Inconsistent Verdicts, Issue Preclusion, and Settlement in the Presence of Judicial Bias

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This Comment examines the effects of offensive, non-mutual issue preclusion in the presence of judicial bias. If a litigant has litigated an issue and lost, issue preclusion permits a later court to use the prior judgment to preclude the litigant from relitigating the issue.\(^1\) Courts may treat that issue as conclusively established against the litigant in future litigation.

Issue preclusion prevents courts and litigants from wasting time and money considering issues that have already been litigated\(^2\) and reduces the possibility of inconsistent verdicts,\(^3\) which create considerable embarrassment for the legal system. But issue preclusion is not without costs. One possible casualty is accuracy.\(^4\) Issue preclusion may enhance the risk associated with a lawsuit by possibly preserving an anomalous judgment or by making a compromise verdict the basis of extensive liability in subsequent cases.

Traditionally, under the rule of mutuality, courts only applied issue

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2. Some courts have questioned whether issue preclusion saves courts and litigants time and money. See, for example, Parklane Hosiery Co. v. Shore, 439 US 322, 329-30 (1979) (suggesting that offensive issue preclusion may increase the amount of litigation because it gives plaintiffs an incentive to “wait and see” the outcome in the first action, rather than to intervene in the first action).

3. See, for example, Montana v. United States, 440 US 147, 153-54 (1979) (“To preclude parties from contesting matters that they have had a full and fair opportunity to litigate protects their adversaries from the expense and vexation attending multiple lawsuits, conserves judicial resources, and fosters reliance on judicial action by minimizing the possibility of inconsistent decisions.”).

4. Friedenthal, Kane, and Miller, Civil Procedure § 14.9 at 660 (cited in note 1) (“Collateral estoppel operates without regard to whether the first determination of a particular issue was correct. The court does not concern itself with the rightness of the finding.”).
preclusion in cases in which both parties had litigated in the previous suit. However, federal courts now allow non-mutual issue preclusion. Under non-mutual issue preclusion, a court treats an issue as conclusively established even though only one of the litigants was a party to the prior litigation. Thus, non-mutual issue preclusion requires a party that expects to litigate an issue more than once to consider not just the costs of a judgment in the present case, but also the effects of the judgment on all future suits involving the same issue.

Federal courts allow non-mutual issue preclusion to be used both defensively and offensively. Under defensive, non-mutual issue preclusion, when a plaintiff has previously litigated an issue and lost, courts permit the defendant to use the prior judgment defensively by treating the issue as established conclusively against future plaintiffs. Under offensive, non-mutual issue preclusion, when a defendant has previously litigated an issue and lost, courts permit new plaintiffs to use the prior judgment offensively, and they treat the issue as established conclusively against the defendant. Therefore, under offensive, non-mutual issue preclusion, if a defendant loses a case which turns on an issue that will be determinative in future cases, the defendant may be liable for the harms suffered by all future plaintiffs. This Comment focuses on offensive, non-mutual issue preclusion. Offensive, non-mutual issue preclusion is generally seen as more controversial than defensive, non-mutual issue preclusion because it may increase litigation and result in unfairness to a defendant.

The Supreme Court's decision in Parklane Hosiery Co. v Shore permitted offensive, non-mutual issue preclusion, but placed important limits on its use. Commentators have failed to consider carefully the effect of Parklane's limitations. Furthermore, these commentators have failed to consider serious-

5. James, Hazard, and Leubsdorf, Civil Procedure § 11.25 at 619 (cited in note 1).
6. Blonder-Tongue Laboratories v Univ of Ill Foundation, 402 US 313, 350 (1971) (precluding a patentee from relitigating the validity of a patent already declared invalid in prior litigation against alleged infringers); Parklane, 439 US at 329-31 (allowing plaintiffs who had not been party to the previous suit to use a prior judgment against the defendants).
10. Id.
11. Parklane, 435 US at 329-30 (suggesting that offensive issue preclusion may increase litigation because plaintiffs would adopt a "'wait and see' attitude" and refuse to intervene in the first action).
12. Id at 330-31.
13. Id at 329-31.

15. One commentator developed a model that reflects the possibility that plaintiffs will have different probabilities of prevailing at trial. Note, 105 Harv L Rev at 1946 (cited in note 14). However, the commentator did not fully discuss the implications of this assumption; nor did the commentator examine the effects of this bias in a legal system in which courts applied the “inconsistent” verdicts limitation.
effects. In Section VI, I present the results algebraically to explain the intuition in yet another medium. Readers who find the notation of this Comment cumbersome should be able to grasp the central themes without reading Section VI.

I. The “Full and Fair Opportunity to Litigate” and the Abandonment of Mutuality

Before 1971, under the rule of mutuality, federal courts only applied issue preclusion in cases where both parties had litigated the prior suit.16 The old mutuality rule provided that, “[t]he [prior] determination was . . . not conclusive if the second action involved different parties, even though one of them had been a party to the first action and had unsuccessfully litigated the issue on that occasion.”17 Federal courts now permit non-mutual issue preclusion. A party seeking issue preclusion must only show that in the previous action, the party against whom it seeks to apply issue preclusion “received a ‘full and fair’ opportunity to litigate [its] claims.”18 Therefore, under non-mutual issue preclusion, a defendant that litigates and loses may be precluded from arguing its innocence against future plaintiffs. However, even if a defendant was a party to a prior case, a new plaintiff who had not had an opportunity to litigate the issue in the previous trial could not be precluded from arguing the issue.19

An example will serve to make this point clear. Assume that Drugco manufactures a product called Widgicillin. Widgicillin is useful in treating a certain disease but may cause hair loss. On the packages of Widgicillin, Drugco places a warning that states that the use of the product may cause hair loss. However, this warning is in very fine print. Some who use Widgicillin do indeed lose their hair. Assume that to establish tort liability, Widgicillin users must establish both that Drugco’s warning on the Widgicillin packaging was insufficient and that Widgicillin caused their hair to fall out.

Alex and Brad use Widgicillin and subsequently lose their hair. Assume that Alex sues before Brad and wins his suit. Under Parklane, Brad could cite Alex’s case to establish that Widgicillin’s warning label was insufficient and ask the court to preclude Drugco from arguing otherwise. If instead Alex had lost and the tribunal had specifically determined that Widgicillin’s warning label was sufficient,20 Drugco could not invoke issue preclusion against Brad

16. James, Hazard, and Leubsdorf, Civil Procedure § 11.25 at 619-20 (cited in note 1). See also Bigelow v Old Dominion Copper Mining & Smelting Co., 225 US 111 (1912); Restatement of the Law of Judgments § 93(b) (1942).
17. James, Hazard, and Leubsdorf, Civil Procedure § 11.25 at 619-20 (cited in note 1). See also Restatement of Judgments § 93(b) (1942).
19. See James, Hazard, and Leubsdorf, Civil Procedure § 11.23 at 617-18 (cited in note 1) (“As a general rule, a person's legal rights may not be concluded without an opportunity to litigate them. The protection of this opportunity is a matter of due process under the Constitution.”).
20. In Section II of this Comment, I demonstrate why it is necessary to assume that
since Brad had not had a chance to litigate the issue. The fact that Brad could invoke issue preclusion against Drugco had Alex prevailed in the first suit while Drugco could not invoke issue preclusion against Brad had Drugco prevailed will be referred to as the asymmetry of offensive, non-mutual issue preclusion.

