The jury casts an immense shadow over mass tort litigation. On this point, at least, all of the participants—plaintiffs’ and defendants’ lawyers, their clients, jurors, judges, and commentators—seem to agree.¹

Plaintiffs and their lawyers are probably the most ardent advocates of the jury trial, at least in their public statements. They ostentatiously maintain that they have total confidence in juries and want nothing more than to get their cases before them. If they can only do so, they assert, the jury will find the plaintiffs’ grievous sufferings to be compelling, their claims meritorious, and their corporate opponents culpable, if not criminal. Plaintiffs’ lawyers especially value juries in mass tort litigation where, almost by definition, the compensatory damages may be quite large. Although punitive damages are rare,² especially in mass torts, they are always an alluring possibility to plaintiffs’ lawyers, especially where incriminating corporate documents can be unearthed and paraded before the jury. In a single stroke, then, the mass tort jury can render justice to the plaintiffs and enrich their lawyers.

Regardless of what plaintiffs’ lawyers say in public, however, most would strongly prefer to settle. After all, even the credible threat of a jury trial can induce mass tort defendants to settle before trial, thereby enabling plaintiffs to gain their judgments and the lawyers to obtain their fees (and also to burnish their reputations in ways that translate into greater bargaining power with future clients and defendants) without incurring the high costs of trial and the substantial risks of defendant verdicts or reversal on appeal.³

¹ Simeon E. Baldwin Professor, Yale Law School, and John Marshall Harlan Visiting Professor, New York Law School (Spring 1999). Kim DeMarchi, Yale Law School Class of 2000, provided fine research assistance.


³ Although good data on this question are lacking, defendants appear to be successful in many, possibly even most, of the mass tort cases that go to trial. In this respect, asbestos cases in
Defendants' lawyers also praise the institution of the civil jury. Most defendants, one suspects, genuinely believe in the correctness of their legal arguments and respect the intelligence and fairness of jurors as factfinders. Moreover, they often succeed in persuading juries. Nevertheless, most defendants in mass tort cases are as eager to avoid a jury trial as plaintiffs say they are to have one. The reason is that these defendants confront the overriding, remorseless logic of the law of small numbers. Even those that feel confident that juries will support their positions actually experience relatively few trials. As a result, the variability in trial outcomes—even assuming that the underlying facts are identical—may be significant. And because this variability is linked to a tort system in which juries may award virtually unlimited damages, most mass tort defendants can successfully defeat almost every claim, yet still be threatened with bankruptcy if even a single adverse jury decides to impose ruinous liability.

Jurors are seldom heard from on the issue of how well they think juries perform—or indeed on any other subject relating to their service. Studies confirm what common experience teaches—that jurors

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4. For a useful, but tendentious, explanation of this phenomenon, see Peter Huber, Junk Science and the Jury, 1990 U. Chi. Legal F. 273.

5. This is primarily due to the intangible component of both compensatory and punitive damages and the lack of meaningful legal guidance or constraint for juries in assessing either type—other than the prospect of post-trial remittitur or court-reduced judgments, procedures of which jurors are presumably ignorant. See Kenneth S. Abraham, What is a Tort Claim?: An Interpretation of Contemporary Tort Reform, 51 Mo. L. Rev. 172, 177-78 (1992) (noting that a successful tort claimant is entitled to recover unlimited damages).

6. As Judge Richard Posner put it in rejecting a class certification:

They [defendants in mass tort cases] may not wish to roll these dice. That is putting it mildly. They will be under intense pressure to settle. . . . Judge Friendly, who was not given to hyperbole, called settlements induced by a small probability of an immense judgment in a class action blackmail settlements.

In re Rhone-Poulenc Rorer, Inc., 51 F.3d 1293, 1298 (7th Cir. 1995).

Posner's observation seems correct; it is difficult to find any other explanation for the willingness of defendants to pay enormous sums—the breast implant and tobacco litigation are only the most recent and dramatic examples—to settle claims with little scientific basis or subject to strong legal defenses. The same can be said of the Agent Orange class action settlement to which the defendant chemical companies agreed despite the court's findings, affirmed in this respect by the appellate court, that both their factual defenses (on causation) and their legal defenses (e.g., the government contract defense) were not merely strong but dispositive. See Peter H. Schuck, Agent Orange on Trial: Mass Toxic Disasters in the Courts (enlarged ed., 1987). Although the $180 million settlement amount, approved in 1984, seems trifling compared to the settlement amounts proposed in recent years, it was the largest mass tort settlement up to that time.
overwhelmingly take pride and satisfaction in the experience. Even so, mass tort trials tend to be very protracted, tedious, and technical, and it would therefore be surprising indeed if jurors in many cases did not share the view of some legal commentators that lay juries cannot comprehend such cases, much less fairly and reasonably decide them. The fact that other fact-finding entities may be no better at the task, of course, does not necessarily mean that these doubts about jury competence are unfounded.

Judges, when asked publicly for their assessment, almost invariably extol the virtues of juries. Nevertheless, judges admit to deep concerns about the long delays, crowded dockets, and high transaction costs of mass tort litigation. They are also concerned about the problems for courts and litigants occasioned by the large number of related claims in mass torts—the inconsistent verdicts; the first-come, first-served distribution of the often inadequate resources available for compensation; the legal uncertainties; the daunting procedural requirements; the compromise of individual rights; the unfairness of bundling together strong, weak, and frivolous claims; and the unusual administrative demands that they impose.

However genuine the judicial assurances of confidence in the civil jury system may be, a more striking fact is that they have devised remarkably effective ways to keep mass tort cases away from juries. My comments will elaborate on this theme of judicial jury avoidance. Specifically, I wish to touch on four aspects of this phenomenon: (1) the infrequency of jury trials; (2) the judicial motives for jury avoidance; (3) the judicial techniques of jury avoidance; and (4) the possi-


My own impression, formed through confidential conversations with mass tort judges, is that their private views of juries are often more critical than they are prepared to state publicly. This impression may or may not be inconsistent with the upbeat survey data, depending on whether judges responding to surveys consider their responses "public" in a sense, even when they will be treated as anonymous.

10. The Agent Orange litigation vividly illustrates all of these difficulties. See SCHUCK, supra note 6.

11. In doing so, of course, they are in a sense pushing against an open door, given the incentives of both plaintiffs' and defendants' lawyers to settle cases before trial. See infra text accompanying notes 20-35.
bility of a "complexity exception" to the right to a jury trial in mass tort cases. Needless to say, there is a great deal more to be said on each of these points than I can discuss in these brief comments.

