a scientific as
opposed to legal or medical standard of proof, and as such, did injustice to individual liti-
gants and erected imposing barriers to plaintiffs in future toxic tort cases (Nesson, 1986).

10 Medical experts can disagree whether the presence of specific physiological findings,
such as thickening of the pleural cavity, is evidence of harmless bodily changes or of
asbestosis. Moreover, scientific evidence indicates that the progression of asbestosis is
variable and unpredictable; in some patients the disease is arrested at an early stage, but
others may eventually suffer total disability.

11 The jury’s findings in this regard are not necessarily wrong. Our aim here is simply
to explore how the jury reached these conclusions.

12 Mobil Oil Company president William Tavoulareas filed suit against the Washing-
ton Post newspaper in 1980 charging that the Post had libeled him and his son Peter.
The charge stemmed from two 1979 Post articles that said that Tavoulareas had “set up”
his son in an oil-tanker business serving Mobil. The trial in this case, *Tavoulareas v. Wash-
ington Post* (Civ. A. Nos. 80-2387 and 80-3032), began in July 1982 in federal dis-
trict court in Washington, D.C., and lasted 18 days. The jury deliberated for approxi-
mately two and one-half days before returning a verdict in favor of Tavoulareas and
awarding him $255,000 in compensatory damages and $1.8 million in punitive damages
from the Post. Steven Brill, publisher of *The American Lawyer*, wrote an account of this
jury’s deliberation based on interviews with five of the six jurors (Brill, 1982).
Cleveland trial\textsuperscript{13} indicate that the jurors in these cases also had difficulty understanding complex information. Their difficulties centered not on statistical or medical testimony, as in the Newman case, but rather on technical legal concepts that are often difficult for even lawyers to understand. Mobil Oil Co. President William Tavoulareas’s contention that the Post had libeled him hinged entirely upon the legal definition of libel, a definition that the Post jurors apparently failed to understand. As a public figure, Tavoulareas not only had to prove that the Washington Post had published falsehoods about him, but also that the paper had done so either deliberately or recklessly. Yet in post-deliberation interviews the jurors indicated that the standard upon which they had decided the case was simply whether the Post’s story about Tavoulareas, headlined “Mobil Chief Sets Up Son in Venture,” was true—whether Tavoulareas had in fact “set up” his son in business (Brill, 1982, pp. 91,93).

In the first Cleveland case, understanding the meaning of “natural monopoly” and “relevant market” as defined by the judge was key to a determination of whether Cleveland Electric Illuminating Co. had violated the Sherman Antitrust Act. The extent of the jurors’ confusion over the meaning of “relevant market” and “monopoly” is evidenced by the fact that early in the deliberation process one of the jurors purchased a pocket dictionary “so the jury could get a definition of ‘relevant’” (Austin, 1984, p. 34).

PERCEPTION OF WITNESSES AND PARTIES

How do jurors perceive the behavior and testimony of witnesses and the parties to the lawsuit? What is the effect of their behavior on the outcome of the jury’s deliberation? Research indicates that jurors are influenced, both favorably and unfavorably, by the characteristics,

\textsuperscript{13}The City of Cleveland filed suit in federal district court alleging that the Cleveland Electric Illuminating Company (CEI) and four other electrical utilities had monopolized in violation of the Sherman Act. The City settled with all the defendants except CEI and a trial began in Cleveland in September 1980. After approximately two weeks of trial, the jurors in this case, City of Cleveland v. Cleveland Electric Illuminating Co. (Civ. A. No. C78-560), deliberated for 13 days before the judge declared a mistrial. The jury was deadlocked in a 5-1 vote favoring the city. A second trial began in July and concluded in October 1981. The second jury deliberated less than six hours before reaching a verdict for CEI. Arthur Austin, a law professor at Case Western Reserve University, followed both trials in this case and conducted extensive personal and telephone interviews with both sets of jurors, the lawyers, the judge, and other participants in the trial. He was able to interview five of the six voting jurors and four of the five alternates from Jury I, and four of the six voting members and six of the seven alternates from Jury II (Austin, 1984, 1985).
behavior, and personalities of those who appear before them during the trial, quite apart from the allegations at issue. Previous ICJ research, analyzing trends in civil damage awards, indicates that juries take note of the race of a plaintiff or defendant, the financial resources of a defendant in a civil action, and the circumstances in which a plaintiff sustained his or her injuries (Chin and Peterson, 1985). The Newman jurors explained that they reduced the compensatory award to Elverado Flotte in part because of his ethnicity, and they determined their punitive damage award in part based on their sense of the defendants' financial resources (even though no evidence was introduced on this point). The complexity of the material an expert witness presents, that witness's credentials, and his or her demeanor on the stand all affect the juror's perception of that witness's credibility. This may be particularly true for physicians testifying as expert medical witnesses (Goodman, Greene, and Loftus, 1985; and Marcus, 1985). The Newman jurors had a generally negative attitude toward the defendants' medical experts in that case, based in part on their perception of the social gap between themselves and these physicians, and the amount of income jurors perceived the experts earned from testimony in this and other asbestos cases.

PERCEPTION OF ATTORNEYS

How do jurors perceive the behavior of the attorneys in a trial? What is the effect of attorney behavior on the outcome of the jury's deliberation? Research based on both criminal and civil trials indicates that jurors may in fact "try" the lawyer along with his or her client and the merits of the case. In some instances, the adversary nature of litigation can direct attention toward the personality and demeanor of the attorneys and may also generate an undercurrent of "frustration and hostility" among jurors toward the attorneys. However, because a lawyer's personality will not always please or displease all jurors, the effect of lawyer personality and behavior on the outcome of jury deliberation is unpredictable (Broeder, 1966, p. 42; Austin, 1985, p. 15). Our interview with the Newman panel indicates that this jury was more often negatively influenced by the defense attorneys than it was positively influenced by the plaintiffs' counsel. The number of defense attorneys relative to the number of plaintiffs' attorneys, the

14In simulated civil and criminal trials jurors were more negatively disposed toward a party when told he had a criminal record, regardless of whether that record had a bearing on the circumstances of the simulated case (Wissler and Saks, 1985; Hans and Doob, 1978; and Kaplan and Kemmerick, 1974).
defense's state-of-the-art contentions, and the defense attorneys' sharp cross-examination of individual plaintiffs' witnesses may have contributed to the jury's negative evaluation.

Brill (1982, pp. 89-90) concluded that the behavior of the Washington Post's attorney negatively influenced the jurors in that case more strongly than Tavoulareas's attorney positively influenced them. Post attorney Irving Younger frequently performed, according to Brill, "as if he were lecturing to lawyers rather than to a group of five white- and blue-collar working people. . . . [H]e talked past his audience of jurors and alternates." Brill believes that Younger may have inadvertently contributed to the jurors' perception of the social distance between themselves and Younger when he repeatedly snapped his fingers at his associate during trial, commanding him to hand him exhibits. One juror told Brill, "He was trying to paint a picture of what a bad, arrogant boss [William] Tavoulareas was. But he came off kind of bossy, too, with his snapping his fingers to that young assistant of his" (Brill, 1982, p. 91).

OPINION AND CONSENSUS FORMATION

How and when do individual jurors decide? How does the jury as a group reach a verdict? Some researchers assert that jurors often reach an individual decision about the issues in the case early in the trial long before the deliberations begin (Vinson, 1982b, p. 1244; and Weld and Danzig, 1940, p. 536). These judgments may shift or oscillate over the course of the trial as new evidence is presented, and often the effect of hearing testimony is to change the certainty with which jurors hold to their early decisions or evaluations (Weld and Danzig, 1940). These findings may also hold true for the Newman jury. Nearly all of the jurors reported that they entered the jury room with at least the tentative belief that the ten defendants were responsible for the plaintiffs' injuries in that case; however, we do not know whether they reached these conclusions during the trial, after it concluded, or after they heard Judge Parker's instructions.

Jurors often have difficulty justifying or explaining how they reached a particular decision (Weld and Danzig, 1940). Nonetheless, the decisionmaking process may be subject to some basic precepts. People link the information they hear to other pieces of information rather than simply regurgitate it verbatim. In so doing, they make sense of it within their own basic attitudes and experiences—their "psychological anchors." Attorneys often present evidence in a trial on the assumption that jurors think inductively—reasoning from bits and
pieces of information to a logical conclusion. Yet some researchers believe that jurors think deductively; they reason from a few fundamental premises or generalizations to which they fit the facts as they are presented at trial (Vinson, 1982a; Peterson, 1976). This research implies that jurors generally may not wrestle with the standard of proof in civil cases as judges’ instructions direct. They may not consider all the evidence presented or base their judgments on the preponderance of evidence in the strict mathematical sense (Cohen, 1977, p. 117; and Nesson, 1985, p. 1378).

Although jurors each may come to a conclusion during the trial as to the outcome of the case, they are nonetheless sensitive to the opinions of their co-jurors and, at the same time, seek to influence their opinions. “Without discussion, they learn the position of other jurors through patterns of social influence, verbal and nonverbal cueing, and the formation of groups” (Vinson, 1982b, p. 1244). Not surprisingly, then, the jury’s verdict frequently follows the direction of the aggregated judgments individual jurors reached during the trial; the verdict often bears a strong relationship to the first vote taken in the jury room (Kessler, 1975; and Kalven and Zeisel, 1966, pp. 488–496). However, the experimental literature is generally silent on the process by which jurors persuade one another toward a consensus. Hastie and his colleagues suggest that opinion change in deliberation that leads to a final verdict consensus derives from changes in beliefs about the law or its application rather than about “what happened” (Hastie, Penrod, and Pennington, 1983, pp. 159–167).

Our interview with the Newman jury elicited little information on disagreements among the jurors. Nonetheless, to the extent that jurors reported having discussed issues during their deliberation, they discussed issues relating to the law, such as the definition of an “adequate warming” and the purpose of a punitive damage award, rather than the evidence introduced.

The deliberation accounts in two other cases, Pennzoil\textsuperscript{15} and Cleveland II, indicate that the final collective verdict appears to have resulted, as in Newman, from the aggregation of the individual

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\textsuperscript{15}Pennzoil v. Texaco (No. 84-05905) stemmed from Pennzoil’s 1983 effort to takeover Getty Oil. On January 4, 1984, Getty and Pennzoil issued a press release announcing an “agreement in principle” for Pennzoil to purchase Getty. Two days later, Texaco announced that it had purchased Getty Oil by offering a higher price per share of stock than had Pennzoil. Pennzoil sued for breach of contract in Houston’s Harris County Civil Court. Trial began in July 1985 and lasted four and a half months. The 12 jurors deliberated 11 hours before awarding Pennzoil compensatory damages of $7.53 billion and $3 billion in punitive damages, the largest damage award in history (Adler, 1986, p. 27). Adler’s account of the trial and deliberations for The American Lawyer does not state how many jurors he interviewed nor whether he conducted these interviews individually or as a group. However, he names and repeatedly quotes three jurors throughout the article.
decisions jurors had made by the end of the trial. That is, the initial votes taken during the deliberations in these cases predicted the final verdict. In the Washington Post deliberations, however, the jury’s initial vote, taken at the foreman’s insistence early in the deliberations, was 4–2 in favor of the Post on all counts. Yet that jury ultimately decided the Post had libeled William Tavoulareas and levied $2.05 million in damages against the newspaper.

The process by which this jury moved from an initial consensus that the Post did not commit libel to a verdict that the newspaper did so hinged on its misunderstanding of the applicable law. According to Brill’s interview account, the foreman in this case, one of only two jurors who initially believed the Post had libeled Tavoulareas, badgered the four other jurors into agreeing with him. Foreman Mott did this through hostile persistence and by relying on his simplistic—and inaccurate—conception of libel law. The “pro-Post majority seemed to have been backed into Mott’s debating arena.” Under this pressure, one juror swung to Mott’s side. According to Brill, continuing pressure from the foreman, combined with fear of being a hung jury, ultimately pushed the remaining jurors into Mott’s camp (Brill, 1982, pp. 93–94).

