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LIABILITY-BASED FEE-SHIFTING RULES AND
SETTLEMENT MECHANISMS UNDER
INCOMPLETE INFORMATION

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Recent years have seen a debate over litigation reform grow increasingly agitated. Attorneys, judges, academics, and politicians now readily and regularly disagree about how or whether to combat the debilitating litigiousness commonly purported to infect the American Bar. Within this debate, few reform proposals have received as much attention as “fee-shifting” provisions, which, in their most popular incarnation, reallocate litigation costs (particularly attorney’s fees) based on the outcome of the liability phase of a trial.1 This attention is perhaps justified, given the nonuniformity of such rules among industrialized nations. For instance, in the British Commonwealth and much of Continental Europe, the loser of the liability phase of a civil trial generally bears the fees for both sides.2 Numerous other countries employ a partial fee-shifting approach, in which the losing party bears a fraction of the prevailing party’s fees.3 The United States and Japan, in contrast, have historically eschewed such fee-shifting schemes, except in cases of misconduct by one of the parties or where

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1. Indemnity rules that turn on the binary outcome of liability, while the most commonly discussed, are by no means exclusive. Bebchuk & Chang, for instance, advocate the use of a fee-shifting rule that turns not only on the liability decision, but on the “margin of victory” according to some measurement norm. See Lucian A. Bebchuk & Howard Chang, An Analysis of Fee-Shifting Based on the Margin of Victory: On Frivolous Suits, Meritorious Suits, and the Role of Rule 11, 25 J. LEGAL STUD. 371 (forthcoming 1996). Such proposals have not appeared as frequently in practice, however, probably because of the problems inherent in measuring the margin of victory, especially in jury trials. On the other hand, Rule 11 and Rule 68 of the Federal Rules of Civil Procedure might arguably be seen as attempts to gauge the margin of victory using “frivolousness” or the settlement process itself to infer margins of victory.


3. Among others, France, the Netherlands, and the Canadian province of Ontario follow such hybrid rules. Id. at 163-65, 167.
explicit legislation mandates otherwise.\textsuperscript{4} Despite this historical resistance (or perhaps because of it), proposals to move in the direction of a loser-pays rule have seized greater domestic attention of late.\textsuperscript{5}

Most everyone agrees that indemnity rules can affect incentives, thereby influencing (among other things) the selection of suits for litigation, the effort expended by litigants, and the likelihood of settlement. The respective directions and magnitudes of these various effects, however, are complicated.\textsuperscript{6}

4. \textit{Id.} at 166-67. In United States federal civil procedure, the classic case is Alyeska Pipeline Service Co. v. Wilderness Society, 421 U.S. 240 (1975). Within state law, the only state still to follow the English rule as a general matter is Alaska. ALASKA R. Civ. P. 82 (mandating scheduled fee shifting as a default rule).

Most of the statutory exceptions to the both-pay norm in the United States can be found in civil rights cases, and are one-way (pro-plaintiff) in nature. Section 706(k) of Title VII has been read by courts to create a default presumption in favor of awarding attorney's fees to a prevailing plaintiff, but not to a prevailing defendant. See 42 U.S.C. § 2000e-5(k); Christiansburg Garment Co. v. EEOC, 434 U.S. 412, 421 (1978) (holding that a court may award attorneys' fees to a prevailing defendant only when it can surmount a higher hurdle of demonstrating that the plaintiff's action was "frivolous, unreasonable, or without foundation," though not necessarily brought in "subjective bad faith"); Albemarle Paper Co. v. Moody, 422 U.S. 405 (1975) (extending the \textit{Newman} doctrine to Title VII cases); Newman v. Piggie Park Enter., Inc., 390 U.S. 400, 402 (1968) (upholding the presumption that a prevailing plaintiff should be awarded attorneys' fees in a Title II case, and noting that Congress enacted the fee-shifting provision with the express aim of "encourag[ing] individuals injured by racial discrimination to seek judicial relief"). Litigation falling within the remedies provisions of the Fair Labor Standards Act (including Equal Pay Act and Age Discrimination in Employment Act actions) is subject to an even \textit{less discretionary} one-way, pro-plaintiff fee-shifting scheme. See 29 U.S.C. § 216(b) (prescribing that the court "shall, in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fee to be paid by the defendant, and costs of the action") (emphasis added).

5. Most recently, an early House version of the new Private Securities Litigation Reform Act of 1995 adopted a loser-pays indemnity rule for unsuccessful litigants whose case was "not substantially justified." See H.R. 1058, 104th Cong., 1st Sess. § 3 (1995). The conference committee reconciliation of the House and Senate versions of the bill, however, largely eliminated this provision. In its place, the Act merely makes attorney's fees the presumptive remedy for a Rule 11 violation, and it mandates a Rule 11 analysis by the trial court as a matter of course. See Private Securities Litigation Reform Act of 1995 § 101 (codified as 15 U.S.C. §§ 77z-1 and 78u-4).

6. On the one hand, a British rule may deter a number of "low damage" and "nuisance" suits, in which plaintiffs file trivial cases as a strategic attempt to extract a settlement offer. See Lucian A. Bebchuk, \textit{A New Theory Concerning the Credibility and Success of Threats to Sue}, 25 J. LEGAL STUD. 1 (1996) [hereinafter Bebchuk, \textit{A New Theory}]; Lucian A. Bebchuk, \textit{Suing Solely to Extract a Settlement Offer}, 17 J. LEGAL STUD. 437 (1988) [hereinafter Bebchuk, \textit{Suing}]; Avery Katz, \textit{The Effect of Frivolous Lawsuits on the Settlement of Litigation}, 10 INT'L REV. L. & ECON. 3 (1990); I.P.L. P'ng, \textit{Strategic Behavior in Suit, Settlement, and Trial}, 14 BELL J. ECON. 539 (1983). On the other hand, a loser-pays system would encourage the filing of strong but low-value suits, which would not have been brought under a traditional American rule, where each side bears her own costs. See, e.g., Steven Shavell, \textit{Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods for the Allocation of Legal Costs}, 11 J. LEGAL STUD. 55 (1982). Moreover, when the outcome of a suit is uncertain, both of these fee-shifting rules will induce inefficient "speculation" by potential plaintiffs. Bebchuk & Chang, \textit{supra} note 1 (discussing this observation and arguing that the optimal legal response frequently would be to make fee shifting contingent on the margin of victory).

A second area of concern among law and economics scholars has been the effect of indemnity rules on parties' marginal incentives to incur litigation costs. While the effect is formally
This Article focuses on the third of these consequences, the likelihood of settlement, and it extends a debate over the question of whether the loser-pays rule promotes settlement. Specifically, it employs a game-theoretic analysis to propose a general account of the relation between settlement negotiations and such fee-shifting rules. This account supports more particular—but ostensibly less robust—examples by others indicating the ineptness of the English rule as a settlement-catalyzing device. In fact, I push the argument even further, demonstrating that if maximizing settlement rates were one’s sole aim, then a more effective (albeit seemingly perverse) reform proposal would prescribe that the winner, rather than the loser, should bear the joint costs of litigation.

Before going into specifics, let me place the analysis in the proper context. Evaluating the relationship between indemnity rules and settlement requires some prior understanding of why settlement efforts fail in the first place. Indeed, neoclassical economics suggests that they should not: if both parties know that litigation entails socially wasteful costs, then rational litigants should always resolve their disputes through private bargaining notwithstanding the underlying fee-allocation rule. The expected joint costs of litigating (not to mention the risk of litigation uncertainty) represent large bargaining gains that the parties would squander by failing to settle. And in fact, most litigants are able to capture this surplus, as suggested by the fact that the vast majority of civil cases settle before trial.

unclear, a number of scholars have argued that a movement to the British rule would likely increase the level of litigation costs for those suits which actually go to court when such “effort” can affect trial outcomes. E.g., Avery Katz, Measuring the Demand for Litigation: Is the English Rule Really Cheaper? 3 J.L. ECON. & ORGANIZATION 143 (1987). This argument is fundamentally rooted in two common observations. First, the marginal dollar spent on litigation imposes a negative externality on the other party, since under a loser-pays system a litigant bears only a fraction of her legal costs. Moreover, since parties do not generally bear the full cost of their litigious expenditures, this externality will affect not only the opposing side, but society (qua taxpayers) at large. Second, the parties’ respective stakes in winning are higher (i.e., to avoid paying one’s opponent’s fees), and thus the marginal benefit associated with winning increases. A British-style rule tends to magnify the severity of both effects. For other specific applications of these arguments, see Ronald Braeutigam et al., An Economic Analysis of Alternative Fee Shifting Systems, 47 LAW & CONTEMP. PROBS. 173 (1984); John C. Hause, Indemnity, Settlement, and Litigation, or I’ll Be Suing You, 18 J. LEGAL STUD. 157 (1989). My analysis does not focus on endogenous litigation effort choice, however.

This is, of course, an elementary (though oft-neglected) application of the Coase theorem. See John J. Donohue III, Opting for the British Rule, or If Posner and Shavell Can’t Remember the Coase Theorem, Who Will?, 104 HARV. L. REV. 1093 (1991) (giving an entertaining and informative comment on the academy’s inclination to forget the “positive” Coase theorem when discussing fee shifting and settlement).

8. See, e.g., James Kakalik et al., Avoiding Gridlock: Strategies for Reducing Civil Delay in the L.A. Superior Court, at xi (RAND Corp. ICJ Working Paper, 1990) (finding that 96% of civil cases in Los Angeles settle before receiving their full-blown “day in court”).
Nonetheless, for those litigants whose efforts to settle are unsuccessful, we are left with the challenge of explaining why. Three principal causes seem to emerge consistently in the academic literature: (1) transaction costs prevent the parties from capturing the joint gains from settlement; (2) one or both litigants place large intrinsic value on litigation itself; and (3) cognitive barriers cause the parties' decisions to deviate from standard economic assumptions of expected utility maximization. Although I will have something to say about the latter two possibilities later in this Article, my principal focus here is on what many see as the most pernicious transaction cost barrier to negotiation: asymmetric information.

Typically, each party to litigation possesses some private information about the underlying "value" of the case. For instance, a defendant may be relatively more informed about the extent of her negligence, or a plaintiff about the extent of his damages. If a privately-informed party (or her attorney) is rational, she is likely to have an incentive to use the proprietary knowledge to her own advantage. By convincing her opponent that she is a "strong type," she might extract settlement concessions in excess of what she would ex-
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pct through litigating. This incentive to misrepresent one's private information can be wasteful, for it increases the probability of bargaining failure or delay, even when it is obvious to all that there are immediate gains from settlement.

Numerous law and economics scholars have commented on the relationship between private information, settlement negotiations, and the underlying fee-allocation rule. Some notable academics have argued that moving in the direction of an English rule would, on average, have a beneficial effect on settlement. For example, Richard Posner has conjectured that a loser-pays rule will likely induce greater truth-telling among litigants, because a "weak" litigant whose bluff is called faces the joint prospects of both a losing case and responsibility for her opponent's legal fees. So constrained, this argument goes, the litigant would rather tell the truth than bear "the cost . . . of exaggerating the probability of his prevailing."14

In contrast, a handful of commentators have produced stylized examples demonstrating the reverse of Posner's intuitive argument, in which the American rule dominates the English rule on settlement-inducing grounds.15 While these counterexamples demonstrate a powerful possibility, it is difficult to assess their generality. Indeed, nearly all of them employ a specific bargaining procedure to analyze the characteristics of a few particularized alternative fee-shifting schemes. Such a methodology is problematic for at least two reasons. First, litigants might well employ a completely different bargaining procedure than the one studied. And second, there may be some other type of liability-contingent fee-shifting scheme that would induce even greater settlement rates than would the "usual suspects."16

Below I endeavor to unify and generalize the extant theoretical approaches, arguing that the settlement-deterring attributes of the English rule transcend the specific, discrete examples described above. I demonstrate in a very general setting that when one or both


15. The most notable of these is Lucian Bebchuk. See Lucian A. Bebchuk, Litigation and Settlement Under Imperfect Information, 15 Rand J. Econ. 404 (1984) [hereinafter Bebchuk, Litigation]. Still others argue that the settlement rate may be independent of the fee-shifting rule. See J.F. Reinganum & L.L. Wilde, Settlement, Litigation, and the Allocation of Litigation Costs, 17 Rand J. Econ. 557 (1986). For other examples, see Barry Nalebuff, Credible Pretrial Negotiation, 18 Rand J. Econ. 198 (1987); Bebchuk, Suing, supra note 6; P'ng, supra note 6.