Before turning to this discussion, however, let me frame it with a few preliminary observations designed to narrow somewhat the focus on mass torts. First, it is important for some purposes to distinguish three types of mass tort cases: accidents (e.g., airline crashes); product-related injuries (e.g., silicone gel breast implants); and toxic substance-related injuries (e.g., asbestos). I am concerned here with the second and third types, which sometimes overlap as when the toxic substance is contained in a consumer or industrial product—for example, asbestos in automobile brake linings. Second, I am primarily concerned here with the issues of general and specific causation. Although mass tort disputes usually involve many other complex legal and factual issues as well, such as product identification, determining causation is the problem that most strongly impels the courts' jury avoidance efforts. Finally, the discussion is necessarily speculative and impressionistic. I am unaware of any rigorous studies of a significant sample of mass tort cases, as distinguished from the few detailed case studies that have been published on particular mass tort disputes such as Agent Orange,12 Bendectin,13 Dalkon Shield,14 Buffalo Creek,15 and the Woburn toxic dump16 cases. Asbestos, the mass tort in which the largest number of individual claims have actually gone to trial, is probably the most jurisdictionally fragmented, fact-specific, and differentially lawyered of them all, making it also the one that is most resistant to systematic analysis and generalization.

I. The Infrequency of Mass Tort Jury Trials

The vast majority of mass tort claims never reach a jury, as they are either dropped or settled.17 This is hardly surprising; approximately 95% of all tort cases are resolved short of trial.18 If anything, mass

17. According to a communication with the author from Deborah Hensler, Director of the Institute for Civil Justice, RAND, in May 1998, it appears that there are no data on the proportion of mass tort cases, as distinct from other kinds of cases, that go to trial.
18. Marc Galanter & Mia Cahill, Most Cases Settle: Judicial Promotion and Regulation of Settlement, 46 Stan. L. Rev. 1339, 1340 (1994) (citing Herbert Kritzer, Adjudication to Settlement:
tort claims probably result in some payment to plaintiffs more often than in other tort cases because of the relatively comprehensive ("global") nature of the settlements reached in some of the most important mass tort litigations.\(^{19}\)

Whatever the militant public rhetoric deployed by mass tort litigants might suggest, their lawyers are seldom eager to go to trial, as noted earlier.\(^{20}\) It is easy to understand why. Trying a mass tort case is notoriously costly, especially in the early stages of the tort's evolution.\(^{21}\) Unless and until the tort "matures," the essential facts underlying the complex questions of general causation, liability, and damages are not firmly established, the most important legal issues have not been authoritatively resolved by the appellate courts, the lawyers have neither tested their mettle nor routinized the litigation, and thus claim values are still unsettled.\(^{22}\)

In addition to the costs of trying such cases, the stakes for both sides are likely to be high. The defendants not only face a large number of current claims for already manifested injuries. Defendants may also be vulnerable to a flood of future claims for injuries that are not yet manifest, depending on the product distribution and consumer exposure patterns, latency periods, plaintiffs' bar aggressiveness, and other factors. If defendants can avoid a decisive defeat in the early cases, they can hope to dig in for a long, costly war of attrition that will discourage the plaintiffs' lawyers, induce settlement of current claims, and stave off the filing and prosecution of new ones.\(^{23}\) If instead they go to trial in an early case and lose, they will almost certainly be deluged with a flood of new claims generated by plaintiffs' lawyers drawn by the smell of blood.\(^{24}\) By the same token, and for much the same

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\(^{19}\) See Schuck, supra note 1, at 987.

\(^{20}\) See supra text accompanying notes 3-6.

\(^{21}\) E.g., James S. Kakalik et al., Variations in Asbestos Litigation Compensation and Expenses (Institute for Civil Justice, RAND Corp., No. R-3132-iCI, 1984).


\(^{23}\) This was the pattern of tobacco litigation until 1997 when the unprecedented and unexpected agreement between the industry, states, and plaintiffs' lawyers dramatically altered the situation. Gary T. Schwartz, Tobacco Liability in the Courts, in Smoking Policy: Law, Politics and Culture 131 (Robert L. Rabin & Stephen D. Sugarman eds., 1993). In the wake of the collapse of that agreement and some new legal and political developments favorable to the industry's position, the states' claims were settled on terms much more favorable to the industry.

\(^{24}\) For example, this was the pattern of the Bendectin and silicone gel breast implant litigations.
reason, plaintiffs' lawyers are reluctant to precipitate an early test of
strength that they might lose, although a trial—with all of the attendant
risks—is sometimes the only way in which they can hope to
weaken defendants' future litigation prospects and bring them to the
dollars table.

The parties' difficulties in making these calculations are com-
ounded by the high variability of outcomes in many mass tort jury
trials. In the Brooklyn Navy Yard asbestos cases, for example, Judge
Jack Weinstein noted a great deal of variation among the damage
awards received by different plaintiffs with similar injuries and demo-
graphic characteristics. Judge Weinstein also found unwarranted vari-
bility in the outcomes of some of his repetitive stress keyboard
cases, 25 although his sample was of course very small relative to that in
the asbestos litigation. Indeed, so troubled was he by this variability
that he developed a grid to guide future juries. 26

Conceivably, much or all of this variation (or some substantial frac-
tion of it) might be due to factual differences in the claims—for ex-
ample, the circumstances surrounding the injury—that a jury may
legitimately consider in assessing culpability and damages. Empirical
studies of jury performance in more conventional litigation suggest
that most of the variation can indeed be explained in this way. 27 It is
much harder, however, to justify variable outcomes in cases where the
identical factual issue—lack of general causation—is (or at least should be)
dispositive of all of them, yet mass tort cases often violate the
basic principles of system rationality and horizontal equity. In the
Bellivectin litigation, for example, a series of directed verdicts for de-
fendants based on lack of general causation was both bracketed and
interrupted by several large plaintiffs' verdicts. 28 Similarly, in the sil-
icone gel breast implant litigation, where the evidence on general ca-
uation of immunological disorders was always weak and became
progressively weaker over time, most of the juries rendered defend-

26. Id. at 664-74.
27. Shari S. Diamond et al., Juror Judgments about Liability Damages: Sources of Variability
and Ways to Increase Consistency, 48 DEPAUL L. REV. 301 (1999).
28. See, e.g., Ealcy v. Richardson-Merrell, Inc., 897 F.2d 1159 (D.C. Cir. 1990) (reversing
$95,000,000 verdict); Richardson v. Richardson-Merrell, Inc., 857 F.2d 823 (D.C. Cir. 1988) (af-
firming district court's grant of j.n.o.v. on $1,000,000 verdict); Merrell Dow Pharm., Inc., v. Hav-
nor, 953 S.W.2d 706 (Tex. 1997) (reversing $33,750,000 verdict); Blum v. Merrell Dow Pharm.,
trial court's grant of j.n.o.v. on $750,000 verdict).