DEVIATIONS FROM THE LAW

Experimental research based on both criminal and civil trials indicates that juries often do not remember, understand, or follow the judge’s instructions; they discuss matters that should not have been discussed, and they often do more than simply consider issues of fact (Erlanger, 1970, pp. 348–349). In fact, Hastie and his colleagues label individual juror recall of information from the trial judge’s instructions as “remarkably poor” (Hastie, Penrod, and Pennington, 1983, p. 82).

There are several reasons why jurors appear to have difficulty interpreting and following trial judges’ instructions during deliberation.

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17Many researchers have focused on the issue of whether jurors actually disregard evidence that the judge has determined during the trial to be inadmissible. The results of experimental research indicate that jurors generally do not explicitly discuss the stricken evidence or testimony in accordance with the instruction but that, depending upon the intensity of the judge’s admonishment to disregard, such testimony or evidence may “have an impact, perhaps even an unconscious one, on the individual juror’s judgment” (Hastie, Penrod, and Pennington, 1983, p. 232; Sealy and Cornish, 1973a; Wolf and Montgomery, 1977).

18A 1981 study found that as the trial length increases jurors are more likely to rate the judge’s instructions “difficult” or “very difficult” to understand (Market Facts, 1981, p. 27).
Pervasive confusion does ... exist among jurors ... and is largely a result of poor communication. Jurors often improperly find facts because the concept of legal evidence is seldom adequately communicated to them. They often improperly apply the law because they are unable to comprehend the jury instructions (Forston, 1975, p. 696).

Jurors fail to understand instructions to some extent because instructions are generally “silent” on the subject of whether lawyers’ fees are to be part of a plaintiff’s damage award; whether interest is to be awarded from the time of the injury; and whether the award is subject to federal income tax (Kalven, 1958, p. 163).

The Newmann jury, which did not have a copy of the judge’s charge during its deliberation, deviated in three instances from those instructions. As we discussed in Sec. III, the jury awarded past medical expenses to each plaintiff, applied documentary evidence incorrectly in determining whether to award punitive damages (e.g. relied on the Sumner Simpson papers to determine liability for all defendants, even though instructed to consider them as evidence only against Raymark, and only for the punitive damage part of the case), and awarded legal fees to each plaintiff.

Jurors in the Washington Post and ComputerLand trials deviated in other ways from the judge’s instructions. The judge in the Post trial spent nearly two hours instructing the jury. One of the jurors subsequently requested a copy of the instructions; however, the judge refused the request because, according to interviewer Brill, “the instructions might be read piecemeal instead of taken as a whole.” Four of the jurors interviewed recalled, “We never understood the instructions and never pretended to” (Brill, 1982, p. 93). Without these instructions, which included the proper definition of libel and the appropriate standard of proof, the jury found the Post guilty on a wholly incorrect understanding of the law.

Jurors in the ComputerLand trial had difficulty remembering and interpreting the judge’s instructions on punitive damages. Without benefit of a copy of the instructions during their deliberations, the jury

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19This suit, Micro/Vest Corporation v. ComputerLand Corporation et al. (No. A029847), stems from a $250,000 loan issued in 1978 to William Millard, CEO of ComputerLand Corp. by a Boston venture capitalist. The loan, which was convertible into a 20 percent stake in ComputerLand and other Millard ventures, was purchased by a disgruntled former employee of ComputerLand. This breach of contract and conversion of property suit resulted from Millard’s refusal to surrender ComputerLand stock. The plaintiff was Micro/Vest, an investment partnership created specifically to bring this suit. The trial in this case took place over ten weeks in Alameda County (California) Superior Court. The jury deliberated four hours before returning a verdict in favor of the plaintiff and assessed $115 million in punitive damages against Millard and $10 million against ComputerLand. The plaintiffs also received another $16 million in compensatory damages, attorneys’ fees and court costs. Based on interviews with three of the 12 jurors, Claudia Weinstein wrote an account for The American Lawyer (Weinstein, 1985).
assessed William Millard and ComputerLand $125 million in punitive damages for breach of contract. One of the jurors recalled,

We got to go by what the judge says, and the judge says that you got to make it hurt. . . . We might not have given them that much money if the judge hadn't specifically said, 'Punitive damages mean that you have to make the person feel it when you give it to them.' One of the girls was saying, 'Why don’t we just give them five thousand dollars?' But then we said, 'Five thousand dollars? That’s probably pocket money for him' (Weinstein, 1985, p. 128).

Yet in her account of the deliberations in this case Weinstein noted that the judge's instructions on punitive damages were routine and contained no such statement about the amount of damages to be awarded.

COMPUTATION OF AWARDS

"The cardinal premise of common law personal injury damages is that they not be limited by a schedule but are computed de novo for each individual case. There is in brief no standard man, no reasonable man afoot in the law of damages" (Kalven, 1958, p. 160). Joined with this notion is the premise that the function of tort damages is to make the plaintiff whole again; the jury is left free to price harm committed case by case. Finally, the court’s opportunity to control the jury on the issue of damages is severely limited. General damage instructions can do no more than convey to the jury the large headings under which it may award damages.

Given these general principles of valuation, Kalven believes that a jury doesn’t much concern itself with valuing (and then summing) the individual components of a damage award but instead searches for a single sum that it feels to be appropriate (Kalven, 1958, pp. 160–161). The size of that single sum reflects certain characteristics of the case and the parties in a predictable way. For example, Kalven believes that jurors often discuss the plaintiff’s legal fees but generally do not add the fee to the award (Kalven, 1964, pp. 1069–1070).

Juries may implicitly award prejudgment interest, however. Previous ICJ research found that controlling for the severity of the injury, juries on average increased awards over and above inflation at a rate of 3.7 percent per year for the time between the injury and the trial (Carroll, 1983). In addition, ICJ analysis of 9,000 jury awards in Cook County, Illinois between 1959 and 1984 indicates that, controlling for injuries, the amount of an award predictably varies depending (in part)
on the race of the parties, the defendant’s financial resources, and the complexity of the case.\textsuperscript{20}

The \textit{Newman} jury did not conform to some of these observations as to how juries compute damage awards: The jurors carefully valued each component of the plaintiffs’ compensatory award rather than settling on a single sum, and they explicitly added legal fees. However, consistent with the results of previous ICJ research, the \textit{Newman} panel explicitly considered the defendants’ financial resources and the ethnic characteristics of one plaintiff in assessing damages. It may also have implicitly considered the number of defendants in determining liability and in calculating its damage awards. We are unable to tell. The other accounts of civil cases we reviewed in which the jury awarded damages are largely uninformative as to how the jury computed those awards.

\textbf{SUMMARY}

There is some consensus among researchers as to jury behavior in limited areas or with regard to particular types of evidence: Jurors by and large do not have full or accurate memories for trial testimony; they have trouble understanding and making decisions based on statistical or probabilistic information; they often enter the jury room with a tentative belief as to guilt or liability; and they often deviate from the judge’s instructions.

The behavior of the \textit{Newman} panel (given the limitations of our interview) is illustrative of some of these observations. Yet such information is of limited value in explaining why and how that jury reached its decision or, for example, in helping to improve jury understanding of and decisionmaking involving statistical evidence in future cases. Furthermore, there is some consensus in the experimental literature on particular issues, such as the influence evidence of a defendant’s record on conviction rates, that are not particularly illuminating in terms of

\textsuperscript{20}Chin and Peterson, 1985. Corporate defendants paid damage awards that were one-third higher than those paid by individual defendants, and government defendants paid even more than corporations. Corporations fared even worse in suits where plaintiffs claimed very severe injuries; those defendants not only paid higher damage awards but were also more likely to be found liable. Among individual plaintiffs, blacks lost more often than whites. Black plaintiffs also received smaller awards than whites; however, black defendants paid less than their white counterparts. A plaintiff’s chances for success increased with the complexity of the case—multiple plaintiffs, defendants, or theories of liability. But although plaintiffs were more likely to win awards when they had co-plaintiffs, the size of their awards decreased as the number of co-plaintiffs increased.
understanding jury verdicts in *Newman* and other toxic tort cases.\textsuperscript{21} Moreover, in some important respects—specifically in the way it computed compensatory damage awards—the *Newman* panel deviated from what others have written about jury behavior. Finally, a good deal of dispute still exists among researchers on how well jurors generally understand the evidence presented at trial; and the literature is largely silent on other issues, such as explaining the process of persuasion that occurs during deliberation.\textsuperscript{22}

\textsuperscript{21} However, the effect that the introduction of such evidence has on criminal jury verdicts may be similar to the effect that plaintiff Flotte’s ethnicity had on the *Newman* jurors’ determination of his compensatory damage award.

\textsuperscript{22} Hastie, Penrod, and Pennington (1983) is a notable exception in this regard. Much of the literature on this subject has focused on the construction of mathematical models predicting the outcome of deliberations. See, for example, Penrod and Hastie (1979).
V. HOW WELL DO JURIES DECIDE?

WHAT ARE THE STANDARDS?

In addition to concerns about the unpredictability of jury decision-making, much of the contemporary criticism of lay juries centers on a fear that the process by which lay juries deliberate might often not be "fair" or "accurate" and that the resulting verdicts are "too high" or "too low." Because of the sometimes extreme disparity in compensation among toxic tort claimants with similar injuries caused by exposure to the same substances produced by the same set of manufacturers, jury verdicts (as well as bench judgments and settlements) in this area strike many as particularly "unfair." What is the basis for making these judgments? What are the explicit or implicit criteria by which we gauge the deliberation process and verdicts of civil juries beyond the judgments of jurors in individual cases? Does there appear to be a consensus as to such standards? If not, what are the implications of this lack of consensus for the current concern about jury performance and proposals for reform?

Five implicit and explicit notions regarding such criteria or standards may underlie the current debate over the performance of lay juries: When we criticize or applaud civil jury verdicts we sometimes speak with reference to outcomes in similar jury trials, judicial statements on the deliberation process, the jury's adherence to or deviation from prevailing popular sentiments on the law or policy at issue, the outcome if a judge had decided the case instead of a jury, and the judge's instructions in that particular case. Clearly these are to some extent contradictory; a verdict in accordance with prevailing popular sentiments on an issue may also deviate substantially from the judge's instructions. In addition, these are not necessarily the only or even the most appropriate standards against which to judge jury performance.

Outcomes in Similar Cases

One of the most obvious standards against which legal observers assess the behavior of lay juries is to compare the monetary awards of different juries deciding similar cases. Complaints of "runaway" juries speak to a belief that juries in particular cases have awarded "too much" money in compensatory and punitive damages. To what extent are there "baselines" against which to compare the monetary awards of civil juries in asbestos cases?
There is no systematic data against which to compare the size of the *Newman* jury's award. It is theoretically possible to compare the compensatory awards for each of the four *Newman* plaintiffs, ranging between $700,000 and $1.2 million, with past jury awards to plaintiffs who were the same age at trial, had similar work, exposure, and smoking histories, and who claimed similar injuries. In practice, however, such an analysis has not been produced. Moreover, variation not only in the characteristics of individual plaintiffs but also in the locally determined rules and procedures for resolving asbestos claims has had a major influence on whether plaintiffs receive compensation and how much they receive. Statute of limitation restrictions, for example, have entirely pre-empted claimants in some jurisdictions from compensation regardless of their injuries (Hensler et al., 1985, pp. 35–67, 110–124).  

Compensatory and punitive damage awards are the result of a jury's finding of liability in asbestos cases. We know of no information on the percentage of plaintiffs' jury verdicts among claimants with similar work histories and injuries. Such information, if it existed, might constitute a standard of sorts against which to measure how any one jury evaluated the evidence before it relative to other juries.  

