A Probabilistic Analysis of the Doctrine of Mutuality of Collateral Estoppel

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INTRODUCTION

Traditionally, the preclusive effect given a judgment has been limited by the doctrine of mutuality of collateral estoppel: A party to litigation may not invoke the benefits of a prior judgment to preclude an opponent unless that party would have been bound had the prior judgment gone the other way. 1 The mutuality doctrine has for

1. See Bigelow v. Old Dominion Copper, Mining & Smelting Co., 225 U.S. 111, 127 (1912); Keokuk & Western R.R. v. Missouri, 152 U.S. 301, 317 (1894); Restatement of Judgments § 93 (1942); Semmel, Collateral Estoppel, Mutuality and Joinder of Parties, 68 COLUM. L. REV. 1457, 1459 (1968).

The traditional rationale for the doctrine of mutuality is that a lawsuit is "a means of settling a dispute between litigants," Hornstein v. Kramer Bros. Freight Lines, 133 F.2d 143, 145 (3d Cir. 1943) (emphasis added), and that a party, in order to be bound, must have had his day in court, 1B MOORE'S FEDERAL PRACTICE ¶ 0.411[1], at 1252 (2d ed. 1974). While one against whom a judgment has been entered has certainly had his day in court against the adversary in that suit, he has not had the opportunity to be heard in opposition to a stranger to that litigation. See id. ¶ 0.412[1], at 1811.

Moore and Currier offer an alternative statement of the mutuality doctrine to the effect that "one who invokes the conclusive effect of a judgment must have been either a party or one
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some years been the subject of sustained and vigorous attack from

in privity with a party to the suit in which the judgment was rendered.” Moore & Currier,
Mutuality and Conclusiveness of Judgments, 35 Tul. L. Rev. 301, 302 (1961). In multi-party
situations, the mutuality doctrine does have the effect of denying the benefits of collateral
estoppel to one who was not previously a party or in privity with a party, but this is properly
attributable to the interaction between the requirements of due process and the mutuality doc­
trine, rather than to mutuality alone. In general, due process prevents a judgment from
binding one who was not a party to the suit in which it was rendered. See Hansberry v. Lee,
311 U.S. 32, 44-45 (1940). There is, however, no due process requirement as such that one
must have been a party in order to invoke the benefits of a prior judgment. This is the prov­
erving the distinction between who is bound and who is benefited), discussed in text at notes
158-65 infra; Polasky, Collateral Estoppel—Effects of Prior Litigation, 39 Iowa L. Rev. 217,

Combining the due process requirement (that one must be a party or in privity with a party
in order to be bound) with the mutuality requirement (that one must be bound in order to raise
an estoppel) leads readily to the “identity of parties” rule. While the “identity of parties”
statement of mutuality leads to a proper result in most cases, it is not a precise statement of
the rule and tends to hinder analysis. Consider the preclusive effect given a criminal judgment in
a related civil action, Moore & Currier, supra at 302 n.1. An acquittal in a criminal trial does
not bar the state in a later civil suit because of the extraordinary burden of persuasion required
492-94 (1950). Yet, for much the same reason, a conviction may be conclusive against the
defendant in the subsequent civil suit brought by the government. Local 167, International
Bhd. of Teamsters v. United States, 291 U.S. 293, 298 (1934). Under these circumstances,
Moore and Currier note, the “identity of parties” test is met but the requirement of true mutu­
ality is not, since the state can invoke the benefits of the criminal conviction in subsequent civil
litigation although it would not have been bound had the judgment gone the other way.

Writers on the subject tend to be insensitive to the distinction between the “identity of
parties” test and the “would have been bound” requirement of mutuality: Moore and Currier,
for example, state that “[t]he doctrine of privity qualifies both the requirement of identity of
parties bound and the requirement of mutuality.” Moore & Currier, supra at 330. While the
decision of privity may make the requirement of identity of parties (or more precisely the due
process requirement that a court obtain personal jurisdiction over those whose rights are to be
adjudicated) easier to meet, it in no sense affects the mutuality doctrine—a privy meets the
mutuality requirement simply because he is, or would have been, bound by the prior judg­
ment.

Another writer has claimed that a case involving in rem jurisdiction constitutes an excep­
tion to mutuality since judgments in rem “are binding and conclusive, not only upon the par­
ties actually litigating in the cause, but upon all others.” von Moschzisker, Res Judicata, 38
Yale L.J. 299, 304 n.15 (1929) (citing 1 S. Greenleaf, Evidence § 525 (10th ed. 1894)).
Obviously, in rem jurisdiction is not subject to the limitations of in personam jurisdiction, but
it creates no exception to the doctrine of mutuality. If a litigant may plead a judgment in rem
to which he was not a party, it is only because he too would have been similarly bound had it
gone the other way.

A few examples illustrating the doctrine of mutuality may prove helpful:
A woman is injured in a car accident and successfully establishes the negligence of the
driver. Her husband cannot avail himself of the favorable judgment in a subsequent suit for
loss of consortium. Neither a party nor a privy to the prior action, he could not have been

Thirty manufacturers employ an identical process to manufacture semiconductors. The
holder of the patent on the process brings suit against one of them, but the patent is held
invalid. If the mutuality requirement is observed, he will not be precluded from relitigating
the validity of the patent in a subsequent suit against other producers. Triplett v. Lowell, 297
U.S. 638 (1936), overruled in Blonder-Tongue Laboratories, Inc. v. University of Illinois
Foundation, 402 U.S. 313 (1971) (rejecting mutuality on similar facts in order to preclude the paten­
tee from relitigating).

An adverse possessor successfully sues to quiet title to the land he holds. A trespasser can
both courts\(^2\) and commentators.\(^3\) The leading case advocating abandonment of mutuality is *Bernhard v. Bank of America National Savings & Trust Association*\(^4\) (so much so that the abandonment of the mutuality requirement is often referred to as the *Bernhard* doctrine).\(^5\) Though the case might easily have been brought within one of the established exceptions to the mutuality doctrine,\(^6\) Justice Tray-

plead the in rem judgment in a suit brought by the former landowner although he was not a party to the quiet title action because he too is bound. He is liable to the new owner. \textit{Cf.} *Gelston v. Hoyt*, 16 U.S. (3 Wheat.) 246 (1818) (forfeiture of ship to customs agent precluded by prior acquittal even though customs agent was not a party to the prior suit).


4. 19 Cal. 2d 807, 122 P.2d 892 (1942). In *Bernhard*, Clara Sather authorized Charles Cook to issue drafts against her Los Angeles bank account. Cook opened an account on her behalf with the Bank of America in San Dimas. Upon Clara's death, Cook was appointed executor of her estate and failed to account for the San Dimas monies. The beneficiaries, including Helen Bernhard, filed objections, but the probate court held that Clara had made a gift of the funds to Cook.

5. 19 Cal. 2d at 809-10, 122 P.2d at 893-94.

On appeal from a judgment favorable to the bank, the California Supreme Court, in an opinion written by Justice Traynor, held that the matter was res judicata. 19 Cal. 2d at 812-14, 122 P.2d at 895-96. Bernhard, having litigated and lost the gift question in the probate court, was estopped to relitigate against the bank even though the bank had not been a party to the probate proceedings and would not have been bound had the judgment of the probate court gone the other way.


6. Had Bernhard been successful in her suit against the bank, it has usually been assumed that the bank would have had an indemnity claim against Cook and that the case could therefore have been decided under the long-established indemnity exception to mutuality. \textit{See text at notes 125-51 infra}. Indeed, *Bernhard* was so explained by a lower court in California. *In re Miller's Estate*, 104 Cal. App. 2d 16-17, 230 P.2d 667, 677-78 (1951).

One commentator, however, has noted that the bank's claim against Cook would more likely have been for unjust enrichment or as subrogee to the rights of the estate. Greenebaum, *In Defense of the Doctrine of Mutuality of Estoppel*, 45 IND. L.J. 1, 5 (1969). The difference is inconsequential, however, because the "indemnity" exception to mutuality, though commonly arising in indemnity cases, is invoked to prevent any single party from suffering inconsistent liability. If Bernhard had not been precluded, then either the bank would have been left without recourse to Cook, or Cook would have been denied the benefits of his previous successful defense. \textit{See text at notes 130-33 infra}. 

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\(^1\) See *Michigan Law Review*.

\(^2\) *Michigan Law Review*.

\(^3\) *Michigan Law Review*.

\(^4\) *Michigan Law Review*.

\(^5\) *Michigan Law Review*.

\(^6\) *Michigan Law Review*. 

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\(^{125}\) *Michigan Law Review*.

\(^{126}\) *Michigan Law Review*.

\(^{127}\) *Michigan Law Review*.

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\(^{129}\) *Michigan Law Review*.

\(^{130}\) *Michigan Law Review*.

\(^{131}\) *Michigan Law Review*.

\(^{132}\) *Michigan Law Review*.

\(^{133}\) *Michigan Law Review*.
nor, writing for the California Supreme Court, seized upon Bernhard to “extirpate the mutuality requirement and put it to the torch.” In place of mutuality, he substituted three criteria to be satisfied before a plea of res judicata precludes relitigation of an issue:

Was the issue decided in the prior adjudication identical with the one presented in the action in question? Was there a final judgment on the merits? Was the party against whom the plea is asserted a party or in privity with a party to the prior adjudication?

When a doctrine of long standing is overturned, courts attempt either to explain the judicial error to which the old rule can be attributed or to identify those changes in circumstance that have rendered it obsolete. This rigorous continuity of thought protects against judicial excess and shortsightedness. Indeed, if the courts cannot articulate the basis for the departure from precedent, there is little reason to believe that the new rule is any sounder than the old.

In the case of mutuality, the analysis has been weak at best. Justice Traynor in Bernhard cursorily dismissed the mutuality doctrine. The cases since Bernhard have done little better, generally being satisfied to cite Bernhard or other more recent cases adopting Bernhard that, like it, actually fall within the traditional exceptions to the mutuality requirement. Certainly the courts have been moved to

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8. 19 Cal. 2d at 813, 122 P.2d at 895 (emphasis added).
9. There is no compelling reason . . . for requiring that the party asserting the plea of res judicata must have been a party, or in privity with a party, to the earlier litigation.
   No satisfactory rationalization has been advanced for the requirement of mutuality. Just why a party who was not bound by a previous action should be precluded from asserting it as res judicata against a party who was bound by it is difficult to comprehend. 19 Cal. 2d at 812, 122 P.2d at 894-95.
   Semmel cites this passage with approval, Semmel, supra note 1, at 1464, as does Currie, 9 STAN. L. REV. 281, supra note 3, at 283. Their sentiments are echoed by Polasky’s plaintive question:
   Accepting the proposition that successive suits involving the same “ultimate issue” should not lead to differing results and that there should be an end to litigation of an issue, what reason other than a sterile prating of the requirement of mutuality, prevents the operation of collateral estoppel as so limited [by the requirement that it not be employed against one not previously a party]? Polasky, supra note 1, at 246. Judge Friendly noted in Zdanok v. Glidden Co., 327 F.2d 944 (2d Cir.), cert. denied, 377 U.S. 934 (1964), that Bentham had attacked the doctrine “as destitute of any semblance of reason” a century earlier. 327 F.2d at 954, quoted with approval in Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation, 402 U.S. 313, 323 (1971).
abandon mutuality at least partly by the embarrassment of obviously inconsistent findings made possible by more than one trial of the same issue. But the primary motivation has been a concern for judicial economy offset by no perceived reason for maintaining mutuality. In the absence of any apparent justification for mutuality, critics have attributed the requirement to vague notions of equality and justice, an overzealous devotion to formal symmetry rather than to substantial justice, and, as Jeremy Bentham suggested, the importation to the bench of notions appropriate only to the “gaming-table.” At best, the critics concede that the mutuality doctrine


11. “[I]nconsistent results . . . are always a blemish on a judicial system . . . . [I]t is difficult to tolerate a condition where, on relatively the same set of facts, one fact-finder, be it a court or jury, may hold the driver liable, while the other exonerates him.” Schwartz v. Public Admr., 24 N.Y.2d 65, 74, 246 N.E.2d 725, 730-31, 298 N.Y.S. 2d 955, 962 (1969), quoted in Greenebaum, supra note 6, at 12. Greenebaum responds that while “[i]nconsistent results may be embarrassing to a degree . . . . it is much more disastrous to pretend to an infallibility which does not exist . . . .” Id. at 14. Additionally, he notes that even when mutuality is abandoned so that future judgments against the party facing multiple opponents can be forced into conformity, “if the common party [has] been fortunate enough to prevail on the critical issue in the prior judgment, the law permits him to be subjected to inconsistent results.” Id. at 12.

12. Part of the motivation for the abandonment of mutuality may come from the fact that common parties are more often than not large corporations. It serves, therefore, as sub rosa strict liability. There are certainly good arguments to be made for holding a railroad or airline strictly liable for injuries to passengers. But a strict liability theory applied so haphazardly has little to commend it. That an accident involves multiple claimants is hardly a sound reason for shifting from a negligence theory to a strict liability theory, and to do so only in part, by reducing the common party’s chances of success rather than holding him strictly liable outright, is just as arbitrary.


14. The finding of no negligence on the other hand was made after full opportunity to [plaintiff], on his own election to prove the very matter which he now urges a second time. Thus, no unfairness results here from estoppel which is not mutual. In reality the argument of [plaintiff] is merely that the application of res judicata in this case makes the law asymmetrical. But the achievement of substantial justice rather than symmetry is the measure of the fairness of the rules of res judicata.

15. Another curious rule is, that, as a judgment is not evidence against a stranger, the contrary judgment shall not be evidence for him. If the rule itself is a curious one, the reason given for it is still more so:—“Nobody can take benefit by a verdict, who had not been prejudiced by it, had it gone contrary:” a maxim which one would suppose to have found its way from the gaming-table to the bench. If a party be benefited by one throw of the dice, he will, if the rules of fair play are observed, be prejudiced by another: but that the consequence should hold when applied to justice, is not equally clear. This rule of mutuality is destitute of even that semblance of reason, which there is for the rule concerning res inter alias acta. There is reason for saying that a man shall not lose his cause in consequence of the verdict given in a former proceeding to which he was not a party; but there is no reason whatever for saying that he shall not lose his cause in conse-
may, on occasion, achieve some desirable results, almost as if by accident.16 Ultimately, the arguments against the mutuality doctrine amount to little more than a single rhetorical question: Why, other than the "sterile prating of the requirement of mutuality,"17 should a party who has had a "full and fair opportunity to litigate"18 be permitted to reopen a question once decided merely because he has found, or been found by, a new adversary?19

If the mutuality critics are correct that there is no fundamental policy embodied in the mutuality requirement, the resources conserved by avoiding repetitious litigation provide ample justification for its abandonment. But, the mutuality requirement has had defenders.20 In general, they have deplored the fetish for economy

16. There was no virtue in the requirement as such. It was a vague, unanalyzed generalization, conceived, no doubt, in response to felt injustices or anomalies in certain situations, but conceived with a sprawling generality unjustified by those situations. In operation it produced, almost fortuitously, some results which were sound for quite different reasons. When we cast out the requirement, we must take care not to overturn those sound results, but to seek out and preserve the sound reasons for them . . . . The fate of the mutuality rule as applied to collateral estoppel is the same as its fate in other fields of law: as a principle of justice it has been shown to be a tinkling cymbal, an empty and fatuous formula productive of more harm than good. But in operation it encompassed some sound results. Identification of those results and the sound reasons for them is the task of more discriminating legal analysis.

17. Polasky, supra note 1, at 246.


20. See, e.g., 1B Moore's Federal Practice § 0.412[1] (2d ed. 1974); Greenebaum, supra note 6; Moore & Currier, supra note 1; von Moschzisker, supra note 1.

Ironically, some of the most eloquent and persuasive arguments on behalf of mutuality are found in Currie, 9 STAN. L. REV. 281, supra note 3. Although Professor Currie professed to "have come, like the California Supreme Court, to bury the requirement, not to praise it," id. at 322, he sought to distinguish a few exceptional cases in which the doctrine had "inadvertently" achieved some desirable results. See the passage quoted in note 16 supra. He ulti-
that exalts conservation of judicial resources over the judicial system's very ends. But the Bernhard doctrine continues to gain adherents, partly, perhaps, because the defenders of mutuality have been unable to articulate clearly its central theme. It is the thesis of this Note that the function of the mutuality requirement is the fair allocation of litigation risks. Although other commentators have recognized that the abandonment of mutuality alters litigation risks, they have not attached enough weight to this fact to conclude that it warrants the retention of mutuality. Section 88 of the Second Restatement of Judgments, for example, treats the results dictated by the Bernhard doctrine as presumptively correct, to be rejected if required by the consideration of a number of factors, only one of which is the distribution of litigation risks. This Note concludes that mutuality is qualitatively different from the other Restatement factors. Mutuality is the equitable norm for the distribution of litigation risks. The other factors in section 88, far from justifying departures from mutuality when they are weak or bolstering the claims of mutuality when they are strong, are considerations that should lead us to deny preclusive effect even where mutuality is satisfied. But mutuality remains the sine qua non of an equitable result. In short, the Bernhard doctrine, in the interest of judicial economy, clearly retreats from a commitment to substantive justice.

Perhaps more significantly (at least to the judicial economists), the dollars saved by the Bernhard doctrine are purchased at the price of a real although previously unnoted degradation of the other product of judicial enterprise—deterrence. If the sanctions which the law imposes are to effectuate the substantive policies which justify their invocation, the imposition of the sanction must be seen to follow from the prohibited conduct. If sanctions are seen as randomly imposed they lose all deterrent effect. The Bernhard doctrine weakens this crucial link between the theory of liability and the sanction by

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21. Admittedly, . . . the unadorned public interest . . . will be immediately served to the extent that adjudicated issues will not be subject to relitigation. . . . But the doctrine of judicial finality is not a catch-penny contrivance to dispose of cases merely for the sake of disposition . . . . The real issue is whether the method of minimization is a proper one. Moore & Currier, supra note 1, at 308.

For a discussion of the other arguments against the abandonment of the mutuality doctrine, see Appendix A infra.

interjecting an irrelevant and capricious criterion for decision—the number of litigants on a given side of a question.

Using probability theory as an aid to analysis, this Note will demonstrate that the mutuality doctrine is designed to allocate trial risks in a manner consistent with the burden of persuasion in civil litigation. Thus, the abandonment of mutuality strikes at the heart of the trial process. Where a single party (hereinafter the “common party”)

Part I of this Note lays the foundation for the conclusions suggested above by setting forth some elementary probabilistic notions and establishing a measure of trial efficacy. The next part reviews some of the early suggested limitations on the application of *Bernhard* and, by analyzing the mutuality requirement and the *Bernhard* doctrine in probabilistic terms, demonstrates that the concerns underlying those initial reservations were not only sound, but require rejection of *Bernhard*.

Although the primary purpose of this Note is to expose the flawed analysis underlying *Bernhard*, a secondary purpose is to demonstrate how probability theory can be applied to situations in which the mutuality issue arises. Thus, substantial attention is given in Part III to the application of probability theory to one of the classic exceptions to the mutuality requirement that has been cited as precedent for the *Bernhard* doctrine. This analysis establishes that mutuality is entirely consistent with its traditional exceptions and that these exceptions can be viewed as precedent for *Bernhard* only when analyzed with the same misplaced emphasis on outcome, rather than risk allocation, that initially led to the *Bernhard* doctrine. Finally, an examination of a recent decision purporting to adopt *Bernhard* illustrates how analysis without explicit attention to risk allocation persistently generates inappropriate rules of preclusion in multiple litigation.

23. This follows terminology suggested by Greenebaum, *supra* note 6.
I. Elementary Probability Theory and a Measure of Trial Efficacy

A. Probability Theory and the Burden of Persuasion in Civil Litigation

This section will introduce some elementary notions of probability theory that relate to fact determination in civil litigation. These notions, together with a measure of trial efficacy that will be derived from them, will subsequently provide a basis upon which to evaluate the effects of the mutuality requirement and of the Bernhard doctrine on trial risks and the burden of persuasion in civil litigation.

Probability theory provides a method by which uncertainty can be quantified. It is thereby possible to devise a rational strategy for minimizing total costs over the long term that takes into account the absence of complete knowledge. Additionally, the quantification of uncertainty makes it possible to manipulate information algebraically and to extract relationships which are not readily apparent but which are nevertheless implicit in that information.

The only assumption that must be made in order to establish the utility of probability theory is that past experience is the best available predictor of future experience. Suppose, for example, that \( B \) represents the class of cases in which the lord of the manor was slain and the identity of the murderer is known. The subclass of those cases in which the butler was determined with absolute certainty to have done it is represented by \( A \). If there are \( m \) cases in class \( B \) and \( n \) cases in class \( A \), then the ratio of \( n/m \) represents the probability that a case will be in \( A \) given the knowledge that the case is in \( B \), abbreviated \( P(A|B) \). Since \( n \) cannot exceed \( m \), the ratio, expressed in decimal terms, will always be a number between 0 and 1. In the hypothetical, \( P(A|B) \) represents the probability that the slayer of the lord would be determined to be the butler.

24. For a leading work on decision analysis, see H. Raiffa, Decision Analysis—Introductory Lectures on Choices Under Uncertainty (1970).
27. The hypothetical is extremely simple. It assumes the absence of a trend over time and of feedback; that is, it ignores the possibility that butlers, knowing that they are prime suspects, will be less likely to murder masters. That would be additional evidence for the trier of fact that would modify the probability. The hypothetical, however, assumes that literally only one relevant fact is known: in \( n \) of the \( m \) murders previously committed, the butler did it.

The hypothetical also assumes an “extra-judicial” mode of determination that would make it possible to identify with certainty the culprit in prior master murder cases. In real life, of course, this is almost never the case.
Now, assuming that past experience is the best available predictor of future experience in such cases, a decision-making strategy can be developed based on $P(A|B)$. When confronted with another class of lord-of-the-manor slayings, $B_1$, about which membership in $A_1$, the subclass of cases where the butler did it, is unknown, the best guess about the number of cases in which the butler would be determined to have committed the crime is the number (or the nearest whole number thereto) that bears the same ratio to the total number of elements of $B_1$ as $n$ does to $m$, the total number of elements of $B$. It is the best guess because that relationship between the incidence of membership in $B$ and the incidence of membership in $A$ has always been the case in the past. In reality the ratio will often not be the same. Based on past experience, however, it is the best guess.