16. This term refers to the four most commonly analyzed fee-shifting procedures: the American rule; the English rule; the pro-plaintiff one-way fee-shifting rule; and the pro-defendant one-way fee-shifting rule. As noted above, there is reason to be skeptical of limiting one's analysis to these rules alone, given that numerous countries employ "hybrid" schemes that do not fit easily into one scheme. See supra note 3 and accompanying text.
parties has private information about the likely liability outcome of trial, the English rule is less able than any other type of liability-based fee-shifting rule to induce high rates of settlement. Moreover, I argue that although the oft-discussed American rule and one-way indemnity schemes tend to fare relatively better, there is a continuum of alternative schemes—including a “winner-pays” rule—that can induce even higher settlement rates.

The intuition for this general argument lies in understanding how the fee-allocation rule affects one’s marginal incentive to lie about the strength of her case. Under the American rule, in which fees are not reallocated, this incentive comes solely from inducing one’s opponent to make a pessimistic inference about the expected judgment should the case go to trial. Note, however, that this signal about the likely judgment has no bearing on the amount of legal fees the opponent should expect to pay; for under the American rule, if bargaining fails each party will bear its own costs, regardless of the liability determination.

When fee allocation does turn on liability, however, the signal sent by a successful bluffer is relevant on an additional dimension. Now, the bluffing party signals information not only about the relative strength of her case, but also about the likelihood that she will ultimately have to bear litigation costs. In a loser-pays fee-shifting system, these two signalling concerns are fully complementary; by successfully representing herself as having a strong case on liability, a strategic bargainer can capture profits—often called “information rents”—from two sources: (1) her opponent’s pessimistic inference about the expected judgement; and (2) her opponent’s pessimistic assessment about having to bear increased litigation costs. This second source, ceteris paribus, increases the marginal benefit of bluffing vis-à-vis the American rule.17

In contrast, under a “winner-pays” rule, these two signalling concerns—while present—are countervailing rather than complementary. Indeed, under such a rule, one’s attempt to misrepresent the strength

17. The above argument exposes why the Posnerian intuition described above is unreliable. Recall, Posner opines that the benefit of the English rule is increasing the “cost” of having one’s bluff called. Posner, supra note 14, at 572. And indeed, a weak party’s threat point is relatively less attractive under an English rule. However, the logical question to ask with respect to this purported cost is, “Compared to what?” If the alternative to bluffing is telling the truth, then truthful revelation of her weak case would likely force the party to accept a settlement offer that is close to her threat point as well, and as such, the “cost” of unsuccessful bluffing and the “cost” of telling the truth are essentially a wash. However, as described in the text, the benefit of successful bluffing is greater under a loser-pays rule, and thereby so is the relative incentive to misrepresent.
of her case comes with an attendant cost: by signalling a strong position on liability, she necessarily signals a weak position on indemnity (i.e., that her opponent is likely to escape paying litigation costs). This countervailing incentive thereby dampens the marginal benefit a privately-informed party might extract over her "threat point," which in turn may lead her to make offers or demands that are more representative of her actual reservation value. Such increased earnestness will often result in a narrowing of the strategic "bid-ask" spread during negotiations, and thus a larger settlement rate.

The analysis herein is unifying because it does not depend crucially on a specific bargaining procedure to govern negotiations. Rather, I employ a methodological approach popularly called "mechanism design," which allows one to analyze the set of outcomes which are consistent with noncooperative bargaining, instead of a specific outcome of a specific procedure. Indeed, if it is possible to conclude something about how various fee-shifting rules affect this set of outcomes, then the effects on some particular element of this set may well follow. Moreover, because these earlier treatments have not yielded entirely consistent results, a mechanism-design approach might suggest some perspective on why and under what conditions these variations would follow.

The analysis is also general because it takes into account not only the most popular fee-shifting rules, but also any fee-shifting rule that hinges on the liability outcome of trial. Thus, in addition to evaluating

18. For instance, while Lucian Bebchuk has illustrated using one type of model that a British style fee-shifting rule reduces the likelihood of settlement vis-à-vis an American rule, Reinganum & Wilde study a different model in which the British and American rules have identical settlement rates. See Bebchuk, Suing, supra note 6; Reinganum & Wilde, supra note 15. The analysis below is able to reconcile these two results. See infra text accompanying notes 53-54.

Moreover, the mechanism-design approach captures within its ambit the outcomes of even more complex procedures in which, say, a party may propose "opting" into some alternative fee-shifting scheme, or in which the parties utilize a "settlement escrow." See infra note 58.

19. See MARTIN J. OSBORNE & ARIEL RUBINSTEIN, BARGAINING AND MARKETS 113 (1990). As the reader versed in mechanism design will recognize below, the core arguments of this Article emerge from an analysis of the so-called "incentive compatibility" constraints alone, even though these results carry over to analysis of an optimal mechanism, which, for expositional purposes, I omit herein. As such, the analysis is robust to the standard criticism that it is implausible to believe parties would employ an optimal bargaining mechanism in practice. See Louis Kaplow & Steven Shavell, Property Rules Versus Liability Rules: An Economic Analysis, 109 HARV. L. REV. 713, 737 (1996) (using this criticism to reject the optimal mechanism approach, but arguably falling prey to the same critique by positing an analogously implausible bargaining model).

To my knowledge, only one other analysis addresses fee shifting using a mechanism design methodology, and that paper examines bargaining-based rather than liability-based fee-shifting provisions. See Kathryn E. Spier, Pretrial Bargaining and the Design of Fee-Shifting Rules, 25 RAND J. ECON. 197 (1994). For a fuller explanation of the difference between this analysis and hers, see infra note 37.
the English, American, pro-plaintiff, and pro-defendant rules, the framework presented below permits an analysis of a less focal rule in which, say, the plaintiff would bear a 10% share of total costs if she were to win, but a 78% share of total costs if the defendant were to win. Because indemnity schemes around the world are increasingly becoming "hybrid" in their appearance, it is often insufficient to concentrate one's attention solely on the types of fee-shifting rules that are the most focal either domestically or historically.

Although the analysis below makes a theoretical argument for a winner-pays rule as a settlement-facilitating device, I do not assert that such a rule is a serious policy contender under a broader normative framework. Quite clearly, a "winner-pays" rule may be unpalatable and even perverse for reasons beyond facilitating settlement. Instead, I make a more modest argument that the winner-pays rule animates a general refutation of the English rule as a settlement-inducing device.

The Article is organized as follows. In Section I, I describe the mechanism-design approach to modeling bilateral bargaining, and I introduce the general framework for analysis. In Section II, I use this framework to demonstrate that for any bargaining procedure that rational parties would employ, if either party has private information about the probability of liability, then her incentive to misrepresent value will be strongest under a rule where indemnity is positively related to success at trial (as is the case with the loser-pays rule). Conversely, her incentive to misrepresent value is weaker under a rule where indemnity is either not related or is negatively related to success at trial, and is in fact weakest under a winner-pays rule. In Section III, I address various caveats and limitations of the analysis, focussing primarily on how "settlement inducement" interacts with cognitive, credibility, deterrence, litigation intensity, justice, and process concerns. I conclude that on the whole, some of these concerns argue against the myopic use of a fee-shifting rule as a settlement-

20. See supra note 3 and accompanying text.
21. For instance, such a rule almost surely creates perverse incentives for plaintiffs with completely groundless suits to sue. While this is a serious concern, there are numerous types of injury cases (such as airline crashes) in which the set of injured plaintiffs is fairly easy to identify, and as such groundlessness is not at issue. For a more detailed exposition on the relation between remedies and frivolous suits, see A. Mitchell Polinsky & Daniel L. Rubinfeld, Sanctioning Frivolous Suits: An Economic Analysis, 82 Geo. L.J. 397 (1993).
22. Readers who are not interested in following the mathematical derivations may wish to skim the technical analysis in Section II.
facilitating device, and as such, they probably make the adoption of a winner-pays rule imprudent.

I. FRAMEWORK

As mentioned above, many of the extant theoretical analyses of pre-trial settlement tend to employ rather specialized models of bargaining to infer more general settlement-inducing characteristics of legal rules. For instance, a popular approach is to assume that bargaining consists of a simple two-step procedure: one party makes a "take-it-or-leave-it" settlement offer to the other party, who can then "accept" it or "reject" it, with either response effectively ending the bargaining process.\(^2\) Undoubtedly, such a particularized analysis can help to identify considerations individuals might make in formulating their respective strategies, and it can help suggest possible ways in which legal rules affect such strategy choices. On the other hand, it is not clear that the majority (or even a non-trivial minority) of bargaining parties utilize such simple procedures, and outcomes may be sensitive to this procedural choice.\(^3\)

Despite significant advances in game-theoretic modeling, law and economics scholars have very little intuition about the precise form that bargaining might take. While some procedures may appear relatively intuitive,\(^4\) there is in fact a large family of possible procedures that rational parties might employ to capture gains from trade. Thus, in order to say anything more general about bargaining, it would be necessary either (1) to predict the expected "equilibrium" outcome for every type of procedure rational parties might use; or (2) to deduce characteristics about the set of outcomes consistent with non-cooperative bargaining without committing to a particular procedure. Because of the infeasibility (and likely impossibility) of the first option, a number of recent approaches among bargaining theorists have turned to a special type of game-theoretic approach commonly called "mechanism design" ("MD") to characterize the set of outcomes that

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23. E.g., Bebchuk, Litigation, supra note 15; Kaplow & Shavell, supra note 19; Nalebuff, supra note 15; Reinganum & Wilde, supra note 15.


25. For instance, while the settlement literature described above appears to use a take-it-or-leave-it family of bargaining procedures, other approaches find an "alternating offers" approach more appealing. E.g., DOUGLAS G. BAIRD ET AL., GAME THEORY AND THE LAW 220-24 (1994).
noncooperative bargaining might generate. It is this latter methodology I utilize in making the principal arguments in this Article.26

The MD approach to bargaining commences with the observation that all bargaining procedures—no matter how complex—lead indirectly to two fundamental choices: (1) whether the parties reach agreement; and (2) the size of any monetary transfer between the parties under such an agreement.27 Within a specific bargaining procedure, one can attempt to infer these two decisions by forecasting the equilibrium behavior of the parties given their private information. For example, consider the aforementioned “take-it-or-leave-it” bargaining game between a buyer and a seller who are negotiating over the sale of a used automobile. Under the rules of the game, the buyer makes a single irrevocable price offer to the seller, who can either (1) accept the offer; or (2) reject it and “walk away” from any future bargaining. To capture the notion of asymmetric information, suppose that the buyer and the seller place private valuations on the car of \( v_b \) dollars and \( v_s \) dollars, respectively. Additionally, suppose that the parties’ valuations—while privately known—are independently distributed, each falling between $0 and $1,000 with equal probability. Under the above rules, the buyer whose private valuation is \( v_b \) will find it optimal to make a price offer equal to half her own valuation, or \( \frac{v_b}{2} \). The seller’s optimal strategy is to accept this offer so long as it is not below her own private valuation, \( v_s \). From these strategies, it follows that (1) trade will occur when and only when \( v_s < \frac{v_b}{2} \), and that (2) in the event of trade, the price will be \( \frac{v_b}{2} \).