**Judicial Statements on the Deliberation Process**  
The United States Supreme Court and other courts have only infrequently addressed the issue of which standards should govern the process of jury deliberation. Moreover, when they have done so, the decisions of these courts provide few "hard" criteria against which one might measure the performance of an individual jury.

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1An earlier ICJ analysis found that the average total compensation for each asbestos claim that resulted in a plaintiff's verdict was $388,000 (Kalalik et al., 1984, p. 20). However, this figure is not an appropriate standard of comparison for the *Newman* awards for two reasons: First, it averages compensation for plaintiffs with a wide variation in work histories, injuries, and other individual characteristics. Second, this average is drawn from the analysis of claims closed before August 1982—more than two years before the *Newman* verdict—when the Manville Corporation filed for reorganization under Chapter 11 of the federal Bankruptcy Act of 1978. Recent proposals to resolve asbestos claims outside the tort system represent attempts to calculate a value for these claims somewhat independently of—and generally lower than—jury verdicts. The Asbestos Claims Facility and several unsuccessful federal compensation schemes have generally been supported by the asbestos manufacturers and their insurers and opposed by many claimant organizations (see Hensler et al., 1985, pp. 29–31).

2As we discussed in Sec. II, although asbestos plaintiffs bring similar claims, there are differences in the nature and extent of their injuries, the context in which the injury occurred (shipyard, refinery, etc.), and in the characteristics of the plaintiffs. These differences would vastly complicate efforts to compile information comparing the decisions of multiple juries on liability across "similar" claims.
Federal court decisions with regard to jury trials have centered in recent years around two issues: first, the limitations on the seventh amendment’s guarantee of a jury trial in civil cases, particularly in the context of complex cases; and second, the factors or circumstances that may taint a juror’s impartiality. The due process clause in the fifth and fourteenth amendments has been interpreted by some courts as a limitation on the seventh amendment guarantee of a jury trial in complex cases. Although the U.S. Supreme Court has not addressed this issue, several lower federal courts have. In determining whether a particular case is too complex for a jury to decide, these courts have spoken a bit about the standards that should guide jury decisionmaking. The Third Circuit Court of Appeals decision in In re Japanese Electronic Products Antitrust Litigation is a good example. This decision overturned a district court ruling denying a motion to strike a demand for jury trial on the basis of complexity. In the process of explaining why he believed the case at issue was too complex for jurors to decide, Chief Judge Seitz, writing for the majority, enumerated the standard he held governs jury deliberation. “The law presumes that a jury will find facts and reach a verdict by rational means... [I]t will resolve each disputed issue on the basis of a fair and reasonable assessment of the evidence and a fair and reasonable application of relevant legal rules.”

30In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any court of the United States, than according to the common law."

3See for example, Ruschen v. Spain, 104 S. Ct. 453 (1983) and Patton v. Yount, 52 U.S.L.W. 4896 (1984). The federal courts have spoken far more about the process by which jurors should be selected, the criteria against which to judge a jury’s representativeness, and the decision rule (e.g., unanimous, two-thirds majority, etc.) that juries must use than about the substance of a jury’s verdict or the process by which it reached that verdict. Although these issues are clearly linked to any discussion of jury performance, we have focused here on the deliberation process per se.

3The U.S. Supreme Court has held that the seventh amendment guarantees are not applicable to the states. Although sixth amendment jurisprudence (regarding the right to jury trial in criminal cases) applies to the states, Supreme Court decisions on the seventh amendment bind the federal but not the state courts. However, to the extent that any part of the right to a jury trial or to have a case removed from jury consideration derives from the due process clause, Supreme Court discussions bind both state and federal courts. As a result, were the Supreme Court to rule on the right to a jury trial in complex cases and base its holding on the seventh amendment, then the states would be free to develop their own views of their own constitutions’ guarantees of jury trials. In contrast, were the Court to hold that a jury trial in a complex case violates due process guarantees, then states and the federal courts could not provide jury trials in such cases. The authors are grateful to Judith Resnik for enlightenment on this issue. See also Lampert (1981).

631 F.2d 1069, 1079, 1084 (3rd Circuit, 1980). Although vacating the order of the district court denying the motion to strike a jury trial, the Japanese Electronics opinion concluded that jury trials can be denied "only in exceptional cases" (631 F.2d 1069, 1088). The issue at the center of this litigation, whether Japanese television manufactur-
Although few could disagree with this standard, it is difficult to operationalize.

**Popular Sentiments on Public Policy**

We may also implicitly compare jury verdicts, particularly on controversial issues, with public sentiments. In this regard, we sometimes regard even verdicts that disregard the law as instructed—that “nullify”—as acceptable to the extent that they agree with popular opinion or are tailored to the characteristics of the parties in that case.

As Kalven has written, “the debate over the merits of the jury system is in the end a debate over the jury as a means of introducing flexibility and equity into the legal process” (Kalven, 1964, p. 1066). Jury nullification—the jury’s right to disregard the court’s instructions—is the most blatant expression of that flexibility; nullification reflects the jurors’ opinion that the formal law is at odds with popular sentiment. Nullification, sometimes called the “legislative role of juries” (Levine, 1984), is a well-recognized prerogative in American law. The Court of Appeals for the District of Columbia, in *United States v. Dougherty*, has affirmed that jury nullification is not an illegal or lawless act but rather one within the purview of the jury and not reversible by the court. Nullification has arisen most recently in connection with the federal government’s prosecution of individuals who transported and sheltered undocumented Central American aliens in violation of federal immigration laws (Pacelle, 1986, pp. 99, 102) and earlier as a result of the government’s prosecution of draft resisters during the Korean and Vietnam Wars.

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[1] Zenith Radio Corporation et al. v. Matsushita Electric Industrial Co., Ltd. et al., 106 S. Ct. 1348 (1986). See also Schulz v. Pennsylvania R.R. Co., 350 U.S. 523, 526 (1956); Hastie, Penrod, and Pennington (1983, pp. 4–5); and Wright and Miller (1971 and 1986 Supp., sec. 2334). Other federal decisions permit the judge to send the jury back for further deliberations when it has reached an inconsistent verdict. Several older decisions have discussed the conditions under which a juror’s statements can be used to show improper or illegal conduct of the jury in arriving at a verdict or that the verdict is not the true finding of the jury by reason of a mistake (Devitt and Blackmar, 1971 and 1986 Supp., secs. 5.15 and 5.23).

[2] 473 F.2d 1113 (D.C. Cir. 1972). However, the court in this case did not require that the judge instruct the jury about the nullification option, supporting the view that judges do not expect jurors to nullify very often. On the history of jury nullification in the United States, see Judge Leventhal’s opinion in *Dougherty*.

[3] Levine (1984) found that the rate at which juries convicted those accused of draft evasion directly correlated with public approval of American military actions during those conflicts as measured by opinion polls. See also Kadiash and Kadiash (1975) and Sax (1968), who argued, with respect to the government’s prosecution of Dr. Benjamin Spock and four others for conspiracy to evade the the Selective Service laws, that the jurors in that case had an affirmative duty to nullify, to refuse to follow the court’s directions regarding a finding of guilt or innocence.
It is likely that the jury’s evaluation of the law relative to prevailing sentiments is generally a rather subtle, subconscious process. Juries may deviate from but not entirely disregard the judge’s instructions because they are concerned with “doing a kind of substantive or individual justice”—or equity—as opposed to strictly applying legal rules in deciding questions of fact in negligence cases. The most commonly cited example in this regard is a jury’s substitution of the standard of comparative for contributory negligence in the determination of liability and the computation of damages (Erlanger, 1970, p. 350; Kalven, 1964, p. 1066, 1072). Juries sometimes consider the plaintiff’s family status, any collateral benefits mitigating the loss, and the defendant’s ability to pay. Although the Newman jury did not disregard Judge Parker’s instructions, it certainly did make some adjustments in its calculation of compensatory and punitive awards.

Public sentiment is a problematic standard against which to assess jury verdicts. First, although we can theoretically measure public opinion on virtually any issue heard by a jury in order to make such comparisons, in practice we don’t do so. As a result, we cannot determine whether the Newman jury’s consideration of Flotte’s ethnicity, his family status, and ability to work in the future, as well as its assessment of the defendants’ ability to pay punitive damages of $1 million each comport with broader public sentiments as to equity and fairness. Second, it is difficult to distinguish instances where a jury consciously chose to “nullify” because the law it was asked to apply was at odds with the sentiments of the individuals on that panel from those instances where a jury simply failed to understand the judge’s instructions.

Consistency of Judge-Jury Decisions

Because the most commonly discussed alternative to a jury trial is trial by judge, some empirical research has been directed toward comparing how a judge and a jury would decide the same case. Perhaps the most notable example of such research is the Chicago Jury Project (Kalven and Zeisel, 1966). The researchers surveyed trial judges through a mail questionnaire; the 555 judges who responded described their experiences with juries in 3576 criminal trials. The judges were asked to consider how the jury decided each case and how they, the judges, would have decided those cases in the absence of the jury. Based on their analysis of this data, Kalven and Zeisel concluded that there is little disagreement between judges and juries presented with the same cases. And to the extent disagreement exists, there is “little

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9 Each judge made his or her assessment before the jury returned its verdict.
or no intrinsic directionality in the jury's response. . . . [It will move where the equities are. And where the equities are at any given time will depend on both the state of the law and the climate of public opinion" (Kalven and Zeisel, 1966, p. 495). The authors viewed their research as evidence against restrictions on the right to jury trial.

Yet the judge-jury comparison is of only limited value as a standard for discussing the performance of the Newman jury or other juries. First, we expect that judges and juries will sometimes disagree. The jury is an ad hoc political institution making decisions on behalf of the state but holding power only briefly. The framers of the Constitution may have intended the jury as a check on the power of the judiciary in general, fearing the replication of an imperialist judiciary (Hamilton, Jay, and Madison, No. 83, 1788). Second, the trial judge can profoundly influence the jury's decision through the evidence or testimony he or she allows, the instructions given to the jury, and various other, subtler ways. Finally, use of a "judge-baseline" against which to measure jury performance may imply that a judge's decision is inherently fairer or somehow "better." Yet the literature we reviewed on how people process information indicates that judges may not necessarily be better decisionmakers than individual jurors.

Adherence to the Judge's Instructions

Perhaps the most obvious standard against which to compare a jury verdict is the judge's instructions to that jury. Yet measurement is difficult. Our legal system expects that juries will sometimes deviate in minor as well as extreme ways from the judge's instructions as evidence that public sentiment may be at odds with the law.

But deviation from a judge's instructions can occur for reasons other than the jury's conscious disagreement with the law or policy it was being asked to enforce. Jury instructions are sometimes silent on such issues as whether claimants are entitled to legal fees, resulting in deviations from the judge's intentions on those issues. Jury instructions are quite often difficult to understand. The courts' instructions in the Newman, the Washington Post, and the Cleveland trials hinged on the definitions of such complicated legal concepts as adequate warning, libel, relevant market, and natural monopoly.

10For criticisms of Kalven and Zeisel's methodology and results, see Walsh (1969).
11Blanch, Rosenthal, and Cordell (1986) describe how trial judges' expectations for the trial outcome might predict judges' unintended verbal and nonverbal behavior and the verdicts returned by juries. We did not observe Judge Parker's behavior during the Newman trial with this research in mind.
The jury's comprehension of instructions is also hindered by the way in which judges conduct trials and instruct juries. Judicial custom rather than formal standards governs whether judges give substantive pretrial instructions and allow jurors to take notes, obtain a copy of the instructions, or ask questions during the trial. State and federal court judges have a great deal of discretion in these matters although there is little information as to how they exercise that discretion. Judges rarely provide pretrial instructions or allow jurors to take notes. Even more infrequently are jurors informed that they can submit questions to the judge during the trial. Judges more commonly permit these practices in longer or more complex trials than in shorter, simpler matters.