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ants' verdicts, but some of them awarded large damages to plaintiffs, even after a string of defendant victories.29

This variability in outcomes for cases that appear similar on their facts or that implicate identical dispositive legal principles or facts should trouble any system of justice that aspires to rationality, fairness, and predictability. It is especially regrettable when the different outcomes appear to reflect differences in the lawyer's skill, or in the location of the court, which is common in tort law generally. This variability also engenders great uncertainty for the parties, but especially for defendants. Whether or not the variation is warranted by different underlying facts, a defendant facing the risk not merely of an adverse outcome, but of a truly catastrophic one,30 is likely to be highly risk averse,31 preferring even a bad settlement to a precedent-setting trial unless it is almost certain that it can prevail at trial. Yet, such confidence is impossible given this variability, whatever its source.

If the plaintiffs' lawyers feel confident of a favorable jury verdict, of course, they will not acquiesce in the defendants' risk-averse strategy. This confidence may be justified or may instead be born of myopia and wishful thinking. But even if the plaintiffs' lawyers are less confident than this, they are more likely than defendants to press for trial. They usually have less to lose from a defeat in an early case than defendants do; unlike defendants, plaintiffs' lawyers can usually keep bringing new cases until they win one, as collateral estoppel has little application in such cases.32 Moreover, their power to extract a favorable settlement from defendants may depend not only on the strength of their underlying case but also on whether their threat to go to trial is credible. Unless they are well-financed (and perhaps even then), plaintiffs' lawyers are usually under severe economic pressures to resolve cases quickly.

These incentives contrast sharply with those of defendants, who tend to benefit from delay, for at least three reasons. They continue to enjoy the investment value of the money during the period that they retain it. They hope to wear down the other side by exploiting its


30. Statistically, such a situation exists when the mean outcome promises to be far higher than the median one.

31. This, of course, is precisely the kind of situation to which Judge Posner refers in the passage cited earlier. See Abraham, supra note 5.

need for immediate cash. Finally, they hope that new scientific evidence will over time weaken plaintiffs' causation claims, as has been the pattern with a number of mass torts including Agent Orange, Bendectin, breast implants, asbestos in buildings, and perhaps repetitive stress keyboard injuries. Defendants' optimal strategy, then, is to communicate an adamant unwillingness to settle, at least until they are "on the courthouse steps" where so many disputes are ultimately resolved.

Defendants' incentives often diverge from those of their outside counsel, who have traditionally billed their clients by the hour and thus tend to benefit financially from protracted litigation rather than early settlement. Many corporate clients, increasingly conscious of and concerned about these conflicts of interest and about their ability to monitor their lawyers effectively, have begun to adopt more stringent controls and more efficient incentives, including greater use of in-house counsel and alternative forms of compensation for their outside lawyers. Moreover, judges have devised techniques for circumventing the lawyers and communicating directly with the clients and their insurers—for example, inviting them to attend the trial and speaking to them in chambers about how they view the dispute. The parties' lawyers are sometimes present when these communications occur, sometimes not (although the court will almost surely inform them about what transpired).

For these reasons (and perhaps others), the well-known Priest-Klein model of litigation behavior, which predicts that the cases in which outcomes are most uncertain are precisely the ones most likely to go to trial rather than settle, seems inaccurate as a general account of mass tort litigation. The asymmetric incentives and the risk aversion exhibited by mass tort plaintiffs (and their lawyers) and by mass tort defendants evidently exert a powerful gravitational pull away from trials and toward settlement despite—or perhaps because of—the enormous legal, factual, and procedural uncertainties surrounding these

33. I do not mean to suggest that this financial self-interest is the only, or even the primary, motive animating defense lawyers, who are presumably as scrupulous about their duties toward their clients (and to the court) as any fiduciaries confronted with such conflicts.
cases. Many judges both exploit and magnify this incentive-driven tendency toward settlement.35

II. THE JUDICIAL MOTIVES FOR AVOIDING JURY TRIALS

In a sense, there is little to explain about judges' desires to avoid mass tort trials. They almost always seek to avoid trials, whether mass tort or not, by encouraging settlements, and their reasons for doing so apply at least as strongly to mass tort cases as to other kinds of litigation. I shall not enter into the largely academic debate over whether genuinely consensual settlements of large-scale litigation are socially desirable or whether—as my colleague Owen Fiss believes,36 and I do not37—the social interest in elaborating public values makes even consensual settlements undesirable. Suffice it to say that trial judges behave as if they were convinced that settlement in mass tort cases is generally not only desirable but imperative.

As I discuss below, recent decisions by the Supreme Court and the federal appellate courts limiting certain uses of some claims aggregation techniques, particularly litigation class actions,38 settlement class actions,39 and multi-district litigation ("MDL"),40 have complicated trial courts' efforts to settle mass tort litigation.41 In this section, then, I shall focus on the distinctive features of mass torts that reinforce this already powerful judicial inclination to settle such cases short of trial.

Beyond judges' concerns about the frequent irrationality and disparity of mass tort verdicts discussed above, the most important reason why they prefer to settle cases is their growing concern over lengthening court dockets.42 Naturally enough, judges wish to conserve their scarce trial time for those cases that simply cannot be settled. For this reason alone, they view with some alarm the prospect of

36. Owen M. Fiss, Against Settlement, 93 YALE L.J. 1073 (1984) (arguing that because consent is often coerced and bargaining is done without authority, settlement is a highly problematic technique for streamlining dockets, which often results in injustice).
37. Schuck, supra note 1, at 961.
41. I say "complicated" rather than "blocked" because while these decisions ostensibly make global settlements more difficult, the decisions may in other respects tend to encourage settlements, and it is not at all clear how settlement on balance will be affected.
trying any case that may take months or even years to try, consuming much of the court's administrative resources in the process as well. Obviously, this implies an even greater concern about mass tort litigation, which has particularly large docket-clogging implications. This motive to conserve resources increasingly coincides with a bureaucratic one. Mass torts began to strain judicial dockets during the late 1970s and early 1980s when asbestos claims proliferated, and they have accelerated ever since. At the same time a combination of appellate court superiors, legislative directives, and court administrators pressed judges to process and complete more cases more quickly. Congress institutionalized this pressure at the federal level by enacting the Civil Justice Reform Act of 1990, requiring the courts to develop procedures for expeditiously resolving cases. Mass torts were the 800-pound gorillas that demanded immediate attention, for they threatened to wreak havoc not only on court dockets but also on the judges' own performance ratings.