In contrast to this indirect method of deducing the circumstances and terms of a transaction, a “direct bargaining mechanism” prescribes these two decisions immediately. The operation of a direct bargaining mechanism is quite simple. The negotiating parties begin the process by independently “reporting” their valuations to a trustworthy and disinterested third party (often called the “mechanism designer”). After receiving these reports, the third party mechanically applies a commonly-known set of allocation rules designed to repli-


27. One might also argue that a bargaining process determines when an agreement is reached, and that this dimension is important if individuals discount payoffs in the future. As will be evident below, however, this third dimension can often be captured by allowing the agreement probability variable to represent a time discounting factor. See generally Peter C. Cramton, Sequential Bargaining Mechanisms, in GAME THEORETIC MODELS OF BARGAINING 149 (Alan Roth ed., 1985) (describing the mathematical isomorphism in bargaining mechanisms between the probability of bargaining breakdown and the delay time).
cate the outcome of negotiations by *internalizing* the strategic actions that both parties would independently make if actually bargaining with one another. Thus, by essentially playing the bargaining game on behalf of the parties, the rules of the mechanism will replicate the outcome that would be produced if two parties with the valuations reported were to bargain face-to-face. An important implication of the above reasoning is that if the allocation rules are commonly known and the mechanism designer is trustworthy, *each party will find it in her interests to report her true valuation to the mechanism designer rather than to lie.*

To see the same point more clearly, consider the above intuition in a slightly different light: Imagine that instead of negotiating face-to-face, the parties had to send representatives to negotiate in their stead. Imagine further that these representatives were perfectly loyal and intelligent, so that as long as the proxies had accurate information of the preferences of their respective senders, they would do an equally good job bargaining as could the senders themselves. Under these circumstances, it would never be in the sender’s strategic interests to “hide” her private valuation from her representative. Indeed, if she sent the representative to the bargaining table with incorrect information about her preferences, then the proxy might make unwise proposals or imprudent judgments of competing proposals.

By an identical argument, a party would never have an incentive to misinform a trustworthy mechanism designer of her private information. Indeed, since the role of the bargaining representatives described above is rather mechanical in nature (i.e., they learn their clients’ respective valuations, form strategies based on those respective valuations, and play those strategies against one another), the representatives’ roles are easily internalized and replicated by a single third party (such as a computer) that could faithfully simulate the bargaining each representative would use when informed of his respective sender’s preferences. By way of illustration, recall the “take-it-or-leave-it” example discussed above. Suppose that one were to replace bargaining procedure with a direct revelation mechanism, in which the buyer made a “report” $b$ of his valuation to the mechanism designer, and the seller simultaneously made a report $s$ of her valuation. Suppose the mechanism prescribed that trade would occur if and only if $s$ were no larger than $b/2$, and that should trade occur, the price paid to

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the seller would be $b/2$. Note that the trading rules and price prescribed by this mechanism are exactly the same as their analogs derived in the earlier take-it-or-leave-it example for $v_b$ and $v_s$. In other words, the mechanism utilizes rules that reflect the exact strategies of the parties. As such, in equilibrium neither party will have the incentive to lie to the mechanism designer when reporting her valuation.\(^\text{29}\)

The intuition above effectively restates a phenomenon known as the *revelation principle*, which is at the core of MD analysis. In the negotiation context, the revelation principle states that *any* outcome of *any* bargaining procedure can be replicated through some direct bargaining mechanism in which each player, regardless of her valuation, would be willing to participate in lieu of litigating; and in which each player, regardless of her valuation, maximizes her gain from bargaining by reporting the truth to the mechanism designer. Thus, if one wishes to characterize the set of outcomes consistent with *every* non-cooperative bargaining procedure rational parties might use, she need look no further than to the set of simple direct bargaining mechanisms that induce (1) participation by both parties (i.e., satisfies “participation constraints”); and (2) truth-telling in equilibrium among the participants (i.e., satisfies “incentive constraints”). If indemnity rules shape or distort this set of bargaining mechanisms in a particular way, then those legal rules would (by definition) affect the outcomes of the various bargaining procedures comprising that set in a similar fashion. It is to this task I now turn.

II. A FORMAL MECHANISM-DESIGN MODEL OF SUIT AND SETTLEMENT

In this section, I lay out a formal model of litigation and settlement in which each party has private information about elements of the case, and in which the settlement analysis makes use of a mechanism-design approach. The analysis consists of two parts: (1) determining the effect of the underlying fee-shifting rule on the parties’ non-bargaining (or so called “reservation”) payoffs; and (2) determin-

\(^{29}\) *I.e.*, $b = v_b$ and $s = v_s$ constitutes a Bayes-Nash equilibrium. For fuller explanation, see Talley, *supra* note 26, at 1223-24. It should be noted that this equilibrium need not be unique, and as such there may be other equilibria that do not involve truth-telling. This caveat is important if one is interested in implementing a specific outcome rather than simply characterizing the outcomes of non-cooperative play. See Osborne & Rubinstein, *supra* note 19, at 177-96. Since my interest is in the latter, however, I will not take into account stronger requirements for implementation.
Consider a plaintiff ("7c") and a defendant ("A") who are involved in a legal battle in which each possesses proprietary information about the outcome of the case. The plaintiff knows her damages, $d$, while the defendant knows the probability that he will be found negligent, $x$. These private valuations are independent of one another; as such, the plaintiff's knowledge of the exact value of $d$ gives her no added information about the exact value of $x$, and vice-versa for the defendant. While these exact values of $d$ and $x$ are privately known by the respective parties, it is commonly known that $d$ lies somewhere between a low value of $\bar{d}$ and a high value of $\tilde{d}$ with equal probability, and similarly that $x$ lies between $\bar{x}$ and $\tilde{x}$ with equal probability (so-called "uniform" distributions).

Absent bargaining, the parties will litigate their dispute in court. Should they end up in litigation, the court will award the plaintiff an amount $d$ with probability $x$. Litigation, however, is costly. To concentrate on the bargaining issues, I assume that the joint cost of litigating is fixed (or "exogenous") at level $C$, notwithstanding the parties' privately-known information. Assume that initially (i.e., before applying the indemnity rule), the parties' privately-borne shares of aggregate litigation costs are $\theta$ for the defendant, and $(1-\theta)$ for the plaintiff, where $\theta$ represents some value between 0 and 1.

A "liability-contingent fee-shifting scheme" effectively reallocates the costs between the parties from the privately-borne shares of $\theta$ and $(1-\theta)$, depending on who prevails in the liability phase of trial. Thus, if the court finds for the plaintiff (i.e., liability), the fee-shifting rule specifies one cost allocation sharing rule, in which the defendant must bear some fractional share $\alpha$ of total costs, and the plaintiff bears the remaining $(1-\alpha)$ share, where $\alpha$ is between 0 and 1. Conversely, if the court finds for the defendant (i.e., no liability), the rule specifies another (possibly different) sharing rule, in which the defendant bears a fractional share $\beta$ of total costs while the plaintiff bears the residual

30. The assumptions made above are a special case of what is shown in the Appendix. A more formal treatment would require only independently distributed valuations with so-called "monotone hazard rates." See Appendix, infra. Moreover, the qualitative conclusions of this model survive when the plaintiff (rather than the defendant) possesses private information about liability, or when both litigants receive independent private signals about liability. See infra notes 53-55 and accompanying text.

31. This notation is simply for explanatory ease, and is not critical. For instance, an alternative exposition is to assume exogenous litigation costs of $C_\alpha$ and $C_\beta$, respectively, for the parties. One can map this approach into the above framework by setting $C = C_\alpha + C_\beta$ and $\theta = C_\alpha / (C_\alpha + C_\beta)$.
(1–β) share of costs, where β is between 0 and 1. The table below concisely summarizes this "family" of liability-contingent fee-shifting schemes.32

<table>
<thead>
<tr>
<th>Liability Result</th>
<th>Costs borne by Δ</th>
<th>Costs borne by π</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ liable</td>
<td>αC</td>
<td>(1-α)C</td>
</tr>
<tr>
<td>Δ not liable</td>
<td>βC</td>
<td>(1-β)C</td>
</tr>
</tbody>
</table>

Table 1
Family of Liability-Contingent Fee-Shifting Rules

The above scheme describes not only common liability-dependent fee-shifting schemes (the American rule, British rule, pro-plaintiff, etc.), but also any other type of liability-based indemnity rule. For instance, a rule mandating that the defendant bear 90% of costs when liable, but only 12% of costs if not liable corresponds to setting α = 0.90 and β = 0.12. Figure 1 further illustrates the generality of a fee-shifting scheme summarized by α and β. In the figure, points A, B, C, D, and E represent various fee-shifting schemes of interest. At point A (where α = β = θ), the American "both-pay" rule is in effect, in which each party bears her private costs regardless of who prevails.33 Point B (where α = 1 and β = 0) denotes the British or loser-pays regime, in which the losing party must pay both sides' legal fees. Two other familiar "one-sided" fee-shifting formulae include: (1) point C (where α = 1 and β = θ) known as the "pro-plaintiff" rule, where each bears its own private cost if the defendant prevails, and the defendant bears both parties' costs if the plaintiff wins; and (2) point D (where α = θ and β = 0) known as the "pro-defendant" rule, so called for analogous reasons. Finally, the reader should at this juncture take note of point E (where α = 0 and β = 1), which corresponds with the seem-

32. Nothing in theory constrains α and β to lie between 0 and 1. It is possible to conceive of a legal rule that say, sets α = 2, and thereby requires a losing defendant to provide double indemnity to a prevailing plaintiff. Nonetheless, I constrain my analysis to the articulated boundaries noted above in order to concentrate on the question of fee-shifting rules rather than optimal damages awards (although admittedly these questions are related).

33. Note that point A could lie anywhere on the 45-degree line in the unit square, depending on the value of θ, the defendant's privately-borne share of C.
ingly perverse winner-pays rule, dictating that the party who prevails on liability must pay both sides’ fees.

![Diagram showing various fee-shifting rules in \(\alpha-\beta\) space.](image)

**Figure 1**

**Various Fee-Shifting Rules in \(\alpha-\beta\) space.**

\(\{\alpha,\beta\} = \Delta's\ cost\ share\ with\ and\ without\ liability\)

As mentioned above, indemnity rules can affect both the selection of suits and the bargaining behavior associated with credible suits. In order to concentrate on the latter, I henceforth assume that litigation costs are sufficiently small relative to other parameters that the plaintiff always poses a credible threat to sue.\(^{34}\)

From the litigation fee structure described above, it is possible to specify the reservation payoffs for each party, i.e., the payoff that each party could expect in the absence of bargaining. Knowing these payoffs is of course vital, since each party’s incentive to bluff centers on how much she stands to gain over and above her reservation point (often called her BATNA\(^{35}\)). Thus, considering the plaintiff first, suit will award her a privately-known judgment of \(d\) dollars, albeit with some unknown probability \(\xi\), which, though known with certainty only to the defendant, has an expected value of \(\bar{\xi} = (\xi + \bar{\xi})/2\). Additionally,

\(^{34}\) A sufficient condition for this assumption to hold is \(C \leq \chi \cdot d\). In Section IV of this Article, I briefly address the effects of relaxing this assumption, which formally has an ambiguous effect on the analysis.

\(^{35}\) BATNA is an acronym for “Best Alternative To a Negotiated Agreement.”
the plaintiff perceives that she will have to bear \((1-\alpha)C\) dollars in litigation costs if liability is found, again with expected probability of \(\bar{x}\). With the complementary probability of \((1-\bar{x})\), the plaintiff will have to bear \((1-\beta)C\) dollars in litigation costs. Putting all these factors together, the plaintiff's reservation payoff under the fee-shifting scheme \(\{\alpha,\beta\}\) is:

\[
\pi's\ \text{Reservation Payoff} = \bar{x} \cdot [d + (\alpha - \beta)C] - (1 - \beta)C.
\] (1)

In contrast, the defendant knows the precise probability \(x\) that he will be found liable. If so found, he will have to make an unknown damages payment of \(d\), which, while known only to the plaintiff, has an expected value of \(\bar{d} = (d + \bar{d})/2\). Additionally, with probability \(x\) the defendant will bear \(\alpha C\) dollars in litigation costs, and with the complementary probability \((1-x)\) the defendant will bear \(\beta C\) dollars in litigation costs. Putting these factors together, the defendant's reservation payoff under the fee-shifting mechanism \(\{\alpha,\beta\}\) is:

\[
\Delta's\ \text{Reservation Payoff} = -x \cdot [\bar{d} + (\alpha - \beta)C] - \beta C.
\] (2)

Expressions (1) and (2) represent the baseline payoff that each party could expect if no bargaining were allowed. Note that if the payoff that either party expects from bargaining is lower than her BATNA, one or both of them will refuse to participate. As such, a direct bargaining mechanism must be able to provide each party with a payoff that exceeds those described in the above expressions.\(^{36}\)

Moreover, note that altering the underlying fee-shifting rule (i.e., changing the values of \(\alpha\) and \(\beta\)) has a direct effect on the respective reservation payoffs of both parties. It is through this effect on the BATNAs that the underlying indemnity rule can alter the ultimate terms and success rate of any private settlement.