Therefore, ignoring the Parklane limitations, if a defendant loses a suit in which an issue is determinative, a court may use that judgment to preclude the defendant from relitigating the issue in a suit brought by a subsequent plaintiff. The issue will be conclusively established against the defendant. However, if the defendant wins, courts will not preclude future plaintiffs from litigating the issue as they have not had a "full and fair opportunity to litigate."

II. Parklane's Limitations and the Lower Courts' Interpretations of "Inconsistent" Verdicts

In Parklane, the Supreme Court advised lower courts against applying issue preclusion based on a judgment that "is itself inconsistent with one or more previous judgments in favor of the defendant."21 If tribunals specifically state their reasoning, that is, they return specific verdicts,22 courts can easily determine when verdicts are "inconsistent." A specific verdict will state the grounds on which the tribunal decided the case and subsequent courts may determine which issues were decided. Assume Alex's tribunal returned a specific verdict stating that Drugco's warning was sufficient. The verdict for Brad is necessarily inconsistent with a prior verdict and should not preclude Drugco from arguing the sufficiency of the warning in Carl's suit.23

the tribunal specifically determined the sufficiency of the warning.


22. A specific verdict is defined as any verdict in which the tribunal states the specific reasons for its judgment. Black's Law Dictionary at 1560 (cited in note 9). This would include a bench trial in which a judge writes an opinion. Id. This would also include special verdicts in which a jury states the facts which it found. Id. The court then applies the law to the facts. Finally, this would include a general verdict with interrogatories in which the jury returns a general verdict and answers "written interrogatories upon one or more issues of fact the decision of which is necessary to a verdict." Id. See also FRCP 49(b).

23. This follows directly from Parklane. Parklane, 439 US at 330-31. For an example of a case where the court refused to apply issue preclusion when the verdict to be relied upon was inconsistent with a previous specific verdict, see Aloe Coal Co. v Clark Equipment Co., 623 F Supp 88, 89 (W D Pa 1985) (refusing to apply issue preclusion because certain conclusions regarding a product's defects were inconsistent with a jury's negative response to a special interrogatory and with a specific finding by a judge); Raynor v Richardson-Merrell, Inc., 643 F Supp 238, 242, 246 (D DC 1986) (refusing to apply issue preclusion despite prior verdicts for plaintiffs because in separate actions, both a judge and a jury specifically found for defendant on the relevant issue, causation); Miller v A.H. Robins Co., Inc., 565 F Supp 24, 26 (S D Fla 1983) (refusing to apply issue preclusion despite prior plaintiff's victories because defendant also obtained favorable verdicts and a jury had returned a special interrogatory finding for the defendant on the relevant issues).
Unfortunately, the term “inconsistent” is ambiguous if the prior decisions were in the form of general verdicts. That is because general verdicts do not explain the tribunal’s reasoning. Some courts have adopted a narrow reading of “inconsistent” and only apply issue preclusion when prior verdicts are necessarily inconsistent. Other courts have adopted a broader reading of

However, even a specific verdict for the defendant will not completely prevent the future use of issue preclusion against the defendant. Courts applying offensive, non-mutual issue preclusion despite arguably inconsistent verdicts have justified their decisions with reasoning that seems applicable even in the case of a direct conflict between specific verdicts. One court has stated that it would be inequitable to deny courts use of “modern principles of collateral estoppel” simply because a defendant has prevailed in a “frivolous” lawsuit. Mooney, 485 F Supp at 247-48. Read narrowly, this case suggests that when a previous lawsuit was so frivolous as to not shake a court’s confidence in the validity of the determination against the defendant, the court may still apply issue preclusion. In situations where a defendant’s victory is followed by several plaintiff victories, this logic may be highly persuasive. However, the situation in Mooney involved a defendant that had prevailed in several prior cases. Id at 247.

24. When a jury renders a general verdict, it simply finds for one of the parties. Black’s Law Dictionary at 1560 (cited in note 9). Unless accompanied by interrogatories, a general verdict does not state specific findings of fact. Id. See also FRCP 49(b).

25. See, for example, Mooney, 485 F Supp at 246-48 (applying issue preclusion despite “a dozen or so” verdicts for defendant because no case specifically held for defendant on the relevant issue); Amader v Pittsburgh Corning Corp., 546 F Supp 1033, 1038-39 (E D Pa 1982) (stating that general verdicts for defendant would not act as a bar to future issue preclusion); Fraley v American Cyanamid Co., 570 F Supp 497, 503-04 (D Colo 1983) (applying issue preclusion despite defendant’s prior victory because jury returned general verdict. This was done even though the appellate court specifically upheld the ruling, in part, on the issue in question.).

Parklane does not support the narrow reading of “inconsistent,” which would forbid issue preclusion only when the verdicts are necessarily inconsistent. Indeed, this narrow reading would allow issue preclusion in the very scenario for which the Supreme Court created the exception. The Supreme Court created the “inconsistent” verdicts limitation to prevent an “unfair” application of offensive, non-mutual issue preclusion. Parklane, 439 US at 331. This unfairness stems from the asymmetry of non-mutual issue preclusion and the potential for opportunistic behavior.

In creating this exception, the Supreme Court specifically cited a hypothetical presented in an important article written by Professor Brainerd Currie. Id at 330-31 (citing Brainerd Currie, Mutuality of Collateral Estoppel: Limits of the Bernhard Doctrine, 9 Stan L Rev 281, 304 (1957)). Professor Currie postulated a train wreck in which fifty people were injured. Professor Currie asked rhetorically whether a court should apply issue preclusion against the defendant based on a verdict for one of the train wreck victims if there had been twenty-five previous verdicts for the defendant. Currie, 9 Stan L Rev at 286. If the railroad did not obtain a specific verdict in the first twenty-five cases, the railroad could not show that a tribunal had necessarily determined that it had not been negligent. The tribunal may have found that the train wreck did not cause the plaintiffs’ injuries or that the plaintiffs were simply not injured. If the twenty-sixth court found in favor of the plaintiff, the twenty-seventh court could invoke issue preclusion against the railroad by reasoning that the verdict for the twenty-sixth plaintiff was not necessarily inconsistent with the prior verdicts for the defendant.