Mass tort litigation is also notoriously difficult to organize for trial. Jurors must be found who can serve through what may be a very protracted proceeding, which means that these jurors are often demographically atypical. Where multiple defendants are involved, as is often the case in mass torts, the sheer number of lawyers whose activities must be accommodated and coordinated can be daunting. Because of the many novel legal issues, opportunities for judicial error abound and interlocutory appeals can cause further delay and confusion. The economic stakes to lawyers in managing mass tort litigation are so high that the court must constantly supervise and control their famously aggressive conduct. In class or consolidated actions, choice of law issues and other differences among the plaintiffs concerning the level of their exposures and the timing and nature of their claims may necessitate the establishment of subclasses. Such differences also limit the court's ability to use collateral estoppel and issue preclusion to reduce the number of trials. In federal court diversity cases, judges must often apply unfamiliar and dynamic state tort doctrines. The prospect of bankruptcies, which have been common among mass tort litigants, can further complicate matters.

44. This is especially likely after the Supreme Court's decision in Amchem Products, 117 S. Ct. 2231, but it was true even before Amchem Products. See, e.g., In re Joint E. & S. Dist. Asbestos Litig., 982 F.2d 721, 739-45 (2d Cir. 1992).
45. Green, supra note 32, at 197.
46. This encourages them to render what Chief Judge Richard Posner has called a "kind of Esperanto instruction" to the jury. In re Rhone-Poulenc Rorer, Inc., 51 F.3d 1293, 1300 (7th Cir. 1995).
tort defendants, further complicate both the legal issues and the litigation process. Because massive documentation and complex scientific evidence are endemic in mass tort cases, courts must often appoint special masters to supervise their production. Other unusual measures are also necessary to enable the jurors to retrieve and comprehend the evidence.

Fairly early in the evolution of mass tort litigation, some controversial judicial decisions reinforced the willingness and authority of trial courts to avoid jury trials despite the existence of what many observers viewed as material issues of fact. In the Agent Orange opt-out cases, Judge Weinstein granted summary judgment for the defendants on the general causation issue despite the proffer by plaintiffs of testimony purporting to support their factual claims, a ruling that was affirmed by the Second Circuit on other grounds. Similarly, in several early Bendectin cases, appellate courts nipped the litigation in the bud by dismissing plaintiffs' general causation arguments as a matter of law. Such decisions were designed not only to facilitate the dismissal of existing claims but also to foreclose the flood of marginal or spurious new claims that often follow in the wake of class certifications, plaintiffs' verdicts, and favorable settlements. They surely emboldened subsequent courts to be more aggressive in preventing what they regarded as weak cases from proceeding to trial.

This judicial aggressiveness in policing doubtful claims was reinforced by the increasingly strident denunciations by a number of commentators of "junk science in the courtroom." These critiques became commonplace by 1990 and seemed only to increase the courts' skepticism about plaintiffs' scientific claims. Growing concerns about the quality of the scientific evidence that typically underlies mass tort cases surely help to explain the Supreme Court's recent insistence that


the trial courts function as more demanding gatekeepers in reviewing this evidence and that the appellate courts broadly defer to those gatekeeping decisions. These rulings tend to favor mass tort defendants.

III. THE TECHNIQUES OF JURY AVOIDANCE

Courts avoid jury trials in mass tort cases in two standard ways. They decide dispositive motions (i.e., motions to dismiss, for summary judgment, and for directed verdict) in favor of defendants, and they facilitate or approve negotiated settlements. (I know of no mass tort case in which plaintiffs chose a bench trial). The techniques through which they produce these outcomes, however, are more varied and to some extent overlapping. I shall briefly discuss four of them: forceful judicial management of litigation, exploitation of uncertainty, decisions on class action issues, and categorical exclusions of certain kinds of scientific evidence.

A. Judicial Management

In no area of litigation is managerial judging more obvious and central than in mass torts. Judges can shape the sequence and character of the discovery process in order to identify and focus certain issues that might be dispositive before trial, such as general causation, statute of limitations, or the government contractor defense. They can “polyfurcate” and sequence the trial so that certain issues will be resolved before others, which can confer on one party or another a tactical advantage that may help to induce settlement. Judges can also nudge the parties into settlement discussions by signaling how the court is inclined to decide crucial issues (e.g., choice of law, punitive damages, market share liability, insurer good faith), or by organizing the litigation so as to help clarify claims values at a relatively early stage through the use of representative plaintiffs, bellwether cases, mini-trials, or other forms of what Professor Robert Bone has called

54. The Supreme Court has pressed the lower courts to grant summary judgment more liberally, including in mass tort cases. See Celotex Corp. v. Catrett, 477 U.S. 317 (1986).
56. Schuck, supra note 1, at 956-58.
“statistical adjudication,” methods that lend themselves to extrapolating values from a small number of claims to a much larger set. In this way, one or a few early jury trials may obviate the need for others, even given the limited applicability of collateral estoppel in mass torts. By all accounts, however, the most effective way for judges to accelerate settlement discussions is to set an early trial date and then doggedly adhere to it, a tactic that sharply focuses the parties’ minds, clarifies their stakes, and makes lawyers’ delaying tactics both less credible and more costly.

Not surprisingly, mass torts have attracted a number of unusually strong-willed state and federal judges. Although mass torts are predominantly a state court phenomenon, certain federal trial judges—for example, Jack Weinstein, Robert Merhige, Tom Lambros, Sam Pointer, Carl Rubin, and Robert Parker—are the jurists most strongly associated with these disputes. These judges have dominated the field almost since its inception, often jockeying to gain control of the most challenging and notorious cases. Each of them has employed a broad range of managerial tactics in order to shape the litigation so as to discourage weak claims, avoid jury trials, and forge settlements.