Given the above reservation payoffs, one may proceed to analyze the characteristics of a bargaining mechanism itself. Recall from the previous section that any bargaining procedure, no matter how complex, ultimately makes two fundamental decisions. First, whether bargaining culminates in an agreement; and second, what transfer payment is necessary between the defendant and plaintiff pursuant to such an agreement. Moreover, the revelation principle tells us that it is possible to describe the set of outcomes consistent with bilateral bargaining by limiting our attention to direct revelation mechanisms that reach these two decisions directly, with the rules calibrated so

\(^{36}\) This is equivalent to satisfying the "participation constraints" described supra at text accompanying note 28.
that each party finds it optimal both to participate and to report the truth to the mechanism designer.

**Figure 2**
**ILLUSTRATIVE REPRESENTATION OF A SETTLEMENT MECHANISM**

Thus, consider a direct mechanism for settlement, which is illustrated in Figure 2. In the first stage of the mechanism, the parties simultaneously and independently report their private information to the mechanism designer. Because the task here is to design a mechanism in which the parties—though not required to—find it in their best interests to report truthfully, one must allow at least for the possibility that one's report is not in accord with her actual knowledge. Thus, denote the plaintiff's report of her damages as $\delta$, and the defendant's report of his probability of liability as $\gamma$. In the second stage of the mechanism, the mechanism designer uses the reports to make the two decisions described above: (1) the probability $p(\delta, \gamma)$ that the parties settle; and (2) a transfer payment $s(\delta, \gamma)$ from the defendant to the plaintiff should settlement occur. Under this mechanism, then, a settlement will not occur with probability $[1 - p(\delta, \gamma)]$. In such a contingency, the parties will end up in court, and (as before) the court will render a judgment of $d$ dollars for the plaintiff with probability $x$.

37. Unlike the "no bargaining" case, however, the parties will appropriately "update" their assessment of the strength of their opponent's case should bargaining fail. This is shown in the Appendix, *infra*. It is, of course, important to allow for such "Bayesian" updating after bargaining breakdown, since the breakdown process itself can be extremely important to the parties.

Those familiar with the bargaining literature will recognize that this analysis is most closely allied with the notable work of Spier, *supra* note 19. The present analysis differs, however, in one major respect. Spier's paper is an analysis of Federal Rule of Civil Procedure 68, and thus views fee-shifting rules exclusively as instruments of the bargaining mechanism. In Spier's model, refusal to participate in the bargaining mechanism results in litigation under the traditional American rule, in which each side bears her own legal costs. While the correct modeling choice for a Rule 68 paper, such an approach is inappropriate for an analysis of default legal
Because bargaining represents a way in which parties can turn potential pareto improvements into actual pareto improvements through agreement and monetary transfers, the relevant payoff measure for each party is her net, rather than gross, payoff (i.e., the expected gain that she can expect from bargaining rather than immediately litigating). Using the above definitions, it is possible to express the expected net gain that a bargaining mechanism confers on each party over her reservation utility, which is simply the difference between each party’s payoff under the mechanism and her reservation utility:  

\[ \text{\pi's Net Gain} = E_x \{ p(\delta,x) \cdot s(\delta,x) - p(\delta,x) \cdot [x(d + (\alpha - \beta)C) - (1 - \beta)C] \} \]  

\[ \Delta's \text{ Net Gain} = E_d \{ -p(d,\gamma) \cdot s(d,\gamma) + p(d,\gamma) \cdot [x(d + (\alpha - \beta)C) + \beta C] \} \]

Finally, note that the aggregate social level of wealth created by a settlement procedure is simply the expected sum of each player’s individual net payoff. As one might guess intuitively, this sum is simply the expected savings of litigation costs, \( C \), weighted by the expected probability that settlement occurs:

\[ \text{Aggregate Surplus} = E_{d,x} \{ p(d,x) \cdot C \} \]

Thus, the principal attribute of concern for a settlement mechanism in this model is its ability to circumvent litigation, thereby saving the litigants (and society) the aggregate private costs of litigation, or \( \theta C + (1 - \theta)C = C \). More interestingly, note that because \( C > 0 \), it is common knowledge\(^39\) that there are gains from settlement, and thus—if the mechanism designer did not have to worry about participation and incentive constraints—a “perfect” settlement procedure could avoid these costs if it set \( p(d,x) = 1 \) for all plaintiffs and defendants, regardless of their respective reports.\(^40\)
Nevertheless, as mentioned above, in order to induce participation and truthful reporting by the privately-informed bargainers, a mechanism utilizing a given settlement rule must pay participants "information rents" above their BATNAs for revealing their private knowledge. Because settlement is not an activity subsidized by a third party, each party's information rents must come from her opponent in the form of bargaining concessions, thereby reducing the magnitude of rents one can promise her. Finally, as noted above, the aggregate size of these rents are directly related to the strategic incentives of the parties to misrepresent their valuations during bargaining. Thus, should the sum of expected rents required by the players grow too large, it would swamp the effective size of the bargaining "pie" available. In such a situation, a perfect settlement rule is said to be infeasible. Such feasibility concerns will frequently limit the mechanism designer to using an imperfect settlement mechanism, in which \( p(d,x) \) is not uniformly equal to 1.\(^4\)

With the above specification of the parties' respective net payoffs from bargaining, it is possible to describe the constraints that "truth-telling" must impose on the possible mechanisms for trade. Recall that a mechanism-design approach is one that induces such truthful revelation by promising the parties an explicit payoff equal to the amount by which they would profit from lying in the equivalent bargaining procedure.

Consider first the plaintiff, whose privately-known information in this model is the extent of her damages, \( d \). As one would surmise intuitively, the plaintiff's usual strategic incentive is to overstate (if possible) the extent of her damages when bargaining, so as to extract attractive settlement terms from the defendant. This incentive is of course the strongest for plaintiffs whose damages level is quite low (i.e., near the lower bound \( d \) of plaintiff damages). On the other hand, light of the fact that "efficient settlement" is but one component within efficiency calculus. In fact, as some have previously noted, there may often be reasons to believe that perfect settlement may be uniquely undesirable if it deprives society of legal precedent which has value as a public good in contributing to the predictability and certainty of law. See, e.g., Owen M. Fiss, Against Settlement, 93 \textit{Yale L.J.} 1073 (1984); Keith N. Hylton, 71 \textit{Chi.-Kent L. Rev.} 427 (1995). Compare Ian Ayres & Eric Talley, Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade, 104 \textit{Yale L.J.} 1027, 1072-78 (1995) (arguing that "vagueness" in the underlying legal rule can have a beneficial effect of inducing parties to reveal private information voluntarily).

\(^4\) This contrasts to the more conventional insight due to Myerson & Satterthwaite, that common knowledge of gains from trade should lead to trade with probability 1. See R. Myerson & M. Satterthwaite, \textit{Efficient Mechanisms for Bilateral Trading}, 29 \textit{J. Econ. Theory} 265 (1983). The observation that the conventional wisdom may not hold in pre-trial bargaining is also made in Spier, \textit{supra} note 19.
plaintiffs with high damages (i.e., near the upper bound $\bar{d}$) generally will not stand to profit substantially from misrepresenting their valuations, since there is little "room" for them to shade in a credible way.\(^4\) Consequently, the "information rent" that must be paid to induce truth-telling in a bargaining mechanism must be larger for low-damages plaintiffs, whose marginal incentives to bluff are the largest. The following expression (derived formally in the Appendix) explicitly illustrates this intuition, describing the slope of the information rent that the plaintiff must receive to induce truthful revelation:

$$\text{[Slope of } \pi \text{'s rent schedule]} = -E_x\{x \cdot p(d,x)\}$$ (6)

There are a few important features of the above expression that deserve special attention here. First, notice that the slope of the plaintiff's rent schedule can never be positive, and in general will be negative in her private valuation. This feature is captured in Figure 3. Note from the figure that the lower the plaintiff's damages level, the higher the net payoff she must be promised in exchange for truthful reporting of her private valuation. Because bargaining is generally not subsidized by a third party, this payoff (i.e., the vertical height of the grey area in Figure 3) must come from the defendant in terms of bargaining concessions. Consequently, the above condition will be increasingly restrictive as it grows increasingly steep. Moreover, notice that under a "universal-settlement" bargaining mechanism—i.e., where $p(d,x) = 1$ for every value of $d$ and $x$—the plaintiff's rent schedule is the steepest, and as such the concessions demanded by the plaintiff are the largest. These are concessions that the defendant may not be able to make in the extreme, and thus in many instances such a universal rule will be infeasible. In contrast, a "no-settlement" rule—i.e., where $p(d,x) = 0$ for every value of $d$ and $x$—will by definition minimize (at zero) the slope of the rent schedule, and in so doing eliminate the required concessions from the defendant. While such a settlement mechanism is feasible,\(^4\) there are likely to be many other settlement procedures that would be more attractive, at least on litigation-cost-saving grounds. Finally, it is important to notice that $\alpha$ and

\(^{42.}\) For instance, if it were commonly known that the plaintiff's level of damages were between $500,000$ and $1,000,000$, a plaintiff with privately-known damages of, say, $999,999$ would not credibly be able to claim damages of $20,000,000$, or even $1,000,001$. Thus, such a plaintiff type would have very little "room" to bluff.

\(^{43.}\) For instance, the "no-settlement" mechanism corresponds to the trivial bargaining game in which neither party is allowed to make or accept any offers. Clearly, both parties would be (weakly) willing to play this game instead of litigating straight away, since this game gives them identical payoffs to that of litigating directly.
$\beta$, the fee-shifting parameters, do not affect the slope of the plaintiff's information rent schedule. Thus, the underlying (liability-based) fee-shifting rule apparently does not affect the information rent of a player with private knowledge of damages (as opposed to the likelihood of liability).^{44}

\[ \pi \text{'s Damages} \]

\[ \pi \text{'s Information Rent} \]

\[ 0 \]

\[ d \]

\[ \bar{d} \]

\[ \text{Low-damages $\pi$ expects largest bargaining gains} \]

\[ \text{High-damages $\pi$ expects smallest bargaining gains} \]

\[ \pi \text{'s Damages} \]

(privately known)

\[ \text{FIGURE 3} \]

\[ \text{REPRESENTATION OF $\pi$'S INFORMATION RENT} \]

Now consider the defendant, who privately knows $x$, the likelihood of liability. Like the plaintiff, the defendant will frequently misrepresent the strength of his case, attempting to understate (if possible) the extent of his liability so as to extract greater concessions from the plaintiff in bargaining. “Weak” defendants (i.e., those whose privately-known liability level is high—near the upper bound $\bar{x}$) are likely to have relatively large incentives and abilities to engage in such misrepresentation. In contrast, “strong” defendants (i.e., those whose liability is near the lower bound) generally cannot profit from misrepresenting their valuations, since there is little room for them to shade credibly.

\[ 44. \text{Remember that “information rent” refers only to the portion of the relevant party’s expected settlement payment in excess of what she would receive in litigation. Thus, a fee-shifting rule setting $\alpha = 1$ and $\beta = 1$ would clearly benefit the plaintiff in litigation, and would thereby increase the aggregate payment she would require in settlement; however, such a rule does not affect the amount of rent in excess of that payment that low-damages plaintiffs would require to satisfy truth-telling, or so-called “incentive compatibility” conditions.} \]
As in the case of the plaintiff, it is possible to derive a formal expression that, consistent with the above intuition, describes the slope of the defendant's information rent function:

$$[\text{Slope of } \Delta's \text{ rent schedule}] = E_d \{ d \cdot p(d,x) + (\alpha - \beta) \cdot C \cdot p(d,x) \} \quad (7)$$

To some extent, the defendant’s rent schedule is simply the complement of the plaintiff’s. Indeed, the above expression—conceptually illustrated in Figure 4—implies that the slope of the defendant’s schedule can never be negative, and will generally be positive.\(^{45}\) The high-liability defendants have the most to gain from bargaining rather than litigating, while the low-liability defendants, who are less able to exploit the potential gains from misrepresentation, receive little or no rents. Just as before, the steeper the defendant’s rent schedule for some settlement rule \(p(d,x)\), the harder it is to find a settlement amount \(s(d,x)\) to make that settlement rule feasible in practice. Consequently, *ceteris paribus*, the bargaining procedure that is the most challenging to implement is the so-called “universal settlement” rule (i.e., where \(p(d,x) = 1\) for all \(d\) and \(x\)), which maximizes the slope.