If the object when deciding new lord-of-the-manor cases is to minimize the total number of errors, and all that is known are $P(A|B)$ and the fact that the lord was slain, then applying past experience and the best-guess rule to a murder about which membership in $A$ is unknown, we should guess that the new case is in $A$, and thus that the butler did it, when the probability of $A$ given $B$ exceeds .5. When the probability of $A$ is less than .5, the best guess is that the butler did not do it. When $P(A|B) = .5$, then the fact that the case is in class $B$ does not tell us anything about whether it is also in class $A$, and there is no best guess.

Under some circumstances, after a guess has been made, the actual outcome of a previously uncertain event will become known. This process, in turn, adds to our experience and may alter the probability with respect to some as yet undetermined matter. However, the fact that a given matter is susceptible to determination while another is not has no bearing on the optimal guessing strategy while the matter remains uncertain. The best guess is still that which brings to bear our past experience.

This discussion of rational decision-making is not meant to suggest that determining the best guess is not extremely difficult and complex. Unlike those used in the lord-of-the-manor hypothetical, most probabilities cannot be determined merely by counting known outcomes of past events, because, for example, membership in $B$ is itself uncertain or is only one of a myriad of facts that are known.

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28. Of course, the goal of rational decision-making may not always be solely to minimize the total number of errors. See text at note 29 infra.
Rather, a single value for the probability is often no more than a subjective estimate. The principle behind the best-guess rule remains the same, however, and for purposes of later analysis, it is the principle that is important. No matter how flawed the analysis of the probabilities may be, if the goal is to minimize the number of errors (or the likelihood of error), clearly the most rational course in a single case is to pick the outcome deemed most likely to be correct.

The problem of decision making is complicated, however, by the fact that we are not always attempting to minimize the total number of errors. An alternative strategy for rational decision making is required where, for example, the decision maker considers a verdict for one party more undesirable than a verdict for the other party. The analysis in such cases is facilitated by “weighting” all possible outcomes according to their respective costs. Consider, for example, the burden of persuasion in criminal cases. An erroneous conviction in such cases is deemed more undesirable than an erroneous acquittal. Because we want to minimize the cost of decisions, that is to minimize the “expected average disutility,” and not merely to reduce the number of errors, the criminal burden of persuasion does not reflect an error-minimizing strategy.

In contrast, the burden of persuasion in civil litigation embodies a strategy designed to minimize the number of erroneous verdicts. This is entirely consistent with the criminal burden of persuasion. Whether the relief sought is compensatory or equitable, civil litigation is essentially a matter of loss shifting. A loss has been or will be incurred; the question is simply who should bear it. Absent some peculiar and cognizable virtue inhering in one of the parties, there is no reason to prefer an error in one direction over an error in the other. Consequently, the preponderance-of-the-evidence test instructs the factfinder to follow the error-minimizing strategy to choose the verdict most likely to be the truth. When there is no

31. The correctness of this conclusion can be demonstrated with the aid of the “disutility matrix” illustrated below. (While customarily called a “utility matrix” in decision theory, the term “disutility” is used here since some disutility is associated with the nonzero cells. It is also often referred to as a “regret” matrix. See Lempert, supra note 29, at 1032 & n.36.)
best guess, i.e., when the probability of a verdict in either direction is .5, we have a per se rule that the verdict is to be rendered on behalf of the defendant. 32 The burden of persuasion is thus not merely a rule of convenience to be discarded or modified lightly. It embodies

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</tbody>
</table>

The entries represent the disutility associated with each verdict given the possible actual state of affairs. To calculate the “expected average disutility” associated with a particular decision, we define p_1 as the probability that the actual state of affairs dictates a verdict for plaintiff and p_2 as the probability that a verdict for defendant is required. Then e_1 and e_2, the expected average disutility of a verdict for plaintiff and of a verdict for defendant, respectively, can be defined by the following equations:

\[
e_1 = d_{11}p_1 + d_{12}p_2
\]

\[
e_2 = d_{21}p_1 + d_{22}p_2
\]

If it is assumed that no disutility is associated with a correct verdict and that the two possible erroneous verdicts are equally undesirable, then d_{11} = d_{22} = 0 and d_{12} = d_{21} = 1. (The value 1 is chosen for the disutility of an erroneous verdict for ease of calculation and without loss of generality since the relative value of disutility, not the absolute value, is all that is important.) The disutility matrix under this assumption is:

\[
\begin{pmatrix}
0 & 1 \\
1 & 0
\end{pmatrix}
\]

Evaluating the expected average disutility for this matrix yields

\[
e_1 = 0p_1 + 1p_2 = p_2
\]

\[
e_2 = 1p_1 + 0p_2 = p_1
\]

The expected average disutility is minimized by choosing the verdict with the lowest expected average disutility. Since the only possibilities for the actual state of affairs are that plaintiff should prevail (p_1) or that defendant should prevail (p_2), p_1 + p_2 = 1. Consequently, e_1 will be less than e_2, dictating a verdict for plaintiff, only when p_1 is greater than p_2, i.e., when p_1 is greater than .5. The result is intuitively obvious. When the cost of an error in one direction is equal to the cost of an error in the other direction and a correct decision is costless, the strategy for minimizing total cost is to pick the outcome most likely to be correct, that is, to minimize the total number of errors. This is reflected in civil litigation by the requirement of a verdict for plaintiff when he has met the burden of persuasion, or in other words, when he has convinced the trier of fact that it is more likely than not that he is correct. See McBaine; Simon & Mahan; Winter, supra note 30.

At the same time, a strategy designed to minimize the total number of errors reveals something about the values of d: the expected average disutilities are equal when the probability that either party should prevail is .5. If nothing else were known about the values of d, this strategy would reveal that d_{11} + d_{12} = d_{21} + d_{22}. If it is assumed that there is no disutility associated with a correct verdict so that d_{11} = d_{22} = 0, then the strategy implies that an erroneous verdict on behalf of one party is no more or less desirable than an erroneous judgment on behalf of the other, i.e., that d_{12} = d_{22}.

For an application of the disutility matrix to a criminal trial, where d_{12} = d_{21}, see Lempert, supra note 29, at 1038. The so-called error minimizing strategy is merely a special case of the more general program of minimizing costs in which the point of decision is a probability of .5.

32. It is important not to overestimate the strength of the claim that civil litigation functions with a
the fundamental assumption of civil litigation that, without regard to the merits, neither party is the more deserving of a favorable judgment.

The error minimizing strategy illustrates the utility of probability theory in relating knowledge about the true state of affairs and costs in a manner that permits rational decision-making in civil litigation in the face of uncertainty. Probability theory is also useful in relating various pieces of information whose relationship is not readily apparent. This is accomplished with the aid of the calculus of probabilities, a set of rules that describes how unknown probabilities can be calculated from known probabilities. The most useful of these rules for present purposes are the rule for calculating compound probabilities for independent events and Bayes' Theorem.

Events are independent if the outcome of one trial does not affect the probability of a given outcome in a succeeding trial. The classic example is dice-throwing, where the outcome of one roll does not affect the outcome of succeeding rolls. The rule for calculating the probability of two independent events, A and B, both occurring, given the occurrence of a third event, C, is

\[
\Pr(A \cap B | C) = \Pr(A | C) \times \Pr(B | C)
\]

disutility matrix. Arguably, one of the purposes of the jury system is to obtain community opinion on the relative disutilities, which can be expected to equal D only infrequently. But we instruct juries in terms that reflect disutility matrix D. For example, we generally do not instruct juries that they are permitted to place their own valuation on the possible outcomes. Nor do we inform them of the existence of insurance. This policy is exquisitely expressed in criminal litigation when we refuse to instruct juries about the possibility of jury nullification.

Moreover, the disutility should be equal to D for the abstract case. If we are rational decision-makers, and if there is no reason to prefer plaintiffs over defendants or vice versa as a general matter, then, without knowing anything else about the individual case other than that it is a civil case, the disutility matrix should equal D.

Another way to state the preceding argument is that, to the extent we do not want to function with a disutility matrix D, the task of assigning values to the possible outcomes belongs to a jury studiously instructed that it is bound not to do so. Because the rule of law called the Bernhard doctrine assigns those values in a way which, from the perspective of juries as a whole, is chaotic and irrational, it is inconsistent with the burden of persuasion in the operational sense.

There is still another qualification to the assertion that the burden of persuasion is the embodiment of disutility matrix D. This Note carefully avoids the use of the term burden of proof in order to maintain the distinction between the burden of production and the burden of persuasion. But verdicts are probably directed in a fashion that cannot be fully explained by the burden of persuasion. That is, verdicts will be directed because a party has failed to meet his or her burden of production even though a reasonable juror could find for that party on the existing evidence and a rational view of the likelihood of historical events in light of that evidence. In this way, the verdict is employed not merely to shift losses on the basis of findings of historical fact, but also to secure the sort of evidence on which we want to base verdicts. That the burden of proof has this dual aspect in no way alters the strength of the claims made in this Note with respect to the burden of persuasion. Further, the Bernhard doctrine has no function with respect to the burden of production.
Bayes' Theorem provides a method for determining how new information alters existing probabilities. Assume that I is the initial known state of affairs, E is some piece of evidence or additional knowledge, and S is the event in whose occurrence or nonoccurrence we are interested. If P(E & I|S) = P(E|S) • P(I|S) and P(S & I|E) = P(S|E) • P(I|E), that is, if I is independent of E and of S, then it follows from Bayes' Theorem that:

$$P(S|E) = \frac{P(E|S) \cdot P(S|I)}{P(E|I)}$$

Equation 2

These two rules for deriving unknown probabilities from known probabilities will be used in the next subsection to derive a measure for the efficacy of the trial process. Ultimately, this standard will be applied to civil litigation under Bernhard and under the mutuality doctrine to support the conclusion that the Bernhard doctrine is unsound.

B. A Measure of Trial Efficacy

Thus far this Note has shown that the error minimizing strategy is basic to the fundamental values underlying civil litigation. This subsection will demonstrate that in light of that strategy the most rational disposition of a given case is the one that would be in accord with the majority view if the case were tried indefinitely. It will also show that the standard of accordance with the majority also provides a useful measure of trial efficacy. Constructing such a measure is

Thus, P(S|E) = \frac{P(E|S) \cdot P(S)}{P(E)} Since I is independent of S and E, P(I|S) = P(I|E).

Therefore:

$$P(S|E) = \frac{P(E|S) \cdot P(I|S) \cdot P(S)}{P(I|E) \cdot P(E)}$$

$$= \frac{P(I|E) \cdot P(E)}{P(I)}$$

$$= \frac{P(E|S) \cdot P(S|I)}{P(E|I)}$$
critical, because a trial is a striking example of a situation in which the accuracy of the guess or outcome cannot be determined after the fact.

Professor Brainerd Currie begins his analysis of the *Bernhard* doctrine by stating an obvious principle:

> We cannot know in terms of absolute truth whether the actor committed the wrong or not. Courts can only do their best to determine the truth on the basis of the evidence; and the first lesson one must learn on the subject of res judicata is that judicial findings must not be confused with absolute truth. 34

Professor Currie’s simple lesson, by its very modesty, obscures a subtle but critical distinction. The problem for purposes of finality is not human error but human inconsistency. A case might be litigated and relitigated indefinitely, always with the same result, without providing any assurance that the trier of fact has determined the “truth.” In such a world, the obvious strategy would be to give every judgment the broadest possible preclusive effect because in future litigation every issue will, by hypothesis, be decided the same way. Judicial decisions, however, are not perfectly reproducible. Given that successive trials of the same issue are unlikely to yield the same result indefinitely, the central question of collateral estoppel becomes how much weight to give a single determination when a retrial may yield a different verdict neither more nor less likely to be “true” than the first. 35

To state the matter another way, for purposes of finality there are two uncertainties inherent in the trial system. One is the uncertainty about absolute truth, which presumably cannot be determined in a subsequent trial with any greater certainty than that which the initial trial affords. The other uncertainty is whether a given verdict is even in accordance with what would be the majority outcome if the case were tried a very large number of times, i.e., uncertainty whether a given verdict is our collective best guess.

Unlike the truth about whether the actor committed the wrong, it is always possible to improve our knowledge about whether a given trial outcome is our collective best guess merely by successively retrying the case. Each outcome provides additional evidence of what the majority viewpoint would be if the case were tried an indefinite

---


35. Some verdicts may be more suspicious than others because of procedural defects in the conduct of the trial. Flaws in the process aside, however, every verdict is as worthy of respect as another. To argue otherwise is to suppose that there is some method, apart from litigation itself, with at least a marginally greater likelihood of arriving at the truth. If such a method exists, one wonders why it does not commend itself to the courts and the legislatures as a superior method of resolving disputes.
number of times. The greater the number of trials, the less likely it
is that the relative frequencies of verdicts for the plaintiff and of ver­
dicts for the defendant actually obtained will vary significantly from
the ultimate distribution, and the greater will be the accuracy of our
best guess.

To illustrate the effect of subsequent trials upon our knowledge
about the relative frequencies of verdicts, and thus upon our best
guess, assume that, a priori, cases in which a verdict for plaintiff
would be rendered 50% of the time are as prevalent as cases in which
a verdict for plaintiff would be rendered 75% of the time, 90% of the
time, or any other percentage of the time. In other words, assume
that all relative frequencies of verdicts are equally likely.36 When
the outcome of a single trial is known, however, it provides informa­
tion that indicates that a relatively frequency above 50% on behalf of
the winning party is more likely to be the actual frequency than is a

36. Relative frequency is a continuous variable from 0 to 1, and, as such, there are an
infinite number of relative frequency values. If a finite value of probability were associated
with each of the infinite number of values of relative frequency between 0 and 1, the total
probability would be infinite. But in any probability function the total probability must be
finite, so that the function can be normalized. Thus, a probability cannot be stated for every
relative frequency value.

There is, however, a finite probability density for each value of relative frequency which
can be used to determine the finite probability of a relative frequency falling within a given
interval. That is, there is a finite probability that the relative frequency will fall within the
interval .5 to 1 (or any other interval), but there is only a probability density associated with
each of the relative frequencies within that interval. The probability for a given range of
relative frequencies is found by integrating probability density over the relative frequencies in
the interval.

For example, the probability of S (the state of affairs in which a verdict for one party,
X, is in the majority (in the interval .5 to 1)), given only I (the initial state of affairs in
which all relative frequencies of verdicts are equally likely), is determined as follows:

\[
P(S | I) = \int_{.5}^{1} \frac{1}{D} \, dp + \int_{0}^{.5} \frac{1}{D} \, dp
\]

\[
= \frac{1}{D} \left[ \frac{1}{.5} - 0 \right]
\]

\[
= \frac{1}{D} \cdot \frac{1}{.5}
\]

\[
= .5
\]

where p is the relative frequency and d(p) is the probability density, \(D\), a constant, \(D\), since,
given \(I\), all relative frequencies are equally likely. In other words, it is equally likely that a
verdict for \(X\) is in the majority as it is likely that the verdict is in the minority. (Hereafter, the
value of \(D\) will be set equal to 1 for the sake of convenience and because with \(D\) equal to 1, the
probability density functions are normalized—the total probability is equal to 1.)
frequency below 50%, thus changing the probability of various relative frequencies of verdicts for the plaintiff.\textsuperscript{37} The magnitude of this change can be calculated by the use of Bayes' Theorem.

In applying Bayes' Theorem, we will use the following notation: let \( p \) be the probability that a given verdict will occur in a particular case; let \( d(p) \) be the probability density that a case with a given probability, \( p \), will occur; let \( S \) be the state of affairs in which a verdict for one party, say \( X \), is in the hypothetical majority and thus is the best guess; let \( I \) be the initial state of affairs in which all relative frequencies of a verdict for \( X \) are equally likely; and let \( E \) represent a single verdict for \( X \). Bayes' Theorem can now be used to calculate the change from \( P(S|I) \) (the probability that a verdict for \( X \) is the best guess, given the initial assumption about the relative frequencies of such verdicts) to \( P(S|E) \) (the probability that a verdict for \( X \) is the best guess given the new information that the first trial resulted in such a verdict).

The initial component in Bayes' Theorem, \( P(S|I) \), is equal to \( .5 \), since one half of the "equally likely" frequency distribution of verdicts for \( X \) satisfies the condition that \( X \) is the majority verdict.\textsuperscript{38} This value for \( P(S|I) \) is illustrated in Graph A by the fact that the region to the right of \( p = .5 \) is equal to one-half of the total area.

Graph A is useful for demonstrating the values for the remaining components of the Bayesian equation. The shaded area represents

\textsuperscript{37} Of course, any change in the probability of relative frequencies of verdicts for the plaintiff results in a corresponding change in the probability of relative frequencies of verdicts for the defendant.

\textsuperscript{38} See example in note 36 supra.
the portion of all judgments for each frequency distribution that results in a verdict for $X$. Thus, by way of example, where $p = .25$, 25% of the verdicts are for $X$, and the height of the curve is one-fourth the height of the initial distribution; where $p = .5$, 50% are for $X$, and the height of the curve is one half the height of the initial distribution. Since under the initial assumption each value of $p$ is equally likely, the shaded region equals one half the total area. Thus $P(E|I)$—the probability of a verdict for $X$ given $I$—is equal to .5. 39

The state of affairs defined as $S$ is represented by the region of Graph A where $p$ is greater than .5, that is, where a verdict for $X$ is in the majority. Seventy-five percent of this region is shaded, indicating that $P(E|S) = .75$. 40 On the basis of the values for $P(S|I)$,

39. $P(E|I) = \int_0^1 \frac{d(p)dp}{0 dp}$

$= \frac{\int_0^1 p dp}{\int_0^1 dp}$

$= \frac{\frac{p^2}{2}}{1}$

$= .5$

40. $P(E|S) = \int_{.5}^1 \frac{p dp}{.5 dp}$

$= \frac{\int_{.5}^1 p dp}{.5}$

$= \frac{\frac{p^2}{2}}{.5}$

$= \frac{.75}{.5}$

$= .75$
P(E|I), and P(E|S), Bayes' Theorem indicates that P(S|E) = 0.75, i.e., that the probability that a verdict for $X$ is in the majority given such a verdict in the first case is 0.75. Graphically, P(S|E) is represented by the ratio of the shaded area in Graph A that is to the right of $p = 0.5$ to the total shaded area.

Since this analysis is unaffected by whether $X$ is the plaintiff or the defendant, it can be stated generally that, given the assumption that, a priori, all relative frequencies are equally likely, the probability that the outcome of a single trial will be in accordance with the majority view is 0.75. If each claim is tried once and only once, judicial determinations will be erroneous 25% of the time in the sense that they will not conform to our collective best guess about the truth.

More information about the actual relative frequency of verdicts can be obtained, and thus the error rate can be reduced, if each claim is tried more than once. Graph B represents the situation after two trials each producing a verdict for $X$.

![Graph B](image)

The curve defining the upper boundary of the shaded area is $p^2$, i.e., the compound probability density of two successive trials resulting in a verdict for $X$ when the probability density of such a verdict in a single trial is $p$ and the two trials are independent. The

\[ P(S|E) = \frac{P(E|S) \cdot P(S|I)}{P(E|I)} = \frac{0.75 \times 0.5}{0.5} = 0.75 \]

42. P(E & E|I) = P(E|I) \cdot P(E|I) (Equation 1). When working with probability densities, to determine compound probabilities the densities are first multiplied and then integrated over the relevant interval. Thus, $P(E & E|I) = \int_0^1 p \cdot pdp$. 

---

41. Application of Equation 2 (text at note 33 supra) results in
probability that the decision in the two cases is in accord with the majority view is .875, the ratio of the shaded area that is to the right of \( p = .5 \) to the total shaded area. If, on the other hand, the two trials resulted in one verdict for \( X \) and one for the other party, the curve would be \( 2p(1-p) \), as in Graph C. In that situation, the outcome of the two trials tells us nothing more about the majority

\[ P(S|F) = .5 \]  

(note 36 supra)

\[ P(E \& E|F) = \int_0^1 p^2 dp \]  

(note 42 supra)

\[ = \frac{p^2}{3} \bigg|_0^1 = \frac{1}{3} \]

\[ P(E \& E|S) = \int_0^1 p^2 dp \]

\[ = \frac{p^3}{3} \bigg|_0^1 = \frac{1}{3} \cdot .5 \]

\[ P(S|E \& E) = \frac{P(E \& E|S) \cdot P(S|F)}{P(E \& E|F)} \]  

(Equation 1)

\[ = \frac{.875 \times .5}{1/3} = .875 \]
outcome because one half of the shaded area is to the right of .5 and one half is to the left.\footnote{44}

As the case is tried more and more times, the curve begins to form a peak at some point and to grow narrower, and more of the total area

\[
P(E & E|I) = \int_0^1 p(1-p)dp
\]

\[
= \frac{p^2}{2} - \frac{p^3}{3} \bigg|_0^1
\]

\[
= \frac{1}{6}
\]

\[
P(E & E|S) = \int_0^1 \int_0^1 p(1-p)dp
dp
\]

\[
= \frac{1}{6}
\]

\[
P(S|I) = .5
\]

\[
P(S|E & \bar{E}) = \frac{\frac{1}{6} \times .5}{.5}
\]

\[
= .5
\]
under the curve concentrates around the peak. As this occurs, the shaded portion under the curve inevitably becomes concentrated in one half of the graph or the other. Consequently, we can more certainly identify the majority view, and errors become less likely.

The distinction between uncertainty about the truth and uncertainty whether a given verdict is in accordance with the majority outcome must be borne in mind. Professor Currie’s maxim reminds us that judicial finality is not based on the conviction that we have found the truth with certainty. The assumption that the court has done its best to determine the truth does not, however, mean that nothing more can be done, for a subsequent trial does add to our knowledge. Thus far, truth and the best guess have been treated as unrelated. If, however, we believe that our subjective best guess bears any consistent relationship to the truth—the only justification for spending money and time on a trial—then each trial, by adding to our knowledge of the best guess, adds to our knowledge of the truth.

That each trial adds to our knowledge about the best guess does not mean it is reasonable to try a case indefinitely. Knowledge is expensive, and a point exists beyond which further expenditures are not justified. As a general matter this Note agrees that the marginal return in reduced error from a second trial is not justified in light of the marginal cost. That this general rule is not invariably correct will be shown subsequently.

45. The actual relative frequency for the case can thus be fixed with a high degree of confidence within an increasingly narrow interval as the number of trials increases.

46. See text at note 34 supra.

47. This Note assumes that, while we cannot know the truth with certainty, we are nevertheless concerned with finding the truth. Insofar as we are capable of ascertaining the truth, that end is furthered by choosing as the basis of decision the view of historical fact that we deem most likely to be the case.