The use of special masters in mass tort litigation must be viewed in this light. The enormous size and complexity of these cases impose substantial resource demands on the courts. Most trial judges have responded by appointing special masters who can provide them with procedural flexibility, multiple channels of communication with the parties, and other administrative resources that can be used to expedite the litigation, clarify issues and claim values, and facilitate settle-

59. Schuck, supra note 1, at 958-60.
60. See Green, supra note 32.
61. Judge Weinstein jolted the lawyers with an early trial date in the Agent Orange litigation, Schuck, supra note 6, at 113, 118-19, but its effects on settlement negotiations in all cases are well-understood by even novice trial judges.
62. The greater prominence of federal judges than their state court counterparts is by no means limited to mass tort litigation. However, it is regrettable and especially misleading in this area where most cases—more than two-thirds of the asbestos cases, for example—are litigated in the state courts, the administrative resources available to the state judges are invariably more limited, and the state law rules—on class actions and damages, for example—often differ significantly from the federal rules.
63. The judicial resources required by the Agent Orange litigation, the first of its kind, were staggering, Schuck, supra note 6, at 4-5, but it was ultimately litigated and settled largely as a single, consolidated case. Partly for this reason, the fragmented asbestos litigation has demanded far more of the courts. This was readily apparent early on. Report of the Judicial Conference Ad Hoc Committee on Asbestos Litigation (Mar. 1991).
ment negotiations. Indeed, Judge Weinstein actually used six special masters in the Agent Orange case, four or five of them simultaneously. Courts use special masters, among other things, to coordinate and manage discovery, investigate special facts relevant to a judge’s decision, mediate among the lawyers, broker settlement negotiations, determine attorneys’ fee awards and costs, and design and administer techniques to process and evaluate claims and to distribute settlement funds.

Artfully deploying their special masters, mass tort judges have sometimes used what might be called strong-arm tactics in order to pressure lawyers into reaching agreement in cases that might otherwise have gone to trial. This was apparently true, for example, of Judge Merhige in the Dalkon Shield litigation, Judge Weinstein in the Agent Orange case, and Judge Samuel Skinner in the Woburn toxic dump case.

B. Uncertainty

Even more than other areas of litigation, mass torts are pervaded by uncertainty. This uncertainty reflects a number of factors. A relatively new genre of litigation, it involves many novel and complex questions of fact, substantive law, procedure, remedies, evidence, insurance, legal ethics, and other diverse fields that are difficult for the courts and counsel to master and effectively integrate. As we have seen, the great variability in jury verdicts in mass tort cases compounds the other risks of proceeding to trial, while the prospect of uncontrollable transaction costs magnifies the uncertainty not only for the immediate parties and their lawyers but also for insurers, who have greater incentives to deny liability under existing policies when mass tort defendants demand that the carriers undertake their defense.

64. Brazil, supra note 48, at 396-97.
65. Schuck, supra note 6, at 5.
66. For example, special masters have sometimes been used to determine defendants’ solvency, which helped to guide the judges’ decisions about whether the preconditions for the use of a mandatory class action were satisfied. Marvin Frankel, a former federal judge, performed this function for Judge Weinstein in the asbestos litigation.
67. The most prominent practitioners of these arts are Francis McGovern and Kenneth Feinberg, who have performed as special masters in many of the leading mass tort litigations.
68. Sobol, supra note 14.
69. Schuck, supra note 6.
70. Harr, supra note 16.
71. Disputes between corporate defendants and their insurance carriers over liability coverage of mass tort claims have been common and protracted in the asbestos and silicone gel breast implant litigations, among others. Green, supra note 32, at 160.
The two most significant wild cards in mass torts, however, are punitive damages and future claims. Punitive damages, which vastly increase the stakes in the outcome and thus prod risk-averse parties—especially defendants—toward settlement, are possible in mass tort cases,\textsuperscript{72} if only because discovery may support an inference that defendants knew (or had reason to know) about the serious risks that they were creating for a large number of people, or even that they actively concealed these risks.\textsuperscript{73} Together with the law's inadequate guidance and constraint of the juries that may assess punitive damages, these factors magnify the unpredictability of outcomes and hence the attractiveness of settlements.

Still, it is easy to exaggerate the actual significance of punitive damages.\textsuperscript{74} In fact, they are only rarely imposed, and even then they are often reduced by trial judges or appellate courts. In the end, moreover, many punitive damage awards do not actually get paid. For this reason, courts sometimes sever the punitive damages portion of the case and defer it indefinitely, by which time the dispute may be settled or the punitive damages issue dropped. This does not mean that punitive damages are irrelevant, but only that they are bargaining chips that affect the settlement negotiations.\textsuperscript{75}

Future claims, which are of course far more common than punitive damages, introduce immense uncertainties. It is simply impossible for the parties, insurers, or the court to accurately predict how many future claims will be filed;\textsuperscript{76} the number of future claims has often exceeded the expectations of even the plaintiffs' lawyers.\textsuperscript{77} Because of the long and variable latency periods associated with many mass toxic torts, it is also hard to predict when the future claims will be filed, when the \textit{manifestation} of injury will transform those future claims into current claims for actual physical harms, and which harms those

\textsuperscript{72} Liability insurance policies usually do not cover punitive damages.
\textsuperscript{73} Such knowledge and concealment have been alleged in the tobacco, asbestos, and silicone gel breast implant litigations, among others.
\textsuperscript{74} See Special Issue: \textit{The Future of Punitive Damages}, 1998 Wis. L. Rev. 1.
\textsuperscript{75} This tendency may be increased by recent amendments to the Internal Revenue Code that make punitive damage awards in personal injury cases taxable to the recipient as income while compensatory damages are not taxable. I.R.C. § 104 (1998).
\textsuperscript{76} Judge Jack R. Weinstein suggested during his remarks entitled \textit{The Future of Class Actions in Mass Tort Cases: A Roundtable}, presented at Fordham Law School on September 25, 1997, that courts can use Rule 706(b) panels to help them estimate the parameters of future claims.
\textsuperscript{77} See Schuck, supra note 6, at 205-06. In the tobacco and breast implant litigations, this underestimation was so large that it helped to undo the original global settlements. In global settlements such as the one in the asbestos litigation invalidated in \textit{Amchem Products, Inc. v. Windsor}, 117 S. Ct. 2231, 2251 (1997), defendants therefore insist on provisions enabling them to opt-out in the event that the number of future claims exceeds certain levels. See Schuck, supra note 1, at 967-68.
transformed claims will allege. Such uncertainties are perhaps greatest in the tobacco litigation because unlike almost all other mass torts, cigarettes continue to be a legally sanctioned product. These claims, therefore, may be filed not only by those who have been exposed but are not yet manifesting illness; they may also be filed by those who have not even been exposed yet but who will be exposed in the future when they take up smoking.