\(^{45}\) The monotonicity of the slope is due to the assumption above that all suits are credible. Note from equation (7), if the settlement rule \(p(d,x)\) is monotone nondecreasing in \(d\), then the first term in the expression will swamp the second if the expected value of \(d\) exceeds \(C\) (which is implied by the earlier assumption of suit credibility). The monotonicity of \(p(d,x)\) is in fact ensured by incentive compatibility constraints. Relaxing this assumption does not necessarily affect the qualitative result, however. *See infra* notes 75-77 and accompanying text.
Conversely, *ceteris paribus*, the "no-settlement" rule (i.e., where $p(d,x) = 0$ for all values of $d$ and $x$) is perfectly feasible, but it is likely to be less attractive than some other feasible procedure.

Unlike the plaintiff's case, however, the expression above reveals that in addition to depending on the settlement rule $p(d,x)$, the slope of the defendant's schedule is also related to the fee-shifting parameters $\{\alpha, \beta\}$. More explicitly, the slope contains a component that is *increasing linearly in $(\alpha-\beta)$*, the difference between the defendant's "liability share" and "no-liability share" of aggregate litigation costs. Thus, the larger the value of $(\alpha-\beta)$, the greater the payments that are required (all else held constant) to induce truth-telling among defendants. Once again, because these payments must come from plaintiff concessions, a steeper rent function for the defendant places increasingly larger restrictions on the types of settlement rules available.

![Diagram showing the rent schedule for two different values of $(\alpha-\beta)$](image)

**Figure 5**

**Δ's Information Rent Schedule Changes with the Fee-Shifting Rule**

Figure 5 represents how a change in the underlying fee-shifting regime can affect the information rent schedule of the defendant. In the figure, an initial fee-shifting rule of $\{\alpha_0, \beta_0\}$ gives way to a new regime of $\{\alpha_1, \beta_1\}$, such that the value of $(\alpha_1-\beta_1)$ exceeds the value of $(\alpha_0-\beta_0)$.
Notice that because of this larger difference, the defendant's information rent schedule is higher under the new regime than it was originally, most strikingly so for weak defendants, for whom the incentive to misrepresent their types is clearly the strongest. Moreover, recall from the earlier analysis that since the plaintiff's rent schedule is independent of the fee-shifting rule, her information rent schedule is the same in both cases. As such, the change in the indemnity rule from \( \{\alpha_0, \beta_0\} \) to \( \{\alpha_1, \beta_1\} \) imposes large barriers to the feasibility of a given settlement rule \( p(d,x) \), since the parties will, on average, demand more extreme concessions from one another during bargaining. Conversely, if the change in regime were to give rise to a smaller value of \( (\alpha-\beta) \), then that change would have the effect of loosening the feasibility constraints on a given settlement rule \( p(d,x) \).

The above reasoning immediately gives rise to a formalization of the central argument of this Article: i.e., the more that a fee-shifting rule complements the parties’ other strategic incentives during negotiation, the less likely it is that a settlement-inducing bargaining procedure is available to them. In terms of the parameters \( \alpha \) and \( \beta \), recall that a loser-pays fee-shifting rule is one that sets \( \alpha = 1 \) and \( \beta = 0 \), which thus implies that \( (\alpha-\beta) = 1 \). Note that this rule corresponds to the maximal value of \( (\alpha-\beta) \) relative to any other liability-contingent fee-shifting rule. In contrast, under the American rule, in which each party pays her own private share of litigation costs, both \( \alpha \) and \( \beta \) are equal to \( \theta \) (the defendant’s privately-borne share of total costs \( C \)), and thus \( (\alpha-\beta) = 0 \). The two “one-way” fee-shifting rules give rise to intermediate levels of \( (\alpha-\beta) \), with the pro-plaintiff rule setting \( (\alpha-\beta) = (1-\theta) \), and the pro-defendant rule setting \( (\alpha-\beta) = \theta \).

Thus, in comparing the “usual suspects” for fee-shifting regimes, the analysis above reveals that a loser-pays rule gives rise to the most severe strategic demands among the parties during negotiation. As such, the English rule may not be able to support bargaining outcomes with relatively high success rates (i.e., rules where \( p(d,x) \) is close to 1), although such outcomes may be feasible under some alternative fee-shifting regime. Additionally, both of the one-way fee-shifting rules

46. In geometric terms, \( \binom{\alpha_0, \beta_0}{\alpha_1, \beta_1} \) must lie to the southeast of the 45-degree line that passes through \( \binom{\alpha_0, \beta_0}{\alpha_1, \beta_1} \). See infra Figure 6.

47. Though, of course, a change in the fee-shifting rule would affect both parties’ reservation payoffs.

48. Explicitly, the defendant’s demanded concessions are greater, and the plaintiff’s remain unchanged.

49. Recall, this is under the assumption that \( 0 \leq \alpha \leq 1 \) and \( 0 \leq \beta \leq 1 \) — i.e., that the underlying regime can do no more than to shift fees, and it cannot otherwise affect the award.
LIABILITY-BASED FEE-SHIFTING RULES

are slightly less restrictive than the English rule. The pairwise comparison of the one-way rules is ambiguous, however, depending on the relative magnitude of \( \theta \) (with values of \( \theta > 1/2 \) favoring the pro-plaintiff rule, and vice-versa for values of \( \theta < 1/2 \)). Finally, the American "both-pay" regime imposes even smaller feasibility constraints. Thus, in addition to being able to support any outcome that the other focal regimes can support, the American rule may also support high settlement rate outcomes that are not feasible under the others. Moreover, note that since under the American rule the value of \((\alpha - \beta) = 0\) regardless of the value of \(\theta\), the privately-borne shares of litigation costs do not affect the barriers to settlement under the American rule. 50

While it is tempting to end things here, it is perhaps instructive to push the analysis beyond the aforementioned "usual suspects" of fee-shifting regimes, and consider other, less focal, types of liability-contingent fee-shifting regimes. Because the arguments above suggest that an analysis of the settlement-facilitating characteristics of a fee-shifting regime \(\{\alpha, \beta\}\) boils down to the value of \((\alpha - \beta)\), incorporating other potential rules into the above analysis is not overly difficult. For instance, for a given fee-shifting rule \(\{\alpha_0, \beta_0\}\) in which \((\alpha_0 - \beta_0)\) is equal to some constant \(K\), it may be possible to find other fee-shifting rules for which \((\alpha - \beta) = K\) as well. Thus, as mentioned above, because \(\alpha = \beta = 0\) under an American regime, \((\alpha - \beta) = 0\) notwithstanding the value of \(\theta\). Additionally, it is easy to find alternative rules that replicate the settlement-inducing characteristics of the one-way fee-shifting awards, yet with different distributional characteristics. 51 The English rule, in contrast, is somewhat unique in that one cannot find an alternative fee-shifting rule that so restricts feasibility of a given outcome. Thus, not only is the British rule inept at inducing high settlement rates in this model, but it is uniquely inept in this regard.

Furthermore, it may be possible to find fee-shifting regimes that impose even smaller barriers to settlement than do the ones described above. Note that one feature shared by the above rules is that in each case, the value of \((\alpha - \beta)\) is greater than or equal to 0. In principle,

50. This analysis formalizes the assertion in Keith Hylton's article that a pro-plaintiff rule is likely to be somewhere between a British and American rule in its ability to facilitate settlement. See Hylton, supra note 40, at 445.

51. Consider, for example, a pro-defendant rule in which \(\alpha = \theta\) and \(\beta = 0\). Assume (arbitrarily) that \(\theta = 0.6\), and thus \((\alpha - \beta) = 0.6\). This indemnity rule would have equivalent settlement-facilitating attributes as an alternative scheme in which \(\alpha = 1\) and \(\beta = 0.4\), even though this latter rule would impose a heavier cost burden (i.e., \(0.4xC\)) on the defendant whether he wins or loses. In such a way, it may still be feasible to pursue cost distribution policies without substantially affecting settlement attributes.
there is nothing to prevent one from analyzing indemnity schemes involving negative values of \((\alpha-\beta)\). One such scheme is the so-called winner-pays rule, in which \(\alpha = 0\) and \(\beta = 1\). Such a rule implies that \((\alpha-\beta) = -1\), which is the smallest possible value that \((\alpha-\beta)\) can take. As such, a winner-pays rule introduces a strong, negative component in the slope of the defendant's rent function from equation (7) above. So long as this negative component does not swamp the positive component (which is implied by the earlier assumption that all suits are credible), then the winner-pays rule ensures that the defendant's rent schedule is as flat as possible for any given settlement rule \(p(d,x)\).

![Figure 6](image)

**Figure 6**

*Feasibility of \(p(d,x) = 1\) Settlement Rule in \(\alpha-\beta\) Space.*

As such, the winner-pays rule minimizes the magnitude of plaintiff concessions that the defendant will demand, thereby imposing the least restrictive constraints to successful bargaining. Figure 6 illustrates this argument graphically. The figure shows the set of fee-shifting regimes \(\{\alpha,\beta\}\) that are capable of supporting bargaining procedures with perfect settlement (i.e., a settlement rule where \(p(d,x) = 1\) for all values of \(d\) and \(x\)), under the assumptions that \(d\) is distributed uniformly between \$100\) and \$130, \(x\) is distributed uniformly between 0.5 and 1.0, and aggregate litigation costs are \$72.52. In this case, it turns out that perfect settlement is feasible if and only if

\[52.\text{ Note that litigation is always credible absent bargaining, since the plaintiff's expected recovery exceeds }\$75 > \$72 = C\text{ regardless of her type, and regardless of the fee-shifting rule.}\]
Thus, of points A, B, C, D, and E shown in Figure 6, only point E—the winner-pays rule—can support perfect settlement.

The ability of the underlying fee-shifting rule to produce both positive and negative components in the slope of the defendant's rent schedule is the mathematical analog of the intuition given at the beginning of this Article. Under a winner-pays rule, the defendant's ordinary incentive to misrepresent downward his privately-known level of liability is mitigated by the fact that such a signal, if successful, simultaneously suggests to the plaintiff that she is not likely to have to bear a large share of the aggregate litigation costs. Because the defendant faces these countervailing strategic concerns, his marginal incentive to bluff decreases, and so also do the information rents he would require to induce truth-telling under a bargaining mechanism.

With this observation, it is now possible to state formally the conclusion of this Article in terms of the settlement-facilitating effects of various fee-shifting regimes:

If a settlement rule \( p(d,x) \) is feasible for some fee-shifting regime \( \{\alpha^*,\beta^*\} \), then that same settlement rule must also be feasible for any alternative regime \( \{\alpha',\beta'\} \) in which \((\alpha'-\beta') < (\alpha^*-\beta^*)\). Consequently, if there exists any fee-shifting regime for which a settlement rule \( p(d,x) \) is feasible, then that settlement rule must be feasible under the winner-pays regime as well. Furthermore, if a settlement rule \( p(d,x) \) is feasible under the loser-pays regime, then that settlement rule must be feasible under any other alternative \( \{\alpha,\beta\} \) regime.