A more cynical view is that only the popular perception that the trial system finds the truth to the extent possible and people’s consequent belief that their actions will have predictable judicial consequences are important. The measure of trial efficacy proposed here is compatible with either view because it takes as its standard the belief that would be held by the majority of juries if the case were tried an indefinite number of times—that is, it takes as its standard the popular conception of the truth.

48. While, for example, in the situation posited earlier in this discussion, see notes 40-43 supra and accompanying text, the first trial substantially increases the accuracy of our best guess from 50% to approximately 75%, a 50% improvement, two trials, each resulting in a verdict for the same party, only increase the accuracy of our best guess from .75 to .875, an increase of .125, or a 17% improvement.

49. Given the constraints of due process, which prevents preclusion of nonparties, we must either conduct additional trials in “mutuality” situations or suffer greater error than that which is ordinarily entailed by a single trial of a single claim. Thus successive trials are conducted in the special case of multiple claims out of a need to maintain the usual error rate, not in an attempt to achieve a greater accuracy. See generally text at notes 100-03 infra.
that, while the standard of truth provides no measurable rate of error because we cannot in principle know which verdict the truth supports, the standard of accordance with the majority does provide a measurable rate of error because we can, in theory, “know” the majority view to any arbitrary degree of certainty. It is in this sense, then, that the standard of accordance with the majority provides a measure of trial efficacy with which to evaluate Bernhard and the mutuality doctrine.

II. THE MEANING OF THE DOCTRINE OF MUTUALITY OF COLLATERAL ESTOPPEL

A. Traditional Criticism of the Bernhard Doctrine

A brief review of some of the early criticism of Bernhard provides a foundation for the application of the principles developed in the preceding section to the mutuality requirement and the Bernhard doctrine. Aside from the fundamental argument that a requirement of mutuality is necessary to achieve the equitable distribution of litigation risks, other arguments against its abandonment have been advanced:

1. It is argued that the abandonment of mutuality is not necessary in order to prevent multiple harassment, one of the traditional objects of collateral estoppel generally.  

2. The abandonment of mutuality is said to be inherently inconsistent with the principles of in personam jurisdiction.

3. It is claimed that the abandonment of mutuality may, perversely, increase litigation even though the number of trials is decreased.

4. Finally, it is said that the abandonment of mutuality inequitably burdens the common party’s litigation resources and prevents him from allocating those resources rationally and efficiently.

While these arguments are not without merit, they are not compelling. Thus, a convincing case against the abandonment of mutuality must be based primarily on the claim that abandonment unjustifiably alters the distribution of litigation risks among the parties involved.

50. Moore & Currier, supra note 1, at 308.
51. Id. at 301, 310.
52. Polasky, supra note 1, at 220.
53. Greenebaum, supra note 6, at 15.
54. The arguments against the abandonment of mutuality are criticized in Appendix A infra.
Ironically, the most telling criticism of the abandonment of mutuality has been raised by Professor Brainerd Currie, perhaps the most vigorous champion of *Bernhard*. The abandonment of mutuality leads to what Currie dubbed the “multiple-claimant anomaly.”55

In his now famous example, a train derailment leaves fifty passengers injured:

> Twenty-five passengers, in twenty-five separate actions, all fail to establish negligence on the part of the railroad. Then passenger No. 26 wins his action. Are we to understand that the remaining twenty-four passengers can plead the judgment in case of No. 26 as conclusively establishing that the railroad was guilty of negligence, while the railroad can make no reference to the first twenty-five cases which it won?

There is only one possible answer to this question: no such absurdity would be tolerated for a moment. The indefensibility of such a result seems obvious.56

In forcefully rejecting the arguments of some commentators in support of the application of *Bernhard* in the train hypothetical,57 Currie's response to this argument is a sardonic jewel:

> Does such an argument require an answer? It may, indeed, be argued that such a rule "unduly oppresses" the defendant. He is required to defend every suit to the utmost, risking everything against the chance of winning as to a single claim. And how is he to be compensated for the imposition of this perilous disadvantage? Forsooth, by the experience he gains if he wins the first suit—an experience which is his under the established rule whether he wins or loses; an experience which is valueless to him if he loses the first suit; an experience which is offset, to say the least, by the "experience" which accrues to the remaining [forty-nine] plaintiffs as they hold back, without risk, and make notes while the case is defended "to the utmost"; an experience which, at best, is scant protection against the probability that, sooner or later, some jury in one of the remaining [forty-nine] cases will exercise its prerogative to view the evidence in the light most favorable to the plaintiff, no matter how ably experienced counsel conducts the defense. The assurance that, if the defendant loses, it will be only after a fair opportunity to defend, has a seductive sound; the author has conveniently ignored the fact that the defendant had not one but twenty-six "fair opportunities to defend," in only one of which he failed. Can it still be said that he ought not to complain if the twenty-five successful outcomes are ignored, and the one aberrational verdict is elevated to the status of objective truth?

The argument ends lamely on the plaintive note that “there is a considerable public advantage in the reduction of litigation.” Why, so there is, and no doubt it would be to the public advantage if there were no litigation at all; but the question is, at what point does the public interest in reducing litigation yield to the interest in fair procedure?

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56. Id. at 286.
Currie makes two points important both to his initial attempt to limit *Bernhard* and to his later reversal of that position. The first point is that where the common party is the defendant, as in the train hypothetical, the plaintiffs possess the initiative—a “priceless strategic advantage”—and may bring suit in a forum inconvenient to the defendant or in one which makes it possible to take advantage of a case with factors exciting sympathy for the plaintiff. Currie apparently does not perceive:

> If we are unwilling to treat the judgment against the railroad as res judicata when it is the last of a series, all of which except the last were favorable to the railroad, it must follow that we should also be unwilling to treat an adverse judgment as res judicata even though it was rendered in the first action brought, and is the only one of record. Our aversion to the twenty-sixth judgment as a conclusive adjudication stems largely from the feeling that such a judgment in such a series must be an aberration, but we have no warrant for assuming that the aberrational judgment will not come as the first in the series. Indeed on the basis of the considerations [with respect to the plaintiffs possession of the initiative], the judgment first rendered will be the one least likely to represent an unprejudiced finding after a full and fair hearing.

Although Currie is loathe to preclude the defendant under such circumstances, he is convinced that “[t]he basic doctrine of the *Bernhard* case is sound” and that “[t]here is no virtue in the mutuality requirement as such.” He attempts, therefore, to distinguish *Bernhard* from his train hypothetical by subjecting the *Bernhard* doctrine to two narrow exceptions. First, the plea of collateral estoppel should not be allowed where the plea would create an anomaly such as would occur in the railroad hypothetical, i.e., “where the party against whom the plea is asserted faces more than two successive actions.” Second, since the principle of collateral estoppel assumes “that the party against whom the plea is asserted has had a...”

---


59. Id. at 289 (emphasis added). Although it is not possible to determine when a particular judgment is an aberration, Currie in effect suggests it is possible to tell when it is not, since he claimed there is no risk of the multiple claimant anomaly when there are only two claimants. See text at note 62 infra. Apparently he believed that a result that is not in the minority of the cases actually tried cannot be anomalous. Under this reasoning, if there are only two trials, no single outcome can be anomalous, there is no risk of giving an anomalous outcome preclusive effect, and there is no reason to withhold the full force of the *Bernhard* doctrine. But this is just a manifestation of Currie’s confusion between risk and outcome, for the presence or absence of a third claim cannot affect the risks that the common party must bear in the first two suits.

60. Id. at 308.

61. Id.

62. Id. (emphasis added).
full and fair opportunity to litigate the issue effectively . . . the plea should not be allowed, where, by . . . reason of his former adversary's possession of the initiative, he has not had such an opportunity." 63

Irritated by Currie's assertion that courts would not or could not weigh fair and full opportunity to litigate case by case and unimpressed by Currie's analysis, 64 courts have generally rejected Currie's suggested limitations on the application of Bernhard. 65 In United States v. United Air Lines, Inc., 66 for example, a case not unlike Currie's railroad hypothetical, the airline, having litigated and lost the issue of negligence, was estopped to relitigate even though the plaintiffs could not have been bound by the prior judgment; there was a risk of the multiple-claimant anomaly in that the airline potentially faced more than two successive actions; and the airline, as the defendant, had not enjoyed the initiative in the prior suit. 67

If, as will be shown later, 68 Currie's initial error was his failure to realize that the implications of his limitations to Bernhard required complete rejection of the doctrine, that error was compounded by his subsequent abandonment of these two limitations in Civil Procedure: The Tempest Brews. 69 In abandoning his offensive/defensive distinction, 70 Currie cited United Airlines as an example of a case where, despite the defensive posture of the common party, the court properly concluded that the defendant had enjoyed an impeccably full and fair opportunity to make its defense. 71 Abandonment of the offensive/defensive distinction on the ground that courts have

63. Id. (emphasis added). This exception is commonly referred to as the offensive/defensive distinction, since it provides that Bernhard should not be applied when a non-common party seeks to use a prior judgment offensively.

64. As Currie explains it, the difficulty in the railroad case is that the judgment which is given preclusive effect is the one we have the most reason to suspect. If that is the thrust of his concern, his solution—that we apply Bernhard only when there are no more than two claims—is unresponsive to the problem. See text at note 59 supra. The number of outstanding claims has no logical relation to the degree of confidence to be accorded the most recent judgment.


67. See Currie, 53 CALIF. L. REV. 25, supra note 3, at 34. In addition, the case had been decided by a jury, a factor which has been relied on to prevent preclusion. See also Bemer v. British Commonwealth Pac. Airlines, Ltd., 346 F.2d 532, 539-41 (2d Cir. 1965), cert. denied, 382 U.S. 983 (1966).

68. See text at notes 75-76 infra.

69. 53 CALIF. L. REV. 25, supra note 3.

70. See note 63 supra and accompanying text.

proved capable of evaluating whether the common party had a full and fair opportunity to litigate is not, however, inconsistent with Currie's initial rationale for this exception to Bernhard. More surprising was Currie's abandonment of the exception on behalf of a common party facing more than two opponents. Although as originally stated this constraint appeared to relate to the possibility that the outcome rather than the procedure of the initial trial might be unrepresentative, Currie subsequently treated the exception as nothing more than another "rule of thumb" designed, like the offensive/defensive distinction, to prevent a judgment based on less than a full and fair opportunity to litigate from being given preclusive effect.\footnote{Currie, 53 CALIF. L. REV. 25, supra note 3, at 37.}

Currie's final position with respect to collateral estoppel, then, embraces Bernhard with only one qualification, one which he read as implicit in the Bernhard decision: that it should not be applied to work injustice.\footnote{Currie's final position with respect to collateral estoppel, then, embraces Bernhard with only one qualification, one which he read as implicit in the Bernhard decision: that it should not be applied to work injustice. In other words, preclusive effect should be denied only where the common party against whom the prior judgment is asserted did not have a fair and full opportunity to litigate the issue.} In other words, preclusive effect should be denied only where the common party against whom the prior judgment is asserted did not have a fair and full opportunity to litigate the issue.\footnote{See id. at 31. Currie's perception of the problem has completely dominated the debate, even when his conclusion is challenged. In a real sense, Bernhard itself is not debated at all. Only Currie's description of Bernhard, see note 72 supra, is debated, but it is precisely his description that is at fault. His critics have lost before they have begun because they have failed to free themselves from the constraints of his full and fair opportunity analysis. He is convinced that the crux of the issue is whether or not the party to be precluded has received a full and fair opportunity to litigate. What Currie has done is to analyze Bernhard in terms that make its problems appear to be fully analogous to those of collateral estoppel generally. Thus, attacks on Bernhard are perceived to be attacks on collateral estoppel and both judges and commentators come to believe that one cannot be rejected without rejecting the other—policy arguments in favor of collateral estoppel can be enlisted in support of the Bernhard doctrine without qualification and are deemed to be persuasive. His first solution—mechanical rules designed to aid the courts in avoiding a case-by-case analysis of whether there has been a full and fair opportunity to litigate, see text at notes 62-63 supra,—was swept aside by the courts, which felt they could do justice without the benefit of rigid formulæ. See Zdanok v. Glidden Co., 327 F.2d 944 (2d Cir.), cert. denied, 377 U.S. 934 (1964); United States v. United Air Lines, Inc., 216 F. Supp. 709 (E.D. Wash., D. Nev. 1962) aff'd as to res judicata and mutuality sub nom. United Air Lines, Inc. v. Wiener, 335 F.2d 379 (9th Cir.), cert. dismissed, 379 U.S. 951 (1964); Teitelbaum Furs, Inc. v. Dominion Ins. Co., 58 Cal. 2d 601, 375 P.2d 439, 25 Cal. Rptr. 559 (1962). Yet, they did so without questioning Currie's basic premise. But that premise obscures the fact that the question of fair opportunity}
As the next subsection will demonstrate, Currie's initial suspicion of the outcome dictated by Bernhard in his railroad hypothetical was well founded. His subsequent rejection of the offensive/defensive distinction was proper in the sense that whether the common party is a defendant facing multiple claims or a plaintiff seeking to assert related claims against multiple defendants does not affect the impact of the abandonment of the mutuality requirement. However, abandonment of this distinction calls not for the application of the Bernhard doctrine in every case, but rather for the application of the mutuality requirement. Contrary to the assumption apparently underlying Currie's second initial exception to Bernhard, the case against the abandonment of mutuality does not depend on there being an "aberrational" outcome, or the risk of such an outcome, in a particular trial. The common party is unjustly burdened, although we have no more reason to be suspicious of the preclusive judgment than we are of any other judgment. More particularly, the common party is unjustly burdened by the abandonment of mutuality whether there are two claims or fifty.75

Focusing specifically upon Currie's two initial qualifications to the abandonment of mutuality is perhaps unfair, since he later claimed that these exceptions were inspired by an underlying concern for ensuring a full and fair opportunity to litigate. However, even Currie's final position, that preclusive effect should be denied only absent a full and fair opportunity to litigate, is not responsive to the fundamental problem, for the inequitable burdens imposed upon the common party by the abandonment of mutuality are not eliminated by a requirement that the common party have enjoyed a full and fair opportunity to litigate. The common party should not be precluded unless both the mutuality requirement and the full and fair opportunity test have been satisfied.76

does not speak to the issues raised by his multiple-claimant anomaly, see text at notes 107-18 infra.

As a result, the courts failed to ask whether full and fair opportunity has any particular relevance to the problems of mutuality and thus whether mutuality should be abandoned at all. Having lost the battle but won the war, Currie applauded the farsightedness of the courts who saw past his "cynical" reservations, and he regretted that he had suggested them in the first place. Currie, 53 CALIF. L. REV. 26, supra note 3, at 29, 32.

75. See text at notes 87-103 infra.
76. See note 109 infra.
B. A Probabilistic Analysis of the Bernhard Doctrine

1. The Abandonment of the Mutuality Requirement

The central theme of mutuality is the fair apportionment of trial risks. By potentially precluding either party (if both would have been bound) or neither party (if either party would not have been bound), mutuality allows litigation risks to reflect only the merits of the cases. The abandonment of mutuality alters the litigation risks by forcing only one party to face the potential of preclusion in subsequent litigation, thus shifting additional risks to that party. In addition to altering the distribution of risks between the parties, the Bernhard doctrine affects the measure of trial efficacy by generally increasing the error rate.\textsuperscript{77}

To see more clearly and to what extent mutuality and Bernhard affect the allocation of litigation risks, consider the result in two hypothetical multiple litigation situations that differ only with respect to the presence or absence of the mutuality requirement. Because Currie initially suggested that Bernhard produces no objectionable results when the common party is the protagonist,\textsuperscript{78} as have other commentators,\textsuperscript{79} it will be assumed in both hypotheticals that a common party plaintiff seeks to assert related claims\textsuperscript{80} against a series of defendants. As will become apparent, this assumption does not affect the alteration of trial risks produced by Bernhard.\textsuperscript{81}

Assume also that the plaintiff has a fifty percent probability of winning his case, that is, that if the case were tried indefinitely, the plaintiff would be successful fifty per cent of the time.\textsuperscript{82} The general result reached in this analysis is independent of the particular probability selected\textsuperscript{83}—the fifty per cent figure is employed for ease of calculation and because under such an assumption no single out-
come is anomalous in the sense that it is contrary to the majority verdict. Initially, the significance of the total number of cases will be ignored. It is assumed that the plaintiff has ten claims, each liquidated\(^{84}\) in the amount of $100. As with the probability of a verdict for the plaintiff, the amount of the claim has no bearing on the general conclusions of the analysis.

The impact of a full and fair opportunity to litigate will be analyzed separately in a subsequent subpart. For present purposes, the fifty percent probability of a verdict for the plaintiff common party is taken to be the result of all causes, including those that might lead a subsequent court to conclude, under a full and fair opportunity analysis, that preclusive effect ought to be denied a prior judgment for one of the defendants. Thus, the rule of collateral estoppel will be treated as operating mechanically.

Finally, assume that no defendant is in privity with any other defendant, so that under the traditional mutuality doctrine, as well as under \textit{Bernhard}, the common party plaintiff will not be able to use a favorable judgment against one defendant to preclude any other defendant from relitigating the common issue. Given this set of assumptions, if each case is tried separately\(^ {85}\) and preclusive effect is denied for lack of mutuality, all ten cases will be litigated.\(^ {86}\) By hypothesis, the plaintiff can expect to win fifty percent of his cases for a total expected recovery of $500. This result is illustrated in the mutuality column of Table I.

On the other hand, under \textit{Bernhard}, once the plaintiff loses one case, he will be precluded from litigating the remaining cases. While the probability of winning any single case that is litigated is still fifty percent, the preclusive effect of a single loss makes the probability of ever litigating a case dependent upon the outcome of previous cases. This cumulative effect reduces the common party's

\(84\) If the claims were unliquidated, the model would become unnecessarily complicated by the addition of a function representing the probability of recovering a particular award. Assigning a different value to each claim would make the ultimate average recovery turn on the order in which the cases were tried without, however, affecting the general conclusion.

\(85\) The effects of joinder will be discussed in text at notes 91-94 \textit{infra}.

\(86\) In reality, after a few claims have been litigated and the parties have learned the relative strength of their cases, they might decide to settle or abandon the remaining cases. On the other hand, if all parties were aware of the actual probability of success before incurring any litigation costs (and were equally risk averse), they logically should agree to settle for precisely the expected recovery or loss. But for purposes of this analysis it is assumed that each of the ten claims is litigated.
The expected recovery from $500 to $100, as illustrated in the *Bernhard* column of Table I.

87. The probabilities reflected in the *Bernhard* column involve the calculation of the probability for a compound event, such as “plaintiff wins exactly three trials,” from the probability that the plaintiff wins a single trial, in this case .5. For purposes of illustration, assume initially that the mutuality doctrine is applicable, so that a loss will not prevent the occurrence of subsequent wins.

Where two events are independent, as these trials are assumed to be, the probability of both occurring is the product of their probabilities, see text preceding note 33 *supra*. To calculate the probability of three wins followed by seven losses, the probability of a win is first multiplied by itself three times, $p^3$, and then multiplied by the probability of a loss multiplied by itself seven times, $(1-p)^7$. However, there are many ways to win exactly three cases. The ten events can occur in any order. The total number of ordered arrangements of ten events is ten factorial, $10!$. Thus, the probability of three wins and seven losses is added to itself ten factorial times, that is, it is multiplied by $10!$. Finally, account must be taken of the fact that some arrangements are redundant. For example, taking the order $W-W-L-W$ and switching the first two elements does not yield a new arrangement. Thus, to eliminate multiple counting of a single ordered arrangement, the total number of ordered arrangements must be divided by the number of arrangements of the wins among themselves, $n!$, and by the number of arrangements of the losses among themselves, $(10-n)!$.

The result is

$$c(n) = p^n(1-p)^{10-n} \frac{10!}{n!(10-n)!}$$

where $c(n)$ is the compound probability, $p$ is the probability in the individual case, and $n$ is the number of wins in the compound event. Since $p = (1-p) = .5$, the formula can be simplified:

$$c(n) = .5^n \cdot \frac{10!}{n!(10-n)!}$$

Under *Bernhard*, there is only one possible way to reach each outcome. For example, in order to win exactly four cases, the plaintiff must win the first four and lose the fifth. Thus, the probability of $n$ wins is simply $p^n(1-p) = .5^{n+1}$. The last case is calculated differently because it cannot be followed by a loss and need not be in order to terminate the series. It is therefore calculated by $p^n$.

An alternative method of illustrating the decrease in expected recovery under *Bernhard* is to consider the probability that the plaintiff will recover from a given number of defendants. Table A below shows the probability, when there are 10 defendants, of the plaintiff prevailing over any given number of them under mutuality. Again, assume a 50% case.
When the probability of winning a single case is initially assumed to be fifty percent, each successive claim under Bernhard is worth only half as much to the plaintiff as its predecessor because it is that much less likely that he will be able to recover. The presence of the preceding claims decreases the probability that the common party will recover on succeeding claims. The impact of the Bernhard doctrine is dramatic and can be evaluated in terms of expected recovery rather than mere conjecture.88

<table>
<thead>
<tr>
<th>No. of Wins</th>
<th>Probability (P)</th>
<th>Maximum Recovery (R)</th>
<th>Expected Recovery (P * R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.001</td>
<td>$100</td>
<td>$1</td>
</tr>
<tr>
<td>1</td>
<td>.010</td>
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<td>9</td>
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<tr>
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<td>.117</td>
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<td>82</td>
</tr>
<tr>
<td>4</td>
<td>.246</td>
<td>500</td>
<td>123</td>
</tr>
<tr>
<td>5</td>
<td>.205</td>
<td>600</td>
<td>123</td>
</tr>
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<td>6</td>
<td>.117</td>
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</tr>
<tr>
<td>9</td>
<td>.001</td>
<td>1000</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1.000</td>
<td>$500</td>
<td>$500</td>
</tr>
</tbody>
</table>

**TABLE A**

When mutuality is required, subsequent defendants cannot raise an estoppel based on the plaintiff's loss of a prior case. For example, there are many ways for the plaintiff to win exactly five cases. He can win the first five, the last five, every other case, and so forth. On the other hand, under the Bernhard doctrine there is only one way for the plaintiff to win five cases. He must win the first five cases and lose the sixth. The results of the trials are no longer independent. There is a flat rule that every case following a loss to the plaintiff also results in a loss. The effect on the relative frequencies and the expected recovery is illustrated in Table B.