While this result seems surprising, at least one court has found that issue preclusion is appropriate despite “a dozen or so” defendant’s victories. Mooney, 485 F Supp at 247-
"inconsistent" and require only that prior verdicts for the defendant undermine the court's confidence in the verdict for the plaintiff.26

Assume that Alex, Brad, and Carl sue Drugco. Alex's tribunal returns a general verdict for Drugco and Brad's tribunal returns a verdict for Brad. Carl asks the court to preclude Drugco from arguing that its warning was sufficient. Carl's court knows that Brad won his suit against Drugco, and therefore Brad must have proven both elements of his case, including the fact that Drugco's warning was insufficient. Carl's court also knows that Alex lost his suit against Drugco, but it does not know whether Alex's court determined that Drugco's warning was sufficient. Alex's court may have rejected the claim against Drugco either because the warning was sufficient or because Alex lost his hair due to other causes. Either determination would have been sufficient to return a verdict for Drugco. Thus, the decision for Drugco and the decision for Brad are not necessarily inconsistent. Both courts may have agreed that Drugco's warning was not sufficient, but Alex's court may have found that Alex lost his hair due to natural causes. Alternatively, the cases may be inconsistent. Alex's court may have denied recovery because it determined that the warning was sufficient, while Brad's court must have found that the warning was insufficient. Knowing only that one court found for Drugco and that another found for a plaintiff, Carl's court cannot know whether the courts agreed that Drugco's warning was sufficient. Under the narrow reading of "inconsistent"

48. The Mooney court noted that of the two thousand asbestos cases filed, "only a dozen or so" had reached a final judgment in favor of the defendant. Id at 247. As the Mooney court bases issue preclusion on only one decision for a plaintiff, it is assumed that the other cases either settled or had not reached final judgment. Perhaps the defendant was selectively going to trial against unsympathetic plaintiffs or incompetent attorneys in order to establish a record that would prevent future issue preclusion.

26. See, for example, Hardy v Johns-Manville Sales Corp., 681 F2d 334, 343 (5th Cir 1982) (asbestos case in which court held that previous general verdicts in favor of the defendant prevented application of issue preclusion because the issues decided were "ultimately ambiguous as to certain key issues"); Vogt v Emerson Elec Co., 805 F Supp 506, 510 (M D Tenn 1992) (products liability case in which court refused to apply issue preclusion to benefit plaintiff where defendant had prevailed in twenty of twenty-four similar cases that had gone to trial); Hoppe v G. D. Searle & Co., 779 F Supp 1425, 1427 (S D NY 1991) (products liability case in which court refused to apply issue preclusion because defendant had prevailed in sixteen of twenty cases that had gone to trial); Lavetter v Int'l Playtex, 706 F Supp 722, 723 (D Ariz 1988) (products liability case in which court refused to apply issue preclusion as defendant had prevailed in five of six cases to go to trial); Harrison v Celotex Corp., 583 F Supp 1497 (E D Tenn 1984) (asbestos case in which court refused to apply issue preclusion as defendant had prevailed in thirty-five similar lawsuits, or about half of the cases that went to trial); see also Jack Faucett Associates v AT&T, 744 F2d 118 (DC Cir 1984). Jack Faucett Associates involves a slightly different issue. Judge Mikva held that issue preclusion should not be based on a verdict that is inconsistent with a prior determination by another tribunal even though the previous determination was not part of a final judgment. Id at 129-32. However, his requirement that "[t]he only requirement is that the inconsistent determination undermines the court's confidence in the correctness of the prior decision" is applicable here. Id at 130.
verdicts, Carl's court might preclude Drugco from arguing that its warning was sufficient, since the prior verdicts are not necessarily inconsistent. Under the broader reading, Carl's court might permit Drugco to argue that its warning was sufficient, since the prior verdict for Drugco undermines the court's confidence in the prior verdict for a plaintiff. Drugco would have an even stronger argument against issue preclusion if it had prevailed in multiple suits involving its warning label, since at least one of the tribunals would likely have determined that Drugco's warning label was sufficient.\(^{27}\)

III. The Model

Because the overwhelming majority of disputes are settled privately before the court reaches final judgment,\(^ {28}\) I will focus on the effect issue preclusion has on settlement.

I employ a model based on one presented in the *Harvard Law Review*.\(^ {29}\) The model presented in the *Harvard Law Review* was based on the Polinsky-Shavell settlement model.\(^ {30}\) The Polinsky-Shavell settlement model was created to predict when rational actors will settle rather than litigate, and to predict the range of values within which they will settle.\(^ {31}\) Like the Polinsky-Shavell model, my model assumes that when there is a potential for mutual gain from settlement, the parties will settle. That is, when a defendant expects total losses from litigation to exceed what the plaintiff expects to gain from litigation, the parties will settle.\(^ {32}\) The model in the *Harvard Law Review* was created to examine settlement in the presence of issue preclusion.\(^ {33}\) I have adopted this model's notation wherever possible. The primary distinctions between the model found in this Comment and that found in the *Harvard Law Review* are that this Comment's model examines the possibility that a verdict for a defendant may reduce the possibility of future issue preclusion and that the model in this Comment makes explicit assumptions about parties' expectations.

\(^{27}\) Significantly, in all cases I examined in which the court determined that the plaintiff's verdict was inconsistent with one or more general verdicts for the defendant, the defendant had prevailed in multiple suits. See cases discussed in note 26. I was unable to find a case in which a single prior general verdict for the defendant prevented a court from applying issue preclusion.

\(^{28}\) David M. Trubek, et al, *The Costs of Ordinary Litigation*, 31 UCLA L Rev 72, 85-89 (1983). According to this study, only 11.2 percent of disputes are ever filed and, of these, only 8 percent ever reach trial. Id at 87, 89.

\(^{29}\) Note, 105 Harv L Rev 1940 (cited in note 14).


\(^{32}\) This includes litigation costs for both parties.

\(^{33}\) Note, 105 Harv L Rev at 1952-56 (cited in note 14).
of future settlement.

I assume that parties are risk neutral and that they will only consider expected liability and litigation expenses. I also assume that plaintiffs cannot alter the order in which they sue or settle and that they are ordered according to when they filed suit. No two plaintiffs will settle at the same time. I make some allowance for the possibility that new plaintiffs will appear and file. \( M_{nk} \) is the probability that at least \( k \) more plaintiffs will file given that \( n \) plaintiffs have already filed. For simplicity, I assume that if another plaintiff will file, he will file in the next period; the time between filings is uniform. Future costs will be discounted by \( \delta \).

I examine both the case of a known number of plaintiffs and the case of an unknown number of plaintiffs. \( N \) represents the total number of potential plaintiffs. If the number of plaintiffs is known, the plaintiffs will simply be numbered from one to \( N \). \( M_{nk} \) will equal one for \( k < N + 1 - n \) and otherwise it will equal zero. In the case of an unknown number of plaintiffs, \( N \) is infinite.

I assume that there is only one issue at trial and that all plaintiffs share this issue. I further assume that there is only one stage of litigation—trial. The probability that plaintiff \( n \) will win at trial is denoted as \( P_n \); the probability that plaintiff \( n + 1 \) will win is denoted as \( P_{n+1} \). I assume that the amount of damages suffered by the current plaintiff is common knowledge between that plaintiff, the defendant, and the court. Damages for the \( n \)th plaintiff are denoted as \( W_n \). The litigation costs of one trial for each party are denoted as \( C \).

Neither party knows the probability of winning at trial or the damages a particular future plaintiff will receive. However, both parties know the distribution from which those plaintiffs will be drawn and thus have identical expectations of future parties’ characteristics. Prior suits expose information and so affect the plaintiffs’ probabilities of victory. If, however, parties settle, there is no trial and possibly no discovery. As it is difficult to assess the direction of this information effect, parties will assume that the information will not affect the probability that future plaintiffs will win. Therefore, the expected probability of victory and a particular plaintiff’s expected damages are not affected by the plaintiff’s position in line. That is, \( E(P_{nk}) = P \) and \( E(W_{nk}) = W \).