The above proposition partially summarizes the mechanism-design analysis utilized in this Article. It essentially states that the set of feasible bargaining outcomes will never shrink, and will frequently grow as the underlying indemnity scheme moves away from the British regime, and in the direction of a winner-pays regime. Moreover, the new possibilities that arise with such a change in regime are ones in which settlement rate \( p(d,x) \) is closer to the perfect settlement rate of 1. The resulting implication is that bargaining parties have more efficient bargaining procedures at their disposal under one-way rules than under the English rule, more still under the American rule, and even more still under the winner-pays rule.

III. Caveats, Extensions, and Limitations

As with many theoretical models, the above analysis demonstrates the essential argument of this Article in the starkest of terms; but it does so at the cost of simplification. It is therefore important to put these findings in proper context, in asking how either the interpretation, relaxation, or variation of the underlying assumptions affect
the model's conclusions. Below I briefly examine five such caveats: (A) the content of the underlying informational environment; (B) the difference between possibilities and predictions in analyzing bargaining; (C) cognitive barriers to settlement; (D) the effect of risk aversion; and (E) the interaction of the above arguments with other normative concerns beyond settlement-facilitation.

A. Robustness to the Informational Environment

One question one might have about the model above is how sensitive the results are to alterations in the informational environment that the parties face. In the above analysis, I assumed that the plaintiff had private information about damages, and the defendant had private information about liability. While such an approach may seem intuitive, it is far from the only modeling choice possible. Other analyses of pretrial bargaining (which used an explicit game-theoretic framework rather than a MD approach) tend to focus on different types of informational frameworks. The results of these various approaches are not altogether in agreement.53

As it turns out, the strategic effects of the underlying fee-shifting rule rely on one critical assumption: At least one of the parties has some information about liability that is proprietary. Thus, the results of the above model would not change significantly if it were the plaintiff who knew the probability of the defendant's liability. In such a case, however, the countervailing incentive effect of the fee-shifting rule would act on the plaintiff rather than the defendant, but nonetheless, the general conclusion still holds that procedures giving higher settlement rates are more likely the smaller the value of \((a-\beta)\). Alternatively, one might assume that each party privately receives a signal about the likelihood of liability. So long as these signals are not perfectly correlated with one another,54 the above arguments still hold.55

53. For instance, Bebchuk considers a model where a victim with commonly-known damages makes a take-it-or-leave-it offer to a defendant whose level of negligence is privately-known. Bebchuk, Litigation, supra note 15. Instead of completely parameterizing the fee-shifting regimes as done above, he limits his analysis to the choice of American, British, pro-plaintiff, and pro-defendant rules. Nevertheless, of these four rules, he finds an ordinal ranking that is consistent with my results. On the other hand, Reinganum & Wilde consider the obverse of this model, in which a defendant with a publicly-known negligence level makes a single offer to a plaintiff with privately-known damages. Reinganum & Wilde, supra note 15. They find no difference between the various fee-shifting rules considered above in facilitating settlement.

54. If the signals were perfectly correlated, then the likelihood of liability would be common knowledge.

55. Finally, note that the reasoning above helps explain why Reinganum & Wilde, supra note 15, do not find any difference in the settlement inducing attributes of various fee-shifting rules. In their model, the probability of liability is commonly known, and the only private infor-
While there may well be bargaining environments in which the probability of liability is commonly-known, the possibility that one or more parties retains proprietary ownership of such information (even after a lengthy discovery process) does not seem excessively far-fetched.

B. Bargaining Possibilities vs. Actual Behavior

The principal arguments above are confined to bargaining possibilities rather than predictions about how parties will actually bargain. In other words, the MD analysis illustrates that the closer one moves in the direction of winner-pays rules, the more likely it is that the parties will have bargaining procedures available to them which induce high average settlement rates. Whether the parties actually utilize any of these procedures, however, is another matter. As noted in the introduction, the choice of procedure is one that is still somewhat elusive within game-theoretic analysis.56

One's initial reaction to this dilemma might be to argue that if the parties could commit contractually to an arbitration procedure before learning their respective private valuations, then they would stipulate one that gives rise to a high settlement rate, since such a procedure would allow them to capture maximally the foregone costs of litigation. While intriguing, such a possibility is often not possible, especially in contexts where it is prohibitively expensive (if not impossible) for the parties to bargain with one another before both the defendant's possibly negligent act and the plaintiff's injury occurs. Moreover, if such ex ante contracting were possible, we would expect parties to contract into an optimal fee-shifting regime regardless of


One way to address this indeterminacy is to assume that the parties will utilize the most efficient bargaining procedure possible (often called an “optimal mechanism”). It is straightforward to show that the same principal conclusions of the above analysis—because they relax the constraints on the entire set of bargaining outcomes—must also apply to the optimal bargaining mechanism. Nonetheless, the assumption that the parties will always use such a procedure is arguably artificial.

It might be argued that the inability of the MD approach to make positive predictions about the procedural choice of the parties renders such an approach unhelpful. The implied consequence of this critique is that the alternative modeling choice of an explicit, extensive-form bargaining procedure to analyze legal rules is more suggestive of what might actually happen during bargaining. As articulated above, however, such a conclusion is naive, in that it neglects the fact that the very assumption that the parties will always utilize a fixed procedure carries with it an analogous dimension of artificiality. Moreover, while the MD approach can at least describe the set of outcomes that are possible with all procedures, a fixed-procedure approach is incapable of doing even that. See supra note 19.
the default rule, therefore rendering the choice of default fee-shifting rule somewhat irrelevant in efficiency terms.\textsuperscript{57}

More realistically, there may be some reason to believe that even if the parties could not contract \textit{ex ante}, they might tend nonetheless to adopt a bargaining procedure that leads to high settlement rates whenever possible. Given the recent emphasis—both in practice and theory—on the role of mediators, settlement escrows, and other ADR mechanisms in legal bargaining, increasingly one might expect parties to coordinate (through such a device) on a procedure that minimizes wasted surplus.\textsuperscript{58} While some have criticized this "mediator" interpretation of bargaining mechanism-design problems\textsuperscript{59} (especially because it neglects the possibility that the parties could do even better by contracting for the mediator before learning their private valuation), in

\textsuperscript{57} See Donohue, supra note 7. This is of course a simple application of the Coase theorem, since, in the ex ante world, informational costs are not yet present. As Ayres and Gertner have previously pointed out, however, the underlying default rule can play significant roles in contractual gap-filling, in either a majoritarian or a punitive fashion. See Ian Ayres & Robert Gertner, \textit{Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules}, 99 \textit{Yale L.J.} 87 (1989).

\textsuperscript{58} John Donohue has argued (in the Coasean tradition) that the parties might contract into an optimal fee-shifting rule at the interim stage right before trial. Donohue, supra note 7, at 1099. The present analysis need not consider such an extension explicitly, however, because it already does so implicitly. Indeed, the MD approach (via the revelation principle) can account for the outcome of multi-stage bargaining procedures within a single static bargaining mechanism. As such, the asymmetric information about liability in this model can be seen as a type of "transaction cost" that prevents the Coase theorem from operating frictionlessly. See Ayres & Talley, supra note 40, at 1035-36.

In a slightly different fashion, Gertner & Miller have recently argued the case for a "settlement escrow," in which each party submits a settlement offer/demand to an escrow agent, who then either (i) decides on an ultimate settlement amount (if the offer and demand "overlap"); or (ii) remains silent (in the case of no overlap). Robert H. Gertner & Geoffrey P. Miller, \textit{Settlement Escrows}, 24 J. LEGAL STUD. 87 (1995). As readers versed in mechanism design will immediately see, Gertner and Miller's escrow is really a type of indirect revelation mechanism. Moreover, the revelation principle enables one to map their mechanism into a direct revelation mechanism where truth-telling is optimal. See Drew Fudenberg & Jean Tirole, \textit{Game Theory} 243-46 (1991). Thus, the optimal bargaining mechanism will in a practical sense look quite a bit like a settlement escrow; that is, both parties will make "reports" to a third agent, who then either decides on a settlement amount or sends them away. In this sense, the approach of my analysis nests their result.

Gertner and Miller assert that their proposed escrow mechanism is in fact superior to a generalized mechanism-design approach, because they can lay their scheme on top of an existing bargaining game (simultaneous offers), and they still find that the players will find it individually rational to utilize the escrow mechanism. While this statement is partially correct, a mechanism-design approach is also capable of doing the same thing, by simply respecifying the litigants' participation constraints to ensure each party receives a reservation utility equal to her expected payoff in some extensive form bargaining game. I have not attempted to draw out such a caveat here for two reasons: first, there is no clear reason to believe that the parties will use one particular extensive form bargaining game over another; second, I want to analyze the effects of fee-shifting schemes on bargaining, and not on the advantage of one bargaining mechanism over another.

\textsuperscript{59} See, e.g., Fudenberg & Tirole, supra note 58, at 289.
LIABILITY-BASED FEE-SHIFTING RULES

legal contexts the parties often have no interaction with one another until an accident occurs and they already know their private information. Moreover, even if the parties were to choose their procedure "arbitrarily" from the set of feasible mechanisms, moving in the direction of a winner-pays rule adds numerous high-settlement rate procedures to that feasible set, and as such would increase the probability that such a procedure will be chosen. Nonetheless, the difficulties in predicting the exact procedure that parties will choose in practice imposes a limitation on this approach (as well as all other bargaining approaches).

C. Cognitive Barriers to Settlement

Although private information is one plausible barrier to negotiation, it is by no means the sole candidate. In the last decade, experimental psychologists have consistently maintained that barriers to conflict resolution are substantially rooted in cognitive failures which are independent of strategic considerations. This logically leads one to ask whether the arguments above—which are primarily information-based—are substantially undercut by other cognitive concerns. Below I briefly address four plausible psychological barriers to negotiation, and I find that none of them significantly compromises my above arguments.

One such barrier is the so-called "endowment effect," in which a party's own perception of the value she places on an entitlement (such as private property or a legal right) is largest when she has a strong ownership claim over the entitlement. The endowment effect can exacerbate the offer-asking gap in negotiations, thereby forestalling or defeating settlement efforts. Such phenomena may be especially prevalent in litigation contexts, where parties feel either wronged or unjustly accused, and are therefore less willing to surrender the opportunity to litigate their competing claims.

60. Here I remind the reader that the relevant intellectual exercise is to determine whether cognitive phenomena contradict, complement, or are unrelated to the arguments in this Article. So long as psychological barriers do not run contrary to the central thesis of this Article, they do not compromise the arguments in a systematic way.

61. See, e.g., Daniel Kahneman et al., Experimental Tests of the Endowment Effect and the Coase Theorem, 98 J. POL. ECON. 1325 (1990) (finding a robust endowment effect in experiments involving bargaining over a legal right). The endowment effect is closely related to the notion of "framing effects," in which the perception of a gamble as one involving losses can lead to greater risk-taking behavior. See Jeffrey J. Rachlinski, Gains, Losses, and the Psychology of Litigation, 69 S. CAL. L. REV. (forthcoming 1996) (manuscript on file with the Chicago-Kent Law Review).