<table>
<thead>
<tr>
<th>No. of Wins</th>
<th>Probability (P)</th>
<th>Recovery (R)</th>
<th>Expected Recovery (P * R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.500</td>
<td>$100</td>
<td>$25.00</td>
</tr>
<tr>
<td>1</td>
<td>.250</td>
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<td>700</td>
<td>$ 2.80</td>
</tr>
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<td>7</td>
<td>.004</td>
<td>800</td>
<td>$ 1.60</td>
</tr>
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<td>.002</td>
<td>900</td>
<td>$ 0.90</td>
</tr>
<tr>
<td>9</td>
<td>.001</td>
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</tr>
<tr>
<td>10</td>
<td>1.001*</td>
<td>$100.40*</td>
<td></td>
</tr>
</tbody>
</table>

* The excess over one and the excess over $100 are caused by rounding off the individual probabilities.

**TABLE B**

88. The fact that cases will be settled on the basis of calculations of the potential liability discounted for the trial risk does not impair the argument. No doubt, the first verdict will so crucially affect settlements that even without Bernhard there will often be only one trial. Fur-
Table I also refutes Currie’s assumption that the multiple-claimant anomaly is avoided if there are only two claims. Since the existence of subsequent claims does not affect the expectation value of preceding claims, the expectation value of the second claim is the same whether there are two claims or ten. Thus, the situation in which there are only two claims is not fundamentally different from that in which there are ten. The total expectation value of two claims is simply the sum of the expectation values of the first claim and of the second claim. This sum is $100 under mutuality and only $75 under Bernhard. While the decrease in total expected recovery is not as spectacular when there are two suits rather than ten, the effect of the Bernhard doctrine is hardly insignificant.

Although the common party in the preceding analysis was a plaintiff (for the purpose of demonstrating that the multiple-claimant anomaly is not limited to the case in which the common party is the defendant, as in Currie’s railroad hypothetical),89 the conclusions reached were without reference to the trial role of the common party.

The Bernhard doctrine affects settlement negotiations in two ways. First, it increases the risk to the common party. The common party is thus impelled to accept a less advantageous settlement than under mutuality. For example, where there are five claims at stake each worth $200, and the common party’s risk of loss is .5, the amount effectively at risk in the first case climbs from $200 to $387.50. See Appendix B infra. The common party should therefore be willing to settle for up to $193.75 rather than $100. How much of the surplus the non-common party is able to extract will depend on how risk-averse the parties are and how hard-nosed a bargainer the non-common party is. Second, Bernhard denies the common party the full benefit of a favorable judgment. While the common party’s risk in a single trial may fall from .5 to .25 after an initial victory, Bernhard still increases the overall risk thereafter from what it would have been under mutuality following an initial victory. Settlement negotiations should reflect the additional risk.

89. Currie argues that there is reason to think that a defendant who has lost in the first case has received less than a full and fair opportunity to litigate and that the judgment is therefore more likely than succeeding judgments to be anomalous. But if there is an overall bias in favor of plaintiffs, as Currie seems to suppose, that provides no basis for thinking that the verdict in the first case for a plaintiff is less than representative. By hypothesis, the result is likely to be reproduced in subsequent litigation, unless Currie supposes that pro-plaintiff bias is peculiar to the first suit in the series. There is some indication, however, that that is precisely what he believes. He is concerned that the plaintiffs, by their use of the initiative, can select the case least favorable to the defendant as the “test case.” See Currie, 9 STAN. L. REV. 281, supra note 3, at 288-89. This is but another example of a persistent theme of the law of collateral estoppel—that the judgment relied upon must be representative.

While Currie’s reasoning justifies his offensive/defensive distinction, see note 63 supra and accompanying text, he also used it to support his multiple-claimant anomaly exception—yet in his example of the anomaly, the first loss did not occur until the 26th suit. See text at notes 55-59 supra. Had Currie stopped before taking this last step, his multiple-claimant anomaly argument would have been a reasonably persuasive, if somewhat informal, state-
If the common party were defending, the only difference in the hypotheticals would be that the recovery would become the loss avoided. Where, as here, the *Bernhard* doctrine diminishes a common plaintiff’s expected recovery from $500 to $100, it would increase a common defendant’s losses from $500 to $900. Thus, except to the extent that the initial trial posture bears on whether the common party has had a full and fair opportunity to litigate,\(^90\) trial posture is irrelevant to the alteration of litigation risks attributable to *Bernhard*.

The argument advanced by one commentator—that the result produced by *Bernhard* is no worse than forcing a common party to litigate all claims at once so that any recovery is dependent upon that single outcome\(^91\)—is, as Professor Currie argued,\(^92\) incorrect. If, in the hypotheticals, all defendants were joined in a single suit so that each would be bound by an adverse judgment as well as benefitted by a favorable one, the plaintiff’s expected recovery would be $500.\(^93\) Thus, the expected recovery when all of the defendants are joined in a single action is the same as it would be if the suits were tried separately under mutuality, but it is not the same as it would be if they were tried under *Bernhard*.\(^94\) There is a vast difference between compelling a litigant to accept an all-or-nothing bet with even odds, as joinder rules do, and weighting the odds heavily in favor of his opponent, as the *Bernhard* doctrine does.

As has been shown, the common party class is inevitably victimized by the *Bernhard* doctrine,\(^95\) at least absent the requirement to be discussed in the next subsection that the common party not be precluded unless he has previously enjoyed a full and fair opportunity to litigate. The question remains, however, whether this alteration of litigation risks merely causes a random shifting of losses between

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90. See text at notes 107-18 infra.
91. See Comment, supra note 57, at 610-11, discussed in note 57 supra.
93. The expected recovery would be $1000 (the amount at stake against all 10 defendants) times .5 (the probability of a verdict for the plaintiff common party), or $500.
94. See Table 1 supra.
95. Besides altering the distribution of the loss (recovery) between the common and non-common parties, the *Bernhard* doctrine also produces a less equitable distribution among common parties similarly situated. For example, consider the situation in which common party plaintiffs each have a 90% chance of success in a single suit. The table below contains the frequency distribution, with and without mutuality, in such a situation.
equally worthy parties, a shifting which would have no impact on the overall rate of error, or whether the Bernhard doctrine produces measurably more erroneous awards. As will be demonstrated below, the latter is the case: Bernhard increases the error rate.

Recall that, in terms of the error minimizing strategy, the ideal distribution of outcomes awards all judgments to the parties who would be favored by the majority if their cases were tried indefinitely. This distribution is illustrated by Graph D, in which the

<table>
<thead>
<tr>
<th>No. of Wins</th>
<th>Mutuality</th>
<th>No Mutuality</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>10</td>
<td>.350</td>
<td>.350</td>
</tr>
</tbody>
</table>

* Excess over one due to rounding off.

Table C

With mutuality, the probability that a plaintiff with such a strong case will lose everything is negligible, and the reasonably likely outcomes are clustered closely about nine. (This clustering becomes more pronounced as the number of cases grows larger. The deviation from the mean as a percentage of the total number of cases grows smaller.) Under Bernhard, however, a significant percentage of the plaintiffs recover nothing, while others, similarly situated, win all ten cases. The results are fairly well distributed among the outcomes in between.

Joinder, see text at notes 91-94 supra, also results in different treatment of similarly situated common parties. If, in the preceding example, each plaintiff joins his ten claims, or is compelled to do so, he faces only two possible outcomes—he wins all or nothing. Thus, under joinder, plaintiffs, although similarly situated with respect to the strength of their claims, could recover very different amounts. On the average, nine will cover the full amount, and one will recover nothing.

96. For example, this alteration of litigation risks might reduce the expected recovery of a common party with a 60% case, only to offset this result by increasing the expected recovery of a noncommon party with a 60% probability in another case. Although this may be inequitable, it does not increase the error rate as it has been defined. Both 60% cases should yield a 100% recovery. See notes 24-32 supra. Thus, any alteration of the distribution between them is zero-sum with respect to error.

97. It might at first appear that if the case is a 60-40 case in terms of probability of success, the error minimizing strategy would call for a 60-40 split of the recovery. Such a split is not called for if error is measured by the amount of damages awarded erroneously (as compared to the manner in which they would be awarded if the facts were known with certainty). Note that uncertainty about the facts is not a basis for compromise in the sense that comparative fault is. Assuming that the chances of success are a reasonable approximation of the subjective degree of certainty of the triers of fact (this need not be so, since in 60% of the cases the jurors might be 80% certain of one conclusion, while in 40% they might be 80% certain of the opposite conclusion) then 60% of those with a 60% case should receive a 100% recovery while 40% should take nothing. Awarding 100% to all of them thus yields a 40% error rate.
shaded section represents awards for the common party. There are no errors, since the judgment is always the best guess.

As demonstrated earlier, Graph A illustrates the distribution of awards if a claim is tried only once.

Area II represents erroneous judgments in favor of the non-common party—erroneous in the sense that the probability of a verdict for the common party is greater than .5 and that the best guess would therefore be a judgment for the common party. Similarly, Area III represents erroneous verdicts for the common party. Together these two areas account for 25% of all cases.  

If the award is compromised on the basis of the degree of uncertainty so that all of the 60% cases are awarded a 60% recovery, the amount correctly awarded is 36%, and the amount incorrectly awarded is 24%. The 40% parties who benefit from the compromise are awarded 40%. With a compromise, the amount correctly awarded is 16%, and the amount incorrectly awarded is 24%. Thus with a compromise in damages based on uncertainty about the facts, the aggregate rate of error rises from 40% to 48%. In other words, error minimizing requires the best guess, not a compromise.

The interest that such a compromise could reflect is the litigants' interest in avoiding risk. By compromising on the basis of uncertainty, the risk of error overall is increased but the magnitude of errors when they occur is decreased. The opportunity for settlement, however, already accommodates this interest.

Although the error rates derived herein depend on the a priori assumption that all relative frequencies are equally likely, see text at note 36 supra (it may well be that 40% and 60% relative frequencies are more likely than others), they do provide a rough measure of the range in which the trial system operates.
claim or multiple claims under the mutuality doctrine. In either case, the expected average recovery (as a percentage of a total recovery) is represented by the line separating the shaded and unshaded regions.

If verdicts were decided at random, the distribution of outcomes would be that suggested by Graph E.

The erroneous awards are still represented by Areas II and III, which together account for 50% of all cases. Thus, the effort expended in a single trial is aimed solely at decreasing the error rate from 50% to 25%.\textsuperscript{99}

The Bernhard doctrine alters the distribution of outcomes in the manner represented by Graph F.\textsuperscript{100}

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\textsuperscript{99} Indeed, if we had a flat rule that one party, plaintiff or defendant, always wins, the distribution would be represented by an entirely shaded square. The errors would be represented by the left half of the square rather than diagonally opposed quadrants, but the error rate would still be only 50%.

\textsuperscript{100} This graph represents a generalized illustration of Table I supra. The information in Table I with respect to the probability of the common party winning the nth trial is essentially a vertical slice out of Graph F taken at the point $p=.5$. The intersection of the diagonal line with the vertical line at $p=.5$ represents the .5 probability of winning the second case under mutuality, while the intersection of the curved line with the vertical line at $p=.5$ corresponds to the $p^n$ probability that the common party will succeed in the nth trial under Bernhard.
If there are two claims, the expected average recovery for the common party on the first claim is simply $p$, his probability of winning. On the second claim, however, the expected average recovery is $p^2$. The expected average recovery for a third claim would be $p^3$, and so forth, as illustrated earlier in Table I for $p = .5$. Since $p$ is less than one, each successive claim is worth less than its predecessor. In contrast, under mutuality each claim is worth the same, as reflected by the probability of success. The total expected average recovery is less under Bernhard than under mutuality because that figure, under either doctrine, is simply the sum of the expected recoveries for the individual claims.

Ideally, some of the common parties who recover under mutuality should not recover. Region V represents the reduction in the number of errors that can be attributed to the Bernhard doctrine. Area VI, however, represents the additional errors incurred by virtue of Bernhard. To the extent that Area VI exceeds Area V, Bernhard results in a measurable increase in the number of errors.\footnote{101}

The area between the two curves for $n$ number of claims can be found by integrating the difference between them,

$$ (p - \frac{1}{n} \sum_{i=1}^{n} p^i ). $$

$$ \int p - \frac{1}{n} \sum_{i=1}^{n} p^i (dp) = \frac{p^2}{2} - \frac{1}{n} \sum_{i=1}^{n} \frac{p^{i+1}}{i+1} = F(p) $$

Area VI equals $F(1) - F(.5)$. Area V equals $F(.5) - F(0)$. $F(0) = 0$. Thus, the increase in the error rate, Area VI less Area V, equals

$$ F(1) - 2F(.5) = (.5 - \frac{1}{n} \sum_{i=1}^{n} \frac{1}{i+1} ) - 2(.125 = \frac{1}{n} \sum_{i=1}^{5} \frac{5^{i+1}}{i+1} ) $$
Recall that even in the worst case, in which verdicts are entirely random, the error rate can increase by a maximum of only 25 percentage points, from 25% to 50%. \(^{102}\) If there are three claims, the Bernhard doctrine results in a 1% increase in the error rate. With ten claims, the error rate increases by 9 percentage points, and when there are twenty claims, the error rate rises by 14 percentage points, almost 60% of the maximum increase of 25% that would result if decisions were made entirely at random. \(^{103}\)

\[
\text{error rate increase} = 0.25 - \frac{1}{n} \sum_{i=1}^{n} \frac{1 - s_i}{i + 1}
\]

102. This statement also applies when verdicts are decided in favor of one party under a per se rule. See note 99 supra.

103. Using the formula in note 101 supra for determining the increase in the error rate, the increase under Bernhard when there are three claims is

\[
= 0.25 - \frac{1}{3} \left( \frac{1 - 0.5}{2} + \frac{1 - 0.25}{3} + \frac{1 - 0.125}{4} \right)
\]

\[
= 0.25 - 0.24
\]

\[
= 0.01.
\]

For 10 claims, the increase is

\[
= 0.25 - \frac{1}{10} \left( \frac{1 - 0.5}{2} + \frac{1 - 0.25}{3} + \frac{1 - 0.125}{4} + \ldots + \frac{1 - 0.0098}{11} \right)
\]

\[
= 0.25 - 0.16
\]

\[
= 0.09.
\]

For 20 claims, the increase is

\[
= 0.25 - \frac{1}{20} \left( \frac{1 - 0.5}{2} + \frac{1 - 0.25}{3} + \frac{1 - 0.125}{4} + \ldots + \frac{1 - 0.0098}{21} \right)
\]

\[
= 0.25 - 0.11
\]

\[
= 0.14.
\]
That the Bernhard doctrine causes additional errors\textsuperscript{104} is not

And when the increase in the error rate under Bernhard is calculated for Currie's example of the multiple-claimant anomaly, see text at note 56 supra, the result is 19%:

\[
.25 - \frac{1}{50} \sum_{i=1}^{50} \frac{1-.5^i}{i+1}
\]

\[
= .25 - \frac{1}{50} \left( \frac{1-.5^2}{2} + \frac{1-.25}{3} + \frac{1-.125}{4} + \ldots + \frac{1-.5^{10}}{51} \right)
\]

\[
= .25 - .06
\]

\[
= .19.
\]

Interestingly, when there are only two claims the number of new errors under Bernhard is just balanced by the number of errors avoided. This might seem to vindicate Currie's later-repudiated recommendation against applying the Bernhard doctrine when the common party faced more than two potential adversaries. Using the formula in note 101 supra, we see that the change in the error rate when there are two claims is

\[
.25 - \frac{1}{2} \sum_{i=1}^{2} \frac{1-.5^i}{i+1}
\]

\[
= .25 - \frac{1}{2} \left( \frac{1-.5^2}{2} + \frac{1-.25}{3} \right)
\]

\[
= .25 - \frac{1}{2} \left( .5 \right)
\]

\[
= .25 - .25
\]

\[
= 0.
\]

Elementary notions of equity, however, suggest that offsetting the reduction in the common party plaintiff's expected recovery by the increase in the expected recovery of noncommon party plaintiffs is less than fair, even though the overall rate of error is unchanged by any potential distribution of recoveries between the two. See note 96 supra. This is particularly true since the common party under Bernhard has to bear the costs of at least one trial while one of the noncommon parties will not incur any trial costs.

\textsuperscript{104} Currie's reluctance to give preclusive effect to an "anomalous" result, see text at note 59 supra, suggests a strategy less extreme than Bernhard, that would decrease the amount of litigation, would mitigate the harshness of Bernhard, and would improve the error rate. That strategy is to take advantage of the additional information generated by additional trials. The common party would be precluded whenever he has lost a majority of the cases previously litigated. The majority must consist of at least two cases. (This rule would bar preclusion in one of the situations in which Currie was once willing to permit it—in the case of two claims.)

To see how this strategy would work, consider the results where the common party potentially faces six claims. A verdict for the common party will be denoted by v, a verdict for the noncommon party by V. p(v) (or p(V)) will represent the probability of a given verdict, c(v) the probability that a given verdict is correct. The expected recovery, r(v), is the sum of the possible probabilities of a given verdict multiplied by the amount at stake. r(v) \cdot c(v) and r(V) \cdot c(V) are, respectively, the expected recovery from a correct verdict for the common party and for a noncommon party. Their sum is the expected recovery from all correct verdicts, thus representing the overall success rate in choosing the correct outcome. The following table presents the values for these probabilities and success rates.
counter-intuitive. The Bernhard doctrine increases consistency by

<table>
<thead>
<tr>
<th>Trial</th>
<th>$r(v)$</th>
<th>$c(v)$</th>
<th>$r(v) \cdot c(v)$</th>
<th>$r(v)$</th>
<th>$c(v)$</th>
<th>$r(v) \cdot c(v)$ + $r(v) \cdot c(v)$</th>
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</thead>
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</tr>
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<tr>
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<tr>
<td>6</td>
<td>.598</td>
<td>.93</td>
<td>.571</td>
<td>.71</td>
<td>.47</td>
<td>.78</td>
</tr>
</tbody>
</table>

**TABLE D**

These values were derived as follows:

Win all six:  
\[ p(v) = p^6 \]

Lose one of first 5:  
\[ p(v) = 5p^5(1-p) \]

This is multiplied by a factor of five because $v$ can occur in any one of the first five trials.

Lose two of first five:  
\[ p(v) = 7p^4(1-p)^2 \]

With two verdicts for the non-common parties the situation is complicated by the fact that if both occur within the first three trials the common party is precluded thereafter and cannot win the sixth trial. There are ten ways of arranging the two losses within the first five verdicts, three of which result in losing two of the three first cases. Since three of the ten arrangements are forbidden, given the premise that the common party wins and thus gets to the sixth trial, the factor is seven. This general approach results in the following probabilities of verdicts for the common party in each trial:

\[
\begin{align*}
1 & \quad p(v) = p \\
2 & \quad p(v) = p \\
3 & \quad p(v) = p^2 + 2p^2 (1-p) \\
4 & \quad p(v) = p^3 + 3p^2 (1-p) \\
5 & \quad p(v) = p^4 + 4p^3 (1-p) + 3p^2(1-p)^2 \\
6 & \quad p(v) = p^5 + 5p^4 (1-p) + 7p^3(1-p)^2
\end{align*}
\]

The expected recovery by the common party where the amount at stake in each claim is equal

\[ r(v) = 1 \cdot \int_0^1 p(v)dp. \]

The percentage of correct judgments where the outcomes are $v$ and $\bar{v}$ respectively are

\[
\begin{align*}
c(v) &= \frac{\int_0^1 p(v)dp}{\int_0^1 p(v)dp} \\
c(\bar{v}) &= \frac{\int_0^5 1 - p(v)dp}{\int_0^1 1 - p(v)dp}
\end{align*}
\]

The error rate calculated as $1 - [r(v) \cdot c(v) + r(\bar{v}) \cdot c(\bar{v})]$ can be expected to remain stable at 22% for the following reason. The minimum requirement for preclusion is that the common party lose two out of the first three cases, which yields a success rate of 78%. Occasionally, more than three trials will be conducted because the common party will win two, and there will be noncommon parties who have not litigated and who cannot, therefore, be precluded. The rate is stable because, as the number of litigated claims increases, it becomes increasingly less likely that an "aberrational" (in the sense that it is less than 50% likely) majority in favor of the noncommon parties will occur.

To state the matter another way, under Bernhard the probability that the common party will be precluded never decreases because any loss results in preclusion. Under the suggested rule, the percentage of wins and losses tends to stabilize at whatever the underlying probability is. As the number of cases litigated grows it requires a larger variation in absolute numbers from this percentage, to give the noncommon parties the transient majority on which preclusion of the common party can be based. As the size of the required deviation increases, it becomes increasingly less likely that it will occur.

Note, too, that if the rule initially called for a simple majority, rather than at least two out of the first three, the error rate would stabilize at 25%, the normal rate under mutuality.

This suggested approach overcomes the adverse affect Bernhard has on the error rate. The
simply estopping the common party. But like the consistency of a rule that the plaintiff always wins, the consistency achieved by *Bernhard* is unrelated to the persuasiveness of the case. *Bernhard* is merely a per se rule, a bias favoring the noncommon party. Only the fortuitous circumstance that he faces multiple opponents subjects the common party to outcomes that are consistently less favorable. The outcome of subsequent trials under *Bernhard* tells us only what we already knew, that the common party is the common party. Since that information bears no consistent relationship to the merits of the case, *Bernhard* errors are more prevalent under *Bernhard*. The difference in the common party's recovery, as exemplified in Table I, quantifies the extent to which the aggregate outcome under *Bernhard* reflects our best judgment on the merits and the extent to which it merely reflects the anti-common party bias.

2. *Full and Fair Opportunity to Litigate*

The unqualified abandonment of mutuality causes intolerable inequities and diminishes the accuracy of the trial process. Does the difficulty with the approach is thus purely a matter of equity. No shifting of losses between parties equally worthy, whether those parties are common parties, noncommon parties or a combination of the two, can adversely affect the rate of error. *See note 96 supra.* But of these two possibilities, equal recovery by equally worthy parties is to be preferred. Yet, under the proposed rule of preclusion an increasing proportion of the correct awards goes to the non-common parties (r(v)), even though the overall rate of correct verdicts remains stable at 78%. (Note the shift between columns r(v) and r(U) in the table above.)

105. The judicial system, like any system designed to organize information, is prone to two sorts of errors: randomizing errors and biases. A randomizing error decreases the consistency of the outcomes; it dissipates information. A bias, on the other hand, has informational content, but that information is legally irrelevant. A randomizing error forces relative frequencies toward 50%. At that point no informational content can be attributed to the trial outcomes taken as a whole. Thus, if we are to have confidence in our determinations, we must strive first of all for consistency. But, consistency alone is not enough. We must seek to achieve a consistent product without introducing biases to which the consistency may be attributed. For example, a rule that a plaintiff always wins will yield perfectly consistent results. Under the absolute bias favoring the plaintiff, the informational content of the trial product is at a maximum. But what does the process tell us? Simply what we already knew—that the plaintiff always wins. Rather than reflecting our best judgment about the evidence available to us, the result is attributable to factors entirely irrelevant to the merits.