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34. In simplified form, expected liability is a function of each party’s probability of victory and the damages suffered by each party.

35. This assumption is made to avoid the necessity of an equilibrium condition. In truth, plaintiffs can at least affect the time at which they settle. Furthermore, delaying the time of filing does not seem to affect a plaintiff’s ability to invoke issue preclusion, except in the most egregious cases. See Jack Ratliff, *Offensive Collateral Estoppel and the Option Effect*, 67 Tex L Rev 63, 87 (1988). Some of the consequences of such a condition are discussed in Section IV C.

36. The reader interested in comparing my results to those found in Note, 105 Harv L Rev at 1946 (cited in note 14), should note that the notation is different. My notation allows for a single model to express both the case of a known number of plaintiffs and a stylized model of an uncertain number of plaintiffs.

37. Therefore, \( M_{nk} = M_{n+1} \ast M_{n+1,k+1} \).

38. I will show that plaintiffs with a high relative probability of victory are better
A defendant’s total expected liability depends on whether a victory could effectively immunize her from future issue preclusion. As the discussion of the meaning of “inconsistent” in Section II suggests, the answer to this question is unclear. Courts disagree about the meaning of “inconsistent,” particularly when the defendant has won general verdicts. A generalized model providing that a defendant's victory will reduce, but not eliminate, the chance of future issue preclusion would best match reality. However, I will only compare the extremes. Either a defendant's victory will act as a completely effective vaccine against future issue preclusion or a defendant's victory will not protect the defendant from issue preclusion at all. By comparing the extremes, I will show the effects of the courts' interpretations, particularly in the presence of judicial bias.

The “vaccine” (V) case, in which a defendant's victory forecloses future issue preclusion, may be thought of as a regime in which courts routinely return specific verdicts and in which courts interpret “inconsistent” verdicts broadly. The “ineffective” (I) case may be thought of as a regime in which courts almost never return specific verdicts and in which courts interpret “inconsistent” verdicts narrowly.

A defendant's willingness to settle depends on the consequences of going to trial now and on what the defendant expects to happen if she settles. Therefore, a defendant's expectation of the likelihood of future settlement is critical. A rational defendant would assume that some fraction of future cases will settle, but for ease of exposition, I will only compare the extremes. The defendant will either assume that all future cases will go to trial (T) or that all future cases will settle (S). All plaintiffs will share the defendant's belief.

The defendant's expected liability if she goes to trial against the nth plaintiff is denoted as \( X_{ij} \), with \( i \) equal to V or I and \( j \) equal to T or S. The expected liability from trial, like most variables, depends on the present and future courts' interpretations of “inconsistent” and the parties' expectation of the likelihood of future settlement.

The reservation settlement prices of the defendant and the nth plaintiff are denoted as \( R_{J_{ia}} \) and \( R_{J_{ja}} \), with \( i \) again equal to I or V and \( j \) equal to T or S.

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39. One commentator assumed implicitly that courts would apply issue preclusion regardless of whether the verdict upon which the issue preclusion was to be based was itself inconsistent with previous judgments. This assumption is implicit in the derivation of the commentator's equations. Note, 105 Harv L Rev at 1947-48 (cited in note 14). The commentator justified this assumption by citing to the decision in Mooney, 485 F Supp 242. Id at 1941 n 11.

40. This may seem odd as there is only one issue at trial. Verdicts for plaintiff and defendant must, by definition, be inconsistent. The assumption of a single issue greatly simplifies the model but still conveys the central message.
That is, a defendant would be willing to settle for any amount below \( R_{ij_n} \) and the nth plaintiff would be willing to settle for any amount above \( R_{jn} \). The expected settlement in the nth suit is denoted as \( E_{ij_n} \).

Finally, the defendant's expected total liability to future plaintiffs when she faces plaintiff \( n \) is denoted as \( L_n \). Note that

As some convention is needed for settlement value, I assume that parties expect to divide the settlement range in half. That is, if the plaintiff may invoke issue preclusion, the settlement will be for the total damages. If the defendant has been "immunized" through a previous victory, settlement will be for expected damages.\(^{41}\) If the defendant expects future disputes to settle, her reservation value is given by \( R_i S_n = X_i S_n - M_n \delta L_i S_n \), the defendant's expected total liability if she goes to trial this period minus her expected total liability if she settles this period. If the defendant expects future cases to go to trial, the maximum settlement is given by \( R_i T_n = X_i T_n - M_n \delta X_i T_n \), the defendant's expected total liability if she goes to trial this period minus her expected total liability if she goes to trial next period discounted by the probability that another plaintiff will sue.

This defendant's reservation value is averaged with the plaintiff's reservation value, expected damages minus litigation costs, to get the expected settlement.

**IV. Explanation of the Results**

In this section, I discuss the effect that offensive, non-mutual issue preclusion has on expected liability and settlement values. I then discuss how the effects of judicial bias are enhanced if courts interpret "inconsistent" verdicts in such a way that a verdict for a defendant substantially reduces the possibility that the defendant will ever be subject to issue preclusion. Next, I discuss the consequences of relaxing the assumption that plaintiffs cannot alter the time at which they settle. In my discussion of the consequences of relaxing this assumption, I intend merely to alert the reader to the limitations of the Comment's analysis, especially as it relates to the comparison between early and late plaintiffs. These limitations notwithstanding, I then offer a brief comparison of early and late plaintiffs.

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41. This result, as well as the settlement value in a case where the court will apply issue preclusion, follows directly from the assumption that plaintiffs and defendants have identical litigation costs and that parties will split the settlement range.
A. EXPECTED LIABILITY

Regardless of whether parties expect future cases to settle and regardless of how courts interpret the “inconsistent” verdicts limitation, offensive, non-mutual issue preclusion increases a defendant's expected liability. However, to the extent that courts interpret the “inconsistent” verdicts limitation in such a way that a verdict for the defendant acts as an effective vaccine against future issue preclusion, the increase in liability that is due to offensive, non-mutual issue preclusion is decreased. Still, the defendant's expected liability is greater than it would be if courts did not apply offensive, non-mutual issue preclusion. This comparison is significant. If there is no offensive, non-mutual issue preclusion, a plaintiff's settlement will depend solely on the merits of his case. That is, the plaintiff will not receive a settlement enhanced or reduced by the characteristics of the other plaintiffs.

In deciding whether to settle, the defendant must compare the consequences of trial to the consequences of settlement. Under offensive, non-mutual issue preclusion, a judgment could potentially result in future courts taking an issue as conclusively established against the defendant. As issue preclusion will not be based on a settlement, the defendant is willing to offer a greater settlement than he would be if there were no offensive, non-mutual issue preclusion.

If the courts interpret the “inconsistent” verdicts limitation broadly, or return specific verdicts, a verdict for the defendant may immunize the defendant from issue preclusion and reduce her expected liability. The defendant's willingness to settle would then not only reflect the risk of losing and enabling future plaintiffs to establish issue preclusion, but also reflect the chance of winning and settling with those plaintiffs for a value that does not reflect the threat of issue preclusion. The defendant may actually gain from a given trial. Since she will reduce the value of future settlements if she wins, she is no longer willing to offer as large a settlement as she would if a verdict in her favor did not reduce the risk of future issue preclusion.