62. See George Loewenstein & Samuel Issacharoff, Source Dependence in the Valuation of Objects, 7 J. BEHAVIORAL DECISION MAKING 157 (1994) (presenting experimental evidence sug-
lowing for an endowment effect does not clearly implicate the thesis of this Article in either direction. If anything, since a loser-pays rule adds an extra element of moral vindication to a party who prevails in litigation, the endowment effect may be consistent with the above arguments. Under an American rule or a winner-pays rule, the sense of moral entitlement is significantly weakened in this regard, and with it one might expect the endowment effect to be weakened as well.63

A second psychological barrier to settlement is popularly called "reactive devaluation," in which individuals tend to be skeptical of a bargaining proposal or concession when it is communicated by an adversary.64 Such a phenomenon can hinder settlement efforts as well, as it impedes communication about and coordination around pareto-improving options. Nonetheless, there are at least two reasons to doubt that concerns about reactive devaluation significantly undercut the central thesis of this Article. First, private information might lie at the very heart of reactive devaluation. Indeed, one reason a party might be skeptical of her adversary's concession is because such a concession may signal weakness in her adversary's position. Such a conclusion is entirely consistent with the game theory literature on bargaining with incomplete information: strong parties can credibly signal their strength to their opponent only through displaying a willingness to litigate by making few concessions.65 Second, to the extent that reactive devaluation is independent of informational asymmetries,66 the MD approach adopted in this Article allows for the use of a mediator to implement bargaining outcomes.67 As such, a bargaining mechanism is arguably robust to cognitive devaluation problems, since the mechanism designer can act as a filter for transmission of proposals or concessions.68

63. See Ayres & Talley, supra note 40, at 1101-02 (making a similar argument with respect to "divided" entitlements).

64. For a more complete explanation, see Lee Ross & Constance Stillinger, Barriers to Conflict Resolution, 7 Negotiation J. 389, 394-95 (1991); Russell Korobkin & Chris Guthrie, Psychological Barriers to Litigation Settlement: An Experimental Approach, 93 Mich. L. Rev. 107, 150 (1994).


66. See Korobkin & Guthrie, supra note 64, at 155-60 (finding little evidence of either pure reactive devaluation or strategic use of information in a limited experimental survey).

67. See supra notes 58-59 and accompanying text.

68. Indeed, numerous academic writings on cognitive devaluation assume either explicitly or implicitly that third party involvement with the negotiation process can mitigate or even eliminate reactive devaluation. E.g., Lee Ross, Reactive Devaluation in Negotiation and Conflict Resolution, in Barriers to Conflict Resolution 26, 41-42 (Kenneth Arrow et al. eds., 1995).
A third psychological barrier is self-serving overconfidence about one’s prospects. Such overconfidence is commonly the result of systematic overvaluation of “strong” elements of one’s case, and corresponding undervaluation of “weak” or unknown elements. This phenomenon clearly affects settlement rates, since overly confident assessments of one’s prospects in trial can reduce or even eliminate the potential bargaining surplus created by the prospect of socially costly litigation. Once again, however, this concern need not undercut the informational thesis of this Article. Because one component of optimistic overconfidence is a result of informational asymmetry, institutional changes that affect the stakes associated with private information may well have similar effects on manifest optimism. Thus, for example, by making strong plaintiffs even stronger, and weak plaintiffs even weaker, a loser-pays rule would not only increase the marginal incentive to bluff, but it also would likely increase the degree of optimistic overconfidence displayed by the bargaining parties. On the other hand, a winner-pays rule would likely have the opposite effect, by undercutting the economic attractiveness of being a strong party (and even, perhaps, partially obscuring the very definitions of a “strong” and a “weak”).

A fourth plausible psychological barrier to settlement is spite. Indeed, it could be that—for relational or other reasons—the two parties simply do not like one another. Though the effect of spite on settlement rates is unclear, it is at least plausible that mutual animus could retard settlement efforts. Nonetheless, even if such mutual dislike is prevalent, it is not clear that the underlying fee-shifting rule would have any systematic effect on the relationship between settlement and mutual dislike.

70. The effect of such overconfidence (though not the precise manifestation) is explored in much of the early law and economics research on settlement. See supra note 10.
71. See Kahneman & Tversky, supra note 69, at 47.
72. The ambiguity of the effect on settlement rates stems from the multiple types of animus that are possible. If the parties display “consequential animus” toward one another (i.e., they value reducing their adversary’s level of wealth or happiness), then one can expect that settlement will often fail. On the other hand, if the parties display mutual “associational animus” (i.e., they dislike dealing with one another), then one may well see a desire to settle quickly so as to minimize the term of the adversarial relationship.
73. It is possible to argue that under a winner-pays rule, a party who dislikes another party may file an entirely groundless suit so as to costlessly force the defendant into court and induce him to pay joint legal fees when his defense is successful. However, such a strategy might backfire on the plaintiff if she has no provable damages, since the defendant might then have an
As the brief arguments above suggest, psychological barriers to successful negotiation, while certainly valuable in their own right, probably do not systematically affect the strategic analysis underlying this Article. On the contrary, one can plausibly argue that at least some of these considerations are in fact complementary to the game-theoretic analysis employed in the previous sections.

D. Risk Aversion

The analysis above has assumed that plaintiffs and defendants are neutral toward risk. When either or both parties are risk averse, however, one should expect these conclusions to change. Indeed, moving in the direction of a loser-pays rule increases the "stakes" of a case, while moving toward a winner-pays rule tends to do the opposite. Consequently, risk-averse parties would (ceteris paribus) be less uncomfortable with litigating the closer one moves to a winner-pays system. Since risk aversion can itself be a reason for settling, there are plausible situations in which the beneficial effect of risk aversion under the English rule might swamp the information-chilling characteristics of the rule. At the same time, however, there may be other situations (such as in litigation between large, well-capitalized entities, or in class actions) where the actors are sufficiently risk neutral or the risks are widely pooled so that the effect of risk aversion becomes second-order in importance.74

E. Other Normative Concerns

Thus far, I have purposely limited my analysis to the positive question of whether a particular fee-shifting regime facilitates settlement of cases destined for trial. I further noted that because litigation costs are assumed to be fixed regardless of the parties' respective valuations, a settlement rate maximizing procedure would by definition be the one that minimizes expected litigation costs.75 Minimizing such costs would certainly be an important normative goal. Nonetheless, incentive to admit liability in court, pay no damages, and force the plaintiff to bear litigation costs.

74. Moreover, as much of the literature from "prospect theory" suggests, it is not clear that the parties behave symmetrically with respect to risk. While a plaintiff (who stands to gain from litigation) may display risk-aversion in her behavior, a defendant (who stands to lose) may frequently behave in a risk-prefering manner. See Kahneman & Tversky, supra note 10, at 279; Rachlinsky, supra note 61 (manuscript at 12-19). In fact, Rachlinsky argues that this framing effect causes individuals to act with a greater revealed preference for risk (and therefore greater resistance to settlement) under a loser-pays scheme. Id. (manuscript at 72).

75. See supra text accompanying notes 38-40.
the myopic pursuit of settlement rate might conflict with other normative goals that are equally or perhaps more important. As such, the winner-pays rule is unlikely to emerge as a serious policy candidate. I outline some of these concerns below.

1. Noncredible Suits

An important issue regarding the robustness of the above model is the prospect of non-serious plaintiffs. Throughout the preceding analysis, I have maintained the assumption that all suits occur with certainty. In other words, bargaining failure invariably gives rise to litigation. This assumption makes the analysis much more tractable, and it makes sense if one wishes to confine her attention to how fee-shifting rules affect bargaining in those cases already selected for litigation. Nonetheless, tractability does not necessarily imply reality, and in this case the assumption that absent bargaining litigation occurs with certainty may not be an accurate one. Indeed, as numerous commentators have pointed out, allowing noncredible parties to bargain can have a significant impact on both the equilibrium offers and success rates in the process. Moreover, much of the popular debate with respect to fee shifting revolves around the argument that a loser-pays rule will chill the filing of numerous frivolous or low-value suits.

There are two possible responses to the suit credibility issue. First, it is true that in many types of litigation, such as securities fraud, it is commonly perceived that there are a number of speculative suits filed as a byproduct of the low signal-to-noise ratio in market price fluctuations. It is in such cases that the credibility critique above is most likely to have "bite." There are, however, other types of cases (such as airline crashes and toxic torts) in which the inherent stakes are sufficiently large and obvious to suggest the credibility of suit immediately. Moreover, as Lucian Bebchuk has recently demonstrated, so long as litigation costs are distributed over time in a sufficiently diffuse manner, even suits that appear to be noncredible actuarially may be viewed as credible during negotiations. Either way, the assumption of suit credibility made in the above analysis may not be too far off.

Second, it is possible to introduce the possibility of such non-serious plaintiffs into the analysis above. In the interests of space and

76. E.g., Bebchuk, Suing, supra note 6; Katz, supra note 6; Nalebuff, supra note 15.
exposition, such an endeavor is not attempted here. However, one can summarize the results of such an attempt in the following three respects. First, the underlying indemnity regime may have ambiguous effects on case selection when the plaintiff has private information about damages rather than the probability of liability. As such, many of the above results may not be affected much in those situations. Second, regardless of the effects on plaintiff seriousness, the direct incentive effects outlined above are still present among the serious parties: i.e., by signalling a strong case, the defendant may also signal the likelihood he will have to bear litigation costs, and loser-pays regimes tend to make the payoffs from strategic overstatement complementary, and therefore more severe. Finally, the presence of non-serious plaintiffs might make the defendant less willing, ceteris paribus, to bargain earnestly with the plaintiff, since the defendant is uncertain whether the plaintiff is attempting to bluff her way to a settlement. Whether this final factor argues in favor of British, American, winner-pays, or some other rule is ambiguous. Nonetheless, because a winner-pays rule would almost certainly create an incentive for plaintiffs with even the most speculative cases to file suit, adopting such a rule would likely invite strategic costs that outweigh any of the beneficial settlement-inducing attributes of the rule for serious parties.

2. Deterrence Concerns

A second problem with concentrating myopically on settlement rates is that one fails to take into account the effect of the fee-shifting rule on ex ante behavior by potential defendants. Indeed, a change in indemnity rules would almost certainly have distortionary effects on the parties' respective incentives to invest in safety, more popularly denoted as "care" decisions. It is clear that these dynamic investment considerations can have important consequences with respect to

79. See id. at 28.
80. Additionally, the analysis above admits a rather perverse set of "corner solutions" in which the default fee-shifting rule might achieve first best, especially if the court could set fee-shifting rules to penalize settlement failure, and thereby make litigation extremely unattractive (and non-credible) to one or both parties. For instance, setting both α and β to arbitrarily large values can lead effectively to punitive effects on defendants, which would almost surely give rise to efficient settlement. Conversely, setting α and β at arbitrarily small negative values can chill any suits whatsoever, once again achieving first best outcomes, at least as described by an efficiency metric of settlement rate.
81. See A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 130-32 (2d ed. 1989).
the appropriate choice of a fee-shifting regime. In making her choice of investment in care, a forward-looking party would take into account the expected positions (net bargaining) should an injury occur. This investment concern is an important one, and one that may further compromise the relative wisdom of a winner-pays rule.82

3. Endogenous Legal Costs

Another question one might have revolves around the assumption that joint legal fees are fixed, or exogenous, at C. In a more realistic model, the parties would each choose their privately-borne litigation costs in the event of bargaining breakdown with knowledge of the underlying fee-shifting rule. Moreover, one might assert that because it ignores the endogeneity of legal fees, a winner-pays rule may give the parties at least a weak incentive to spend inordinate amounts of money on either (1) wasteful activities; or (2) activities that actually help the opposing side.

The consideration of endogenous legal fees is also an important concern. However, there are some plausible arguments that cut in favor of (rather than against) the arguments in this Article. For instance, it is likely that the loser-pays rule creates more serious distortions in effort level, since such a rule tends to increase one’s return to effort (by forcing the opposing party to subsidize one’s expenditure).83 In contrast, a winner-pays rule tends to have the opposite effect of lowering the return to legal fees, thereby reducing the amount of costs that the parties run up. Further, because any fee-shifting rule would likely subject the shifted fees to a reasonableness test, the danger that a party will heedlessly run up wasteful fees is reduced.

