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Gains, Losses, and the Psychology of Litigation

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INTRODUCTION

Every litigant gambles. When they choose to file suit, take discovery, file motions, decline settlement offers, and appeal, they take chances. But when do litigants gamble and when do they take actions with more certain outcomes? Understanding litigants' proclivities for risk is essential to understanding their behavior, the nature of litigation, and the likely impact of changes in the civil justice system. Current theories of litigation fail to account for the possibility that litigants' decisionmaking under risk and uncertainty may not comport with rational theories of behavior, and they therefore fail to paint a complete portrait of litigation.

The dominant model of litigation today may be the economic model of suit and settlement. Over the past twenty-five years, the law and economics field has produced a fairly consistent model describing litigants' behavior.[1] Although this literature highlights the settlement process,[2] it also includes papers modeling other aspects of litigation,

1. Work on the economics of litigation originated with a trio of articles published in the early 1970s: John P. Gould, *The Economics of Legal Conflicts*, 2 J. LEGAL STUD. 279 (1973); William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & ECON. 61 (1971); Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399 (1973). Significant contributions to the field include George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984) (using the economic model to predict that suits that fail to settle before trial will have a 50% chance of a plaintiff's verdict); Steven Shavell, *The Social Versus the Private Incentive to Bring Suit in a Costly Legal System*, 11 J. LEGAL STUD. 333 (1982) (demonstrating the divergence between private and social goods in litigation and adopting a general model of the economics of litigation). An excellent review of this literature can be found in Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LITERATURE 1067 (1989).

2. All three of the early pieces describe the settlement process in detail. *See* Gould, *supra* note 1; Landes, *supra* note 1; Posner, *supra* note 1. Most of the works reviewed by Cooter & Rubinfeld, *supra* note 1, also discuss settlement.

including discovery,[3] appeal,[4] and alternative dispute resolution.[5] Along with a growing complexity and scope,[6] this field has witnessed increasing influence in the public debate on litigation reform. For example, Congress recently considered imposing a "loser-pays" system for attorney's fees in all federal cases[7]—a reform long advocated in the law and economics literature.[8] Evaluated in terms of explanatory

3. *See* Bruce L. Hay, *Effort, Information, Settlement, Trial*, 24 J. LEGAL STUD. 29 (1995) (applying the economic model to the process of acquiring information for trial); Steven Shavell, *Sharing of Information Prior to Settlement or Litigation*, 20 RAND J. ECON. 183 (1989).

4. *See* Steven Shavell, *The Appeals Process as a Means of Error Correction*, 24 J. LEGAL STUD. 379 (1995).

5. *See* Steven Shavell, *Alternative Dispute Resolution: An Economic Analysis*, 24 J. LEGAL STUD. 1 (1995).

6. *See* Cooter & Rubinfeld, *supra* note 1, at 1067-68.

7. Mandating "loser-pays" in every civil case in the federal courts (so that the loser of any suit would have to pay the attorney's fees of the winner) was part of the Contract with America. *See* REPUBLICAN NATIONAL COMMITTEE, CONTRACT WITH AMERICA: THE BOLD PLAN BY NEWT GINGRICH, REP. DICK ARMEY, AND THE HOUSE REPUBLICANS TO CHANGE THE NATION (Ed Gillespie & Bob Schellhas eds., 1994). The House of Representatives eventually passed a bill that would require a litigant that rejected a settlement offer only to be awarded less at trial to pay the attorney's fees of the party that offered to settle. *See* The Attorney Accountability Act of 1995, H.R. 988, 104th Cong. (1995). The Senate considered a bill that would have applied a loser-pays system to products liability suits only. *See* The Product Liability Fairness Act of 1995, S. 565, 104th Cong. (1995) (basing the loser-pays system on the reasonableness of a party's refusal to settle). The only comparable reform to actually become law was the Private Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737, 748 (1995), amending the Securities Act of 1933, 15 U.S.C. 77a-77bbb (1933), which requires a party who does not comply with Rule 11(b) of the FED. R. CIV. P. in a federal securities suit to pay the attorney's fees of the other party. *See* HAROLD S. BLOOMENTHAL & HOLME ROBERTS & OWEN, PRIVATE SECURITIES LITIGATION REFORM ACT 42 (1996). This bill became law when both houses voted to override President Clinton's veto.