Even with the “inconsistent” verdicts limitation, a defendant's expected liability under offensive, non-mutual issue preclusion is greater than it would be if offensive, non-mutual issue preclusion were not permitted. A defendant's victory can only result in immunization from future issue preclusion; future plaintiffs cannot be precluded from litigating the issue as they have not had a “full and fair opportunity to litigate.” Therefore, even if courts interpret “inconsistent” verdicts broadly, the defendant’s expected total liability will still be greater than if the courts maintained the mutuality requirement.

The extra settlement that the defendant must offer the plaintiff because of the threat of future issue preclusion will be called the plaintiff’s “issue preclusion bonus.” An issue preclusion bonus is defined as the difference between a given plaintiff's expected settlement under offensive, non-mutual issue preclusion and

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42. This assumes, of course, that no court has already decided a case.
his expected settlement in the absence of issue preclusion.

Whether or not parties expect future cases to go to trial or to settle will greatly affect the size of the issue preclusion bonus. To the extent that the defendant expects future cases to settle rather than go to trial, she is willing to offer a larger issue preclusion bonus. If a defendant expects future cases to go to trial, settling will only postpone the trial for one period. If she expects future cases to settle, settling now will mean that the defendant will never risk issue preclusion. Although the defendant will have to pay issue preclusion bonuses to the future plaintiffs, these bonuses do not include the full cost of the risk of issue preclusion as the plaintiff and defendant split the difference between their reservation settlement values. Therefore, the defendant will be willing to offer a larger settlement to each plaintiff if she expects future cases to settle. Consequently, if the defendant assumes that future cases will settle, her expected liability is greater than her actual liability if she assumes future cases will go to trial but the future cases do in fact settle.

B. Effect of Judicial Bias

If a defendant's victory protects against future issue preclusion, bias in our legal system becomes even more important. If a plaintiff is “attractive,” with a relatively high probability of winning, issue preclusion may dramatically increase his settlement. If a plaintiff is “unattractive,” with a relatively low probability of winning, issue preclusion may reduce the settlement. A plaintiff’s probability of prevailing on a common issue may diverge for two primary reasons. Plaintiffs who hire better lawyers are more likely to win, and plaintiffs who better evoke the juries' or judges' sympathy are more likely to win.

The reason why judicial bias greatly affects settlement values when a defendant's victory acts as an effective vaccine is best understood by focusing on the defendant's incentives. If Drugco goes to trial, it may lose and future courts will treat the insufficiency of the label as conclusively established in all future litigation. However, if Drugco wins the suit, it may substantially reduce the chance that future courts will base issue preclusion on a subsequent verdict for a plaintiff. Because the risk of future issue preclusion is substantially reduced, Drugco will not have to offer as large settlements in the future. Thus, the issue preclusion bonuses, which reflect the risk of future issue preclusion, will be reduced.

Obviously, the higher the plaintiff's relative probability of victory, the less attractive litigation appears to the defendant. With an attractive plaintiff, there is a greater chance that the defendant will have an issue conclusively established against her in future litigation and less of a chance that the defendant will be able to avoid paying “issue preclusion bonuses” to future plaintiffs.

Although Drugco cannot affect whether or when a plaintiff will sue, it can, by varying its settlement offers, affect whether or not that plaintiff will go to trial. Essentially, the defendant will have a strong incentive to “shop” for a relatively unattractive plaintiff by settling with relatively attractive plaintiffs. The more attractive the plaintiff is, the more the defendant will offer to avoid the
possibility of trial. However, a defendant will offer very little to a relatively unattractive plaintiff because trial, and the possibility of avoiding the payment of future issue preclusion bonuses, may appear very desirable to the defendant. In fact, the defendant's reservation settlement offer may be below the plaintiff's expected return from trial, and, therefore, trial would be inevitable.

If justice is not blind, and a defendant's victory can substantially immunize the defendant against future issue preclusion, the defendant will have an incentive to “shop” for unattractive plaintiffs. The defendant will settle with attractive plaintiffs in an effort to litigate only against unattractive plaintiffs. The result of the defendant's “shopping” is that “attractive” plaintiffs receive an enhanced settlement while “unattractive” plaintiffs receive reduced settlements or are forced to go to trial and incur litigation costs.

C. EFFECTS OF ALLOWING PLAINTIFFS TO ALTER THE ORDER IN WHICH THEY SUE

Commentators have claimed that offensive, non-mutual issue preclusion will cause plaintiffs to strategically alter the time at which they sue. However, these commentators have disagreed with regard to whether plaintiffs will wish to wait for other plaintiffs to file first or rush to file. As I explicitly assume that plaintiffs cannot alter the order in which they sue, I do not directly address this question. To correctly determine whether plaintiffs would wish to file early or late, one would need to consider the settlements in equilibrium. I did not uncover such an approach in the literature. Although a full treatment of this question is left for further research, an example will demonstrate that the ability of plaintiffs to alter the order in which they sue can dramatically affect settlement and the implications of offensive, non-mutual issue preclusion.

If the defendant faces a known number of homogeneous plaintiffs who can costlessly alter the order in which they sue, offensive, non-mutual issue preclusion will have no effect on the defendant's expected liability. In equilibrium, no plaintiff can have an incentive to alter the time at which he sues. Therefore, all plaintiffs must receive the same settlement. However, one plaintiff must sue last. As there are no future plaintiffs, this plaintiff must receive the expected value of his judgment. All other plaintiffs can only receive as much as the last plaintiff; therefore each plaintiff must receive the expected value of his judgment. Essentially, all plaintiffs compete to be the first to settle. In doing so, they accept lower and lower offers from the defendant until the defendant pays each plaintiff his expected judgment.

43. See, for example, Ratliff, 67 Tex L Rev at 77 (cited in note 35) (noting that a prospective plaintiff “can stand outside the initial litigation and benefit from chance errors in his favor without taking the risk of chance errors against him (or his surrogate)”). See also Parklane, 439 US at 329 (suggesting plaintiffs may adopt a “wait and see attitude”).
45. See note 35 and accompanying text.
My conclusions depend on the assumption that plaintiffs cannot alter the order in which they sue. If plaintiffs could change the order in which they sue, the results could be quite different. While I do not attempt a thorough analysis of this issue, such an assumption may imply much smaller settlement values as plaintiffs “compete” for the optimal place in line.

D. EARLY VERSUS LATE PLAINTIFFS

Some tentative comparisons between plaintiffs who file early and those who file late can be made. In the absence of judicial bias, early plaintiffs generally receive higher settlements than late plaintiffs. However, this assumes that all previous plaintiffs have settled. Whether or not early plaintiffs receive a higher return than late plaintiffs depends on the probability that disputes settle. By waiting, a plaintiff reduces her expected settlement if all previous plaintiffs settle. Therefore, if all other cases will settle, the plaintiff is better off if he sues early.

46. While early plaintiffs generally receive more than late plaintiffs, the difference in settlements between two early plaintiffs is far less than the difference in settlements between two later plaintiffs. That is, the benefit from filing ahead of one person decreases for remaining plaintiffs. This is true regardless of how courts interpret “inconsistent” and regardless of whether parties expect future cases to settle or go to trial. Settlement values are clearly bounded above by some amount. This amount depends on the courts’ interpretation of “inconsistent” and the parties future expectations. Settlement values generally approach this value fairly quickly.