4. Corrective Justice

A fourth normative concern that limits this analysis is corrective justice. Indeed, part of the popular appeal of a loser-pays rule is that it forces “negligent” defendants and “frivolous” plaintiffs to make the other party whole, so that the blameless party need not bear litigation

82. In separate work, I have attempted a first cut at this problem by building a first stage on the model in which the defendant makes an investment decision before learning his type. I then attempt to maximize the settlement rate, subject to a “deterrence constraint” for the defendant —i.e., that the defendant’s expected post-settlement payoffs must be within a specific range to achieve a desired level of deterrence. Talley, supra note 78. I find that while introducing a deterrence constraint does indeed affect the results of the above model, it is still the case that relative to the loser-pays rule, one can always find an alternative regime that induced greater settlement possibilities while inducing the same level of deterrence.

83. See Katz, supra note 6, at 17.
costs to vindicate either her rights or her reputation. A winner-pays rule gives rise to an outcome that is anathema to this normative goal, in that not only would the blameless party have to bear costs at the hands of the other, but would in fact have to bear both parties' costs. Since even a settlement amount would reflect this expectation, a winner-pays rule would be singularly inept at ensuring that blameless parties do not suffer financial harm at the hands of another.

5. Process Concerns

Some have argued that a principal value of any civic institution (including the courts) is procedural in nature, in that it provides an opportunity for individuals to participate in the process that creates law, thereby facilitating greater civic engagement and community relationships. Others have argued that the process of civil litigation provides both victims and accused tortfeasors a forum to tell their story. These "process" concerns call into question the normative value of settlement itself, since settlement obviates the necessity of utilizing the existing institutions for civic participation, thereby chilling the attainment of meaningful participatory inclusion. To the extent that such concerns govern, then, our normative goal might be more consistent with minimizing rather than maximizing the probability of settlement. Even then, however, the above analysis is helpful, in that it suggests which procedures might retard settlement (e.g., the English rule) as a means to achieve greater procedural inclusion. Moreover, because the above analysis does not envision a settlement rule that would force parties to settle per se, a procedural choice that facilitates settlement among privately-informed, self-interested individuals does not necessarily preclude parties with different objectives from refusing to settle. On the other hand, there is a separate but related procedural argument that forcing parties to engage in litigation can provide a "public good" to society by fostering the development of more reliable and certain legal contours to guide future human behavior.

85. See Resnik et al., supra note 9.
86. For one articulation of this argument, see Fiss, supra note 40.
87. Though predictability and certainty are desirable in many circumstances, there may be other circumstances in which judicial "randomness" can be efficiency-enhancing. See Ayres & Talley, supra note 40, at 1073-78 (demonstrating that "probabilistic" entitlements are sometimes cabable of inducing efficient Coasean trade among asymmetrically-informed individuals where more certain, property-like entitlements are not).
then perhaps a procedural rule that discourages some settlement provides the analog of a "Pigouvian" tax on externality-producing settlements, thereby limiting this analysis.\textsuperscript{88}

\section*{IV. Conclusion}

The analysis above serves two useful purposes. First, it helps to reconcile and unify many of the existing results on indemnity rules and settlement. Second, it exposes a quite general, significant potential cost of the English fee-shifting rule: its deleterious effect on the settlement of bona fide cases. Because this result is likely to carry some weight even in the presence of frivolous or noncredible plaintiffs, it casts additional doubt on recent efforts to move toward a loser-pays fee-shifting rule.

As one might expect, a more comprehensive analysis would almost surely temper these results. Although a winner-pays system might be the best for facilitating settlement, it creates severe problems on various other normative fronts, such as increasing the incidence of \textit{utterly groundless} suits. I therefore do not consider it a serious policy candidate as much as it is a pedagogical exercise to illustrate the imprudence of the British rule with respect to settlement.

Additionally, one might extend this analysis to include more generalized fee-shifting rules.\textsuperscript{89} Indeed, the court is often able to observe more information than liability. For instance, if the court can observe plaintiff damages, then it may wish to structure the fee-shifting rules to hinge on both the determination of liability and the level of damages.\textsuperscript{90} This added functional dependence can often be tailored to take advantage of the countervailing incentives phenomenon when either party (the plaintiff in my model) has private information about the extent of her damages. Though I have not conducted this analysis herein, my conjecture is that an optimal rule would require successful plaintiffs with high damages to pay more in litigation fees than successful plaintiffs with low damages.

\begin{footnotesize}
\footnote{88. A "Pigouvian tax" is so named in honor of Arthur Pigou, an early twentieth-century economist who first suggested the efficiency of taxing an externality-producing activity at a level equal to the value of the negative externality imposed on society. \textit{See} HAL R. VARIAN, \textsc{Intermediate Microeconomics: A Modern Approach} 556-57 (3d ed. 1993).}
\footnote{89. Spier's notable analysis makes this attempt in a Rule 68 context, where the indemnity rule is not a default rule but rather an instrument of the bargaining mechanism. \textit{See} Spier, supra note 19.}
\footnote{90. See Bebchuk & Chang, supra note 1, for a proposal that does not incorporate settlement concerns, in which the fee-shifting rule hinges on the winner's margin of victory as well as her identity.}
\end{footnotesize}
Despite these caveats, it is hoped that this Article further underscores the complex and often counterintuitive relationship between procedural rules and private strategic incentives. As such, it counsels caution in considering the recent seductive invitation to reform our current indemnity rules in a radical fashion. Perhaps it is an invitation we ought (for now) to resist.
This Appendix derives the expressions shown in Section II of the text. In this Appendix, I give a somewhat more generalized account of the distributions of the players' private information. Assume that instead of uniform distributions, \( d \) is distributed according to cumulative distribution function \( G(d) \) with associated (strictly positive) density function \( g(d) \), and \( x \) is distributed independent of \( d \) according to cumulative distribution function \( F(x) \) and associated (strictly positive) density function \( f(x) \). Further, assume that \( G(d) \) and \( F(x) \) exhibit the “monotone hazard rate” property from both directions—i.e., \( G(d)/g(d) \) is monotone nondecreasing and \( [1-G(d)]/g(d) \) is monotone nonincreasing in \( d \), and likewise for \( F(x) \).

Under the direct revelation mechanism \((p,s)\) described in the text, settlement will not occur with probability \([1-p(\delta,\gamma)]\). In such a contingency, the parties will end up in court. Other general mechanism-design approaches to bargaining assume that bargaining failure implies that the parties receive their original reservation payoffs, which are exogenous. \(^9\) Though justified in many bargaining models, such an assumption neglects the prospect that should bargaining fail, the parties will play a continuation game involving litigation, and as such, rational parties would update (in a Bayesian fashion) their expectations of trial outcome conditional on bargaining failure. In order to address this possibility, I define a Bernoulli random variable \( Z \) which takes on the value of \( z=1 \) with probability \( p(d,x) \) (i.e., should the parties settle), and a value of \( z=0 \) with probability \([1-p(d,x)]\) (i.e., should the parties end up in court). Applying Bayes theorem, it is easily verified that, conditional on the mechanism mandating litigation (rather than settlement), the plaintiff's and defendant's posterior expectations of \( x \) and \( d \), respectively, are:

\[
\hat{x}^* \equiv E \{ x \mid d, z=0 \} = \frac{\int x [1-p(d,x)] dF(x)}{\int [1-p(d,x)] dF(x)}
\]

(8)

Using the above definitions to redefine the failure-contingent continuation payoffs, one can derive the expected gain that the bargaining mechanism confers on each party over her reservation utility (under, of course, the condition that the other party truthfully reveals her type—a condition that will be confirmed in equilibrium):

\[
\tilde{d}^* = E \left\{ d \mid x, z = 0 \right\} = \frac{\int d \left[ 1 - p(d, x) \right] dG(d)}{\int [1 - p(d, x)] dG(d)} \tag{9}
\]

\[
\tilde{d}^* = E \left\{ d \mid x, z = 0 \right\} = \frac{\int d \left[ 1 - p(d, x) \right] dG(d)}{\int [1 - p(d, x)] dG(d)} \tag{9}
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Using the above definitions to redefine the failure-contingent continuation payoffs, one can derive the expected gain that the bargaining mechanism confers on each party over her reservation utility (under, of course, the condition that the other party truthfully reveals her type—a condition that will be confirmed in equilibrium):

\[
u_\pi(d \mid d) = \int \{p(\delta, x)s(\delta, x) - p(\delta, x)[x(d + \eta C) - (1 - \beta)C]\} dF(x) \tag{10}
\]

\[
u_\Delta(\gamma \mid x) = \int \{ - p(d, \gamma)s(d, \gamma) + p(d, \gamma) [x(d + \eta C) + \beta C]\} dG(d), \tag{11}
\]

where \(\eta = (\alpha - \beta)\). The above expressions are the integral equivalents of equations (3) and (4) in the text.

Consider first the incentive compatibility constraints on the choice of mechanism. Recall that the revelation principle allows one to confine analysis to bargaining mechanisms that involve truth-telling in equilibrium. Using the envelope theorem and the well-known “single crossing” property, one can show that the bargaining mechanism is incentive compatible for players \(\pi\) and \(\Delta\) if and only if the following conditions hold almost everywhere:

(i) \(E_x\{x \cdot p(d, x)\}\) is nonincreasing in \(d\);

(ii) \(E_d\{d + \eta C\} \cdot p(d, x)\) is nondecreasing in \(x\);

(iii) \(u_\pi(d) = -E_x\{x \cdot p(d, x)\}\);

(iv) \(u_\Delta(x) = E_d\{ (d + \eta C) \cdot p(d, x)\}\).

Conditions (iii) and (iv) are standard, and can be derived directly by the envelope theorem—i.e., taking a first order derivative of each agent’s net utility function and imposing the first order condition for truth-telling. Note that conditions (iii) and (iv) are identical to equations (6) and (7) in the text. To show condition (i), consider two plaintiff types, \(d\) & \(d'\) where \(d' > d\). Using the definition of the plaintiff’s gain from bargaining, incentive compatibility implies \(u_\pi(d \mid d) \geq u_\pi(d' \mid d)\), or:
\[ u_n(d \mid d') = E_x \{ p(d, x)s(d, x) - p(d, x)[x(d + \eta C) - (1 - \beta)C]\} \]
\[ \geq E_x \{ p(d', x)s(d', x) - p(d', x)[x + (d + \eta C) - (1 - \beta)C]\} = u_n(d' \mid d) \quad (13) \]

Writing down a similar expression for \( u_n(d' \mid d') \geq u_n(d \mid d') \), and taking differences, the following condition emerges:
\[ (d' - d) \cdot E_x \{ p(d, x)x\} \geq (d' - d) \cdot E_x \{ p(d', x) \cdot x\} \quad (14) \]

Dividing through by \( (d' - d) > 0 \), condition (i) emerges. An analogous technique applies to the derivation of condition (ii).

By integrating expressions (i) and (ii), and then adding them, it is possible to get a global condition that combines both incentive compatibility and individual rationality constraints (i.e., that the players’ net payoffs from truth-telling and participation be nonnegative). Explicitly, there exists a settlement transfer function \( s(dx) \) such that \( (p, s) \) is incentive compatible and individually rational if and only if \( E_x \{ x \cdot p(dx) \} \) is nonincreasing in \( d \), \( E_d \{ [d + \eta C] \cdot p(dx) \} \) is nondecreasing in \( x \), and:
\[ \int_{d}^{d'} \int_{x}^{x'} \left\{ p(\delta, \gamma) \cdot \left[ C - \gamma \cdot \left( \frac{G(\delta)}{f(\gamma)} \right) - (\delta + \eta C) \cdot \left( \frac{1 - f(\gamma)}{f(\gamma)} \right) \right] \right\} dF(\gamma)dG(\delta) \geq 0 \quad (15) \]

The proof of this equation is straightforward, and is therefore omitted.\(^{92}\) Note, however, that because the second and third terms in the square brackets are both negative, only if litigation costs are sufficiently large will a given settlement rule \( p(dx) \) be feasible. Moreover, note that the fee-shifting parameters \( \alpha \) and \( \beta \) enter only through \( \eta = (\alpha - \beta) \), and \( \eta \) enters negatively in the above conditions. Thus, the larger the value of \( (\alpha - \beta) \), the more restricted is the mechanism designer’s choice of settlement rules.

92. See Talley, supra note 78.