**IMPLICATIONS FOR THE DEBATE OVER JURY PERFORMANCE**

Although complaints about the performance of lay juries are as old as the Republic itself, the increasing incidence of toxic tort and other types of complex litigation has prompted a resurgence of criticism of the jury system. Our review of the *Newman* trial and deliberation and our previous research on the processing of asbestos claims (Hensler et al., 1985) indicate that asbestos litigation in particular and toxic tort litigation more generally may present special challenges to juries. Moreover, rather than diminishing, the number of toxic tort cases—involving a growing number of substances—is multiplying. Estimates of the number of current and future claims for damages resulting from the removal of asbestos from public and private buildings, the use of the Dalkon Shield, and from exposure to DES, Bendectin, and a host of other potentially toxic agents threaten to dwarf the number of asbestos cases already filed.

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12 State and federal court rules only address the issue of instructions: 26 states require judges to give written instructions to jurors, 22 states and the federal courts allow it, and 10 states prohibit it either by formal rule or established practice (Center for Jury Studies, July 1982, p. 5).

13 We are aware of no empirical research on the extent of these practices in state and federal courts or on the criteria governing a judge's decision in individual cases. Such research might usefully contribute to the debate over jury performance. Research on jury instructions has concentrated on the language and grammatical construction of those instructions. Limited research has demonstrated that jurors more accurately comprehend and follow instructions when they are given a written copy during the deliberations (Elwork, Sales, and Alfini, 1982; Sales, Elwork, and Alfini, 1977; Federal Judicial Center, 1982b). Very limited empirical research has been conducted on the value of note-taking, pretrial instructions, and asking questions. The results indicate that these techniques can positively affect juror comprehension of the judge's instructions (Austin, 1984; Penrod, 1985; and Sales, Elwork, and Alfini, 1977).
We have discussed five criteria that we believe may underlie some aspects of the current debate over jury performance. We found that there is little consensus that the standards or baselines we discussed are the most appropriate ones. Some argue, for example, that the probable decision of a judge is an appropriate standard. Others disagree. Some argue that past jury awards should be used. Others might argue for a standard of compensation not based on jury verdicts.

Some of the standards we have identified here do not speak to the concerns that have surfaced in the debate over civil jury performance. Much of the debate over the performance of juries in complex civil cases centers not just on the outcomes of deliberations but rather on those outcomes as a function of the process of deliberation. Criticism that the size of a jury’s damage award is “too high” or “too low” is often criticism of the process of understanding and decisionmaking that led the jury to a finding of liability and a calculation of damages. Yet the standards we have reviewed focus on outcome alone—the amount of compensation awarded, the extent to which the outcome reflects or deviates from both public opinion and the judge’s instructions, or the extent to which the jury verdict is consistent with a judge’s probable decision in that same case. The courts have rendered few affirmative edicts regarding the process of jury deliberation, instead examining issues that precede deliberation itself—including jury representation, jury selection, juror impartiality, and how and when a case can be taken away from a jury.

Problems of measurement abound in the discussion of any criteria against which to gauge jury performance. How do we measure whether the Neuman jury’s deliberation of the evidence was “fair and reasonable” as the Third Circuit dictated in The Japanese Electronics case? Judicial decisions are not generally instructive on this issue; and some existing empirical research, such as that comparing jury decisions with those of a “judge-baseline,” is methodologically flawed.

Without consensus as to the criteria by which we assess or compare jury verdicts the debate over jury performance will continue. Some observers call for greater restrictions on the right to jury trial, including perhaps the use of panels of “neutral” or scientific experts in cases arising from exposure to toxic substances, or removal of these claims from the tort system altogether (Luneberg and Nordenberg, 1981; Abraham and Merrill, 1986, p. 106). Others have criticized judges for
withholding particular issues in toxic tort cases from juries and advocate providing additional assistance to jurors, particularly in the deliberation of complex cases, rather than imposing further restrictions on the right to jury trial (Nesson, 1986; Lempert, 1981).

The adoption of any particular plan devised to address the perceived deficiencies of the existing jury system implies we have reached some broader societal consensus about “standards.” We found no evidence for such consensus.
Appendix

THE COURT'S CHARGE TO THE JURY AND VERDICT FORMS
(Excerpted)


[p. 5] THE COURT: Ladies and Gentlemen of the Jury I am going to take a few minutes and outline what you can expect during the course of this trial, both procedurally and substantially, in the hopes that it might assist you in your jury service.

This is a civil case. This particular . . . case is a . . . little different from the normal one in that we have a number of parties, both plaintiffs and defendants, there are thirty plaintiffs involved in this case and we either have twelve or thirteen, I have forgotten, defendants in this case. There are a number of companies and a number of plaintiffs. . . .

I have consolidated the thirty cases for a decision from this Jury and we have divided them into groups. The first group consists of [p. 6] four plaintiffs. Then depending on your findings, it is our intention that your findings on many of the issues can apply to the rest of the group of thirty. So, it will not be as lengthy or as involved as it might seem on first blush. The reasons for this procedure relate primarily to efficiency. We have a number of these cases, if we had to have thirty separate juries to hear what essentially will be identical testimony on many aspects of this case, it would amount to an abuse of the system. . . .

Now, let me discuss the procedural aspect of this case first. . . . There are certain rules that are applicable to civil cases. The Plaintiff in any civil case has the burden of proving or persuading the jury that the Plaintiff is entitled to a verdict. The yardstick that you [p. 7] use in evaluating the testimony and determining whether the plaintiffs have sustained that by testimony is by PREPONDERANCE OF THE EVIDENCE.

PREPONDERANCE OF THE EVIDENCE simply means that the fact in controversy is more likely true than not true. It's a tipping of the scales one way or the other. . . .
The defendants or some of the defendants may have the burden on certain defenses. And I'll have instructions for you at the conclusion of the trial that lays all that out for you.

[p. 12] I want to give you a few brief guidelines about this type of case, specific instructions. The claims ... in this case are for personal injuries related to exposure to asbestos-containing insulation products. The plaintiffs who have [p. 13] brought this suit have the burden of persuading the jury that the evidence preponderates in their favor, persuading the jury at the end of the case that the plaintiff has, in fact, an asbestos-related injury or disease, that the plaintiff was exposed to a product or products of a particular defendant that did contain insulation products that did contain asbestos and was exposed to such an extent that ... the exposure was a producing cause of plaintiff's disease or injury. The plaintiff has the burden of persuading the jury that ... the product or products was defective and unreasonably dangerous as a result of having an inadequate warning. In other words, this is a products-liability case. The products involved are insulation products. The claim is they contain asbestos and that exposure to those products has produced an asbestos-related injury or disease by the plaintiffs.

Now, very generally, I can tell you ahead of time that you will have to consider language in the nature of claimed warnings in this case. The way a jury evaluates language that is represented [p. 14] to be a warning depends on several different considerations. First of all, you have to determine whether the particular product in fact had a warning accompanied. And when the warning might have been attached. You compare that to when the claims are made of exposure to the product, and then you'll be called upon to evaluate the contents of the warnings.

Now, in evaluating content of a warning, I anticipate part of the instructions that I'll give you at the conclusion of the case will be something along these lines as it relates to ... definition of what an adequate warning is. An ADEQUATE WARNING means such a warning that would both:

No. 1: Be reasonably calculated to reach the users of the product in such a form that it would reasonably be expected to catch the attention of the reasonably prudent person in the circumstances of its use.

No. 2: Be ... comprehensible to the average user and convey a fair implication of the nature and extent of the danger to the mind of a reasonably prudent person.

[p. 15] Now, the instructions I'll have for you at the end of the case will include either that exact language or something close to it when you evaluate the adequacy of a warning, you will make a determination:
No. 1: Whether the plaintiff had an asbestos related injury.

No. 2: The exposure question that I've discussed with you and the producing cause question that I've discussed with you. And then evaluate the warning.

If your verdict is for the plaintiff, then you will consider the matter of damages. You may very well be called upon also in this case to make a decision regarding comparative causation, place percentages of causation involved in this case depending on your verdict on some other questions, but I will explain that in much greater detail for you at the appropriate time. I simply want to give you an overview at this point about the type case you're dealing with. . . .

I'm in the process of having prepared an exhibit for you. It's a court's exhibit that represents as I understand it, the respective contentions of the parties. . . . [p. 16] [T]his exhibit contains . . . a list of products under each defendant that may have been placed in the stream of commerce during the periods of time involved, and it's there . . . to help you keep up with the evidence. And a list of the language of the particular warnings that are contend[ed] to have been placed on the various products at different times. I don't have that quite completed at this point. I'll have that available to you shortly.

Now, in evaluating the testimony in the case, there are two or three other things that I want to remind you about. First of all, what you've seen or heard outside the courtroom or what you may see or hear outside the courtroom during the course of this trial is not evidence. You base your decision strictly on the evidence that is admitted in the record . . .

[p. 18] Now, as you go along in evaluating testimony, it's proper for you to consider any matter in evidence that tends to indicate to you whether a particular piece of evidence, particular witness, is credible and worthy of your belief. You may and should consider a witness's manner and demeanor on the stand, consider a witness's background, experience, the opportunity a witness might have had to observe what he may be testifying, consider any relation the witness has to either side of the case, what they have to gain or lose. Consider whether the testimony of a witness is either supported or contradicted by other evidence in the case. These are part of the subjective evaluation that a jury can go through in evaluating whether the testimony is persuasive to you, . . . whether you view it to be credible and worthy of your belief. Then in the final analysis you give it the weight you think it deserves. You don't leave your common sense at home when you serve as a juror. Now, you're certainly entitled to rely on your ordinary everyday experiences [p. 19] in evaluating testimony, but you are not permitted to use some other experience as evidence in this case. You
are restricted to the testimony and to the exhibits as the evidence in the case.

We'll now move into the opening statements and I invite your attention to the counsel's comments.

REPORTER'S NOTE: Whereupon at this time the opening statements were heard by the Jury. . . .

[p. 22] THE COURT: I told you that the standard that you use to determine whether a matter had been proved or not was PREPONDERANCE OF THE EVIDENCE, whether it's more likely so than not so. In other words, PREPONDERANCE OF THE EVIDENCE in this case or any other civil case means such evidence when compared and considered, compared with the evidence against it produces in your minds that what is sought to be true is more likely true than not true, tipping of the scales, one way or the other.

This case falls under the general category of products liability case. There are some special rules applicable to products liability cases.

Products liability cases can be brought three ways. Complaint alleges a design defect, a manufacturing defect, or marketing defect.

Marketing defect is a warning defect. In other words, a complaint regarding the way the product was marketed. . . . [p. 23] What you are concerned with in this case are the claims of a marketing defect. I am going to discuss that with you in just a minute.

Under the law of products liability in Texas, one engaged in the business of manufacturing and selling products who sells a product in a defective condition unreasonably dangerous to the user is subject to liability for physical harm caused by the use of the product, if a defect in the product is a producing cause of injuries complained of, and if it reaches the user without substantial change in its condition. Under such circumstances a manufacturer or seller is held liable for such injuries, even though [p. 24] it may have exercised all possible care in the preparation and sale of its product. The law does not impose liability on a manufacturer simply because its product was placed on the market. A manufacturer is not an absolute insurer responsible for all physical harm occurring in the course of using the product, and the mere fact that an injury may occur does not mean that the product is defective.

In order to recover damages the plaintiff is required to prove the following by a preponderance of the evidence:

First that a defect existed in the product when it left the control of the manufacturer or seller that made it unreasonably dangerous, and,

Second that the defect was a producing [cause] of injuries sustained by the plaintiff.
PRODUCING CAUSE means an efficient, exciting or contributing cause which in an actual and continuous sequence produces injuries or damages complained of. This fact does not mean that the law recognizes that there's only one producing cause. There may be more than one producing cause of an event or an occurrence.

[p. 25] A DEFECTIVE CONDITION is a condition not contemplated by the user, which is unreasonably dangerous to the user. For a product to be unreasonably dangerous, it must be more dangerous than would be contemplated by the ordinary purchaser or user with ordinary knowledge common to the community or characteristics of its use.