If a defendant's victory is completely effective at preventing future issue preclusion and parties expect all future cases to go to trial, the result is dramatic. If the number of remaining plaintiffs is known, all settlement values, except the value for the last plaintiff, will be the same. A single verdict will conclusively decide whether or not the plaintiff can invoke issue preclusion. Since parties expect all cases to go to trial, a decision to settle will only postpone this determination one period. Therefore, the only relevant values are those of the next plaintiff. Since plaintiff's probability of victory and damages are assumed to be the same no matter the order in which the plaintiffs sue, all settlement values will be the same except for the last plaintiff who, by definition, is not followed by another plaintiff.

Even if a defendant's victory does not act as a complete bar against future issue preclusion, the settlement value reaches an upper bound. This stems from the virtual impossibility of the defendant winning a large number of independent determinations. If a defendant would win 80 percent of the time a case is tried before a jury, and if this percentage is independent of the number of times the suit is tried, the defendant has less than a 7 percent chance of winning twelve suits and less than 0.4 percent chance of winning twenty-five suits. If there is a large number of plaintiffs, the defendant will expect to lose before all plaintiffs have sued. By settling with the current plaintiff, the defendant merely shifts her expectations back one period.

When parties expect settlement, a limit is reached as the plaintiffs begin to extract the entire gain from settlement. Although each plaintiff only extracts half of the gain from the defendant, earlier plaintiffs will realize that the defendant will anticipate this gain if he settles. The plaintiff will therefore extract some of this gain from settlement. For any given plaintiff, the further in the future another plaintiff is, the more plaintiffs are extracting gain from the settlement gap and the less there is to extract. See equation [11a].
However, if a plaintiff expects suits to go to trial, he will expect to receive a greater return if he files late. A plaintiff receives a higher return by filing after a plaintiff who will go to trial than by filing before that plaintiff. This is true whether or not a defendant's victory will prevent future issue preclusion. If the litigating plaintiff loses, the current plaintiff may lose his issue preclusion bonus. Even if a defendant's victory is ineffective at preventing issue preclusion, the defendant's settlement will have decreased as there are fewer remaining plaintiffs. However, this loss is more than offset by the possibility of invoking issue preclusion should the prior plaintiff win.47

Judicial bias makes the order in which the plaintiffs sue more important. Attractive plaintiffs who file early receive a greater settlement than those attractive plaintiffs who file late. Conversely, unattractive plaintiffs who file early receive a smaller settlement than those unattractive plaintiffs who file late. The effects of issue preclusion are enhanced by the number of remaining plaintiffs. Obviously both the threat that one will be liable to all future plaintiffs and the benefit from avoiding the payment of issue preclusion bonuses to all future plaintiffs are greater if there are more future plaintiffs. As the threat of future issue preclusion outweighs the benefit of avoiding the payment of issue preclusion bonuses when the plaintiff is relatively attractive, the defendant is willing to offer the attractive plaintiff a greater settlement if that plaintiff sues early. For similar reasons, the defendant is willing to offer the unattractive plaintiff a greater settlement if that plaintiff sues late.

V. Numerical Example

Assume that one hundred plaintiffs48 will claim that Drugco is liable for their hair loss. Assume that all plaintiffs can easily show that Widigcellin proximately caused their hair loss and that the only remaining issue in all cases is whether the warning was sufficient. Assume, for simplicity, that future settlement values are not discounted and that, despite parties' expectations, all cases will settle.

Initially consider the case in which justice is blind. Assume that all plaintiffs have a 20 percent chance of winning a $1,000 judgment against Drugco. Additionally, assume that each party's litigation costs are $100 each time a dispute goes to trial.49 As a basis of comparison, if courts still required mutuality to

47. To the extent that a defendant's victory is "ineffective," this result stems from the fact that settlement values are bounded. See note 46 and figure 1. If a defendant's victory is an effective "vaccine," this result also depends on the fact that the defendant and plaintiff split the settlement range. No general proofs of these propositions are given. However, the effect is demonstrated in Section V.

48. Such a large number is chosen to examine the effect of large numbers and the limiting tendency of settlement values. The small number example can be analyzed by examining the last few plaintiffs. The ninety-fifth plaintiff in this model is in an identical position as if he were the first of six plaintiffs to sue.

49. While this assumption affects the maximum settlement, it does not affect the expected settlement as the plaintiff will also incur these costs if the parties require a
apply issue preclusion, Drugco would settle for no more than $300 and the expected settlement would be $200.

A. EXPECTED LIABILITY

Table 1 models settlement values for homogeneous plaintiffs as a function of their place in line. Regardless of the court’s interpretation of “inconsistent” verdicts and the parties’ expectations of the likelihood of settlement, the last plaintiff’s settlement value is identical to that in the case where the court refuses to apply issue preclusion. As there are no future plaintiffs, there is no threat of future issue preclusion. Furthermore, all other plaintiffs settle for more than they would have in the absence of issue preclusion because the settlement includes an issue preclusion bonus. Finally, the settlement value of the second-to-last plaintiff is invariant to the regime chosen. For the regime to matter, there must be a possibility that a plaintiff will seek issue preclusion based on inconsistent verdicts. Therefore, there must be at least two more plaintiffs.

Table 1
Settlement with a Known Number of Homogeneous Plaintiffs
When P=0.2 and W=$1,000

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<th>RVS</th>
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In situations with inconsistent verdicts, if the parties expect courts to impose issue preclusion despite a defendant’s victory in a prior case, the defendant’s expected liability is significantly higher. Indeed, if parties expect future cases to go to trial and expect courts to impose issue preclusion despite the defendant’s victory in a prior case (l), a plaintiff with five plaintiffs remaining has an expected settlement value over 67 percent higher than in a regime in which the judgment to settle their dispute.
victory effectively vaccinates the defendant (V). If the parties expect future disputes to settle, the relevant difference is over 48 percent. With ten plaintiffs remaining, the relevant differences are approximately 99 percent and 100 percent respectively. For the first plaintiff, the relevant differences are 214 percent and 278 percent.

The expectation of future settlement also increases each plaintiff’s settlement. If a defendant’s victory operates as an effective “vaccine” in later cases, the expectation of settlement will increase the ninety-fifth plaintiff’s expected settlement by approximately 27 percent and that of the first plaintiff by 29 percent. If the court will apply issue preclusion despite a defendant’s prior victory, the relevant numbers are approximately 13 percent and 67 percent.

Figure 1 demonstrates that early plaintiffs have similar settlement values. While the settlement values continue to increase in the number of remaining plaintiffs, except for case (VT), the increase quickly becomes rather small. In all cases, a plaintiff with only twenty remaining plaintiffs will be able to extract a settlement that is within 10 percent of what any plaintiff can extract. If a defendant’s victory insures immunity, the effect is more dramatic. If parties expect all future cases to settle, a plaintiff who is to be followed by only six other plaintiffs will be within 10 percent of the highest possible settlement. If all future cases are expected to go to trial, the settlement value is the same for all but the last plaintiff.