The uncertainty surrounding future claims, however, is by no means limited to the issues of the number, timing, and nature of such claims. Predicting the strength, and hence the litigation value, of those claims is also problematic. As a practical matter, all that the parties can do is to extrapolate from current claims. This extrapolation, of course, assumes that the pattern of future claims will mimic that of current claims. For a number of reasons, however, future claims may be quite different. Changes may occur in exposure patterns, the law, the science, the known facts about defendants' conduct, claimant's expectations, and other litigation variables. If so, the decisions of juries will also change, thereby affecting the lawyers' expectations and settlement demands.

Judges in mass tort litigation have learned how to exploit these and other sources of uncertainty strategically in order to encourage settlements. By selectively deploying information and intimations about the risks to each party's position that a jury trial would present, and by making its own decisions tentative and contingent, the court can hope to bring the parties closer together. In these ways, it may succeed in using uncertainty, which some models of litigation view as an obstacle to settlement,\(^78\) as a goad to settlement. Although such strategic judicial behavior is not easy to document, I have shown how Judge Weinstein exhibited this pattern in fashioning a settlement in the Agent Orange litigation.\(^79\) There is every reason to believe that other judges, equally eager to avoid a long jury trial, behave similarly.

C. Class Actions

Trial courts have often certified mass tort cases as class actions.\(^80\) Even before *Amchen Products*,\(^81\) however, appellate courts as often

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vacated or significantly modified these certifications. In doing so, they reaffirmed the strong misgivings about personal injury class actions originally expressed by the framers of Rule 23, misgivings that the Supreme Court has now authoritatively embraced as doctrinal orthodoxy, at least in litigation as "sprawling" and heterogeneous as asbestos.

The eagerness of trial courts to certify class actions is not at all difficult to understand; it reflects the same reasons that incline them to avoid juries and settle cases. Class actions minimize the risk of inconsistent jury verdicts. They are easier to organize (and, if necessary, try) than a comparable number of claims litigated in individual actions. Perhaps most important, they are easier to settle than a multitude of individual cases because class actions can bring all current and future claims and all defendants before the court at one time and place. Only this kind of comprehensive or "global" class action can enable mass tort defendants to resolve these claims finally, completely, and (relatively) swiftly through dismissal, summary judgment, or settlement. It alone can secure for them the certainty and peace for which they seem willing to pay large premiums—even as to claims to which they believe they have strong defenses. In this respect, the parties often view the class action not merely as a desirable mechanism for settling mass tort claims, but as an indispensable one.

A trial court's jury avoidance strategy, then, is likely to center on certifying mass tort claims as class actions in order to facilitate a set-

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82. See, e.g., Richard Nagareda, In the Aftermath of the Mass Tort Class Action, 85 GEO. L.J. 295, 301-09 (1996) (noting that before Amchem Products that de-certifications had already been ordered in litigation involving tobacco, prosthetic devices, and blood products). For other de-certifications, see Freedman, supra note 80.

83. Amchem Prods., Inc., 117 S. Ct. at 2251-52. After Amchem Products, some federal trial courts took the initiative to de-certify classes that they had previously certified and to refuse to certify classes. See, e.g., Walker v. Liggett Group, Inc., 175 F.R.D. 226, 233 (S.D. W. Va. 1997); Georgene M. Vairo, Amchem Products, Inc. v. Windsor: Where Will the Mass Tort Class Actions Go?, N.Y. LITIGATOR, May 1998, at 6. Federal courts of appeals de-certified many of those that remained. Id. at 8 n.37. In the Ortiz case, now pending in the Supreme Court, the Fifth Circuit reaffirmed its class certification. In re Asbestos Litig., 134 F.3d 668 (5th Cir. 1998).


85. See supra note 6.

86. I use the qualifier "often" because a mass tort defendant's calculation of whether it would be better off defending in a class action (which of course can take a variety of quite different forms, even within a particular Rule 23 type) instead of in a large number of individual actions, or in some non-class form that aggregates claims, is a complicated one that depends on a variety of factors often cutting in different directions. The decision by a plaintiffs' lawyer as to whether to seek class certification, and if so in which form, is similarly complicated.
tlement that they will later help to fashion. Because this inclination is sure to survive Amchen Products, plaintiffs’ lawyers may simply decide to file their class actions in state courts instead. After all, some state jurisdictions are now more receptive to mass tort class actions than are the federal courts. State court actions, moreover, are likely to exhibit fewer problems of choice of law and heterogeneity than are federal courts. Finally, the Supreme Court’s decisions in Phillips Petroleum and Matsushita have accorded state courts considerable latitude under the Due Process and Full Faith and Credit clauses to adjudicate and settle class actions under their own rules.

Whichever system entertains a class action, trial courts often go beyond class certification to determine how the class action will be managed and hence who will be the key stakeholders and decisionmakers on the plaintiffs’ side. A judge’s power to design the structure of the plaintiffs’ management group and designate its membership significantly shapes the future course of a class action. Courts can exercise much greater influence over this group than it generally exerts over trial lawyers in non-class action cases. The courts’ enhanced influence arises both because class action judges usually assume a special trustee-like responsibility to monitor the lawyers’ performance on behalf of the class members (who at this stage are largely anonymous and even at later stages tend to be passive spectators), and because the judges ultimately determine the amount of the counsel fees and reimbursable costs, and their distribution among the plaintiffs’ lawyers.

Accordingly, the leading plaintiffs’ lawyers compete fiercely to persuade the court to appoint them to the management group whose members will eventually receive the great bulk of the fees. In selecting this group, the court must often choose between two types of lawyers who tend to differ both in temperament and in their patterns of

87. In the case of settlement class actions, of course, the settlement occurs simultaneously with the certification, not later. The viability of settlement class actions, however, has been called into question by the Amchen Products decision, at least in the circumstances presented there.