8. The analysis of the effects of adopting a loser-pays system law has had a somewhat unusual history in the literature on suit and settlement. *See* John J. Donohue III, Commentary, *Opting for the British Rule, Or If Posner and Shavell Can't Remember the Coase Theorem, Who Will?*, 104 HARV. L. REV. 1093 (1991) [hereinafter Donohue, *Opting*]; John J. Donohue III, *The Effects of Fee Shifting on the Settlement Rate: Theoretical Observations on Costs, Conflicts, and Contingency Fees*, 54 LAW & CONTEMP. PROBS. 195 (1991) [hereinafter Donohue, *The Effects of Fee Shifting*]. As Donohue notes, the literature at first endorsed the idea of a loser-pays system on the theory that it would reduce nuisance suits and increase the number of meritorious suits private actors bring—thereby reducing the social costs of litigation overall. *See, e.g.*, Posner, *supra* note 1, at 428; D. Rosenberg & S. Shavell, *A Model in Which Suits are Brought for Their Nuisance Value*, 5 INT'L REV. L. & ECON. 3 (1985); Steven Shavell, *Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods for Allocation of Legal Costs*, 11 J. LEGAL STUD. 55 (1982). A number of articles followed in which scholars concluded that the loser-pays system would be *more* expensive than the conventional system in which each party pays his or her own fees. *See, e.g.*, Avery Katz, *Measuring the Demand for Litigation: Is the English Rule Really Cheaper?*, 3 J.L. ECON. & ORG. 143 (1987); Edward A. Snyder & James W. Hughes, *The English Rule for Allocating Legal Costs: Evidence Confronts Theory*, 6 J.L. ECON. & ORG. 345 (1990). The later work led Judge Posner to retract his endorsement of the loser-pays system. *See* RICHARD A. POSNER, THE ECONOMIC ANALYSIS OF LAW 537-40 (3d ed. 1986). As Donohue observes, the Coase Theorem would predict that the legal system's choice would not matter

power, productivity, and influence, the law and economics of litigation has been a success. According to a review by Cooter and Rubinfeld, the field has flourished on the strength of its underlying theory of human behavior. Because "[e]conomics was able to provide . . . the behavioral theory . . . that legal theory lacked,"[9] the economics of suit and settlement has filled an intellectual vacuum and spread "[l]ike the rabbit in Australia."[10]

But has law and economics provided the *right* behavioral theory? All of the economic models of suit and settlement depend on the assumption that litigants make choices designed to provide them with the best outcomes.[11] This Article questions that assumption. Empirical studies of human decisionmaking by cognitive psychologists suggest that it is unlikely that the economic model accurately describes the behavior of litigants. Consequently, the conclusions of the economic models and some of the advice on the effects of various reform proposals are misleading or inaccurate. This oversight, however, can be corrected. Modifying the economic model with the theories of cognitive psychology would create a richer and more accurate model of suit and settlement.

The principle error that the economic models of litigation make is their treatment of litigants' decisions among risky options. The economic model predicts that litigants will make choices that lead to the greatest expected returns. For example, assuming the plaintiff is risk-neutral, he should accept a settlement offer of $10,000 in lieu of a trial where he has a 50% chance of winning $20,000 at a cost of $5,000 in

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because the parties would bargain around the legal rule to achieve the efficient outcome—be it the conventional system or the loser-pays system. *See* Donohue, *Opting*, *supra* at 1094; Donohue, *The Effects of Fee Shifting*, *supra* at 200-01. This puzzle is discussed further, *infra* notes 201-15 and accompanying text. Regardless of the solution to Donohue's puzzle, the law and economics literature generally retained support for the loser-pays system as a solution to nuisance suits. *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 573-74 (4th ed. 1992) [hereinafter POSNER, 4th ed.]. Thus, Congress hewed closely to the law and economics literature's advice in reforming the federal securities law, as this field is perceived as being plagued with nuisance suits. *See, e.g.*, Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497 (1991).

9. Cooter & Rubinfeld, *supra* note 1, at 1068.

10. *Id.*

11. That is, the models rely on the "rational model" of decisionmaking (also called the "expected utility" model). *See* Cooter & Rubinfeld, *supra* note 1, at 1068. Gould's early description of the economics of litigation best documents the field's reliance on expected utility theory. *See* Gould, *supra* note 1, at 279 (citing two classic works on expected utility theory: Milton Friedman & L.J. Savage, *The Utility Analysis of Choices Involving Risk*, 56 J. POL. ECON. 279 (1948) and JOHN VON NEUMANN & OSKAR MORGENSTERN, THEORY OF GAMES AND ECONOMIC BEHAVIOR (1944)).