106. If the information does bear a consistent relationship to the merits of the case it is redundant, since the trier of fact will have used the information in reaching a verdict.

107. The purpose of adopting 50% as the probability for the hypothetical in the text can now be better understood. The 50% case is the equipoise case, the case neutral on the merits. Thus, any deviations in outcome from 50% provide an estimate of the magnitude of the bias introduced by *Bernhard* unskewed by the merits. An ordinary litigant with a claim as strong as his opponent's suffers no such disability. But the more "common" the common party, the more the aggregate outcome reflects the *Bernhard* bias. The greater the number of related claims, the greater the prejudice to the common party, as Table I demonstrates. When there are only two claims the average reduction is 25%, as compared to an 80% reduction when there are ten, although in each case the total amount at stake is the same.
full and fair opportunity test ameliorate these problems? Critics have complained that the mutuality doctrine is too mechanical a rule, that it denies courts needed flexibility. 108 Commentators have proposed that the flexible tool which modern justice requires would be a rule that precludes a party who has litigated and lost unless, by design or circumstance, that party has been denied a full and fair opportunity to litigate. 109 The appeal of such an approach is obvious. On its face, Bernhard rejects a black letter rule, which by virtue of its very simplicity is presumed to be inadequate, in favor of a standard which, by virtue of its complexity, is presumed to reflect more accurately the policies of res judicata. In assessing the effect of the Bernhard doctrine on the distribution of risks, it was initially assumed that the full and fair opportunity test is always satisfied. The conclusions reached under this assumption are sufficient to demonstrate the flaws in Bernhard even when the full and fair opportunity test is incorporated in that doctrine. 110 As long as there are some cases in which the test will be met and in which the common party


109. See Currie, 53 CALIF. L. REV. 25, supra note 3, at 28-29. Of the statement in Note, supra note 108, at 529: "Courts should proceed on a case by case basis and consider the particular facts of each case in determining whether mutuality should be required." The implication of this statement is that there are some circumstances under the full and fair opportunity test in which preclusion would be permitted but for the fact that mutuality is lacking. Some support for this implication is found in RESTATEMENT (SECOND) OF JUDGMENTS app. § 88 (Tent. Draft No. 3, 1976). But even if mutuality has some role to play under the full and fair opportunity analysis, it is not through a case-by-case determination of whether mutuality is required. The Restatement full and fair opportunity test is, rather, a case-by-case determination of whether preclusion should be permitted in which mutuality is but one of a list of factors to be taken into account.

110. See RESTATEMENT (SECOND) OF JUDGMENTS app. § 88 (Tent. Draft No. 3, 1976); text at note 74 supra.

The deficiencies in a prior trial that would lead a court to find there was not a full and fair opportunity to litigate are not the kind which would subject the prior judgment to collateral attack or even to reversal on appeal.

A comprehensive list of the various factors which should enter into a determination whether a party has had his day in court would include such considerations as the size of the claim, the forum of the prior litigation, the use of initiative, the extent of the litigation, the competence and experience of counsel, the availability of new evidence, indications of a compromise verdict, differences in the applicable law and foreseeability of future litigation.

Schwartz v. Public Admr., 24 N.Y.2d 65, 72, 246 N.E.2d 724, 729, 298 N.Y.S.2d 955, 961 (1969). Six of the nine factors listed above relate either to the magnitude of the liability that would be thought to hinge on the outcome of the initial trial, or to the conduct of the trial participants that would ordinarily depend heavily on the magnitude of that liability, such as the extent of litigation, the experience of counsel or a compromise verdict. In other words, these six factors are directed at ensuring that the conduct of the trial that is to be relied on did not vary substantially from what might be expected if the participants had been consciously litigating both claims. The question of full and fair opportunity is simply whether the prior suit may be considered a fair representative of the trial to be precluded. See also RESTATEMENT (SECOND) OF JUDGMENTS app. §§ 68.1, 88 (Tent. Draft No. 3, 1976) (listing factors to be considered in determining whether there has been a full and fair opportunity to litigate).
has some chance of winning on the merits, *Bernhard* will reduce that chance by precluding the common party after just one loss. Thus, unless the *Bernhard* supporters are prepared to maintain that all inconsistencies in outcome are attributable to the lack of full and fair opportunity (*i.e.*, that the evidence itself is never ambiguous), so that a party who loses after a full and fair opportunity to litigate would never have won the case even if it were relitigated indefinitely, *Bernhard*’s supporters must concede that preclusion will alter the common party’s risks.

Discussion need not be limited to those cases for which the full and fair opportunity standard is met, however, since the probabilistic model can be adjusted to take the full and fair opportunity test into account. Initially, it was assumed that the fifty percent probability that the common party will lose a given case is attributable to all cases. But trials can be separated into two classes, those that meet the full and fair opportunity test and those that do not. Under the *Bernhard* doctrine, only those in the former class are given preclusive effect. Since another contingency apart from a favorable judgment—*i.e.*, lack of full and fair opportunity—can frustrate preclusion, the common party’s chances are slightly better than they would be if preclusion were automatic. Suppose, for example, that there is a ten percent chance that a loss by a common party with a fifty percent case will subsequently be denied preclusive effect because of a lack of full and fair opportunity. As Table II demonstrates, if there are three claims for $100 each, the common party’s recovery climbs from $87.50 under *Bernhard* applied mechanically to $92.63 under *Bernhard* with the full and fair opportunity test. The recovery under mutuality is $150.112

---

111. This proposition is untenable, since a case submitted to a jury, for example, is by definition one about which reasonable persons might disagree. To argue that a determination that there was full and fair opportunity means that the losing common party never could have won is to argue that the previous trial should have resulted in a directed verdict for the non-common party. Full and fair opportunity ensures that the risk of loss in the prior case was not disproportionate to the average risk of loss. It in no sense guarantees that a case decided with full and fair opportunity will accord with the majority view. See note 109 supra.

112. Calculating the probabilities under these circumstances is a considerably more complex task, which is why Table II was limited to the case of three claims. For example, there are now several ways for the common party to lose all of the suits. He can lose the first case and have the subsequent courts find that he had a full and fair opportunity (preclusion), lose the first without a fair opportunity (no preclusion) and the second with a fair opportunity (preclusion), and so forth. Using *W* to indicate a win, and *UL* to indicate an unfair loss, the probabilities are calculated below. The probability of a win, as before, is assumed to be .5. He is precluded only by a “fair” loss.

There are two ways for the common party to reach the second suit. He can win the first, or he can lose the first without a full and fair opportunity:

\[
\begin{align*}
P(W) &= .5 \\
P(UL) &= .5 \times .1 = .05
\end{align*}
\]
The assumption underlying Table II is that no relationship exists between the likelihood of success and the likelihood of a subsequent finding of full and fair opportunity. As a first order approximation, this assumption is useful, but it unrealistically implies that the fairness of a trial is a random factor with no informational content relevant to the likely or proper outcome of the trial. In reality there are three factors with which a determination of full and fair opportunity might be associated: the presence or absence of randomizing errors, the presence or absence of biases, and the merits of the case.

The effect of denying preclusion by finding no full and fair opportunity in cases where lack of full and fair opportunity is positively correlated with the presence of a randomizing error can profitably be compared with the results under *Bernhard* when a determination that there has been full and fair opportunity has no such correlation; under *Bernhard* applied without considering full and fair opportunity; and under mutuality. Suppose that overall the common party has a 80% case but that there is a 10% probability of a randomizing error. Further assume that this error is completely randomizing, that is, that the probability of winning a case in which the error appears is 50%.

Table III compares the results under

<table>
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<th>Trial number</th>
<th>$100</th>
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<th>$50.00</th>
<th>$50.00</th>
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<td>100</td>
<td>.5</td>
<td>12.50</td>
<td>.1513</td>
</tr>
</tbody>
</table>

The probability of winning the second suit is .5 x (.5 + .05) or .275.

Similarly, the probability that the common party will reach the third suit is

\[
P(WW) = .5 \times .85 = .425
\]

Thus, the probability that the common party will win the second suit is .5 x (.5 + .05) or .275.

The 10% figure is of course arbitrary. Additionally, there is no reason why it should remain constant. Indeed, since the foreseeability of future claims is an important element of fairness, it would be an unusual case in which the common party could successfully raise the unfairness defense to preclusion more than once. However, the example serves to provide a fair estimate of how slight the effect of the full and fair opportunity caveat to the *Bernhard* doctrine is.

113. If the overall probability of success is to be 80%, the probability of winning a case in which the randomizing error does not appear must be 83.3%. With \(W\) denoting a win, \(R\)
each of the rules for three $100 cases.\footnote{114}

\[ P(W) = P(W|\text{Re}) \times P(\text{Re}) + P(W|\overline{\text{Re}}) \times P(\overline{\text{Re}}) \]
\[ = .8 \times .1 + P(W|\overline{\text{Re}}) \times .9 \]
\[ = .05 + P(W|\overline{\text{Re}}) \times .9 \]
\[ P(W|\overline{\text{Re}}) = \frac{.75}{.9} = .833 \]

114. Recall that in the previous example (under \textit{Bernhard} with full and fair opportunity) there was a 10% chance that a loss by the common party would subsequently be denied preclusive effect. \textit{See} text at note 111 \textit{supra}. Columns A, B and C simply reflect Table II \textit{supra} adjusted for an 80% case. Thus, the values in column C are calculated as follows:

The probability that the common party will win the second suit equals the probability of winning a given suit, .8, times the probability of reaching the second suit, \(P(W) + P(UL))\), or
\[ .8 \times (.8 + .2 \times .1) \]
\[ = .8 \times .82 \]
\[ = .656. \]

Similarly, the probability that the common party will reach the third suit without being precluded is
\[ P(W W) = .8 \times .8 = .64 \]
\[ + P(W UL) = .8 \times .02 = .016 \]
\[ + P(UL W) = .02 \times .8 = .016 \]
\[ + P(UL UL) = .02 \times .02 = .0004 \]
\[ = .6724 \]

and the probability of winning the third suit is then \(.8 \times .6724 = .5379\).

Column D represents the situation in which there could be a finding of lack of full opportunity (of which there is a 10% chance) only in cases in which a randomizing error is present (which changes the probability of success or failure to .5). Thus, the probability of reaching the second suit without being precluded is \(P(W) + P(UL))\), or \(P(W) + P(L|\text{Re}) \times P(\text{Re})\)
\[ = .8 + .5 \times .1 \]
\[ = .8 + .05 \]
\[ = .85. \]

Thus the probability of reaching the third suit is
\[ = .8 + .5 \times .1 \]
\[ = .8 + .05 \]
\[ = .85. \]

Thus the probability of winning the second suit is \(.8 \times .85 = .68.\)

The probability of the common party reaching the third suit without being precluded is
\[ P(W W) = .8 \times .8 = .64 \]
\[ + P(W UL) = .8 \times .05 = .04 \]
\[ + P(UL W) = .05 \times .8 = .04 \]
\[ + P(UL UL) = .05 \times .05 = .0025 \]
\[ = .7225 \]

and the probability of winning the third suit is \(.8 \times .7225 = .578.\)
The common party’s expected recovery under mutuality is $240. Under *Bernhard* applied with no full and fair opportunity test the recovery is reduced to $195.20. Applying *Bernhard* with a full and fair opportunity test that randomly denies preclusive effect to 10% of the losses raises the recovery to $199.39. If, on the other hand, full and fair opportunity is related to a completely randomizing error so that only losses occurring in the 90% of the cases in which the randomizing error is not present, are given preclusive effect, the recovery is raised further to $205.80. Even if judges accurately employ the full and fair opportunity test to deny preclusive effect to judgments arising from unrepresentative trials, full and fair opportunity cannot be a substitute for mutuality. Nor is mutuality merely a mechanical analogue of the full and fair opportunity test. The manner in which their effects were calculated indicates that they are functionally quite different. Full and fair opportunity weeds out cases in which the common party was peculiarly unlikely to succeed. Mutuality harmonizes the outcomes of single party and multiparty litigation so that the trial system as a whole is coherent.

If the errors are biases rather than randomizing errors, the specific figures may change, but the general principle remains the same. By selectively denying preclusive effect to a class of cases in which, because of the presence of some anti-common party bias, the common party is peculiarly likely to lose, the full and fair opportunity doctrine does more to improve the common party’s chances than does the random denial of preclusive effect to the same number of cases. However, since the full and fair opportunity doctrine cannot
serve to permit the preclusion of any of the common party’s opponents, and since the mutuality doctrine would deny preclusion altogether, the full and fair opportunity doctrine, to the extent that it focuses on randomizing errors and biases that relate to procedural matters, can only mitigate the impact of the abandonment of mutuality.

The third possibility, however, is that a determination of full and fair opportunity is somehow related to the merits of the case. The full and fair opportunity doctrine might be employed to deny preclusive effect whenever the prior judgment is unrepresentative in the fullest sense of the word—that is, whenever the judgment does not accord with the majority view.115 Suppose that the full and fair opportunity test were perfectly discriminating: suppose, that is, that preclusion were never permitted against a common party with a better than 50% case and were always permitted otherwise. The resulting distribution of awards is represented in Graph G, which is simply a combination of Graph A (the result under mutuality) for p greater than .5 and Graph B (the result under the abandonment of mutuality) for p less than .5.

If, as is assumed in Graph G, a judge faced with a plea of collateral estoppel were actually capable of discerning the majority view by reviewing the prior action for full and fair opportunity, the Bernhard doctrine would be wholly unobjectionable; Graph G approximates Graph D (the ideal distribution) more closely than does Graph A. Although the recovery for common parties with better than 50% cases cannot be increased beyond what it would be under mutuality, the common parties estopped to relitigate are those who, ideally, should not recover at all. Thus there is a decrease in the rate of error.

But the full and fair opportunity test cannot be administered so as to reflect the merits of the case and thus to produce the results

115. This may perhaps be what Currie meant by “aberration” when he spoke of denying preclusion to an aberrational case. In other words, he may have meant that an aberrational case is any verdict which is in the hypothetical minority, less than 50% likely, rather than one that is extremely unlikely. Indeed, he originally stated that our aversion to giving preclusive effect to a judgment which is in the actual minority of those tried to date (in his hypothetical, one out of twenty-six), stems from the conviction that it “must be an aberration.” Currie, 9 STAN. L. REV. 281, supra note 3, at 289. It is, of course, possible for someone with a 50% probability of winning to win only one out of twenty-six trials, but it is extremely unlikely—the odds against it are 2,581,109:1. If Currie’s language reflects an awareness of the implications of the distinction between risk and outcome, that awareness vanished in his subsequent analysis. See notes 69-74 supra and accompanying text.
illustrated in Graph G. On its face, the test purports to concern itself with purely procedural matters—randomizing errors and biases—the elimination of which cannot raise the recovery of a common party with better than a 50% case under *Bernhard* to the level achieved under mutuality. Moreover, if it were possible for the subsequent judge to determine whether the common party has a better than 50% case and thus should be precluded, we could enjoy the ideal system contemplated by Graph D merely by having every case reviewed for full and fair opportunity. For a trial judge to relate full and fair opportunity to the merits of the preceding case is for him to make his own decision on the merits and then to invoke the prior judgment to justify his usurpation of the jury’s function in the second case. Thus, unless it is expanded to unrealistic and unin-
tended dimensions, the full and fair opportunity element of *Bernhard* does not meet the objections to the abandonment of mutuality.

C. Summary of Objections to the Abandonment of Mutuality

That Bentham's disparaging allusion to the gaming table should become the rallying cry of mutuality's critics is ironic, for there is no more persuasive argument on behalf of mutuality than that provided by the application of probability theory to litigation risks. While the bench may consider analogies between gaming and litigation unseemly, every trial lawyer knows that litigation is a gamble. Thus, it should not be surprising that elementary notions of fair play born at the gaming table find ready application at the bar.

The central theme of mutuality is the fair distribution of litigation risks. As the previous subsection demonstrated, the abandonment of mutuality significantly alters the distribution of such risks and imposes inequitable burdens on the party who faces multiple opponents. Only by ignoring or failing to recognize the risk allocation function of the mutuality requirement have the supporters of *Bernhard* been able to conclude that concern for judicial efficiency can justify abandoning mutuality. The *Bernhard* doctrine is inopportunity to reflect their view of the merits of the case. Courts are able to do this because there are no articulated criteria for such judgments and because it is carried on sub silentio.

For example, in Berner v. British Commonwealth Pac. Airlines, Ltd., 346 F.2d 532 (2d Cir. 1965), cert. denied, 382 U.S. 983 (1966), the court, in withholding preclusion, distinguished its ruling of the prior year applying *Bernhard*, Zdanok v. Glidden Co., 327 F.2d 944 (2d Cir.), cert. denied, 377 U.S. 934 (1964), on the ground that "the issues [in Zdanok]—interpretation of a collective bargaining contract—were not likely to be decided on the basis of a jury's choice among different factual inferences, as was the case here." 346 F.2d at 541.

The court may have been suggesting that only those judgments that are unlikely to be decided differently in a subsequent proceeding ought to be given preclusive effect. The court implies that jury trials are more likely to result in inconsistent verdicts than bench trials and that the fact of a trial by jury is therefore a justification for withholding preclusion. More probably, courts may simply be more willing to find full and fair opportunity when they approve of the verdict in the first trial. But cf. *Zdanok*, 327 F.2d at 957 (Lumbard, J., concurring) ("had it been proper for the district court to consider the additional proof adduced by the defendant at the second trial it seems to me to be clear beyond peradventure of a doubt that the [precluded party] proffered the only tenable view of the . . . agreement").

Indeed, in *Zdanok* the court held that a new defense against a new plaintiff could not be raised only after it detailed the reasons why it remained unconvinced of the merits of Glidden's case. 327 F.2d at 951-56.

119. See note 15 supra.

120. Admittedly, the authors of the Second Restatement, unlike some early commentators, did not wholly ignore the issue of litigation risk when they adopted the *Bernhard* doctrine. A party who has had a full and fair opportunity to litigate an issue has been accorded the elements of due process. In the absence of circumstances suggesting the appropriateness of allowing him to relitigate the issue, there is no good reason for refusing to treat the issue as settled so far as he is concerned other than that of making the burden of litigation risk and expense symmetrical between him and his adversaries. Equivalence of litigating
compatible with the basic purpose of civil litigation, the equitable redistribution of losses. In addition, the Bernhard doctrine demonstrably reduces the efficacy of litigation as a deterrent to anti-social conduct. 121

The concern for the wise use of judicial and private resources which motivates the supporters of Bernhard is certainly legitimate. However, the proper focus is not whether mutuality should be abandoned, but rather whether society's interest in conserving resources is great enough to justify more inclusive rules for compulsory joinder of parties. Serving that interest through compulsory joinder rather than by abandoning mutuality would avoid the inequities produced by Bernhard. 122 Furthermore, to allow preclusion through the risk, while a proper element in determining whether preclusion should be imposed, is only one of several considerations relevant in determining the fairness of estopping a party. . . .

RESTATEMENT (SECOND) OF JUDGMENTS app. § 88 (Tent. Draft No. 3, 1976). Since the principal consequence of the abandonment of mutuality is the redistribution of litigating risks in a manner that, standing alone, is inequitable, it is not clear how the Reporters intend equivalence of litigation risk to be weighed with other "considerations." The Restatement language is reminiscent of the discussion of symmetry in Bruszweski v. United States, 181 F.2d 419, 421 (3d Cir.), cert. denied, 340 U.S. 865 (1950), see note 14 supra, and of Greenebaum on the costs of litigation, see Appendix A at notes A12-A15.

There are two possible explanations for the Reporters' position. First, insofar as they perceive the matter as one of symmetry, the Reporters may regard the distribution of risks as an aesthetic matter. Compare the logical inconsistency that results when one of the railroad plaintiffs, see text at note 55 supra, recovers damages and another does not. Although the losing railroad plaintiff may be understandably piqued at the inconsistent outcome, he cannot complain of an "erroneous" judgment in favor of another. His objection is merely that the outcomes are "asymmetrical." No pecuniary interest of his is affected. The fact remains, however, that where risk distribution is involved such asymmetries have material consequences.

The point is not that the risks must be symmetrical. The point is that the a priori burden of a party should not exceed .5. Where the suit is bilateral, symmetry of risk is only an incidental consequence. Where there are only two parties and one bears a risk of .5, the other must also bear a risk of .5. In multilateral situations the risk distribution is rarely symmetrical, nor should it be. See text at notes 125-57 infra.

The second possible explanation is that the Reporters are comfortable with imposing a greater than 50% initial risk in the name of fairness, efficiency, or whatever. While this may satisfy the requirements of due process as currently understood, see Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation, 402 U.S. 313 (1971) (rejecting the mutuality requirement in patent litigation), it is an inadequate notion of procedural impartiality. The only difference between risks is that the party burdened may have consented to one (or otherwise have brought it upon himself) and not the other. In that case, the only relevant criterion is whether the party to be precluded could have joined the persons who seek the benefit of the judgment and so have avoided the risk. But under the proposed § 88, this, too, is but one factor to be considered. See RESTATEMENT (SECOND) OF JUDGMENTS app. § 88(3) (Tent. Draft No. 3, 1976).

121. See text following note 22 supra.

122. See also notes 91-94 supra and accompanying text. Some commentators argue that compulsory joinder is not always just. See, e.g., McCoid, A Single Package for Multiparty Disputes, 28 STAN. L. REV. 707, 726-28 (1976). McCoid suggests that mandatory joinder can cause claims to be lodged in inconvenient fora, can impair due process by overriding jurisdictional limitations, can induce claims that might otherwise not have been asserted, and can deter the settlement of claims.
abandonment of mutuality where joinder is merely permissive is likely to discourage joinder and thereby frustrate economical use of judicial resources by multiplying litigation. For example, typically a common party defendant is not permitted to join all of the plaintiffs in a single action. This rule is designed to protect the plaintiffs' interest in managing their own litigation. The abandonment of mutuality in the name of judicial economy, in such circumstances, rewards plaintiffs who exercise the prerogative to multiply litigation by giving them the benefit of a verdict for the plaintiffs with whom they chose not to join without requiring them to risk loss and preclusion.

Even where the common party is a plaintiff, a nonparty defendant who could not have been joined should not be allowed to take advantage of a judgment against the common party. The inability of the plaintiff to join a particular defendant is attributable either to jurisdictional barriers designed to protect the defendant or to prevailing notions of prudent judicial administration. If the defendant avails himself of his rights and refuses to participate voluntarily, the plaintiff should not bear the cost of eliminating the additional litigation caused by the defendant.