Further to be unreasonably dangerous, a product must create an unreasonable risk of harm for the ordinary user, if the product was used in a manner reasonably foreseen or anticipated by the manufacturer or seller.

I told you this was a warning case. A product may be defective because of the failure of a manufacturer or seller to give timely or adequate warnings about the use of the product. It's the duty and responsibility of a manufacturer of a product to exercise reasonable care to discover reasonably foreseeable dangers associated with the use of the product and to inform and warn users and consumers who they could reasonably expect will use or encounter the product. In exercising this duty, the manufacturer is required to have [the] knowledge and skill of an expert, which means that at a minimum the manufacturer must [p. 26] keep abreast of the relative, technical and scientific knowledge, discoveries and advances relating to the product. In addition, the manufacturer has the duty to test and inspect its products. And the extent of such research and experimentation must be commensurate with the dangers involved. To be sufficient under the law, a warning must conform to the following requirements:

First, it must be timely. That is, . . . it must be given in such a manner that it will convey the necessary information to the user of the product at a time that will afford the user the opportunity to benefit from the warning.

Next, it must be sufficiently emphatic to convey a fair indication of the nature and extent of the risk or danger arising out the product's use. Stated another way, as the danger can reasonably be foreseen to result from the product or its use increases, the degree of emphasis on the warning must also increase.

The warning must also be conspicuous, comprehensible and understandable to the mind of the average user and reasonably calculated to reach those likely to use the product.

[p. 27] Now, in this case a defense asserted is known under Texas law as ASSUMPTION OF THE RISK or assumed risk, which means
that a person who voluntarily assumes a risk of injury from a known
danger is either barred from recovery or may have his recovery
reduced.

The burden is on the plaintiff to prove his warning case. The bur-
den is on the defendants to prove their defense of ASSUMPTION OF
THE RISK.

To prove that, the defendants must prove that . . . a plaintiff had
knowledge of the facts constituting the dangerous condition, that he
knows that the condition is dangerous and that he actually realizes and
appreciates the nature and extent of the dangers. The nature and
extent of the danger in this case is an asbestos related disease in using
insulation products.

And fourth, that he voluntarily exposes himself to the danger . . .
[p. 28] Ladies and gentlemen, I am going through this [the verdict
form] with you in general and also item by item . . .

It is not in dispute that each product listed under each manufacturer
was an asbestos-containing insulation product capable of producing
dust in its application, use or removal . . .

[p. 29] Now, there is in dispute—their first question, one. This
relates to the products of asbestos and some of the Celotex Corporation
products. The dispute that exists on these products concerns not that
they are asbestos-containing insulation products, but whether they're
capable of producing dust in their application, use or removal. And
you have to make a decision. I think that it's well set out there, the
question[s] that are asked you, you can find each of the products fit in
the category, none of them do, or some do, and some don't by making a
checkmark.

Now, there's also not in dispute in this case that the plaintiffs were
insulators . . . in fact, at some time in the past have been exposed to
asbestos fibers; as a result of that fact that each of the four plaintiffs
that are involved at this stage do have some degree of pleural thickening,
plaque or calcification.

Now, there are some disputes . . . [p. 30] that I'll discuss with you in
just a minute. There's also not in dispute in this case that Charlie
Newman has the disease of asbestosis and is totally disabled from the
disease of asbestosis.

There is a dispute in this case concerning the affects or just what is
pleural plaques or calcification. You've heard a lot of testimony about
that. A dispute exists in this case concerning a definition of the
disease of asbestosis . . . . You've got to decide as your verdict in this
case whether pleural thickening, plaque or calcification are merely body
changes and are not injury or disease.
The questions that you're asked throughout are couched in the phrase "Asbestos related injury or disease." That's what you have to decide.

There's no dispute in this case that exposure to dust in asbestos-containing insulation products in sufficient quantities is a producing cause of the disease of asbestosis. And concerning the products list, it is admitted and not in dispute that asbestos was removed from each of the products by 1972.

[p. 31] You will notice that I designated on the verdict form warning list that this was contested. Therefore, it is not evidence, but it is simply provided to refresh your memory and assist you. And these are the only warnings that you may consider. Any warning not on the verdict form warning list would not come in evidence in this case is not available for you to consider. Also, you will note that the warnings of Celotex, Raybestos Manhattan and Nicolet were placed or contended to have been placed on the products in 1972. Asbestos was removed from the products in 1972, therefore, any products that may have [p. 32] been placed in the stream of commerce would have been limited in number because of the time situation.

Now, let me go through the verdict form with you. I've explained Question No. 1. You are simply to determine whether these products on Question No. 1 constitute a part of your product list to make other decisions. If you find they are not dust producing, then they are not available for you to consider on the later exposure question or the warning question. If you find that they are dust producing then they have the effect of being included in your other list, that is the effect of your answer there.

Question No. 2, you will note that I have included on the verdict form reminders on the earlier instructions, definitions of defective, the type case this is, and what constitutes an adequate warning.

Now, your inquiry on No. 2 inquires about all of the products that you find to be on the product list of each manufacturer. Now, this is submitted to you on the basis of all or none because that's the way the evidence [p. 33] has been developed in this case. You'll recall the testimony from plaintiffs' witnesses were that they saw no products with warnings on them at any time. It was not that there was an all or nothing type testimony. The evidence from the defendant was that all their products contained a warning at the times indicated by their warning. You're asked about all the products that you find to have been on the product list. You may find each of them defective as marketed and unreasonably dangerous, none of them, or you may designate the companies products that were.
Now, I have reminded you in the instructions what constitutes an adequate warning.

Question 3. This relates to what you've heard as the State of the Art or State of the Knowledge Defense. You've heard a lot of testimony. This inquires when manufacturers knew or should have known the dangers involved in the application, use or removal of asbestos-containing insulation products. And there is a requirement for the answer for each defendant.

Now, the plaintiffs' contention in this respect is that the jury, based upon a [p. 34] PREPONDERANCE OF THE EVIDENCE, should find some time in the publications. The safety magazine in 1931, the Lancet article in 1934 and the Fleisher-Drinker Report in 1946 or '47, I've forgotten which year it was, as well as numerous other articles.

The defendants contend that these early reports were inconclusive, and particularly as it related to insulators, and that the Selikoff report that came in 12-31-65 was the first time that the defendants [had] notice or knowledge that insulators were at risk, and that they knew or should have known. The defendants in this case admit and stipulate that they knew or should have known of the risk or danger to insulators a reasonable period of time after the publication of this Selikoff report.

The next inquiry is very similar, [Question] 4 is very similar to Question 3 except it inquires concerning household members of insulators, wives, and is relevant in this case as a result of the claim of Mrs. Howell. It's the plaintiffs' contention that the defendants were well aware of the facts at about the [p. 35] same time they were aware of the risk of insulators. And the defendants' contention, as I recall it, primarily from the testimony of Dr. Hinshaw that . . . they only knew or should have known of this risk about ten years ago . . .

I want to discuss with you the second aspect of the case, and that is the claim for damage. There's claim in this case for actual damages by each plaintiff. There is a claim [p. 36] on behalf of the plaintiffs for punitive damages against the defendants, Raymark, Nicolet, Owens-Illinois and Pittsburgh Corning. And there is a claim by the wife of Mr. Newman and Mr. Goodson for loss of consortium . . . And you will have verdict forms in the event your verdict is for the plaintiff that I'll give you when I'm in a position to give it to you.

First of all, in general, the claim for actual damages or compensatory damages made by each plaintiff in this case. If you find that the plaintiff is entitled to a verdict in arriving at the amount of your award you should include for Mr. Newman, Mr. Goodson and Mr. Flotte the following elements of damage or you should consider the following elements of damage, and none other: pain, suffering, and mental anguish,
suffered by the plaintiffs from the day of the injury to the present
time, pain, suffering, and mental anguish, which in reasonable prob-
ability the plaintiffs will suffer in the future as a result of exposure to
asbestos- [p. 37] containing insulation products.

Next, any loss of earnings or wages in [the] past from the date of
contracting the disease to the present time approximately caused by—
or which loss was produced by contracting the asbestos related injury
or disease.

In considering this element of damages you should consider any evi-
dence in the record of what the plaintiff's earning capacity was, what
his actual earnings were, the manner in which he ordinarily occupied
his time before the injury, and what in reasonable probability he would
have earned during the time lost had he not been disabled, if you find
he was disabled by asbestos related injury. You will also consider a
diminution or decrease in future wage earning capacity of Mr. New-
man, Mr. Flotte and Mr. Goodson. In determining or considering this
question, you should consider what the plaintiff's health, physical abil-
ity and earning power was before his injury, what it is now, the nature
and extent of his injury, whether it in reasonable probability is per-
manent, whether it is or is not progressive or will be progressive in the
future, which relates to its duration and the extent of the disease,
[p. 38] all to the end of determining the effect of his injury on the
future wage earning capacity, and the present value of any loss of
future earning power if you find from the evidence the plaintiff in this
case in reasonable probability will suffer in the future as a proximate
result of the injury in question.

You will also consider any amounts of money that the plaintiffs in
reasonable probability will expend for future medical expenses for the
treatment of their asbestos-related injury or disease.

Now, as it relates to Mrs. Howell—first of all, on all four plaintiffs
you may not consider any expenses for past medical expenses because
there's no evidence in the record. As far as Mrs. Howell is concerned,
there is no evidence in the record to indicate that in reasonable prob-
ability she would have lost earnings in the past. She was not part of
the public work force, or that she will have a loss of earnings in the future.
So the element that you may consider, in the event you have a verdict
for the plaintiff in this case, relating to Mrs. Howell, is pain, suffering
and mental anguish [p. 39] in the past, pain, suffering, mental anguish
in the future, and medical expenses in the future.

Now, you may not award damages for any injury or condition which
any plaintiffs may have suffered or may now be suffering unless it has
been established by PREPONDERANCE OF THE EVIDENCE in this
case [that] such injury or disease was caused by asbestos exposure to
the individual defendant's products. And you will not award the plaintiffs any damages for any condition or injury not caused by his asbestos exposure, except to the extent that you may find in reasonable probability such condition may have been aggravated by asbestos exposure.

Now, in this respect, you have heard testimony about cigarettes. I've given you a preliminary instruction about cigarettes. Whether it is true or not that one who smokes may have a greater likelihood of contracting an asbestos-related injury or disease is not a consideration for this jury, whether it is true or not that one who smokes may have a more serious form of asbestos-related injury or disease is not a consideration for this jury. What is a consideration for this jury is whether any condition, injury or disease [p. 40] that any plaintiff may have is solely caused by cigarette smoking, or any other disease or cause other than asbestos-related disease.

Now, this also comes back to the question that I mentioned to you earlier. You've heard a lot of testimony in this case about proper diagnosis of the disease of asbestosis, what constitutes the disease. Dr. Comstock and the radiologist have testified certain matters, and what his findings were, but it is undisputed in the case that there are certain body changes, plaque, pleural thickening and calcification in each of the individual plaintiffs. You are to decide whether that is just a body change that produces no injury to the plaintiffs . . . or whether that is an injury or disease that could produce harm at the present time or in the future to each of the plaintiffs.

In other words, you may find you have a number of options, of course, depending on how you view the evidence and what you're persuaded by PREPONDERANCE OF THE EVIDENCE. You may find that each of these plaintiffs has the diagnosed disease of asbestosis. You may find that some [p. 41] do and some don't. You may find with the exception of Mr. Newman that there is only body changes that are not going to be harmful to the body, and if that is the case, then the plaintiff has suffered no damage as a result of those body changes.