litigation expenses (the expected value of trial in this case equals $20,000 x .5 - 5,000, or $5,000, while the expected value of the settlement equals $10,000). As a general matter, a litigant should accept a settlement only when its value exceeds the expected value of continued litigation. Litigants should also make similar calculations when evaluating other choices in litigation. For example, a defendant who has had a judgment for $20,000 entered against her should appeal if the likelihood of success on appeal multiplied by $20,000 exceeds the costs of the appeal.[12] Models of litigation also allow for risk-averse decisionmaking, since litigants are assumed to maximize utility and not merely wealth.[13] Many scholars in the field also note that other factors, such as a desire for justice, process, fairness, or one's day in

12. Costs can be broadly defined here as including attorney's fees and any penalties the court may award against the defendant for losing the appeal. *See, e.g.*, FED. R. APP. P. 38 (providing for an award of "costs" against a party who brings a frivolous suit on an appeal). A more complicated version of the model could also account for the use of appeals as part of a settlement strategy. In other words, it would allow the defendant to strategically file an appeal and then settle the case with the plaintiff for some amount lower than the award at trial, on the assumption that there is some probability that the appeal will succeed.

13. This is due to the assumptions that individuals maximize utility, not wealth, and that utility is a concave function of wealth. The latter assumption arises from the premise that the first dollar one owns is more valuable than the second dollar, or the first $10,000 one owns is more valuable than the second $10,000, etc. To understand how this leads to risk-aversion, consider the following example: Imagine an individual, Mr. *A*, whose utility of wealth is equal to the square root of his total wealth. If Mr. *A* starts with nothing, and must choose between $1 for sure, and a gamble on the toss of a fair coin, wherein he wins $2 if the coin lands heads and $0 if the coin lands tails. Under these conditions, the sure $1 is worth $\sqrt{1}$ or 1 unit of utility to Mr. *A*. Compared to the gamble, which is worth $.5(\sqrt{2}) + .5(\sqrt{0})$, or .71 units of utility, the gamble is 29% less valuable. Imagine a second individual, Ms. *B*, whose utility of wealth is also equal to the square root of her total wealth, but Ms. *B* already owns $1,000. The $1 for sure leaves Ms. *B* with $\sqrt{1{,}001}$ or 31.638584 units while the 50% chance of winning $2 leaves Ms. *B* with $.5(\sqrt{1{,}002}) + .5(\sqrt{1{,}000})$, or 31.638580 units. At this point, the difference between the two gambles is measured at the sixth decimal place, and hence Ms. *B* is now almost indifferent between the two choices. Reconsider the same gamble, except that heads results in a $3 payoff instead of $2. Mr. *A* still prefers the $1 for sure, valued at 1 unit of utility, to the gamble, valued at $.5(\sqrt{3}) + .5(\sqrt{0})$, or .87 units. Ms. *B*, however, prefers the gamble, as the sure outcome is still worth 31.639 units (rounding off for simplicity) while the gamble is now worth $.5(\sqrt{1{,}003}) + .5(\sqrt{1{,}000})$, or 31.646 units. With more wealth Ms. *B* can tolerate more risk than Mr. *A* and focus on the greatest expected returns in wealth. More generally, as wealth becomes infinitely large relative to the size of the gamble, the impact of risk-aversion implied by a concave utility function of wealth dissipates completely, and the decisionmaker becomes essentially risk-neutral, choosing options that offers the greatest product of probability and gain. *See, e.g.*, Harry Markowitz, *The Utility of Wealth*, 60 J. POL. ECON. 151 (1952).

court may influence decisionmaking as well, but either hold these factors aside,[14] or incorporate them into the economic costs and benefits of litigation.[15]

In this Article, I do not question the basic premise that litigants *try* to achieve the best possible outcome, but I do question their ability to identify the most favorable options when risk and uncertainty are involved. A significant body of data gathered by cognitive psychologists studying behavioral decision theory[16] suggests that the structure of many choices lures people into making decisions that are suboptimal, from the perspective of a rational model.[17] The research also suggests that suboptimal choices often result from the limitations of human decisionmaking skills rather than from a lack of effort or motivation.[18] Just as visual illusions may fool our perceptual senses, so too may decisionmaking illusions fool our judgment.[19] This is not to say that humans are incompetent decisionmakers. Our judgment sees us through most situations quite well. The lesson of behavioral decision theory is merely that in certain predictable circumstances, people's judgment will lead them astray. In this Article, I propose that litigation is one of these circumstances.