Whether the doctrine of mutuality of estoppel will be revived or will linger at the brink of death remains to be seen. The vitality of the mutuality requirement may well be mooted by developments in the rules of joinder.123 At the least, however, the critics of mutuality should not content themselves with an empty echo of Justice Tray-

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123. One writer has suggested maintaining the mutuality doctrine in order to encourage those able to do so to join all interested persons, to encourage those who cannot be joined to intervene, and to discourage those who might obstruct joinder from doing so. Semmel, supra note 1, at 1471-79. He proposes that a party should be precluded only if he could have joined the nonparties who seek to invoke the prior judgment, and that a nonparty should not be able to assert a prior judgment if he could have consolidated or become a party to the prior suit. Since the plaintiff will be bound as to any defendants he could have joined, he has every incentive to join them; only by doing so can he derive the maximum advantage from a favorable judgment. What Semmel advocates is a weak form of compulsory joinder. Although the common party is barred by defeat, unasserted claims are not merged in a favorable judgment.

The Restatement lists as one of the factors to be considered in determining the propriety of preclusion absent mutuality whether "[the] person seeking to invoke favorable preclusion, or to avoid unfavorable preclusion, could have affected joinder in the first action between himself and his present adversary." RESTATEMENT (SECOND) OF JUDGMENTS app. § 88(3) (Tent. Draft No. 3, 1976). The Restatement cites Semmel as support, although it recognizes the possibility that a party may be precluded despite the fact that he could not have affected joinder. Id., Comment 3 (citing United States v. United Air Lines, Inc., 216 F. Supp. 709 (E.D. Wash., D. Nev. 1962), affd. sub nom. United Air Lines, Inc. v. Wiener, 335 F.2d 379 (9th Cir.), cert. dismissed, 379 U.S. 951 (1964), discussed in text at note 66 supra).

McCoid anticipates the day when the threat that a defendant will be estopped to defend in future litigation will be deemed a sufficient basis for a finding that all plaintiffs are necessary
nor's lament that "it is difficult to comprehend . . . [just why a party who was not bound by a previous action should be precluded from asserting it as res judicata." They should instead attempt accurately to balance the competing interests in judicial economy and the equitable distribution of litigation risks.

III. EXCEPTIONS TO MUTUALITY

A. The Risk Allocation Function of Preclusion

Although the cases discussed thus far have involved multiple parties with related claims, the claims themselves have been essentially bilateral—each claim has been assumed to involve only one plaintiff and one defendant. It was demonstrated that the abandonment of mutuality in these multiparty bilateral cases causes an inequitable distribution of litigation risks. A determination whether mutuality should be required becomes more complex in multilateral cases in which more than one defendant may be liable for a single injury or in which more than one plaintiff asserts a single claim. Typical of multilateral cases involving more than one defendant are joint liability, joint and several liability, and derivative liability cases. These multilateral, multiple defendant cases share several common features: more than one defendant exists from whom the plaintiff may collect a single obligation; payment by one of the defendants generally discharges the liability of the other defendants to the plaintiff; and the defendant against whom the plaintiff obtains a judgment


125. RESTATEMENT OF JUDGMENTS § 95 (1942). The Second Restatement provides that the liability of other defendants is discharged only to the extent of the payment made. Re­statement (Second) of Judgments § 95(2) (Tent. Draft No. 3, 1976). Thus, if the plaintiff can recover a large judgment against one defendant, payment of a smaller judgment will not relieve a second defendant of liability for the excess. However, in most instances, the new § 88, see id. app. § 88, would preclude relitigation of the amount of damages. Id. § 95, Comment d.
generally becomes subrogated to the rights of the plaintiff with respect to the remaining defendants, limited only by the extent of his own liability to the plaintiff and by any equitable defenses or personal immunities that the other defendants can raise.

Many of the traditional exceptions to the requirements of mutuality have arisen in the context of multilateral litigation. Given the inability of the commentators and the courts properly to identify the underlying basis for mutuality in the relatively simple multiparty bilateral context, their disagreement as to the application of mutuality in the multilateral context is unsurprising. The proper analysis in such cases can be illustrated by an examination of the multilateral multiparty situation presented by the principle of respondeat superior and the other doctrines of derivative liability which give rise to the most frequent exception to the mutuality requirement (apart from the complete abandonment contemplated by Bernhard). Courts generally hold that a judgment in favor of the primary defendant/indemnitor can be invoked by the derivative defendant/indemnitee to preclude the plaintiff, even though the principal, if not a party to the suit against his agent, could not have been bound had the judgment gone the other way. The justification for this exception to mutuality is uniformly approved; without preclusion ei-

126. *See Pennwall Corp. v. Metropolitan Sanitary Dist., 368 F. Supp. 927 (N.D. Ill. 1973).*

127. Not only is the subrogee subject to any defenses which could have been raised against the subrogor, but he is subject to a variety of defenses personal to him that could not have been raised against the original plaintiff through whom he claims. *See RESTATEMENT OF RESTITUTION §§ 81-85 (1937).* To the extent that the common law denies contribution between joint tortfeasors, *see id.* § 102, it is essentially on these grounds. The tortfeasor is barred by the doctrine of “unclean hands,” a defense that the other tortfeasor could not have raised against the plaintiff. *See National Fire Ins. Co. v. Thompson, 281 U.S. 331 (1930).* Many states, however, now have a common law or statutorily created right to contribution among joint tortfeasors. *See RESTATEMENT (SECOND) OF TORTS § 886A, Note (Tent. Draft No. 16, 1970).*

128. *See Moore & Currier, supra note 1, at 311-26.* Other situations for which there are exceptions to mutuality include cases in which there has been secret participation in litigation by a nonparty, cases in which a prior criminal judgment is given conclusive effect in a subsequent civil trial, *see note 1 supra,* and cases involving privity of estate between predecessor and successor. *Moore & Currier, supra note 1, at 327-29.*

129. The principles developed in this subsection are equally applicable to the various permutations of derivative and joint liability, although the precise rule that is appropriate will vary with the theory of liability.

130. *See Moore & Currier, supra note 1, at 311, 322-24.*

131. The typical respondeat superior claim arises out of the employment relationship, in which case the agent/employee is the primary defendant and the principal/employer is the derivative defendant.

ther the indemnitor or the indemnitee would suffer inconsistent liability if the plaintiff were to prevail in the second suit. When, however, the derivative defendant is sued first, or when there is no right to indemnity, the authorities disagree with respect to whether preclusion of the plaintiff should be allowed absent mutuality. Because either the primary or the derivative defendant may be sued first, and because the derivative defendant may or may not have a right of indemnity against the primary defendant, the principle of respondeat superior gives rise to four types of cases:

<table>
<thead>
<tr>
<th>Indemnity</th>
<th>Primary Defendant</th>
<th>Secondary Defendant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(L) Sued First</td>
<td></td>
</tr>
<tr>
<td>Indemnity</td>
<td>Category 1</td>
<td>Category 2</td>
</tr>
<tr>
<td>No Indemnity</td>
<td>Category 3</td>
<td>Category 4</td>
</tr>
</tbody>
</table>

**Figure 1**

The First Restatement of Judgments allowed preclusion only in categories 1 and 3. Category 1 represents the typical situation in which preclusion is allowed in order to avoid the possibility of inconsistent liability. The rationale for an exception in category 3 is

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133. If a judgment against the claimant [in an action against the indemnitor] were not res judicata in a subsequent action against the indemnitee, either the indemnitee would be required to pay without the possibility of indemnity against the indemnitor, or the indemnitee would be required to make indemnity for a claim which, in an action by the claimant against him, had been found not to exist. 

RESTATEMENT OF JUDGMENTS, § 96, Comment a (1942). See also id. § 97 (derivative liability in contract). The revisers for the Second Restatement, adopting the Bernhard rationale, maintain that the primary basis for the § 96 exception and cases in accord with it was the injustice of permitting one who had had his day in court to reopen identical issues by substituting a new adversary. Reporter’s Note to RESTATEMENT (SECOND) OF JUDGMENTS § 99, Comments a & b (Tent. Draft No. 3, 1976).

While it is not clear whether it is the indemnitor or the indemnitee who would suffer inconsistent liability by the application of the mutuality doctrine in this situation, see id. § 99, Comment b, the question has been mooted by the universal acceptance of this exception to mutuality.

134. With respect to categories 1 and 3, the Restatement rule is that [a] valid judgment on the merits and not based on a personal defense, in favor of a person charged with the commission of a tort or a breach of contract, bars a subsequent action by the plaintiff against another responsible for the conduct of such person if the action is based solely upon the existence of a tort or breach of contract by such person, whether or not the other person has a right of indemnity. 

RESTATEMENT OF JUDGMENTS § 99 (1942). For the proposition that there should be no preclusion in categories 2 and 4, see RESTATEMENT OF JUDGMENTS §§ 96(2) & Comments j & k, 99 (1942).

135. See note 133 supra and accompanying text.
not as satisfactory, particularly since category 3, along with categories 2 and 4, does not present the possibility of inconsistent liability.

In contrast to the First Restatement, the Second Restatement and the major commentators allow preclusion in all four categories. However, the commentators disagree as to whether allowing preclusion in categories 2, 3, and 4 is consistent with the mutuality doctrine. Currie argues that preclusion in these cases is necessary but that it is inconsistent with the principles underlying mutuality. Thus, to Currie, these "exceptions" are precedent for the general abandonment of mutuality. Moore and Currie accept the appropriateness of preclusion in these three categories, but they disagree

136. Currie has been particularly critical of the Restatement's application of preclusion to category 3 and yet not to categories 2 and 4:
I have always been suspicious of this rule. As the Restatement acknowledges, it has narrow scope, because most of the cases of derivative liability involve a right to indemnity. In the rare cases that are left, no relaxation of the mutuality rule is dictated by the necessity of avoiding a situation of actual injustice such as that involved in the indemnity cases. Within its limited effective sphere, the rule seems motivated by the intuitive notion that the judgment in favor of the actor "destroys the basis" for the liability; but this is naive. One might as well say that the first finding of negligence against our railroad destroys the basis for the railroad's defense. . . . If the actor is exonerated and the person derivatively liable is made to pay, there is no injustice such as is produced where the indemnity relation exists; there is only an inconsistency which is readily explained by the limitations of the adjudication process. The Restatement gives only one sound reason why the plaintiff should be barred in this situation: he has had his day in court, and it is not unfair to deny him a second chance against another adversary. But that is the rule of the Bernhard case. There is no reason to confine it to the derivative liability situation and the Restatement should logically adopt the Bernhard doctrine.


The First Restatement is not completely inconsistent. In favor of the Restatement rule, it might be argued that it is fair to deny a second opportunity where, because of the plaintiff's initial loss, the derivative defendant will be especially likely to be forced to bear the loss. If the primary defendant is held liable in addition to the derivative defendant, there is at least the possibility that the plaintiff will elect and will be able to levy on the primary defendant for all or part of the judgment. Once the primary defendant has won his case, that option is foreclosed.

137. In contrast to category 1 (in which the agent/indemnitor is sued first and exonerated), see note 133 supra, there is no risk of inconsistent liability in category 2. Even if the agent/indemnitor is subsequently held liable, the judgment on behalf of the principal is only logically inconsistent. It frustrates no right of indemnity because the agent is the one ultimately liable. Nor is there any possibility of a second attack by another party against the agent/indemnitor if he prevails over the plaintiff (the plaintiff having already lost to the principal/indemnitee).

While in category 2 the possibility of inconsistent liability created by the indemnity relationship should be disregarded once a judgment has been rendered on behalf of the indemnitee, in categories 3 and 4 the problem never arises, because the derivative party has no recourse in any event.


139. See Currie, 9 STAN. L. REV. 281, supra note 3, at 314-15. Accord Restatement (Second) of Judgments § 99, Comment b (Tent. Draft No. 3, 1976) ("In historical perspective, the rule is chiefly explained as an early emerging exception to the mutuality rule.")
with Currie that these exceptions are inconsistent with mutuality. They maintain that these cases involve a legal relationship between the derivative and primary defendants that distinguishes them from other multiple party litigation in which mutuality traditionally operates. 140

As will be demonstrated in subsection B, preclusion should be allowed in each of the four categories and, as Moore and Currier maintain, these exceptions are not inconsistent with mutuality. The grounds for these conclusions can best be understood by considering the allocation of litigation risks that occur in derivative liability cases. 141

Although rules of preclusion ultimately distribute losses, the commentators and the courts have failed to perceive that such rules initially distribute the risk of loss. 142 Absent multiple or inconsistent liability, no outcome is per se anomalous. 143 Nonetheless, it is unsatisfactory to avoid only the potential for an anomalous outcome that arises if the plaintiff is not precluded in type 1 cases, for the risk of a particular outcome can unfairly burden a litigant even though the outcome itself is wholly unobjectionable. This simple observation makes possible the statement of a single principle that subsumes both the mutuality doctrine and its exceptions: Rules of preclusion should be fashioned so that every litigant's a priori risk of failure, without reference to the merits, is no more than 50%. The a priori risk of

140. Moore & Currier, supra note 1, at 311-16.
Currie would find Moore and Currier's attempt to reconcile the mutuality doctrine with preclusion in categories 2 and 4 unpersuasive. If he were inclined to accept mutuality, Currie would prefer the First Restatement approach:

From the point of view of an adherent to the mutuality rule . . . no necessity exists for allowing an indemnitor to plead a judgment favorable to the indemnitee. . . . The judgment in favor of the indemnitee disposes of any problem relating to the indemnity relation, and no necessity requires relaxation of the mutuality rule. . . . The [First] Restatement is much more logical (given its basic adherence to the mutuality rule): it would not permit "the indemnitor" to plead the judgment favorable to the indemnitee. Currie, 9 STAN. L. REV. 281, supra note 3, at 307 nn. 61 & 62. Accord RESTATEMENT OF JUDGMENTS § 96, Comment j (1942); Semmel, supra note 1, at 1463.

141. The ultimate justification for preclusion in all four cases is that the plaintiff is entitled to only one recovery and has no legitimate claim to a reduction of his normal litigation risks at the expense of the defendants. The legal relationship of the defendants is relevant because it is critical to the theory of liability. It is not the "closeness" of the defendants that makes it legitimate for one to invoke the judgment in favor of the other, as Moore and Currier seem to imply, supra note 1 at 311-21.

142. But see note 120 supra.

143. By "outcome" is meant the entire disposition of the case. Holding the secondary defendant liable while exonerating the alleged tortfeasor is one outcome anomalous by itself where there is a right to indemnity. The converse, i.e., holding the primary party liable while exonerating the secondary party, while not objectionable per se, may place an unfair burden on the primary defendant if there is an unfair risk that it will occur.
failure should be no less than 50% unless, solely because of his trial posture and the theory of liability, a lighter burden is equitable.

The notion that a litigant’s a priori risk of failure should not exceed 50% is simply a mathematical expression of the rules governing the burden of persuasion in civil litigation. As shown earlier, in the multiparty bilateral case the mutuality doctrine is essential if the common party’s a priori risk is not to exceed 50%.144 In the bilateral situation the rule that neither litigant’s risk should exceed 50% implies that both parties face a priori risks of exactly 50%. Where, however, litigation is multilateral, as in derivative liability cases, not every litigant can bear a 50% risk because the total risk cannot exceed 100%. Thus, in multilateral cases the focus shifts from the concern that no party bear a risk in excess of 50% to the concern that the reduction in average risk that accompanies the presence of more than two parties be properly distributed.

Since rules of preclusion operate without reference to the merits and are established in advance of trial, risks must be allocated solely by reference to the theory of liability and to the roles of the litigants with respect to that theory.145

B. Probabilistic Analysis of the Exceptions to Mutuality

By examining the four derivative liability cases represented in Figure 1, this subsection will illustrate the role that the theory of liability should play in determining when preclusion should be allowed in multilateral litigation absent mutuality. This examination will establish three points with respect to derivative liability cases. First, cases in categories 1 and 3 (in which the derivative defendant seeks to invoke a judgment rendered on behalf of the primary defendant), cannot reasonably be distinguished from cases in categories 2 and 4 (in which the primary defendant seeks to preclude the plaintiff on the basis of a prior judgment favoring the derivative defendant). Second, to the extent that any distinctions can be drawn among the four categories of derivative liability cases, the proper distinction is between indemnity cases and non-indemnity cases, a dis-

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144. See Table I supra. Note that the “events” listed in the table correspond to single trials, for example, recovery from the fifth defendant. Tables A and B, note 87 supra, in contrast, list composite events such as the probability that plaintiff will recover from five defendants. Table I thus illustrates the increase in the common party’s risk with respect to individual opponents in the multiparty bilateral case.

145. But cf. note 118 supra, which suggests that where mutuality has been rejected, many courts employ the full and fair opportunity rubric to impose their own judgments of the merits of a case. This is an allocation of a different kind. It is, in effect, a judicial “compromise verdict.” The measure of relief is made to vary, not according to the nature of the injury, but according to the degree of subjective certainty about the result.
tinction drawn by none of the commentators. Finally, in all four
types of cases exceptions to the mutuality doctrine are appropriate
and consistent with the principles underlying mutuality. Thus, they
provide no precedent for Bernhard.

1. Categories 1 and 2: Right of Indemnity

This Note next analyzes in probabilistic terms the propriety of
granting an exception to mutuality in derivative liability cases in
which the derivative defendant may indemnify any losses against the
primary defendant. Assume, for the sake of simplicity and to isolate
the effects of preclusion, that the case is a 50% case on its merits. In
addition, assume that the probability of success or failure on the is­sue of liability is the same whether the issue is raised by the plaintiff
against one of the defendants or by the derivative defendant in an
indemnity action against the primary defendant. As a practical
matter, in respondeat superior cases the employer/derivative defend­
ant will often be the ultimate source of the plaintiff’s recovery, since
employees seldom possess assets sufficient to compensate either the
plaintiff or the employer seeking indemnification. However, as long
as the derivative defendant has a right of indemnity, the judicial sys­
tem cannot ignore the possibility of inconsistent liability.

That the derivative defendant has a right of indemnity indicates
that the purpose of derivative liability is only to provide a deeper
pocket from which the plaintiff can obtain compensation, not to pro­
provide a “collateral source” of expected recovery. The derivative
defendant is there only to assume the risk that the primary defendant
is financially irresponsible, not to assume the risk of personal liabil­
ity without being able to obtain a judgment for indemnity. Thus,
provided the derivative defendant is not held liable without recourse
against the primary defendant, the derivative defendant will be
deemed not to have suffered a loss. On the basis of these observa­

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146. See text at note 134-40 supra.

147. In reality, the probability of success will sometimes be less for the derivative defend­
ant in a suit against the primary defendant than for the plaintiff pursuing the primary defend­
ant, since the primary defendant may possess defenses against the derivative defendant that
are unavailable against the plaintiff.

148. “Collateral source” is used here in a peculiar sense. Ordinarily it refers to a source of
recovery that does not discharge the debt of the defendant. See RESTATEMENT (SECOND) OF
JUDGMENTS § 95, Comment e (Tent. Draft No. 3, 1976). That is not the rule in derivative
liability cases, since any payment received by the plaintiff discharges all defendants to the
extent of the payment. See id. § 95. However, where the additional defendant does lessen or
eliminate the litigation risk of the plaintiff, he is an additional “source” of expected or average
recovery.
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tions, the most desirable distribution of risks in derivative liability cases in which the derivative defendant has a right of indemnity is:

- risk of loss for plaintiff ($P$) = .5  
- risk of loss for primary defendant ($D$) = .5  
- risk of loss for derivative (secondary) defendant ($S$) = 0

Ideally, to be consistent with the theory of derivative liability, the risk of ultimate liability should be distributed as though the case were strictly bilateral. This ideal risk distribution for cases in categories 1 and 2 can be compared with the actual distribution of risks under both mutuality and an exception to mutuality. The attainable distributions are tabulated in Table IV,\textsuperscript{149} using the abbreviations $P$, $D$, and $S$ for plaintiff, primary defendant, and derivative (secondary) defendant, respectively. The indeterminate case in which $P$ defeats both $D$ and $S$ but $S$ loses the suit for indemnity is represented by I. The distributions appearing in the table, two other distributions are attainable under a quasi-exception to mutuality. This quasi-exception occurs in category 2 ($S$ sued first) when a judgment rendered against $P$ in a subsequent suit against $D$ relieves $S$ of a prior judgment against him. This is in effect a mutuality exception, albeit one that operates only in favor of $S$. The effect of this one-way exception is to make the risk distribution contingent on $P$'s decisions. Since $P$ risks the loss of a favorable judgment rendered against $S$, he will not proceed against $D$ unless he must. Thus, if $S$ can satisfy all or most of the judgment, the distribution is still that of column E. The quasi-exception only limits $P$ if he first defeats $S$, and then only if he elects to pursue $D$. Assuming no preclusion, if he loses to $S$ he still has another opportunity to litigate the same claim. The risks borne by each party under this quasi-exception are calculated as follows (the notation $PIS$ means $P$ loses to $S$; $PwS$ means $P$ wins against $S$; etc.):

\begin{align*}
\text{$P$'s risk of loss:} & \\
& PIS \cdot PID = .25 \\
& PwS \cdot PID = .25 \\
\text{$D$'s risk (assuming subrogation):} & \\
& PIS \cdot PwD = .25 \\
& PwS \cdot PwD = .25
\end{align*}

This quasi-exception can also operate when preclusion is allowed, that is, when an exception to mutuality is already recognized. Although $P$ is precluded by an initial loss to $S$, a favorable judgment can still be set aside if $P$ sues $D$ for the residue and loses. In effect, the judgment for $D$ constitutes "payment" of the amount for which he is at risk. The resultant risks are as follows:

\begin{align*}
\text{$P$'s risk of loss:} & \\
& PIS = .5 \\
& PwS \cdot PID = .25 \\
\text{$D$'s risk of loss (assuming subrogation):} & \\
& PwS \cdot PwD = .25
\end{align*}

\textsuperscript{149} A discussion of the assumptions underlying Table IV and the method used to calculate the risk distributions appears in Appendix B.
bution of the loss thus depends on how $P$ collects on the two judgments. The columns represent the various risk distributions that result under different assumptions about the availability of subrogation and impleader and about whether the primary defendant can prevent an indemnity action by the derivative defendant. For example, the risk distribution in column A occurs when $S$ can maintain an indemnity action against $D$ even though $D$ has successfully defended a direct action by $P$, but $S$ cannot subrogate an indemnity claim to a verdict for $P$ against $D$ and cannot implead or vouch in $D$ when defending an action by $P$. The assumptions that underly the other columns are described in Appendix B.