There is in this case a claim by the wives of Mr. Newman and Mr. Goodson for their own private and individual cause of action for loss of consortium and you have a verdict form provided for you in that respect. Loss of consortium, you may consider if you find . . . that the plaintiff is entitled to a verdict in this case, loss of consortium in the past and loss of consortium that in reasonable probability will be sustained in the future. CONSORTIUM, the term CONSORTIUM means a mutual right of the husband and wife to that affection, solace, comfort, companionship, society, assistance, sexual relations, emotional support, love and happiness necessary to a successful marriage. It does
not include services such as the performance of household or domestic duties rendered by a spouse to the marriage.

There's also a claim in this case for punitive [p. 42] damages against four defendants. . . .

The plaintiffs in this case allege that the injuries and damages that they have suffered, if any, were proximately caused by the gross negligence, wantonness or reckless and conscious indifference on the part of the four defendants, officers and their utter disregard for the lives and welfare of the persons coming in contact with their products. Plaintiffs seek to recover an award for this count in such an amount that would act as a deterrent to the defendants and others from the commission of like offenses or wrong and as punishment in this case.

[Y]ou may not award punitive damages for any plaintiff unless you find the existence of actual damages or compensatory damages.

I would like for you to take notes on the following instructions. Evidence was admitted in the record in this case that you received a limited instruction regarding how you could use or the particular party that the [p. 43] evidence was offered against, and I told you you may not consider that evidence against any other defendant. I want to go over that again with you. The plaintiffs' claim against Raymark the evidence available for you to consider is as follows: The plaintiffs' exhibits are 301-A through 301—Counsel, I have that written down "G," but there's a question as to whether it's "J."

MR. HOUSTON: It's "J," Your Honor.

THE COURT: All right. 301-A, B, C, D, E, F and then skips to J. Those are the plaintiffs' exhibits. It's the Sumner-Simpson papers that you've heard testimony about. The defendants' exhibits on this point are Raymark's Exhibits 79, 80, 107—Am I going too fast? 114 and 115, 117 and 18, 132, 134, 136, 141, 145 and 155 through 157.

You may not consider the plaintiffs' exhibits against any other party defendant other than Raymark on those particular exhibits and they are relevant on a punitive question only.

Regarding the punitive damage claim against Nicolet Industries, the following evidence is available for your consideration on the claim [p. 44] against plaintiffs and Nicolet is not available to consider against any other defendant. Plaintiffs' Exhibit 309. And the defendants' testimony is the Gabrielson interrogatories that you have heard. . . .

Claim for punitive damage against Owens-Illinois, the following evidence is available for you to consider exclusively on this claim, Plaintiffs' Exhibit 307 and 308. Defendant's Exhibit 14 through 30, defendant Owens-Illinois, I think it is listed O.I. on the exhibit itself? Exhibit O.I.-14 through 30 and 34 and 35. Then the Plaintiffs' claim against Pittsburgh Corning. The testimony offered by the plaintiffs
was some deposition testimony of Dr. Richard Gaze and the defendant's testimony was the transcript from the earlier trial... of Robert Buckley and Pittsburgh Corning's Exhibit 17.

[p. 45] A couple of other general matters. You've heard a lot of testimony in this case about TLV or threshold limit value. The contention of the parties as I understand them are that the plaintiff contends that when the threshold limit value first came out the defendants made no warnings or instructions to the workers in [the] field even though the defendant knew that insulators had heavy exposure and were literally covered with dust, and that the fact that threshold limit values were made in the first place was notice to the defendants that there was a risk and the defendants had a duty to determine the extent of the risk and protect the workers. The workers contend that the threshold limit values were relied upon by industry and the scientific and medical community and were represented to be found and they could rely upon them on the question of whether risk in fact was in existence relating to insulators.

Now, the question that's relevant for you is not whether those early threshold limit values were accurate or not by applying hindsight, but—or other standards or other reports, but whether the defendants held to the knowledge [p. 46] and skill of an expert had sufficient notice of the existence of the hazard associated with the use of insulation materials by insulators create duty to warn, or remove the product from the market or change the product.

Now, back to Question No. 2. For the plaintiffs, what we're inquiring about, ladies and gentlemen, on Question 1 through 4 is the matter of potential liability for the defendants. The matter of the individual cases and you will answer these four questions regardless of what you think the evidence reveals regarding the merits of the individual four plaintiffs in this case. And I'll have some additional instructions when you come back and I can prepare your verdict form in that respect. But this relates to potential liability of the defendants. In other words, if the asbestos-containing insulation products capable of producing dust in the application, use or removal were not unreasonably dangerous as a result of an inadequate warning, there is no liability on the part of the defendants.

For the plaintiffs to recover the plaintiffs must prove that the products were unreasonably dangerous as a result of an inadequate warning.

[p. 47] The Question 3 and 4 relates to the State of the Art or State of Knowledge question. And this is keyed into the duty to warn. In general, the manufacturer has no duty to warn of the danger that he does not know about or should not know about by utilizing the knowledge and skill of an expert. If the defendants did not know or
should [not] have known of the risk to insulators, then they cannot be liable in this case, while they did not know or should not have known. And that’s why you’re asked in this case to find the date—they have admitted knowledge a reasonable time after publication of the Selikoff report at the end of ‘65. The plaintiffs contend knowledge was much earlier. Defendants deny it. You’ve heard that develop very fully in this record. And your finding on dates will determine the first time that the defendants could be subject to liability for both insulators on 3 and household members on 4. I think that will conclude my general instructions. . . .

[p. 54] REPORTER’S NOTE: Whereupon at 1:00 P.M. the Jury returned with a verdict.

THE COURT: Do I understand you have reached a verdict?

THE FOREPERSON: Yes, sir.

THE COURT: If you will hand it to the Marshal, please.

Gentlemen, I will read the Jury’s answers to the verdict form which appears to the Court to be properly dated and signed.

Question #1, the Jury has checked A, each of the products.

Question #2, the Jury has checked A, each of the products.

Question #3, for each of the Defendants [p. 55] listed, the Jury has found the date to be 1945.

Question #4, on each of the Defendants listed, the Jury has found the date to be 1945.

Ladies and Gentlemen, was that the verdict of each and everyone of you?

FOREPERSON: Yes, sir.

THE COURT: The Court notes unanimous, affirmative responses. The Court accepts your verdict and orders it filed. I have the other verdict form prepared. I need a few minutes to examine your verdict to make sure the second verdict properly fits it. . . . There is no additional argument in this case. . . . The Jury can retire.

WHEREUPON THE JURY RETIRED BACK TO THE JURY ROOM:
Question I.

Find from a preponderance of the evidence whether each, if any, of the products listed below was an asbestos-containing insulation product capable of producing dust containing asbestos fibers sufficient to cause harm in its application, use or removal.

Answer by checking the appropriate space or spaces below.

A. Each of the products listed below was an asbestos-containing insulation product capable of producing dust containing asbestos fibers sufficient to cause harm in its application, use or removal.

[ ]

OR

B. None of the products listed below were an asbestos-containing insulation product capable of producing dust containing asbestos fibers sufficient to cause harm in its application, use or removal.

[ ]

OR

C. Place a check mark beside only those products listed below which were an asbestos-containing insulation product capable of producing dust containing asbestos fibers sufficient to cause harm in its application, use or removal.

<table>
<thead>
<tr>
<th>Product</th>
<th>Date of Manufacture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lap</td>
<td>1935-1981</td>
</tr>
<tr>
<td>Roving</td>
<td>1929</td>
</tr>
<tr>
<td>Cable filler</td>
<td>1938</td>
</tr>
<tr>
<td>Glassbestos</td>
<td>1940-1942</td>
</tr>
<tr>
<td>Yarn</td>
<td>1929</td>
</tr>
<tr>
<td>Novatek</td>
<td>1967-1973</td>
</tr>
<tr>
<td>Rope</td>
<td>1929-1981</td>
</tr>
<tr>
<td>Wick</td>
<td>1929-1981</td>
</tr>
<tr>
<td>Cloth</td>
<td>1929</td>
</tr>
<tr>
<td>Rhinobestos</td>
<td>1946</td>
</tr>
<tr>
<td>Polystes</td>
<td>1955-1979</td>
</tr>
<tr>
<td>Elvabestos</td>
<td>1959</td>
</tr>
<tr>
<td>Novatek</td>
<td>1967</td>
</tr>
<tr>
<td>Speeding</td>
<td>1969-1976</td>
</tr>
<tr>
<td>Eleven thirty-three</td>
<td></td>
</tr>
<tr>
<td>Tribestos</td>
<td>1971-1979</td>
</tr>
<tr>
<td>Goldbestos</td>
<td>1959-1970</td>
</tr>
<tr>
<td>Movabestos</td>
<td>1947-1970</td>
</tr>
<tr>
<td>Fluorobestos</td>
<td>1955</td>
</tr>
<tr>
<td>Terrybestos</td>
<td>1940-1965</td>
</tr>
<tr>
<td>Felts</td>
<td>1938</td>
</tr>
<tr>
<td>Tape</td>
<td>1929</td>
</tr>
<tr>
<td>Gatortape</td>
<td>1961</td>
</tr>
<tr>
<td>Sealsafe</td>
<td>1975</td>
</tr>
<tr>
<td>Pyrothex</td>
<td>1938</td>
</tr>
<tr>
<td>Allbestos</td>
<td>1941-1981</td>
</tr>
<tr>
<td>Tubing</td>
<td>1929</td>
</tr>
</tbody>
</table>
## 2. Celotex Corporation

<table>
<thead>
<tr>
<th>Product</th>
<th>Date of Manufacture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carey Fireguard</td>
<td>1950 to 1976 (Lastly under Celotex name)</td>
</tr>
<tr>
<td>Carey Fireclad</td>
<td>1965 to 1982</td>
</tr>
<tr>
<td>Thermotex-B</td>
<td>1906 to present (currently under Celotex name)</td>
</tr>
<tr>
<td>228 Fibrated Emulsion</td>
<td>1906 to unknown</td>
</tr>
<tr>
<td>Carey Insulation Seal</td>
<td>1930 to present (currently under Celotex name)</td>
</tr>
<tr>
<td>Fire Resistant Insulation Seal</td>
<td>Unknown</td>
</tr>
<tr>
<td>Carey Fibrous Adhesive</td>
<td>1906 to present (currently under Celotex name)</td>
</tr>
<tr>
<td>Carey MTU Cement</td>
<td>1930 to 1965</td>
</tr>
<tr>
<td>Carey asbestos Felts</td>
<td>1960 to present (currently under Celotex name)</td>
</tr>
</tbody>
</table>

October 31, 1954

Judy Corey
2.) Nicolet Industries' Products
Prior to the date of warning
After the date of warning

3.) Baldwin-Mahat-Will, Inc., & Keene Corporation's Products
Prior to the date of warning
After the date of warning

4.) Pittsburgh Corning Corporation's Products
Prior to the date of warning
After the date of warning

5.) Raybestos-Manhattan, Inc. & Raymark Industries, Inc.'s Products
Prior to the date of warning
After the date of warning

6.) Fibreboard Corporation's Products
Prior to the date of warning
After the date of warning

7.) Armstrong Cork Co. & Armstrong World Industries, Inc.'s Products

8.) Eagle-Picher Industries, Inc.'s Products

9.) Owens-Illinois, Inc.'s Products

10.) Standard Asbestos Mfg. & Insulating Company & Standard Insulations, Inc.'s Product

________________________

October 24, 1974

________________________
Judy Coon
Question III.

Find from a preponderance of the evidence the date each defendant listed below knew or should have known that insulators were at risk of contracting an asbestos-related injury or disease from the application, use, or removal of asbestos containing insulation products.

With regard to this question you are instructed that in determining whether or not a manufacturer knew or should have known of the dangers involved in the application, use, or removal of its asbestos-containing insulation products, a manufacturer is to be held to the knowledge and skill of an expert and at a minimum must keep abreast of scientific knowledge, discoveries and advances.

Answer by placing a date in the blank provided.