Behavioral decision theory suggests that plaintiffs and defendants face markedly different decisions in litigation. For example, consider the issue of settlement. Plaintiffs typically choose between accepting a sure gain by settling a case, and accepting an uncertain but potentially more rewarding outcome by litigating further. In contrast, defendants

14. Shavell notes that such factors could be taken into account in an economic model, *see* Shavell, *supra* note 8, at 72, but Cooter & Rubinfeld's comprehensive review provides not one single citation to a model on any aspect of the litigation process that factors in a desire for justice or process. *See* Cooter & Rubinfeld, *supra* note 1. For a further discussion of this issue, see *infra* notes 126-29 and accompanying text.

15. Peter Huang & Ho-Mou Wu, Psychological Emotional Responses in Litigation (John M. Olin Program in Law and Economics, Stanford Law School, Working Paper No. 59, 1989).

16. Behavioral decision theory refers to the empirical study of human decisionmaking. The classic text in this relatively new field is an edited collection of works: JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982). Another excellent summary of this work is Hillel J. Einhorn & Robin M. Hogarth, *Behavioral Decision Theory: Processes of Judgment and Choice*, 32 ANN. REV. PSYCHOL. 53 (1981). A general comparison of behavioral decision theory to economics can be found in Robin M. Hogarth & Melvin W. Reder, *Editors' Comments: Perspectives From Economics and Psychology*, 59 J. BUS. S185 (1986).

17. *See, e.g.*, Kahneman et al., *supra* note 16, for numerous examples.

18. *See* Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

19. *See id.* at 1124.

choose between accepting a sure loss by settling, and accepting an uncertain but potentially worse outcome by litigating further. Research by Daniel Kahneman and Amos Tversky has demonstrated that when people choose among gains, they tend to make risk-averse choices, preferring sure gains over larger but riskier gains.[20] Conversely, when people choose among losses, they tend to make risk-seeking choices, preferring riskier outcomes over sure losses. Characterizing a decision as a loss or a gain, which Kahneman and Tversky refer to as a decision's "frame," determines the risk preferences of the decisionmaker. The law and economics literature asserts that litigants will make either risk-neutral or risk-averse decisions, depending upon their wealth; behavioral decision theory suggests that regardless of their wealth, litigants' risk preferences will vary systematically, depending upon whether they are in the role of plaintiff or defendant. Part I of this Article describes the behavioral theory in greater detail.

Evidence from real and hypothetical disputes suggests that risk preferences, particularly in settlement decisions, vary with a party's role. Responses to a number of closely controlled hypothetical scenarios demonstrate that the appeal of a settlement depends on whether the settlement is characterized as a loss or as a gain.[21] Earlier work by others, and Study One presented here, shows that settlement offers presented as gains are more compelling than settlement offers presented as losses.[22] Study Two, a study of responses to hypotheticals similar to Study One, suggests that beyond settlement, risk preferences in the choice of a litigation strategy vary with the characterization of litigation as a loss or as a gain.[23] Study Two shows that casting litigation as a loss induces people to support risky and even morally suspect litigation strategies.

A series of findings on actual settlement negotiations reveals that settlements are much lower than the expected utility models of suit

20. *See* Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 AM. PSYCHOLOGIST 341, 342-44 (1984) [hereinafter Kahneman & Tversky, *Choices, Values, and Frames*]; Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263, 268-69 (1979) [hereinafter Kahneman & Tversky, *Prospect Theory*]; Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. S251, S257-S260 (1986) [hereinafter Tversky & Kahneman, *Rational Choice*]; Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 SCIENCE 453, 453-55 (1981) [hereinafter Tversky & Kahneman, *The Psychology of Choice*].

21. *See infra* notes 67-104 and accompanying text.

22. *See infra* notes 67-104 and accompanying text.

23. *See infra* notes 105-12 and accompanying text.

settlement would predict.[24] Similarly, other data shows that increasing the risk associated with litigation emboldens defendants, making them less inclined to settle.[25] The pattern of data uncovered in the field research is difficult to reconcile with the expected utility models of litigation, but it is consistent with the framing theory, which predicts a consistent divergence in risk preferences between plaintiff and defendant. Part II of this Article presents three new studies that support the framing theory of risk preferences in litigation and describes data collected by others that also supports the theory.