88. When Congress in 1995 amended the Securities Act, 15 U.S.C. § 77z-1 (1995), to impose a variety of new obstacles to maintaining securities class actions in the federal courts, the plaintiffs’ lawyers responded by filing their cases in state courts, where such limitations did not apply. As a result, Congress recently enacted legislation that seeks to overcome these strategies by imposing similar restrictions on such class actions in state courts. Securities Litigation Uniform Standards Act of 1998, Pub. L. No. 105-353, 112 Stat. 3227.


91. For a discussion of New York’s more conservative approach to class actions, see Friedman, supra note 80, at 14.
legal practice. Trial specialists are eager to conduct discovery and go before a jury to try the case if necessary. In contrast, class action specialists' main skills tend to lie elsewhere: in advertising to and assembling a class, maximizing its size, deciding on subclasses, designing effective class notice, supplying or obtaining the necessary financing, working with local counsel, spinning the media, and negotiating settlements with the defendants and their insurers. While courts often place members from both camps on the management committee, they seem to prefer the latter—in part, one supposes, because the court thinks that they are more likely to reach a settlement that can avoid a protracted jury trial, with all of its attendant costs and uncertainties for the parties, their lawyers, and the system.

If class actions are not, strictly speaking, a necessary condition of settlement of mass tort claims, the profusion of settlement class actions prior to Amchens Products nonetheless strongly suggests that both sides find them highly conducive to the negotiation and effectuation of settlements.92 This is especially true of asbestos and other mass tort litigation in which the claims' heterogeneity would otherwise generally preclude them from satisfying the commonality and certain other requirements of Rule 2393 and its state law counterparts. But what is perhaps more interesting and disturbing to the Supreme Court and some lower appellate courts,94 as well as to some commentators,95 is the possibility that class actions are sufficient to induce settlements because of the irresistible incentives that they create for both sides to avoid trial. Plaintiffs' lawyers may be under great pressure to compromise the interests of some members of the class in order to benefit other members—and themselves—through negotiated or court-awarded counsel fees.96 As we have seen, mass tort defendants who might be bankrupted by an adverse decision in the class action may have little choice but to settle, almost without regard to the claims' merits, precisely because they fear the pervasive uncertainty and the variability of jury decisions in such cases.97 For these reasons, as well as for the more conventional doctrinal reasons for doubting that Rule

92. Nagareda, supra note 82, at 309.
94. In re General Motors Corp. Pick-Up Truck Fuel Tank Prod. Liab. Litig., 55 F.3d 768, 784 (3d Cir. 1995); Nagareda, supra note 82, at 308.
96. See, e.g., Amchens Prods., Inc. v. Windsor, 117 S. Ct. 2231, 2251 (1997); Coffee, supra note 95, at 1384.
97. See In re Rhone-Poulenc Rorer, Inc., 51 F.3d 1293, 1299 (7th Cir. 1995).
23 applies to most mass toxic torts, some appellate courts have limited, and sometimes overruled, trial courts' determination to avoid jury trials through class action settlements.

D. Categorical Exclusions of Evidence

A fourth technique by which courts avoid jury trials in mass tort litigation is their growing willingness to exclude certain types of plaintiffs' evidence from reaching the jury under the Federal Rules of Evidence and in states that have adopted the gatekeeping approach required by the Supreme Court in Daubert v. Merrell Dow Pharmaceuticals, Inc.

The problem arises primarily in the case of claims in which the plaintiff complains of a "non-signature" disease like lung cancer that could have more than one possible cause. Such diseases characterize almost all mass tort injuries; the major apparent exceptions are asbestosis and mesothelioma, which seem unique to asbestos exposure, and the vaginal carcinoma that seems distinctive to DES exposure. In the more common instance of a non-signature injury, the courts have struggled to identify the appropriate scientific methodologies for assuring that any admissible evidence will be sufficiently reliable to support findings on the issues of general and specific causation. These struggles have produced some blanket exclusions of evidentiary categories, which can then justify courts in using directed verdicts or motions for summary judgment in favor of defendants in order to avoid jury trials.

The courts have taken a number of approaches to the question of admissibility on the issue of causation, particularly general causation. Sometimes flatly inconsistent, sometimes not, these approaches have the effect of establishing that some mass tort cases will not reach the jury because plaintiffs lack the kind of scientific evidence that can satisfy the court's categorical standards of admissibility in such cases. Most courts favor epidemiological evidence. Because it involves

98. See, e.g., Castano v. American Tobacco Co., 84 F.3d 734, 740-52 (5th Cir. 1996); In re American Med. Prods., 75 F.3d 1069, 1078-83 (6th Cir. 1996). In contrast, mass accident cases such as airline disasters or fires can more easily satisfy Rule 23's requirements.
99. See Amchem Prods., Inc., 117 S. Ct. at 2252; General Motors, 55 F.3d at 818-19; Nagareda, supra note 82. But see In re Asbestos Litig., 134 F.3d 668 (5th Cir. 1998).
101. In theory, a court in a mass tort case could grant a dispositive motion in favor of the plaintiff, but I am unaware of any such case. Even with a signature disease like mesothelioma, other issues such as product identification, adequate warning, or comparative fault are likely to remain for the jury to decide.
102. In order for the epidemiological evidence to be admissible, of course, it is not sufficient that the particular evidence be of the categorically favored type. In addition, it must satisfy the
human populations, it does not suffer from many of the well-known methodological limitations of animal studies, and unlike clinical evidence, which ordinarily cannot distinguish among the various possible causes of a non-signature disease, epidemiological evidence can (at least in principle) isolate the causal contributions of those possible causes by comparing the experiences of large, differentially exposed populations, subject to appropriate controls.

Some courts, such as Judge Weinstein in his decision granting defendants summary judgment in the Agent Orange opt-out cases, have ruled that only epidemiological evidence can prove causation in such cases, which effectively denies many plaintiffs access to a jury. In his view, “[a]ll the other data supplied by the parties rests on surmise and inapposite extrapolations from animal studies and industrial accidents” or on clinical evidence that, although identifying the patient's condition, could not demonstrate which of the possible causal agents was responsible for it. For the same reason, the appellate courts in the later, decisive stages of the Bendectin litigation also ruled for defendants, holding that only epidemiological evidence could prove general causation in such cases. More recently, some other courts have taken similar positions categorically excluding non-epidemiological evidence.

other judicial criteria of relevance, probity, and reliability that normally apply to such evidence. See, e.g., Hall v. Baxter Healthcare Corp., 947 F. Supp. 1387, 1398 (D. Or. 1996) (requiring epidemiological evidence, but also requiring, as courts typically do, that such evidence demonstrate at least a doubling of the background risk before it can be admitted to prove general causation under the conventional preponderance of the evidence standard); see Lopez v. Wyeth-Ayerst Labs, No. 97-15143, 1998 WL 81296, at *2 (9th Cir. 1998) (finding analytical gap between epidemiological and other studies and conclusions).