Note that without preclusion $P$’s risk of loss is .25. All of the variations serve only to alter the distribution of risk between $D$ and $S$. With preclusion, a risk of .25 is shifted from $D$ to $P$.

![Table IV](image)

What is striking about Table IV is that the attainable distributions of risk absent an exception to mutuality are identical whether $D$ is sued first or $S$ is sued first. Thus, in terms of risk allocation, there is no basis for permitting an exception to mutuality in the former case but not in the latter.

The commentators have focused on the ultimate outcome rather than on the risk distribution and thus have designed rules that avoid only outcomes that cause a single party to bear inconsistent liability. But permitting $P$ to sue $D$ after losing to $S$ still affords him two bites at the apple. Since $P$ has only a single claim, the second opportunity to litigate necessarily decreases his overall risk of loss. Consequently, either $D$ or $S$ (or perhaps both) must bear a heavier burden. The presence of a third party, the derivative defendant, can relieve one or the other of the primary litigants of all or part of his share of the risk. But with respect to the plaintiff, the two defendants are not unlike a single entity. $D$ and $S$ have a consensual relationship that requires $S$ to guarantee certain obligations incurred by $D$. Presum-
ably, some reciprocal benefit has induced $S$ to enter the relationship and assume that burden. How the loss is distributed between them should be of no concern to $P$. He should not be the beneficiary of a windfall reduction in litigation risk. Thus, if $S$ is to share and thereby reduce anyone's risk of loss, it should be $D$'s.\footnote{150}

This is precisely the result when, as it should be for cases in both categories 1 and 2, preclusion is allowed. The distribution of risks under an exception to mutuality properly reflects the assumption that the derivative defendant is only meant to assume the risk of the primary defendant's financial irresponsibility. Distribution (K), the ideal distribution, is obtained when preclusion is allowed and the derivative defendant can implead the primary defendant or can subrogate an indemnity claim to a verdict for plaintiff against the primary defendant.\footnote{151} Even when circumstances are such that the derivative defendant cannot be held harmless (as is the case for distributions (F) through (J)), at least it is the primary defendant, rather than the plaintiff, who is the beneficiary of the risk borne by the derivative defendant.

2. **Categories 3 and 4: No Right of Indemnity**

The effect of preclusion in derivative liability cases in which no indemnification right exists is illustrated in Table V,\footnote{152} which tabu-

\begin{align*}
P's 	ext{ risk of loss:} & \
P_{ID} \cdot P_{IS} &= .25 \\
D's 	ext{ risk of loss:} & \
P_{wD} \cdot P_{IS} &= .25 \\
S's 	ext{ risk of loss:} & \
P_{ID} \cdot P_{wS} &= .25 \\
I: & \
P_{wD} \cdot P_{wS} &= .25 \\
\end{align*}

\begin{align*}
P's 	ext{ risk of loss:} & \
P_{ID} &= \frac{1}{2} \\
D's 	ext{ risk of loss:} & \
P_{wD} \cdot P_{IS} &= .25 \\
\end{align*}

Column (D) reflects the case under the mutuality exception in which $P$ is precluded by a loss to $D$. \footnote{152} Determining the distribution of risks absent indemnity is comparatively simple. In category 3, column (A), the distribution is as follows:

\begin{align*}
P's 	ext{ risk of loss:} & \
P_{ID} \cdot P_{IS} &= .25 \\
D's 	ext{ risk of loss:} & \
P_{wD} \cdot P_{IS} &= .25 \\
S's 	ext{ risk of loss:} & \
P_{ID} \cdot P_{wS} &= .25 \\
I: & \
P_{wD} \cdot P_{wS} &= .25 \\
\end{align*}
lates the attainable distributions of risks for cases in categories 3 and 4 under the same assumptions made with respect to Table IV.

The number of attainable risk distributions in these cases is much smaller than in cases in which the derivative defendant has a right of indemnity. In the only attainable distribution under mutuality

\[
P_d \cdot P_s = .25.
\]

In the pure mutuality case, when \( S \) is sued first, the distribution of risks is, again, the same as when \( D \) is sued first. It is derived in the same manner as above. The distribution is shown in category 4, column (A).

Column (B), however, incorporates the quasi-exception to mutuality discussed in relation to category 2, note 151 supra. That quasi-exception permits a subsequent loss by \( P \) to \( D \) to relieve \( S \) of an adverse judgment rendered against him in the first suit. The distribution is computed as follows:

\[
P's \ risk \ of \ loss:
\]
\[
PIS = .25
\]
\[
+PwS \cdot PID = .25\frac{1}{2}
\]

\[
D's \ risk \ of \ loss:
\]
\[
PIS \cdot PwD = .25
\]

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<td>I:</td>
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<td>( PwS \cdot PwD )</td>
<td>= .25</td>
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Column (C) is simply the mutuality exception. A loss in the first suit precludes any further action by \( P \). A victory by \( P \) in the first suit either causes \( S \) (the indemnitee) to bear the entire loss if \( D \) prevails in the second suit or results in the indeterminate case if \( D \) loses. (But compare the distribution in category 3, column (D), in which \( D \) bears the entire loss if \( P \) fails to prevail in the second suit. See text preceding note 156 infra.)

\[
P's \ risk \ of \ loss:
\]
\[
PIS = .5
\]

\[
S's \ risk \ of \ loss:
\]
\[
PwS \cdot PID = .25
\]

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<tr>
<td>( PwS \cdot PwD )</td>
<td>= .25</td>
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Finally, column (E) reflects the combination of the mutuality exception with the quasi-exception. \( P \) is precluded by a loss in the first suit and loses the benefit of a favorable verdict in the first suit if he elects to proceed against \( D \) and loses. (Such a case logically assumes \( S \) has insufficient assets.)

\[
P's \ risk \ of \ loss \ is \ then:
\]
\[
PIS = .5
\]
\[
+PwS \cdot PID = .25\frac{1}{2}
\]

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<td>I:</td>
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<tr>
<td>( PwS \cdot PwD )</td>
<td>= .25</td>
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(other than (B), a quasi-exception to mutuality)\textsuperscript{153} the plaintiff’s risk of loss is reduced from 50% to 25\% by the presence of the derivative defendant. As was the case with respect to categories 1 and 2, under mutuality the plaintiff has two opportunities to win the same claim—once against the primary defendant and once against the derivative defendant.

The Restatement favors an exception to mutuality in category 3 but not in category 4.\textsuperscript{154} The commentators, on the other hand, agree that these two cases cannot be distinguished, but disagree on whether a mutuality exception is consistent with the policies underlying mutuality.\textsuperscript{155} Table V demonstrates that when no right of indemnity exists, no distinction can be made under mutuality on the basis of which defendant is sued first. When an exception to mutuality is permitted, a distinction based on the order of suit does arise. This distinction is attributable to the fact that only the defendant sued first can be held solely liable while the other is either entirely exonerated or liable only as part of the indeterminate outcome. That the derivative defendant has no right of indemnity suggests there is no overriding policy in favor of compelling the primary defendant to bear the loss rather than the derivative defendant. Thus distributions (C) and (D) are equally acceptable, and no reason exists to distinguish between categories 3 and 4, with or without an exception to mutuality.\textsuperscript{156}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
                                & \textbf{Mutuality} & \textbf{Mutuality Exception} & \\
                                & \textbf{(no preclusion)} & \textbf{(preclusion)} & \\
                                & \textbf{(A)} & \textbf{(B)} & \textbf{(C)} & \textbf{(D)} & \textbf{(E)} \\
\hline
\textbf{Category 3} & \textbf{P’s risk of loss} & .25 & .5 & .25 & .75 \\
\textbf{\hspace{.5cm}(D sued first)} & \textbf{D’s risk of loss} & .25 & .25 & 0 & 0 \\
\textbf{\hspace{.5cm}S’s risk of loss} & \textbf{I} & .25 & .25 & .25 & .25 \\
\hline
\textbf{Category 4} & \textbf{P’s risk of loss} & .25 & .5 & .25 & .75 \\
\textbf{\hspace{.5cm}(S sued first)} & \textbf{D’s risk of loss} & .25 & .25 & 0 & 0 \\
\textbf{\hspace{.5cm}S’s risk of loss} & \textbf{I} & .25 & .25 & .25 & .25 \\
\hline
\end{tabular}
\caption{Table V}
\end{table}

\textsuperscript{153} See note 152 \textit{supra}.

\textsuperscript{154} See \textit{Restatement of Judgments} §§ 96(2), 99 & §§ 96 Comments j & k (1942), discussed in note 134 \textit{supra}.

\textsuperscript{155} See notes 139 & 140 \textit{supra}.

\textsuperscript{156} A rule could be devised like the one suggested in the indemnity cases—the quasi-exception represented by column (E). \textit{P} could be deprived of his judgment against \textit{S} to the extent that he has put \textit{D} at risk and lost. However, the justification for the refinement in the indemnity cases was to avoid subjecting one or the other of the defendants to inconsistent liability, even though their aggregate risk is only .5. Here, absent indemnity, there can be no inconsistent liability because neither defendant can be subjected to more than one lawsuit.
A comparison of Tables IV and V suggests that if any distinction is to be drawn among the four categories of cases, it should be based upon whether or not the derivative defendant has a right of indemnity. Nonetheless, for much the same reason as was suggested in the indemnity cases, preclusion should also be permitted in the non-indemnity cases. The absence of a right of indemnity only affects the distribution of loss between the primary defendant and the derivative defendant; it is of no concern to the plaintiff. There is no reason why the primary defendant and the derivative defendant, considered together, should incur a litigation risk greater than 50%, as they do under mutuality. 157 If the derivative defendant cannot avoid bearing some risk of loss, the theory of derivative liability suggests that that risk should redound to the benefit of the primary defendant rather than to the plaintiff. Thus, the appropriate result in categories 3 and 4, as in categories 1 and 2, is to permit an exception to mutuality and to allow preclusion of the plaintiff.

IV. APPLICATION OF PRECLUSION PRINCIPLES:

Pennington v. Snow

The preceding sections of this Note established, through the use of probability theory, that in multiparty bilateral litigation the mutuality requirement is necessary to assure that the relative risks of the parties are consistent with the burden of persuasion in civil litigation. It was then demonstrated that whether or not preclusion should be allowed in the context of multilateral litigation depends upon the theory of liability underlying the relationship between the parties. In particular, it was shown that preclusion should be permitted in derivative liability cases whether the primary or the derivative defendant is sued first and whether or not the derivative defendant has a right of indemnity. The inequities that can result when the courts respond to a plea of collateral estoppel without adequately considering the policies expressed in the mutuality doctrine are illustrated by a recent decision of the Alaska Supreme Court purporting to adopt the Bernhard rule.

In Pennington v. Snow, 158 Mr. Pennington first sued his insurance company to recover medical expenses incurred by his wife. He alleged that Mrs. Pennington’s spontaneous abortion of the fetus she was carrying was caused by a low-speed collision between the Pen-

157. While the risk of loss in the indeterminate case is not clearly \( D's \) or \( S's \), it is borne by one of them, not by \( P \).

nington vehicle and a car driven by Snow. The insurer prevailed in
this initial suit, since Pennington failed to establish that the acci­
cdent caused the miscarriage. Mrs. Pennington subsequently brought
suit for damages against Snow, alleging the same injuries. Snow
pleaded the judgment for Pennington’s insurance company as a de­
fense.159

On review of the trial court’s rejection of the collateral estoppel
plea, the Alaska Supreme Court purported to adopt Bernhard.160
Mrs. Pennington was not a named party in the prior suit, but the
court held that she was in privity with her husband and bound by the
earlier judgment to the same extent that he would have been.161 Af­
ter deciding that Bernhard was applicable to Mrs. Pennington’s suit
against Snow, the court considered whether the full and fair oppor­
tunity requirement had been satisfied.162 Observing that the prior
claim had been for a comparatively small amount and that the case
had therefore been decided in a court of limited jurisdiction, the
court held that Mrs. Pennington was not estopped to litigate the issue
of causation in her suit against Snow.163

The situation of the insurance company in Pennington is similar
in some respects to that of the derivative defendant in the derivative
liability cases discussed earlier.164 Had the company paid Mr. Pen­
nington’s claim, either upon request or because of a judgment for
Pennington, it presumably would have been subrogated to the Pen­
ningtons’ claims against Snow. Since the insurance company is the
additional party to the bilateral dispute, any risk of ultimate liability
borne by it must lessen the risk borne by either Pennington or Snow
(or perhaps both). Assuming the court had found the full and fair
opportunity test satisfied, the decision to apply Bernhard, and thus to
preclude relitigation of the causation issue, would have given Snow
the benefit of the company’s presence. Allowing Snow to preclude
Pennington from relitigating following Pennington’s loss to the in­
surance company leaves Snow with only a 25% chance of being held
liable (assuming Pennington has a 50% case). Snow has two oppor­

159. 471 P.2d at 373.
160. 471 P.2d at 377. The court alluded to Currie’s two suggested limitations of Bernhard,
471 P.2d at 377 n.14, citing Currie, 9 STAN. L. REV. 281, supra note 3; but, finding neither of
them applicable, declined to accept or reject them.
161. 471 P.2d at 374-76.
162. “Thus, while we hold that mutuality will not be required as a rule, it remains to be
inquired, in each case, whether there were any unusual or exceptional factors in the prior
adjudication which would warrant the application of the mutuality requirement.” 471 P.2d at
377.
163. 471 P.2d at 377-79.
164. See text at notes 148-50 supra.
opportunities to defeat Pennington: Snow wins if the insurance company wins, and Snow wins if the company loses but he personally prevails in the company's subrogation action. Pennington has only one opportunity to litigate and therefore bears a 50% risk of loss. The company bears the remaining 25% risk, which represents the chance that it will be found liable to Pennington under the insurance contract yet fail to prove Pennington's claim in its subsequent suit against Snow.

The result dictated by the court's adoption of *Bernhard* is inconsistent with the actual relationship between the parties and with the theory of liability underlying that relationship. What distinguishes *Pennington* from the derivative liability cases is that in *Pennington* the third party and the plaintiff shared a contractual relationship, not the third party and the primary defendant. Pennington paid the insurance company for the right to recover his losses. By doing so he purchased an additional defendant. If anyone ought to benefit from the risk assumed by the company it must be Pennington, who paid premiums that reflect precisely that risk. Thus Pennington should not be precluded from litigating the issue of causation against Snow despite his loss to the insurance company.

The correct distribution of risks leaves Pennington with a 25% risk of loss, which arises because Pennington ultimately loses only if unsuccessful against both the insurer and against Snow. Snow, on the other hand, bears a 50% risk, for he can lose either by losing to Pennington after Pennington has lost to the insurer, or by losing to the insurance company after Pennington has prevailed against the company. Finally, the remaining 25% risk falls upon the insurance company, which loses when Pennington is successful against the company which is in turn unsuccessful in its subrogation claim against Snow.

165. Every contract right can be viewed as ultimately nothing more than the purchase of a defendant. It cannot therefore be argued that the policyholder is somehow frustrating public policy by proliferating defendants.

166. The risk distributions under preclusion as envisioned by the court in *Pennington* and

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<tr>
<th>Preclusion (Pennington Suit)</th>
<th>No Preclusion (Proper Analysis)</th>
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<tbody>
<tr>
<td><strong>Pennington's risk of loss</strong></td>
<td>( P_{II} = 0.5 )</td>
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<tr>
<td><strong>Snow's risk of loss</strong></td>
<td>( P_{wI} \times P_{wS} = 0.5 \times 0.5 = 0.25 )</td>
</tr>
<tr>
<td><strong>Insurer's risk of loss</strong></td>
<td>( P_{wI} \times I_{wS} = 0.5 \times 0.5 = 0.25 )</td>
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**Table E**
Conclusion

Bernhard v. Bank of America National Savings and Trust Association stands for the proposition that one who has had a full and fair opportunity to litigate an issue and has lost should not be permitted to relitigate that issue merely because he has found, or has been found by, a new adversary, even though that new opponent would not have been bound had the prior judgment gone the other way. This Note has examined and rejected Bernhard's call to abandon the mutuality doctrine of collateral estoppel.

This Note began by demonstrating, with the aid of probability theory, that the burden of persuasion in civil litigation embodies a strategy designed to minimize the total number of erroneous judgments and that this strategy is based on the various disutilities society attaches to the different possible outcomes of litigation. This Note then established that the abandonment of mutuality causes a statistically certain decrease in the recovery of a party facing multiple opponents on related claims. This effect of Bernhard is of concern to more than just the common party, for the mutuality doctrine is designed to allocate trial risks in a manner consistent with the burden of persuasion, that is, in a manner designed to minimize the total number of errors. Thus, the abandonment of mutuality harms the system of civil sanctions by weakening the causal link between culpable conduct and trial outcome. This Note also demonstrated that the objections to the abandonment of a mutuality requirement are not met by a requirement that the common party be precluded only if he has previously enjoyed a full and fair opportunity to litigate. Both the full and fair opportunity test and the mutuality requirement should be satisfied before the common party is precluded.

Finally, it was demonstrated that the traditional exceptions to the mutuality requirement are entirely consistent with an error minimizing strategy. None of the exceptions is precedent for the abandonment of mutuality except under the same flawed outcome analysis that led to the Bernhard doctrine in the first place. The underlying theory of liability that defines the relationship between the parties must be the focus when the risk analysis developed in this Note is applied to the multilateral litigation cases that give rise to the traditional mutuality exceptions.

under the proper application of the requirement of mutuality are summarized in the preceding table. (The notation PII means "Pennington loses to Insurer," PwS means "Pennington wins against Snow," etc.)
This Appendix summarizes and criticizes the arguments against the abandonment of the mutuality doctrine.

First, it is argued that the abandonment of mutuality is not necessary in order to prevent multiple harassment, one of the traditional objects of collateral estoppel generally. Thus, Moore and Currier note that

X, the stranger, needs no protection against repeated litigation. He does not ask to be relieved of litigation for a second time; he asks to be relieved of the necessity of litigating at all. Clearly, then, the policy protecting individuals from the harassment of repeated lawsuits does not require, or even suggest, that X, a stranger to the litigation between A and B, should be permitted to use A's judgment against B, either affirmatively or negatively.\textsuperscript{A1}

While there is no need for protection against multiple harassment in multiple party cases, there remains the other traditional equity ordinarily weighing in favor of collateral estoppel—the interest of the state in concluding litigation. The commentators disagree about the relative weight to be given these two factors. Greenebaum states that while “many dicta can be found stating that res judicata exists for public interests, in actual practice precluding litigation for the benefit of a party who has no personal claim for protection is novel, indeed, revolutionary.”\textsuperscript{A2} On the other hand, von Moschzisker points out:

\begin{quote}
[O]f the two principles which [res judicata] comprehends, the protection from the annoyance of repeated litigation, which the individual suitor is afforded, is, after all, only an incident of the first principle, that the best interests of society demand that litigation be concluded. \\

\ldots \\

Economy of the time of the courts is one of the obviously beneficial results \ldots but the broader and even more important aspect of the public policy of res judicata is its promotion of peace and quiet in the community through the creation of certainty in the relations of men.\textsuperscript{A3}
\end{quote}

There is ample precedent for the assertion that the state's interests may justify concluding litigation expeditiously despite a possible impairment of the interests of the parties.\textsuperscript{A4} Additionally, the state may properly be concerned about the waste of the resources of the litigants in repeated litigation whether or not they have previously

\begin{itemize}
  \item \textsuperscript{A1} Moore & Currier, \textit{supra} note 1, at 308.
  \item \textsuperscript{A2} Greenebaum, \textit{supra} note 6, at 10.
  \item \textsuperscript{A3} von Moschzisker, \textit{supra} note 1, at 299-300. \textit{See} Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation, 402 U.S. 313, 328-29 (1971).
  \item \textsuperscript{A4} \textit{See}, \textit{e.g.}, \textit{Fed. R. Civ. P.} 13(a) (providing for compulsory counterclaims).
\end{itemize}
been parties. A5 (It is difficult, however, to take seriously the Court’s suggestion in Blonder-Tongue that the common party is also a potential beneficiary of the lack of mutuality since he, too, will be spared litigation costs. If he is forced to bear additional litigation costs, it is only because it is in his interest to do so given the risk of liability—it can hardly be to his benefit to be held liable without an opportunity to commit admittedly valuable resources to his defense.)

Thus, this argument against abandonment is merely that some of the equities ordinarily favoring preclusion are absent when the party raising the estoppel has not previously been a litigant. Those equities that remain must still be balanced by countervailing considerations, such as equitable risk distribution, if a persuasive case against Bernhard is to be made.

Second, the abandonment of mutuality is said to be inherently inconsistent with the principles of in personam jurisdiction. Moore and Currier particularly stress the argument that the lack of mutuality would give an in rem aspect to a judgment:

The theory of an in personam action is that a plaintiff asserts a claim against a named defendant, who is personally subject to the court’s jurisdiction. . . .

As a general proposition, the effect of an in personam judgment should extend only to the parties before the court and non-parties who bear to parties such a legal relationship, usually termed privity, that the judgment should both avail and conclude them. The doctrine of mutuality aids in keeping the in personam judgment within such proper bounds. . . .

To its doctrine of mutuality the common law made certain exceptions, which expand the effect of the judgment in keeping with reason and experience, without surrendering in personam principles and without giving the in personam judgment an in rem twist. A6

This analysis is consistent with their preferred definition of mutuality, i.e., that the relevant inquiry is into the identity of the parties involved rather than whether they are mutually bound. A7

[T]he requirement of identity or privity of parties is sufficiently broad to relegate the doctrine of mutuality to a relatively insignificant role.

. . . .

The functions of limiting the persons entitled to assert the conclusive effect of a judgment in personam is clearly one of great importance, and an organic part of the theory of the in personam action. A8

If mutuality is defined as an inherent element of in personam jurisdiction, and if it is assumed that the nature of jurisdiction itself

---

A6. Moore & Currier, supra note 1, at 301. See also id. at 310.
A7. See note 1 supra.
is somehow sacrosanct, the problem disappears. In defining the scope of the preclusive effect to be given a judgment with respect to the parties involved, only two meaningful questions can be asked: Who is to be benefited and who to be burdened? In rem and in personam jurisdiction are merely paradigms. In the classic in personam case, only those who appear can be bound by the judgment or invoke its benefits. The judgment speaks exclusively to the relationship between the persons present. In the pure in rem case, the judgment addresses the relationship between the party present and the whole world, present or not. But these paradigms tell us nothing about who should or should not be benefited or burdened in a particular case. Nor are they helpful in deciding whether the burdens and benefits should necessarily be coextensive.