A. Armstrong Cork Company & Armstrong World Industries, Inc. [1945]
B. Celotex Corporation [1945]
C. Eagle-Picher Industries, Inc. [1945]
D. Fibreboard Corporation [1945]
E. Pittsburgh Corning Corp. [1945]
F. Standard Asbestos Mfg. & Insulating Company & Standard Insulations, Inc. [1945]
G. Baldwin-Ehret-Hill, Inc. & Keene Corporation [1945]
H. Owens-Illinois, Inc. [1945]
I. Nicolet Industries [1945]
J. Raybestos-Manhattan, Inc. & Raymark Industries, Inc. [1945]

October 29, 1984
Judge Chafee
Question IV.

Find from a preponderance of the evidence the date each defendant listed below knew or should have known that household members of insulation workers were at risk of contracting an asbestos-related injury or disease from the application, use, or removal of asbestos-containing insulation products.

With regard to this question you are instructed that in determining whether or not a manufacturer knew or should have known of the dangers involved in the application, use, or removal of its asbestos-containing insulation products, a manufacturer is to be held to the knowledge and skill of an expert and at a minimum must keep abreast of scientific knowledge, discoveries and advances.

Answer by placing a date in the blank provided.

A. Armstrong Cork Company & Armstrong World Industries, Inc. 1945
B. Celotex Corporation 1945
C. Eagle-Picher Industries, Inc. 1945
D. Fibreboard Corporation 1945
E. Pittsburgh Corning Corporation 1945
F. Standard Asbestos Mfg. & Insulating Company & Standard Insulations, Inc. 1945
G. Baldwin-Welsh, Inc., & Keene Corporation 1945
H. Owens-Illinois, Inc. 1945
I. Nicolet Industries 1945
J. Raybestos-Manhattan, Inc. & Raymark Industries, Inc. 1945

[Signature]
WHEREUPON THE JURY WAS RETURNED TO THE COURT ROOM AT 2:15 P.M.:

THE COURT: Be seated. . . . Now, what you have determined, Ladies and Gentlemen, is potential liability of the Defendants. What you will consider now are individual claims. I will just go through this kind of item by item with you and your first questions relate to the Plaintiff, Charles Hatley Newman. For Mr. Newman to be entitled to your verdict, he as a Plaintiff must prove by a preponderance of the evidence, to your satisfaction, first; that he was exposed to one or more of the products of the particular Defendants listed on the verdict form which you have already found to be defective and unreasonably dangerous, [p. 63] as a result of not having an adequate warning. He has got to prove exposure to one or more of each one of their products and he has to prove that such exposure was sufficient for it to be a producing cause of Plaintiff's asbestos related injury or disease, if any. You have already received the instructions on producing cause. And he must prove that he has been injured or damaged as a result of such exposure.

Now, that same instruction applies to Mr. Newman, Mr. Goodson, and Mr. Flotte. With Mrs. Howell, it is a little different. What she must prove is that her husband was exposed during his work life to one or more of the products of each of the Defendants, inquired about.

You may find exposure to all of the Defendants, one of the Defendants or some of the Defendants or none of the Defendants, and you will consider the case against each one and make your verdict by checking beside the name of each one. If you find that there is proof of exposure to none of the Defendants, then, of course, your verdict is for the Defendants, all the Defendants, the second part.

Now, regarding, first of all, . . . [p. 64] a special instruction relating to Mr. Newman. The first Defendant is Armstrong. For Mr. Newman to recover against Armstrong, this is separate from any of the other Defendants. Mr. Newman must prove that he was exposed to one of their products. Armorspray was their only product or one of the products they bought from others and either relabeled or didn't relabel but sold as casual sales. He must prove exposure at a time when he was not employed by Armstrong. You heard testimony in this case that he spent a certain period of time working for them on one of their jobs and he is not, under the law of Texas, entitled to recover damages for any exposure for any of their products while he was working for them. And you must find that he was exposed to one of their products at some other time to find in favor of Mr. Newman against Armstrong.

[S]pecial instructions regarding Nicolet. You recall on your Nicolet's product list, there were a number of products listed and one
of the products was named Nicolet. Now, as I recall, I want you to be
governed by your recollection of the testimony, because you are the
sole and exclusive judges of the facts. As I recall [p. 65] the testimony
of these four particular Plaintiffs, there was no proof of exposure to the
product named Nicolet, manufactured by the Defendant, Nicolet, on
their product list.

Now, one other general instruction. You will note that there are a
number of Defendants where two names are listed and there is a sym-
bol for and, what that really means is, formerly known as, and I think
that is perfectly clear to the Jury. You heard that testimony over and
over.

A special instruction regarding Mr. Goodson, number 3, page 3. The
Court has ruled in this case that there is no dispute in the evidence
that Mr. Goodson had no exposure to any asbestos—Let me not state
it that way. The Court has ruled in this case that the evidence is
insufficient to sustain a verdict for exposure to any product by Mr.
Goodson prior to 1964, unless you heard evidence sufficient to satisfy
you that he removed a product that was manufactured before or sold
prior to 1964. What I mean by telling you that is, some products that
may have been manufactured and sold exclusively in a period of time
before 1964. There is no evidence that Mr. Goodson was working to
have been exposed to those products during that [p. 66] time period
and the only exposure he could have had, under the evidence, was
removal activity. If you are satisfied that the evidence is sufficient for
identification, removal of some of those products, then you may con-
sider them.

The same instruction on the next page for Mr. Flotte, is applicable
except the date is 1966, instead of 1964. . . . Exposure must have been
after 1966, unless it was removal exposure, and there has to be evi-
dence in the record sufficient to satisfy you with a proper measure of
specificity. Now, the only potential exception to that is Owens-Illinois'Kaylo. . . . Owens-Illinois' Kaylo was removed from the market prior
to ‘66 and you recall there was some interrogation of Mr. Flotte about
removal of Kaylo and the only ruling I made on that is, it’s an open
question for the Jury to decide. I have no suggestion at all to you, but
you may consider Kaylo, removal only.

Now, the claims for loss of consortium by Mrs. Goodson and Mrs.
Newman, simply for your information, the Defendants, if any, who will
be liable, in the event you find for either of these ladies on their con-
sortium claim will [p. 67] be those that you find liable on their
husband’s exposure claim. If there is any liability there, it flows
through the claim of their husbands and his exposure.
I have some other instructions. The individual Plaintiff's claim for actual damages. You may consider the following elements of damages only. Reasonable and necessary expenses for medical services in reasonable probability will be required for future treatment of the Plaintiff as a proximate result of the injury in question or disease in question. The reasonable value of the earnings shown by the evidence in the case to have been necessarily lost since the time of the injury to this date as a result of an inability to pursue his occupation. In determining this amount, you should consider any evidence of Plaintiff's earning capacity, what his actual earnings were, the manner in which he ordinarily occupied his time before the injury and what you find that he would in reasonable probability have earned during the time so lost had he not been disabled.

Next, such sums that will reasonably compensate the individual plaintiff for loss of future [p. 68] earning power proximately caused by the injury in question, that you find in reasonable probability he will sustain in the future. In determining this amount, you should consider what his health was, his physical ability was, what his earning power was before the injury and what they are now, the nature and extent of the injury, whether or not in reasonable probability it's permanent and the extent of it, all to the end of determining the effect of the injuries on future earning power, that you find in reasonable probability the plaintiff will incur in the future as a proximate cause of the injury in question.

I told you yesterday, Mrs. Howell has no claim for lost earnings in the past or diminution of wage earning capacity or future lost earnings because reasonable minds could not differ that she . . . was not a wage earner, she was not in the market and in reasonable probability she would have no earnings in the future. You may consider the elements on the other Plaintiffs.

You will also consider physical pain and mental anguish, if any, that the Plaintiff has endured from the date of the injury to the present time and physical pain and mental anguish, if [p. 69] any, the Plaintiff, in reasonable probability will endure in the future as a result of the injury. Now, in estimating these damages or in reaching your decision on these damages, you must exclude any compensation for impairment and suffering of the Plaintiff which may be due solely or partly to ailments or physical conditions which he may have had before the occurrence or which he may have contracted after the occurrence, unrelated to asbestos exposure. But, if you find from the evidence that the asbestos related injury or disease have aggravated any ailments or physical conditions, that the Plaintiff may have had prior to the time of the alleged injury, then you may consider such aggravations in your
estimate. A good example here, is, you have heard undisputed testimony that Mrs. Howell has rheumatoid arthritis... [I]t is not disputed in the case that the asbestos exposure had anything to do with her having rheumatoid arthritis. She is not entitled to recover any money from this Jury for any difficulty she's had with rheumatoid arthritis, unless you find the asbestos disease has in some way aggravated it. My recollection of the evidence is, that it has [p. 70] not aggravated her rheumatoid arthritis. I mention that simply as an example.

You are instructed that damages must be reasonable. If you find that a particular Plaintiff is entitled to a verdict, you may award the Plaintiff only such damages that will reasonably compensate the Plaintiff for injuries and damages that you find from a preponderance of the evidence he sustained as a proximate result of the injury in question. You are not permitted to award speculative damages. Therefore, you are not to include in any verdict compensation for any prospective loss which although possible is not reasonably certain to occur. What we are dealing with in this part of the verdict form is the compensatory damages. The concept of compensatory damages is based on our notion of just compensation and it excludes an award based on passion, prejudice or sympathy. It has no part in the concept of compensation or compensatory damages. It will therefore play no part in your verdict...

The last question inquires about negligence on the part of the Plaintiffs. I have submitted no question to you about negligence on Mrs. Howell, because, as a matter of law she could have done nothing [p. 71] that was considered under the law to be negligent.

I am going to discuss this with you and then I am going to discuss [the] punitive damage claim very briefly. The products liability claim is different from a negligence claim and the defense asserted here is that the Plaintiffs were contributorily negligent. Negligence is a concept where the conduct of a person is compared to the conduct of what an ordinary prudent person would have done under the same or similar circumstances. The ordinary man concept. The claim is asserted that the Plaintiffs may have been negligent and contributed to their injury or disease and therefore their recovery should be reduced by the amount of their negligence which was a proximate cause of any injury or disease they may have. Now, what you have to find in this respect, in order to find contributory negligence is that each Plaintiff... did something that an ordinary prudent person would not have done under the same or similar circumstances or he failed to do something that an ordinary prudent person would have done under the same or similar circumstances; and that there was a causal connection between that
[p. 72] negligence and him contracting any asbestos related injury or disease. That causal connection, the phrase we have to deal with is proximate cause. PROXIMATE CAUSE has two elements to it. One, an actual cause or cause in fact and it had to be foreseeable, foreseeable to an insulator in this case.

Now, for you to find contributory negligence you must find that the insulator did something that an ordinary prudent person would not have done or failed to do something an ordinary prudent person would have done and it had to be foreseeable to him that he could contract asbestos related injury or disease. I mentioned to you yesterday the affirmative defense of assuming the risk of using these products had been asserted in this case. Any percentage that you find of contributory negligence on verdict 8 will have the legal effect of reducing any recovery that you may find for the individual Plaintiffs. You will answer number 8 by placing a percentage anywhere from 0 to 100 percent.

Now, concerning the claims for punitive damage. These are questions 7, a, b and c. First of all, you will note there is not complete identity of the Defendants in each one of them. You will only consider the case against the [p. 73] Defendant listed. The Court has made some rulings on matters that do not concern your responsibility that affects who is an identifiable Defendant in a particular case.

Now, for the Plaintiff to prove that the Plaintiff is entitled to recover on a gross negligent or punitive damage claim, the Plaintiff must ... prove that the Defendant demonstrated a conscious indifference to the rights of insulators or people in the position of the Plaintiff here in a callous and intentional, reckless disregard for their well being. It's an entire want of care, as to indicate that the act or omission complained of in this case was the result of malice, willfulness or conscious indifference to the right, welfare and safety of the Plaintiffs. You must make that determination first of all, that is why you have a liability line to check. You may not answer the damage question unless you find liability. If you find liability, then you must consider the damage aspect of the punitive damage claim.