103. As is equally well known, of course, epidemiological studies suffer from their own distinctive limitations, especially the notorious difficulties of cost, of obtaining accurate exposure data, and of controlling for all of the variables other than exposure to the agent in question that might have affected the observed condition in the exposed population.


105. Id. at 1231. For a partial critique of Judge Weinstein’s approach to this issue, see Schuck, supra note 6, at 234-44.

106. Agent Orange, 611 F. Supp. at 1231-35.


On the other hand, some courts have seemed to reject this categorical evidentiary rule, admitting non-epidemiological evidence, at least in situations in which no epidemiological studies were
IV. Complexity Exception to the Right to Jury Trial?

The technical character of much contemporary litigation has led some commentators to call for the recognition of a complexity exception to the Seventh Amendment right to jury trial in certain types of civil cases in which ordinary lay jurors, selected in the customary manner, are deemed not competent to decide some of the factual issues presented to them. Although a number of courts have rejected this argument, one circuit court has suggested that such an exception may derive from the Due Process Clause, not the Seventh Amendment. The Supreme Court, however, has not accepted this suggestion. Were the Court to recognize such an exception, it could conceivably apply it to mass tort litigation, given the centrality of complex, controversial scientific evidence to the resolution of causation, market share liability, and other issues.

I do not propose to take any position here on the desirability, much less the constitutionality, of a complexity exception in general or on the appropriateness of applying this exception (were the Court to recognize one) to mass torts in particular. For now, I am agnostic on both questions. Nevertheless, I confess to a certain initial skepticism about the wisdom of such a reform, even before considering the implementing detail that might enable one to assess how such an exception would actually work in practice. At this point, I simply want to raise briefly some questions that ought be be asked (and hopefully answered) before one takes a position on the merits of this question.


110. E.g., SRI Int'l v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1117 (Fed. Cir. 1985); In re United States Fin. Sec. Litig., 609 F.2d 411, 424-31 (9th Cir. 1979).


112. The Court recently had an opportunity to do so in Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1389-92 (1996), a patent case, but the Court there did not discuss the complexity exception issue.
First, are mass toxic torts any more complex than many other kinds of litigation that are tried to juries? Antitrust litigation, for example, involves evidence concerning market definition, market shares, and a host of other highly technical questions of economic theory and effects on competition and prices. Securities litigation often involves a long chain of intricate commercial and financial transactions, comprehension of which requires immersion in arcane terminology, practices, and concepts. The same is true of some white collar crime prosecutions under RICO. Patent litigation is also technically demanding, as are medical malpractice cases and litigation involving engineering issues. In short, it is not at all clear that the kind of evidence with which juries must grapple in mass tort cases is any more daunting than the kinds of evidence presented in these other areas of litigation in which juries are routinely used.

Second, how does the growing corpus of empirical research on jury comprehension—much of it conducted by participants in this symposium—bear on this question? The type of litigation studied in this literature that seems most analogous to mass tort cases is probably medical malpractice, which often involves conflicting evidence by scientists, some of it quite technical and statistical. Work by Neil Vidmar, Valerie Hans, and other researchers, however, suggests a high degree of juror comprehension of the evidence in such cases. On the other hand, the evidence in malpractice cases may be more easily understood than in mass tort cases because jurors can often look to testimony on standard medical practice as a kind of benchmark against which the defendant’s conduct can be evaluated, whereas such benchmarks may be less readily available to prove product defect in mass tort cases. Even the scientific evidence bearing on causation may be more accessible in malpractice cases, as it too is likely to depend on clinical testimony of a more familiar kind.

A third question concerns the extent to which scientific evidence can be made more comprehensible to jurors through reforms in the trial process. Reformers have long recommended certain adjustments in traditional trial practice designed to facilitate juror comprehension, especially in long trials. Some of these proposed changes would permit jurors to take notes, bring them home with them, and put questions to the lawyers (through the judge). Others would allow the

113. See, e.g., id. at 1393-96 (discussing cognate issue).
judge to instruct the jury on general rules of law at the outset of the case and not just at the end, provide the instructions in writing, display documents in evidence on a computer screen or overhead that the jury can view and retrieve, and so forth. Studies are needed of the effects of such innovations on jury comprehension.

Fourth, can trial lawyers acquire—or do many of them already possess—the forensic skills to humanize and simplify even the most technical scientific evidence so as to make it intelligible to the lay juror? If so, special juries are unnecessary. After all, bringing evidence down to the jurors' level is preeminently the trial lawyer's job; it is what they are trained to do effectively. Some lawyers are better at this than others, of course, but that kind of skill inequality also affects many other aspects of lawyers' performance in all kinds of cases; it is not peculiar to the task of presenting complex evidence.

Finally, which fact-finder would replace the lay jury under a complexity exception for mass tort cases, how would it be selected, and would it be superior to the jury? These are difficult questions, especially since any new fact-finding institution will probably entail some characteristic disadvantages as well as advantages. Consider, for example, replacing the jury with a single judge who, although probably scientifically untrained, might be more sophisticated in the evaluation of expert testimony because the judge is more familiar with it. On the other hand, however, the variance around a "true" finding of fact is likely to be greater for a single judge than for a jury of twelve (or even six) individuals, whose biases would tend to balance and neutralize each other.\footnote{115.} By the same token, a blue-ribbon jury of technically trained experts, which some commentators have proposed,\footnote{116.} would surely exhibit their own kinds of "trained incapacities."\footnote{117.} I am not suggesting that no improvements over the lay jury as fact-finder in mass tort cases are possible,\footnote{118.} but only that assessing whether a particular change does indeed constitute an improvement may ultimately be as much a normative question (deciding which of the alternative sets of tradeoffs is best on balance) as it is an empirical one that "legal science" can answer.

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\footnote{115. For example, jury simulations indicate that the variability of outcome is greater among individual jurors than among juries as a whole. See Diamond et al., supra note 27.}


\footnote{118. See Hannaford et al., supra note 9, at 259-63.}