The rules of privity, which Moore and Currier find unobjectionable, extend the effect of a judgment to persons not actually parties and in that sense give an in rem twist to in personam jurisdiction, albeit to a fairly limited degree. But the use of the term “privity” is a verbal manipulation which merely preserves the integrity of the in rem/in personam dichotomy through the fiction that those in privity are in some sense within the boundaries of the term “party.” Usually, there are sound policy reasons for doing so. But we should not become so enthralled with clever fictions that we forget that they look to substantive policies for their vitality.\textsuperscript{A9}

The Bernhard doctrine gives an in rem aspect to the benefits of a judgment without disturbing the in personam nature of the burden. To that extent, Moore and Currier are correct. But that hardly answers the fundamental question whether that effect is desirable.

Third, it is claimed that the abandonment of mutuality may, perversely, increase litigation even though the number of trials is decreased.

\textsuperscript{A9} See Bruszewski v. United States, 181 F.2d 419, 423 (3d Cir.) (Goodrich, J., concurring); \textit{cert. denied}, 340 U.S. 865 (1950); \textit{Restatement of Judgments} § 83, Comment a (1942); Vestal, \textit{Preclusion/Res Judicata Variables: Parties}, 50 Iowa L. Rev. 27, 44-45 (1964).

\textsuperscript{A10} Polasky, \textit{supra} note 1, at 220.
Polasky’s argument is general. It can be addressed to all collateral estoppel cases. Indeed, Polasky did not intend to confine his remarks to multiparty cases. Others have deemed the argument particularly persuasive in such circumstances.\footnote{See Greenebaum, supra note 6, at 10-12; Moore & Currier, supra note 1, at 309; cf. Caterpillar Tractor Co. v. International Harvester Co., 120 F.2d 82, 84 (3d Cir. 1941) (even though judgment was held res judicata against person who secretly defended the suit on behalf of the record defendant, the court stated that the secret defendant could not have benefited from a favorable verdict since “to allow the secret defendant to have the advantage of the rule would be ‘to force a plaintiff to prosecute to the utmost suits which, for personal or pecuniary reasons, he wishes to let slide’” (quoting 39 COLUM. L. REV. 1251, 1252 (1939); von Moschziker, supra note 1, at 303 (arguing that the real reason for the mutuality rule is that a party may not wish to establish or defend his position to the utmost in a given suit)).}

The first argument, that litigation efforts would be wastefully intensified at the trial level, is misconceived. Because it extends the scope of liability, the possibility of collateral estoppel will cause the parties to fight harder than they would if the judgment were binding only with respect to the present parties, but economies of scale will also be achieved. That is, one trial-of two related “claims” should be less costly to both the parties and to the state than would two trials of one claim each, unless the efforts of the parties are somehow disproportionate to the liability at stake.

This first argument also seems to suppose that when future litigation is unforeseeable (that is, appears highly unlikely) or otherwise contingent, the parties will press their claims as vigorously as they would if future claims were certain to follow. There is no reason for the litigants to so respond, however. A claim that is unlikely to vest must, after all, be discounted when estimating the magnitude of the liability that turns on the initial verdict. Even if the parties are risk averse, so that, for example, a 10% chance of losing $100 is considered more serious than an actual loss of $10 in increased litigation costs, the economies achieved by precluding retrial of issues previously determined are unlikely to be exceeded by the additional expenditure incurred at the initial trial. Given diminishing returns to investment in litigation, the amount invested should be smaller, in proportion to the liability, as the liability increases.

Polasky’s suggestion that extending the scope of collateral estoppel may also induce appeals that might otherwise not be brought is particularly unfortunate. If an appeal serves a valuable function but is not economically justifiable until the liability crosses a certain threshold, then the aggregation of claims via collateral estoppel might lead to a more functional allocation of litigation resources even if it does add to the appellate caseload. In other words, an economy of scale for the litigant may be achieved.

Although the abandonment of mutuality may lead to such economies and, therefore, to more litigation in a particular case, it is no
more likely to result in an overall increase in litigation than collateral estoppel in general. On the other hand, while overall economies of scale may be desirable, should an individual litigant be forced to bear the accompanying costs in the form of an unfair share of the litigation risks?

Fourth, it is said that the abandonment of mutuality inequitably burdens the common party’s litigation resources and prevents him from allocating those resources rationally and efficiently. This criticism has two elements: (1) that, absent mutuality, the common party cannot know how much to invest in any one trial because he does not know whether there will be future litigation; and (2) that the common party is disadvantaged by the lack of mutuality because the possibility of multiple litigation and the fear that one loss will preclude him in all subsequent suits prevent a rational, effective allocation of litigation resources among the multiple trials.\textsuperscript{A12} Greenebaum, for example, criticized the result in \textit{Zdanok v. Glidden Co.},\textsuperscript{A13} in which the defendant was held to a prior judgment adjudicating five claims in a subsequent suit involving 160 claims. Although the court had dismissed the unfairness argument because the defendant common party knew at the time of the first trial of the existence of the claims, Greenebaum felt it “unfair to require a party to litigate as though 165 claims are at stake when he has the opportunity to win with respect to only five.”\textsuperscript{A14}

The first element of the criticism is not peculiar to multiparty cases. The unforeseeability or uncertainty of future claims when the issue is first litigated is the fundamental constraint on the availability of collateral estoppel generally. When the extent of future liability was not reasonably foreseeable at the time of the initial suit and the liability in the subsequent suit turns out to be substantially disproportionate to the claim actually decided, preclusive effect is characteristically denied to the prior judgment.\textsuperscript{A15}

The second element misperceives the problem. Greenebaum seems to be suggesting that the common party must invest in each trial as though all outstanding claims are at stake and that this has two possible consequences: either the resources he allocates to a given trial will be inadequate for the risk that he bears, or, if he expends the funds necessary to mount a proper effort and is forced to do so several times until he finally loses and is precluded, he will have spent far more than would be necessary under mutuality.

The full and fair opportunity doctrine is essentially designed to remedy any severe misallocations of litigation resources that result

\textsuperscript{A12} See Greenebaum, \textit{supra} note 6, at 2-3.

\textsuperscript{A13} 327 F.2d 944 (2d Cir.), \textit{cert. denied}, 377 U.S. 934 (1964).

\textsuperscript{A14} Greenebaum, \textit{supra} note 6, at 15.

\textsuperscript{A15} See note 1 \textit{supra}. 
from collateral estoppel. Greenebaum suggests that the lack of mutuality ipso facto results in resource misallocations sufficient to invoke the full and fair opportunity doctrine. In other words, he claims that the full and fair opportunity requirement, the only constraint supposedly remaining when mutuality is abandoned, cannot, because of the litigation burden imposed, be met when mutuality is abandoned.

But the notion that resource misallocation lies at the heart of the case against *Bernhard* is simply wrong. The common party can allocate his resources rationally and can enjoy a full and fair opportunity to litigate in each trial. It might seem that the optimal strategy is to litigate each case as though all outstanding claims were at stake. But if there are many claims, it is unlikely that the common party will reach the last case undefeated unless the probability of success in a given suit is extremely high. Alternatively, it might seem sensible to concentrate heavily on the early suits, so that at least they are not lost. But, in fact, the common party's actual total risk at each stage is not too much greater than the risk involved in a single claim, and he should spend accordingly.

If, for example, there are five claims, each worth $200, and the probability of success in a single suit is .5, the expected loss under *Bernhard* is $806.25. (If the common party is a plaintiff this represents the amount he can expect not to recover. His expected recovery is therefore $193.75.) He calculates his risks in an individual trial in the following manner.

If he reaches the fifth case without having suffered a loss, his risk is $200 and his expected average loss is therefore $100. At the inception of the fourth suit there are two possibilities: he can lose, at a cost of $400, or win and expect to lose $100 thereafter. Of course, he cannot actually lose $100 since the only possible outcomes in the fifth suit are 0 or $200, but $100 is the value of the loss to him while it remains contingent. As he commences the fourth suit he therefore has $300 at risk. That is the amount he can expect to save by defending successfully. At the inception of the third suit he can lose, at a cost of $600, or win and expect to lose $250 thereafter. The amount at risk is thus only $350, since he expects to lose $250 in any event.

Carrying the process through yields the results tabulated below. (Note that the $1612.50 multiplied by the .5 probability of loss yields the expected loss. One way to think about the impact of *Bernhard* in this case is to suppose that it increases the amount at stake for the common party.) Finally, in order to determine the truly optimal strategy the common party must take into account the costs that will be avoided if he loses prior to the last suit and is estopped to litigate further.
For illustrative purposes, the following table should prove helpful.

<table>
<thead>
<tr>
<th>Suit No.</th>
<th>Amount at Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$387.50</td>
</tr>
<tr>
<td>2</td>
<td>375.00</td>
</tr>
<tr>
<td>3</td>
<td>350.00</td>
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<tr>
<td>4</td>
<td>300.00</td>
</tr>
<tr>
<td>5</td>
<td>200.00</td>
</tr>
<tr>
<td></td>
<td>$1612.50</td>
</tr>
</tbody>
</table>

**Table F**

The first and third columns represent trial expenditure, the other columns a hypothetical probability of success for each expenditure. Each successive $10 investment buys a smaller increment in the chances of success.

In this hypothetical situation, a suit for $1000 justifies an expenditure of $100. The last $10 purchases a 1% increment in the probability with a value of $1000 \times .01 = $10. A $200 claim justifies an expenditure of $60. Thus, if five $200 claims are tried separately under mutuality, the litigant's optimal expenditure is $300, and his expected loss is $600 (he has a .4 probability of success), a total expected loss of $900.

Under Bernhard, if the cases are tried separately the optimal expenditure at each point can be calculated as before, by starting with the last suit and performing an iterative computation. In the last suit the risk is $200, and the optimal expenditure is therefore $60. The expected loss is $120 which, added to the cost of the trial, yields a total expected loss of $180. At the outset of the fourth suit there are two possibilities: a loss at a cost of $400 or a win with an expected loss thereafter of $180. The amount at risk is therefore $220, and the optimal expenditure is still $60. The entire calculation is tabulated below.
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Mutuality of Estoppel

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<table>
<thead>
<tr>
<th>Trial No.</th>
<th>Amount at Risk</th>
<th>Trial Cost</th>
<th>P (of loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$232</td>
<td>$60</td>
<td>.6</td>
</tr>
<tr>
<td>2</td>
<td>231</td>
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<td>.6</td>
</tr>
<tr>
<td>3</td>
<td>229</td>
<td>60</td>
<td>.6</td>
</tr>
<tr>
<td>4</td>
<td>220</td>
<td>60</td>
<td>.6</td>
</tr>
<tr>
<td>5</td>
<td>200</td>
<td>60</td>
<td>.6</td>
</tr>
<tr>
<td></td>
<td>$1112</td>
<td>$300</td>
<td></td>
</tr>
</tbody>
</table>

TABLE H

The amounts do not greatly exceed $200 because a loss avoids additional trial expenses and because the later claims are highly contingent. The expected average loss is $1112 \times .6 = $667, and when it is added to the trial costs—the costs of five full trials must be added because the trial costs avoided are already figured into the amounts at risk—the total expected cost to the common party is $967, $67 more than under mutuality.

<table>
<thead>
<tr>
<th>Loss on Suit No.</th>
<th>Damages Paid (D)</th>
<th>Cumulative trial costs (C)</th>
<th>(P \times D)</th>
<th>(P \times C)</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>.600</td>
<td>$1000</td>
<td>$60</td>
<td>$600</td>
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<td>2</td>
<td>.240</td>
<td>800</td>
<td>120</td>
<td>192</td>
<td>29</td>
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<td>3</td>
<td>.096</td>
<td>600</td>
<td>180</td>
<td>58</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>.038</td>
<td>400</td>
<td>240</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>.015</td>
<td>200</td>
<td>300</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>No loss</td>
<td>.010</td>
<td>-0-</td>
<td>300</td>
<td>-0-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>.999</td>
<td>$868</td>
<td>$99</td>
<td>$967</td>
<td></td>
</tr>
</tbody>
</table>

TABLE J

This example demonstrates that a rational resource allocation is possible without mutuality. The common party need not at any stage spend amounts disproportionate to the then-current risk.

This is not to say, however, that the common party is not severely disadvantaged by the lack of mutuality. Even when the trial model is complicated by taking costs into account, the party facing multiple adversaries without benefit of mutuality still lives in the worst of all possible worlds. He can expect to pay $868 in damages, $268 more than under mutuality, a sum only partially offset by expected savings in trial costs. (The small relative magnitude of the $67 increment in overall costs is not significant because the figure can be varied arbitrarily by making suitable choices for the relative magnitudes of the damages and the trial costs and by suitably varying the relationship between trial expenditure and probability of success.)

To the extent that there are any resource misallocations uniquely attributable to the abandonment of mutuality rather than to collateral estoppel in general, they burden not the common party but the noncommon party who is the first to litigate. Ignoring trial costs for the moment, it will be recalled that the common party had $387.50 at stake in the first trial of the five. But the noncommon
party has only $200 at stake. The difference, $187.50, is the effective risk of the other noncommon parties who are not present. The noncommon party will invest in the trial an amount commensurate with his risk but will be outspent by the common party who has more at stake. The consequent imbalance disadvantages the first litigant in one of two ways: he must either spend somewhat more than he would were only his claim involved if he is to compensate for the additional expenditure by the common party, or he must face diminished chances of success due to the imbalance in litigation expenditures.

What is unfair to the common party about the lack of mutuality is the distribution of risks. When Greenebaum says, “It is unfair to require a party to litigate as though 165 claims are at stake when he has the opportunity to win with respect to only five,” he is close to the mark. But he errs in placing the emphasis on the litigation burden rather than on the risk of loss.

If the common party is induced to spend more at trial it is only because he suffers greater risks without the mutuality requirement. To turn Greenebaum’s argument around, the fact that a procedural change induces a litigant to increase his trial expenditure ought to suggest that the change has subjected him to new risks. To argue that he is unfairly burdened by the additional costs is akin to arguing that battery ought to be outlawed only because it unfairly burdens the victim with additional medical expenses. Litigation expenses, like medical costs, are part of the cure, not part of the disease. They are the litigant’s means of minimizing the risk of loss to which he is otherwise subjected. Assuming he is receiving fair value for his litigation dollar, the additional expenses are to his advantage or his dollar would remain in his pocket. If the additional expenses are objectionable, it is only because the risks that precipitate those expenses are objectionable. The case against *Bernhard* is most importantly that the common party is forced to bear more than his fair share of risk.
Once its underlying assumptions and analytic framework are understood, the method of calculating the risk distribution in Table IV is easily followed. Any single "outcome,"\textsuperscript{B1} and hence the identity of the party ultimately bearing the loss, is determined by the verdicts in at most three suits: plaintiff against the primary defendant ($P \text{ v. } D$); plaintiff against the derivative defendant ($P \text{ v. } S$); and the derivative defendant against the primary defendant for indemnification ($S \text{ v. } D$). The probability of any outcome can be calculated merely by multiplying the probabilities of the component verdicts. For example, assuming that each party has a 50\% case, the probability of the plaintiff losing his suit against the primary defendant and winning against the derivative defendant who recovers against the primary defendant in an indemnity action is $p(\text{PID} \text{ and } PwS \text{ and } SwD) = p(\text{PID}) \cdot p(PwS) \cdot p(SwD) = .5 \times .5 \times .5 = .125$.

Although combinatorial analysis suggests that two possible verdicts for each of three suits produces eight possible outcomes, not all the outcomes are distinguishable for practical purposes. Where $D$ is sued first, the outcomes $PwD \cdot PIS \cdot SwD$ and $PwD \cdot PIS \cdot SID$ are equivalent to $PwD \cdot PIS$, since $S$ will have no liability for which to seek indemnity. Similarly, $PID \cdot PIS \cdot SwD$ and $PID \cdot PIS \cdot SID$ reduces to $PID \cdot PIS$. Consequently, the eight theoretical outcomes are reduced to six practical ones. Equivalent reductions occur when $S$ is sued first.

The six initial outcomes are reduced further by rules of preclusion, subrogation, and impleader. Consider the six possible outcomes where $D$ is sued first.

<table>
<thead>
<tr>
<th>$P \text{ v. } D$</th>
<th>$P \text{ v. } S$</th>
<th>$S \text{ v. } D$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 $w$</td>
<td>$w$</td>
<td>$w$</td>
</tr>
<tr>
<td>2 $w$</td>
<td>$w$</td>
<td>$l$</td>
</tr>
<tr>
<td>3 $w$</td>
<td>$l$</td>
<td>$w$</td>
</tr>
<tr>
<td>4 $l$</td>
<td>$w$</td>
<td>$l$</td>
</tr>
<tr>
<td>5 $l$</td>
<td>$w$</td>
<td>$l$</td>
</tr>
<tr>
<td>6 $l$</td>
<td>$l$</td>
<td>$l$</td>
</tr>
</tbody>
</table>

\textbf{FIGURE 2}

Under an exception to mutuality, outcomes 4, 5, and 6 constitute the single outcome $PID$ in which $P$ bears the loss, since the loss to $D$ precludes further litigation. If $S$ is allowed to subrogate an indem-

\textsuperscript{B1} "Outcome" is defined in note 143 supra.
nity claim to a verdict for $P$ against $D$,

then outcomes 1, 2, and 3 constitute the single outcome $PwD$ and $D$ bears the loss. $D$ will ultimately bear liability because either $P$ will lose a subsequent suit against $S$ or $S$ will be automatically indemnified following a loss to $P$.

Similarly, the number of possible outcomes would be reduced if $S$ were allowed to implead $D$, or to vouch in $D$ when he is subsequently sued by $P$, irrespective of whether $D$ won his case. Outcome 1 and 2 would equal $PwD$ $\cdot$ $PwS$ and outcomes 4 and 5 would equal $PID$ $\cdot$ $PwS$. Stated another way, outcomes 1, 2, 4, and 5 would constitute the outcome of a verdict for $P$ against $D$, with $D$ bearing the loss.

Finally, consider the result when $S$ is precluded from initiating an indemnity action against $D$ if $D$ has previously prevailed against $P$. This rule would reduce outcomes 4 and 5 to the single outcome $PID$ $\cdot$ $PwS$, with $S$ bearing the loss.

Associated with each outcome is a party who ultimately bears the loss. And corresponding to any set of rules of preclusion, subrogation, and impleader are a set of outcome probabilities. By combining the probabilities for outcomes that result in the same party bearing the loss, a risk distribution can be determined for each set of rules. Assume, for example, that there is no preclusion, no subrogation of $S$ to $P$'s judgment, and no impleader. Then compare the

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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$w$</td>
<td>$w$</td>
<td>$w$</td>
<td>.125</td>
<td>$D$</td>
<td>$P = .25$</td>
</tr>
<tr>
<td>$w$</td>
<td>$w$</td>
<td>$l$</td>
<td>.125</td>
<td>$1^*$</td>
<td>$D = .125$</td>
</tr>
<tr>
<td>$w$</td>
<td>$l$</td>
<td></td>
<td>.25</td>
<td>$D$</td>
<td>$+.125$</td>
</tr>
</tbody>
</table>

$PID$ does not preclude indemnity

| $l$        | $w$        | $w$        | .125                  | $D$   | $P = .25$   |
| $l$        | $w$        | $l$        | .125                  | $S$   | $+.125$     |
| $l$        | $l$        |             | .25                   | $P$   | $+.125$     |

$PID$ does preclude indemnity

| $w$        | $l$        |             | .25                   | $D$   | $P = .25$   |
| $l$        | $w$        |             | .25                   | $S$   | $+.375$     |
| $l$        | $l$        |             | .25                   | $P$   | $+.125$     |

$1^*$ represents the indeterminate outcome where either $D$ or $S$ is to bear the loss at $P$'s discretion. This Chart assumes there is no preclusion, no subrogation, and no impleader.

**TABLE**


B4. See Restatement (Second) of Judgments § 107 (1942).

distribution produced when $S$ can seek indemnity from $D$ even though $D$ has successfully defended an action by $P$ with the distribution produced when he cannot. These alternative sets of rules produce the following outcome probabilities and risk distributions.

The difference between the two risk distributions is accounted for by the shift of .125 from $D$'s risk to $S$'s. This shift results from the fact that the outcome $PID \cdot PwS \cdot SwD$ has been eliminated by the rule that $PID$ precludes a suit for indemnity. Thus, whenever the verdict $PwS$ follows $PID$, $S$ bears the loss.

The technique illustrated in these two examples was applied to all possible combinations for the rules discussed above to generate Table L. The risk distributions presented in Table IV are simply those calculated in Table L.
<table>
<thead>
<tr>
<th>PID Does Not Preclude Indemnity</th>
<th>No Preclusion</th>
<th>Preclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Implicator</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subrogation to P's Judgment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W w w l</td>
<td>.125 D</td>
<td>.125 D</td>
</tr>
<tr>
<td>W w l</td>
<td>.25 S</td>
<td>.25 S</td>
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<tr>
<td>**PID Does Not Preclude Indemnity</td>
<td></td>
<td></td>
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<tr>
<td>Subrogation to P's Judgment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W w w l</td>
<td>.125 D</td>
<td>.125 D</td>
</tr>
<tr>
<td>W w l</td>
<td>.25 S</td>
<td>.25 S</td>
</tr>
<tr>
<td>Subrogation to P's Judgment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W w w l</td>
<td>.125 D</td>
<td>.125 D</td>
</tr>
<tr>
<td>W w l</td>
<td>.25 S</td>
<td>.25 S</td>
</tr>
</tbody>
</table>

*impleader negates the rule that PID precludes indemnity.*

**TABLE L**

- Primary Defendant Sued First
- No Preclusion
- Preclusion
- PID
- Implicator
- Subrogation to P's Judgment
- W w w l
- W w l
- W l
- P = .25
- D = .75
- E
- W w l
- W w l
- W l
- P = .25
- D = .75
- E

*impleader negates the rule that PID precludes indemnity.*
<table>
<thead>
<tr>
<th>Preclusion (concluded)</th>
<th>No Preclusion</th>
<th>Preclusion</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$P = .5$</td>
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<td></td>
</tr>
<tr>
<td>$D = .375$</td>
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</tr>
<tr>
<td>$I = .125$</td>
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</tr>
<tr>
<td>$P_{v}S$</td>
<td>$P_{v}D$</td>
<td>$S_{v}D$</td>
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<td>$w$</td>
</tr>
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<tr>
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<td>$S = .25$</td>
<td>$P_{v}S$</td>
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TABLE L (concluded)