Fig. 1. Expected settlement value as a function of plaintiff’s place in line. All plaintiffs have a probability of winning at trial of 0.2 with damages of $1,000.
B. Effect of Judicial Bias

Table 2 illustrates the consequences of justice that is less than blind. Assume that Alex and Adam are both famous actors. Alex has been typecast as a villain and consequently would only have a 19.7 percent chance of prevailing at trial. Conversely, Adam is one of Hollywood's most beloved leading men and would have a 20.3 percent chance of prevailing at trial. If a victory by Drugco would immunize them against future issue preclusion, Drugco would strongly prefer to see Alex as the first plaintiff rather than Adam. If parties expect future cases to go to trial, Alex will only expect to settle for about $158, approximately 43.5 percent of what he would have settled for had all other plaintiffs also had a 19.7 percent chance of winning. In fact, this is below the $197 he would have settled for had there been no issue preclusion. If parties expect future cases to settle, Alex should expect to settle for $238. While this value is more than he would settle for without issue preclusion, it is still 33.8 percent less than he would have received if all plaintiffs shared his low probability of victory. If Alex had only a 19.5 percent chance of victory, and parties expected future cases to go to trial, he would not be able to settle at all as Drugco would wish to take its chances with him and possibly avoid paying future "issue preclusion bonuses."

If it is Adam, not Alex, who is harmed by Widgicillin, and Adam sues first, Drugco will have to pay much more. Adam can expect to settle for almost $402 if parties expect future cases to go to trial. This is a 42 percent increase over what he would receive if all other plaintiffs also had a 20.3 percent chance of victory. If parties expect future cases to settle, Adam should expect to settle for about $482, a 32 percent bonus over what he would have received if all plaintiffs were as attractive as he.

Although a plaintiff's probability of victory remains important, its value relative to that of the other plaintiffs declines in importance as the number of remaining plaintiffs decreases. Assume that rather than suing first, one of our stars sues with only five remaining plaintiffs. Alex would expect to settle for $271 if the parties expected future cases to go to trial, 1.8 percent less than he would if all plaintiffs shared his low probability of victory. Adam would expect to settle for $289, 1.8 percent more than he would if all plaintiffs shared his high probability of victory. If parties expected future cases to settle, Alex would settle for $346, a 1.2 percent discount due to his relatively low probability of victory. Adam would settle for $364, a 1.2 percent bonus.

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50. I present the values for the first plaintiff because the values are otherwise very close to their limits. The ninety-fifth plaintiff is chosen to represent the situation in which there are a small number of suits. The ninety-fifth plaintiff is equivalent to the first plaintiff when six plaintiffs will sue in the future. Comparing the settlement values of these two plaintiffs under the various assumptions reveals that the effects of judicial bias are increasingly important as the number of remaining plaintiffs rises.
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<th>RVS</th>
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C. EARLY VERSUS LATE PLAINTIFFS

Obviously Alex, the villain, is better off if he is the ninety-fifth plaintiff rather than the first plaintiff. He will settle for $113 more by suing later if parties expect future cases to go to trial and for $108 more if parties expect future cases to settle. Adam, the hero, is better off by filing first. He will settle for $75 more if parties expect trials and for $118 more if parties expect settlements. This illustrates the hypothesis that as long as plaintiffs cannot alter the order in which they sue, a relatively attractive plaintiff is better off if he files early while a relatively unattractive plaintiff is better off if he files late.

As can be seen from table 2, heterogeneity has a much smaller impact if a single plaintiff's victory does not act as an effective vaccine. There is little value in repeating those numbers here.

If plaintiffs are homogeneous, whether a plaintiff is better off if he files early depends on the probability that cases will go to trial. The plaintiff receives a higher return by filing early if all cases will settle. If all cases other than the plaintiff's own case are likely to go to trial, the plaintiff is better off if he files late. This holds true for all cases. If a defendant's victory acts as an effective vaccine, a plaintiff will expect a return of $360 if another plaintiff goes to trial before he sues.\(^{51}\) This exceeds any settlement possible under this scenario. If a defendant's victory is ineffective (I), a victory by a defendant will not prevent future plaintiffs from receiving issue preclusion bonuses. While the value of the issue preclusion bonus has decreased due to the decline in the number of remaining plaintiffs, this is more than offset by the possibility of invoking issue preclusion based on the prior plaintiff's victory. For example, the ninety-eighth plaintiff can expect to settle for $64 more than the ninety-ninth plaintiff in scenario (II). However, if the ninety-eighth plaintiff goes to trial, the ninety-ninth plaintiff can expect a return of $424,\(^{52}\) $80 more than if he were the ninety-eighth plaintiff.

VI. Algebraic Results

The plaintiff's reservation settlement value, $R_{ij_{pn}}$, does not depend on the rules of issue preclusion or the expectations of future settlement. The value is given by

\[ R_{ij_{pn}} = P \cdot W_n - C. \]

One commentator derived the algebraic results for a regime in which courts

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\(^{51}\) The first plaintiff will prevail 20 percent of the time. Even if that plaintiff does not prevail, the current plaintiff will still have a 20 percent chance of prevailing. The expected return is therefore \((0.2 + 0.8 \times 0.2) \times $1,000 = $360.\)

\(^{52}\) 0.8 \times $280 + 0.2 \times $1,000. This analysis is equally valid when the parties expect future cases to settle, however the extra return is only $72 ($424 - $352).
always impose issue preclusion despite inconsistent judgments, in which there is a known number of plaintiffs, and in which parties expect future disputes to go to trial.\textsuperscript{53} Generalizing the results to include an uncertain number of plaintiffs and parties which expect future cases to settle would add little to our understanding of issue preclusion, so I do not do so. Rather, I will only present the algebraic results in the stylized world in which a defendant’s victory acts as a complete bar against future issue preclusion (V).

If a defendant’s victory in her first trial bars issue preclusion, a victory no longer puts her in the same situation as a settlement. If she wins at trial, future plaintiffs’ settlements need not reflect the possibility of issue preclusion. Excluding litigation costs, the expected liability from going to trial will be the same whether or not parties expect future cases to go to trial. However, expected settlements, and hence the implications of issue preclusion, differ markedly.

A. CASE 1: PARTIES EXPECT FUTURE CASES TO GO TO TRIAL

If parties expect all future disputes to go to trial, the defendant's reservation settlement value is the difference between her expected liability from going to trial this period and her expected liability from going to trial next period discounted by the time value of money and the probability that another plaintiff will file and she will indeed have to go to trial again. That is,

\[ RVT_{dn} = XVT_n - M_{n,1} \delta XVT_{n,1}. \]

If a defendant goes to trial, she faces expected liability of

\[ XVT_n = P_n \left( \sum_{k=0}^{N-n} M_{n,k} \delta^k \right) W_{n,k} + \left( 1 - P_n \right) \left( \sum_{k=1}^{N-n} M_{n,k} \delta^k \right) W_{n,k} + \sum_{k=0}^{N-n} M_{n,k} \delta^k C. \]

Thus, the defendant’s reservation settlement value is\textsuperscript{54}

\[ RVT_{dn} = C + P_n W_n + M_{n,1} \delta P_n \left( 1 - P_{n,1} \right) W_{n,1} + \left( 1 - P_n \right) \left( \sum_{k=1}^{N-n} M_{n,k} \delta^k \left( 1 - P_{n,k} \right) \right) W_{n,k}. \]

and the expected settlement\textsuperscript{55} is

\[ EVT_n = P_n W_n + \sum_{k=2}^{N-n} \left[ M_{n,k} \delta^k P_n \left( 1 - P_{n,k} \right) W_{n,1} + \left( 1 - P_n \right) \left( \sum_{k=2}^{N-n} M_{n,k} \delta^k \left( 1 - P_{n,k} \right) \right) W_{n,k} \right]. \]

\textsuperscript{53} Note, 105 Harv L Rev at 1954 (cited in note 14).