Now, the elements of damage that you may [p. 74] consider, if you find that there was liability in this case, are as follows: This is sometime referred to as gross negligence, the definition I gave you a minute ago on contributory negligence is ordinary negligence, that is the way it is referred to. But, this is gross negligence, it is much more severe in nature and it's a concept of intention. It has to be intentional. If you find that a particular Defendant under consideration was grossly negligent toward the individual Plaintiff and that such gross negligence was the proximate cause, you have that same causal connection that I
explained to you, cause in fact and it had to be foreseeable, then you will determine the amount of punitive damages that are appropriate to be awarded in this case, if any. In determining punitive damages, you will consider the following elements in reaching a fair and just verdict. The punitive damages you award must bear some reasonable relationship to the actual damage that you determine, if any. Therefore, you must determine actual damages, the individual cases first before you can determine punitive damages. Exactly what the relationship is between actual and punitive damages will be in [p. 75] this case exclusively for you to determine, but it must be a reasonable relationship, if you find punitive damages. The general requirement is that punitive damages must not so greatly exceed the actual damages as to indicate to the Court that the Jury has been guided by passion or prejudice rather than by reason. The appropriate ratio may vary from case to case, depending on such factors as the character of the wrongful conduct, the extent to which the Defendant was involved in the conduct and the extent to which the conduct offends a public sense of justice and propriety. As long as punitive damages bear a reasonable relationship to actual damages, the law gives the Jury great leeway in determining how large or how small the award of punitive damages should be in a given case.

Now, the one other instruction that I think I omitted as I went through, concerns the element of damages for Mrs. Goodson and Mrs. Newman, their claim for loss of consortium. I remind you of what I told you yesterday. . . . You may consider loss of consortium in the past and loss of consortium that in reasonable probability will be sustained in the future. The term CONSORTIUM means the mutual right of the [p. 76] husband and wife to that affection, solace, comfort, companionship, society, assistance, sexual relations, emotional support, love and happiness necessary to a successful marriage. It does not include services, such as household services, things performed around the house. . . .

You can retire and resume your deliberations. WHEREUPON THE JURY LEFT THE COURTROOM TO DELIBERATE: 2:35 p.m.

[p. 77] THE COURT: Gentlemen, the Jury has asked for the definition of punitive damages and I am about to give it to them.

Ladies and Gentlemen, I thought it best to respond on the record as opposed to sending you a written response. Because I thought your question deserved a little more than the mere definition.

For there to be an award of punitive damages, you first must find the existence of gross negligence. GROSS NEGLIGENCE has been defined by the Courts in Texas to [p. 78] be . . . that entire want of care which would raise the belief that the act or omission complained
of was the result of a conscious indifference to the right or welfare of a person or persons affected by it. . . .

Now, if you find that a particular Defendant was grossly negligent toward a particular Plaintiff in this case and that such gross negligence was a proximate cause of the Plaintiff's injuries or damages in this case, asbestos. You have to find also that he had an asbestos related injury or disease, then you will determine the amount of punitive damages to be awarded. Punitive damages that you award, if any, must bear some reasonable relationship to the actual damages that you determine. Therefore, you must determine the actual damages before you can determine punitive damages. Exactly what the relationship between actual and punitive damages will be in this case, if any, is for you to determine, but it must be a reasonable relationship. The general requirement is that punitive damage must not so greatly exceed [p. 79] actual damages as to indicate to the Court that the Jury has been guided by passion or prejudice, rather than by reason. The appropriate ratio will vary from case to case depending on such factors as the character of the wrongful conduct, the extent to which the particular Defendant is involved in that conduct and the extent to which that conduct offends a public sense of justice and propriety. As long as the punitive damages bear a reasonable relationship to the actual damages the law gives the Jury great leeway in determining how large or how small an award of punitive damages should be. . . .

You can retire and resume your deliberations. WHEREUPON THE JURY RETIRED TO CONTINUE THEIR DELIBERATIONS:

[p. 80] WHEREUPON THE JURY WAS RETURNED TO THE COURTROOM AT 4:40 P.M.:

THE COURT: I think I can help you a little more by discussing with you very briefly, why the law permits punitive damages and what the purpose for punitive damages are in any particular case. It is not for compensation of actual damages for any injured party. The purpose for an award for punitive damages in a case where punitive damages are appropriate is to serve as an example. It is punitive in nature, that is why we call it punitive damages. It is for punishment of a particular Defendant involved and also serves the purpose of deterrence, to deter similar conduct by the same Defendant or in the future or for deterrence of others similarly situated. Now, that is why in certain circumstances the law permits punitive damages and for an award of punitive damages to be appropriate in a particular case, the Jury must be persuaded that it is appropriate to punish the Defendant and to make an award as an example or deterrence to others.

[p. 81] You can resume your deliberations.
WHEREUPON THE JURY RETIRED.
SPECIAL VERDICT FORM

WE, the jury, find for plaintiff Charles Hatley Newman and against the defendants checked below and find plaintiff's actual damages to be $1,000,000.

Armstrong World Industries, Inc. & Armstrong Cork Company
Celotex Corporation
Eagle-Picher Industries, Inc.
Fibreboard Corporation
Standard Asbestos Mfg. & Insulating Company & Standard Insulations, Inc.
Baldwin-Street-Hill, Inc. & Street Corporation
Owens-Illinois, Inc.
Nicolet Industries
Raybestos-Manhattan, Inc. & Raymark Industries, Inc.

WE, the jury, find for defendants and against plaintiff Charles Hatley Newman by checking the space below.

Date

(Handwritten Signature)
SPECIAL VERDICT FORM

Question V.B.
We, the jury, find for plaintiff Velma Howell and against the defendants checked below and find plaintiff's actual damages to be $700,000.

Celotex Corporation
Engle-Picher Industries, Inc.
Fibreboard Corporation
Pittsburgh Corning Corporation
Baldwin-Herst-Hill, Inc. &
Keene Corporation
Owens-Illinois, Inc.
Nicolat Industries
Raybestos-Manhattan, Inc. &
Raymark Industries, Inc.

We, the jury, find for defendants and against plaintiff Velma Howell by checking the space below.

10-24-84
(Date)
Judy Crane
(Preparer)
**SPECIAL VERDICT FORM**

**Question V.C.**

We, the jury, find for plaintiff Fred Goodson and against the defendants checked below and find plaintiff's actual damages to be $850,000.

<table>
<thead>
<tr>
<th>Defendant</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Celotex Corporation</td>
<td>✔</td>
</tr>
<tr>
<td>Eagle-Picher Industries, Inc.</td>
<td></td>
</tr>
<tr>
<td>Fibreboard Corporation</td>
<td></td>
</tr>
<tr>
<td>Pittsburgh Corning Corporation</td>
<td></td>
</tr>
<tr>
<td>Standard Asbestos Mfg. &amp; Insulating Co.</td>
<td>✔</td>
</tr>
<tr>
<td>Standard Insulations, Inc.</td>
<td></td>
</tr>
<tr>
<td>Baldwin-Ehret-Hill, Inc. &amp; Reeves Corp.</td>
<td></td>
</tr>
<tr>
<td>Nicolet Industries</td>
<td></td>
</tr>
<tr>
<td>Raybestos-Manhattan, Inc. &amp; Raymark Ind.</td>
<td></td>
</tr>
</tbody>
</table>

We, the jury, find for defendants and against plaintiff Fred Goodson by checking the space below.

---

Date: 7/27/54

[Signatures]
SPECIAL VERDICT FORM

We, the jury, find for plaintiff Everado Flotte and against the defendants checked below and find plaintiff's actual damages to be $ 850,000.

Celotex Corporation
Eagle-Picher Industries, Inc.
Fibreboard Corporation
Pittsburgh Corning Corporation
Baldwin-Westinghouse, Inc. & Keene Corporation
Owens-Illinois, Inc.
Nicolet Industries
Raybestos-Manhattan, Inc. & Raymark Industries, Inc.

We, the jury, find for defendants and against plaintiff Everado Flotte by checking the space below.

Date 11/24/94
Foreperson
Question VI.A.

We, the jury, find for the plaintiff Emma Goodson on her loss of consortium claim and find her damages to be $ 250,000.

We, the jury, find for the defendants and against Emma Goodson by checking the space below.

Date: 10/11/94
Prepared: [Signature]
Question VI.B.

We, the jury, find for the plaintiff Yvonne Newman on her loss of consortium claim and find her damages to be $\text{ } 25,000 (XXX).

We, the jury, find for the defendants and against Yvonne Newman by checking the space below.

\[\text{ }\]

Date \[11 \text{ } xx \text{ } 54\]  
Foreperson
Question VII. A.

Regarding plaintiff Charles Batley Newman’s claim for punitive damages, we, the jury, find for the plaintiff and against defendants checked below and assess punitive damages as indicated.

<table>
<thead>
<tr>
<th>Liability</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owens-Illinois, Inc.</td>
<td>500,000</td>
</tr>
<tr>
<td>Nicolet Industries</td>
<td>250,000</td>
</tr>
<tr>
<td>Raybestos-Manhattan, Inc. &amp; Raymark Industries, Inc.</td>
<td>250,000</td>
</tr>
</tbody>
</table>

We, the jury, find for defendants and against plaintiff Charles Batley Newman plaintiff’s punitive damages claim by checking the space below.

Date: 3/24/74

Jury Foreperson
Question VII. B.

Regarding plaintiff Velma Howell's claim for punitive damages, we, the jury, find for the plaintiff and against defendants checked below and assess punitive damages as indicated.

<table>
<thead>
<tr>
<th>Liability</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh Corning Corp.</td>
<td>✔ 250,000</td>
</tr>
<tr>
<td>Owens-Illinois, Inc.</td>
<td>250,000</td>
</tr>
<tr>
<td>Nicolet Industries</td>
<td>250,000</td>
</tr>
<tr>
<td>Raybestos-Manhattan, Inc. &amp; Raymark Industries, Inc.</td>
<td>250,000</td>
</tr>
</tbody>
</table>

We, the jury, find for defendants and against plaintiff Velma Howell on plaintiff's punitive damages claim by checking the space below.

Date: 10-24-84

[Signature]

[Signature: Verdict]
Question VII. C.

Regarding plaintiff Fred Goodson's claim for punitive damages, we, the jury, find for the plaintiff and against defendants checked below and assess punitive damages as indicated.

<table>
<thead>
<tr>
<th>Liability</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh Corning Corp.</td>
<td>$700,000</td>
</tr>
<tr>
<td>Nicot Industries</td>
<td>$220,000</td>
</tr>
<tr>
<td>Raybestos-Manhattan, Inc. &amp; Raymark Industries, Inc.</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

We, the jury, find for defendants and against plaintiff Fred Goodson on plaintiff's punitive damages claim by checking the space below.

Date: 6-24-84

(Presiding)
Question VII. D.

Regarding plaintiff Everado Flotte's claim for punitive damages, we, the jury, find for the plaintiff and against defendants checked below and assess punitive damages as indicated.

<table>
<thead>
<tr>
<th>Liability</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh Corning Corp.</td>
<td>x</td>
</tr>
<tr>
<td>Owens-Illinois, Inc.</td>
<td></td>
</tr>
<tr>
<td>Nicolet Industries</td>
<td></td>
</tr>
<tr>
<td>Raybestos-Manhattan, Inc. &amp; Raymark Industries, Inc.</td>
<td></td>
</tr>
</tbody>
</table>

We, the jury, find for defendants and against plaintiff Everado Flotte plaintiff's punitive damages claim by checking the space below.

[Signature]

Date: [Signature]
Question VIII.

Find from a preponderance of the evidence what percentage of each plaintiff's injuries or disease were proximately caused by his own negligence.

Answer in percentages.

Charles Hatley Newman
Everado Flotte
Fred J. Goodson

Date
Foreperson
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