\textsuperscript{54} Equations that denote the same material with slightly different assumptions will be denoted a, b, c, etc.

\textsuperscript{55} This assumes RVT_{pn}<RVT_{dn}. Obviously, if this equation does not hold, settlement will not take place and the expected return will be just the expected verdict minus litigation costs.
As parties only know the distribution from which the future plaintiffs will be drawn, the defendant's reservation settlement value is

\[ RVT_{dn} = C + P_n W_n + M_{n,1} 8P_n(1-P) W + (P_n - P)(1-P) W \left( \sum_{k=1}^{N-n} M_{n,k} S^k(1-P_{n,k}) \right) \]

and the expected settlement is

\[ EVT_n = P_n W_n + \frac{1}{2} \left[ M_{n,1} 8P_n(1-P) W + (P_n - P)(1-P) W \left( \sum_{k=2}^{N-n} M_{n,k} S^k \right) \right]. \]

In the specialized case of a known number of plaintiffs and no discounting, the defendant's reservation settlement value is

\[ RVT_{dn} = C + P_n W_n + P_n(1-P) W + (P_n - P)(1-P) W(N-n-2) \]

and the expected settlement is

\[ EVT_n = P_n W_n + \frac{1}{2} \left[ P_n(1-P) W + (P_n - P)(1-P) W(N-n-2) \right] \]

for \( n < N-2 \).

Note that all versions of equations 5 and 6 are not strictly increasing in the number of plaintiffs remaining but depend on the relationship between the plaintiff's probability of victory and the mean probability of victory of all plaintiffs.


If \( P_n = P \) for all \( n \) (all parties have an identical chance of prevailing on the issue; justice is blind), then the defendant's reservation settlement value becomes

\[ RVT_{dn} = C + PW_n + M_{n,1} 8P(1-P) W \]

and the expected settlement value becomes

\[ EVT_n = PW_n + \frac{1}{2} \left[ M_{n,1} 8P(1-P) W \right]. \]

Except for the fact that the probability that one more plaintiff will file should decrease as the number of plaintiffs that have previously filed increases, the plaintiff's settlement is completely invariant to the plaintiff's position in line. In the extreme case, a world in which there is a known number of plaintiffs, the expected return from suing is the same for all plaintiffs except the last plaintiff.

This example demonstrates one possibly unfortunate consequence of issue preclusion: issue preclusion may give a greater percentage benefit to those with a low probability of winning. If all plaintiffs suffered the same damages and all
suits would settle, the percentage increase in the return is given by \((1/2)M_{n,i}\delta(1-P)\), which is obviously decreasing in the probability of victory.

2. Less-than-blind justice.

Note that for \(P_n>P\), all versions of equation 6 are increasing in \(N-n\); for \(P_n<P\), equation 6 is decreasing in \(N-n\). This is just the algebraic form of the result that issue preclusion benefits attractive plaintiffs disproportionately and that these plaintiffs can settle for more the earlier they sue. For the relatively unattractive plaintiff, \(P_n<P\) by a substantial amount, it is possible for the expected settlement to be lower than that which would be received under no issue preclusion. The magnitude of the second and third terms of equation 6 will determine whether issue preclusion benefits or harms a given unattractive plaintiff. If it is likely that a substantial number of plaintiffs would follow, \(N-n\) is large in the case of a known number of plaintiffs, or the probability that many future plaintiffs will arrive is high, it is possible that the third term will dominate and a plaintiff would be better off without issue preclusion. It is even possible that issue preclusion would preclude settlement. This would be the case when

\[
W(1-P)[M_{n,1}\delta P_n+(P_n-P)\left(\sum_{k=2}^{N-n} M_{n,k}\delta^k\right)]<2C.
\]

B. CASE 2: PARTIES EXPECT SETTLEMENT

If parties expect all future cases to settle, the defendant’s reservation settlement value is now the difference between her expected liabilities from going to trial this period and the discounted sum of all future settlements. That is,

\[
RVS_{dn}=XVS_n-M_{n,1}\delta LVS_{n,1}
\]

or

\[
RVS_{dn}=XVS_n-\sum_{k=1}^{N-n} M_{n,k}\delta^k EVS_{n,k}.
\]

Expected liability from going to trial is similar to that found in Case 1 with only expected litigation costs changing:

\[
XVS_n=C+P_n\left(\sum_{k=0}^{N-n} M_{n,k}\delta^k W_{n,k}\right)+(1-P_n)\left(\sum_{k=1}^{N-n} M_{n,k}\delta^k P_n W_{n,k}\right).
\]

This yields a reservation settlement value of

\[
RVS_{dn}=C+P_n W_n+(1-P)W[\sum_{k=1}^{N-n} M_{n,k}\delta^k(P_n-P+P)]
\]

and an expected settlement of

\[
EV_{n}=P_n W_n+\frac{1}{2}(1-P)W[\sum_{k=1}^{N-n} M_{n,k}(P_n-P+P)].
\]
Equation [11a] implies that issue preclusion will enhance the effect of judicial bias in this case as well. If the plaintiff has a relatively high probability of victory, the second term will be quite large. If the plaintiff has a very low probability of victory and the number of remaining plaintiffs is high, the second term may be negative.

Note that even if all plaintiffs have an identical probability of prevailing at trial, settlement is still increasing in the number of remaining plaintiffs:

\[
EVS_n = PW + \frac{1}{2}(1-P)\left[\sum_{k=1}^{N-n} M_{x,k}\left(\frac{P}{2^k}\right)\right].
\]

Equation [11b] is increasing in \((N-n)\); however, the expected settlement approaches a limit when \(k\) becomes large and the sequence \(P/2^k\) approaches 0.

VII. Conclusion

Offensive, non-mutual issue preclusion increases a defendant's expected liability. However, to the extent that a defendant may reduce the threat of future issue preclusion by winning some decisions, the increase in the liability is greatly reduced.

To the extent that the defendant may reduce the threat of future issue preclusion by winning some decisions, any biases inherent in our judicial system will be aggravated. A defendant will offer large settlements to those plaintiffs with relatively high probabilities of victory to avoid the threat of issue preclusion resulting from a loss to one of these plaintiffs. The defendant may refuse to settle with those plaintiffs with a very low relative probability of victory in the hope of establishing a record of victories to avoid paying enhanced settlements to future plaintiffs and to prevent future issue preclusion should the defendant lose a future trial. Thus, issue preclusion may exacerbate biases inherent in our judicial system.