The framing theory of litigation has several policy implications. First, it suggests that the "loser-pays" system of litigation[26] is less efficient than the conventional system because it encourages the risk-seeking proclivities of the defendants, leading to wasteful litigation strategies.[27] Second, understanding the impact of framing on litigation creates a new perspective on the role of attorneys in litigation.[28] Their ability to present settlement offers to clients as either gains or losses gives them the power to overcome the cognitive biases of their clients, reducing the costs of those biases. Third, certain categories of litigation, those in which both parties face potential losses, will induce risk-seeking behavior by *both* litigants, thereby encouraging protracted litigation and making settlement less likely.[29] Policymakers should attend to the framing problem and structure disputes to avoid such situations. Part III of this Article describes these implications.

I. FRAMING OF DECISIONS, RISK PREFERENCES, AND LITIGATION

Behavioral decision theory rests upon a different theoretical foundation than expected utility theory. Expected utility models of choice assume that people attempt to maximize utility in making a decision.[30] Although this model has proven enormously robust and has demonstrated itself to be an invaluable tool, it has limitations. A number of observed phenomena of judgment are inconsistent with the

24. *See infra* notes 130-56 and accompanying text.

25. *See infra* notes 157-95 and accompanying text.

26. A loser-pays system of litigation means that the losing party pays the litigation expenses of both parties, in contrast to the current system in which each litigant must pay his own expenses.

27. *See infra* notes 196-215 and accompanying text.

28. *See infra* notes 216-22 and accompanying text.

29. *See infra* notes 223-32 and accompanying text.

30. *See* Cooter & Rubinfeld, *supra* note 1, at 1068.

expected utility model.[31] Behavioral decision theory, by contrast, assumes nothing about people's motives or abilities, but incorporates empirical observations of judgment and choice into a model of decisionmaking. The leading example of a behavioral decision theory model of choice is Kahneman and Tversky's prospect theory.[32]

Although prospect theory differs in many ways from expected utility theory,[33] the most significant difference for models of suit and settlement lies in their treatment of risk preferences. Expected utility theory predicts that people make either risk-averse or risk-neutral choices depending upon the magnitude of the stakes relative to their total wealth.[34] In contrast, prospect theory predicts that people make either risk-averse or risk-seeking choices depending upon the characterization of the decision as a loss or as a gain.[35] In particular, prospect theory's prediction that people make risk-seeking choices in the face of potential losses differs sharply from expected utility theory,

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31. Tversky and Kahneman have described several examples in their work. *See, e.g.*, Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 341-50; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 263-73; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S254-70; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 453-57.

32. Prospect theory is described in a series of papers. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20; Kahneman & Tversky, *Prospect Theory*, *supra* note 20; Tversky & Kahneman, *Rational Choice*, *supra* note 20; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20. Tversky and Kahneman have refined their work in recent years. *See* Amos Tversky & Daniel Kahneman, *Advances in Prospect Theory: Cumulative Representation of Uncertainty*, 5 J. RISK & UNCERTAINTY 297 (1992) [hereinafter Tversky & Kahneman, *Cumulative Representation of Uncertainty*]; Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference-Dependent Model*, 106 Q.J. ECON. 1039 (1991) [hereinafter, Tversky & Kahneman, *Loss Aversion*].

33. As Tversky and Kahneman describe it, two principle features of prospect theory distinguish it from expected utility theory: "The key elements of [prospect] theory are 1) a value function that is concave for gains, convex for losses, and steeper for losses than for gains, and 2) a non-linear transformation of the probability scale, which overweights small probabilities and underweights moderate and high probabilities." Tversky & Kahneman, *Cumulative Representation of Uncertainty, supra* note 32, at 297-98. This Article focuses on one aspect of the first characteristic—the value function that is concave for gains and convex for losses. Such a value function predicts that individuals will make risk-averse decisions when confronting gains and risk-seeking decisions when confronting losses. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 342; Kahneman & Tversky, *Prospect Theory*, *supra* note 20 at 279; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S259; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 454. Although the different risk preferences (implied by the value function) combined with loss aversion (implied by a steeper function for losses than for gains) together make up what Kahneman and Tversky refer to as "framing effects," I use the term "framing effects" to refer only to the difference in risk preferences between losses and gains.

34. *See* Shavell, *supra* note 8, at 58; *see also supra* note 13.

35. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 342; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 279; Tversky & Kahneman, *Rational*

which assumes that people never deliberately make risk-seeking choices.[36]

Although the economic models of suit and settlement allow for the possibility that parties make risk-seeking choices, this possibility is not taken seriously.[37] Virtually all of the studies on suit and settlement presume that litigants either make risk-neutral or risk-averse settlement decisions.[38] There is good reason to make this assumption—risk-seeking decisions are costly. Parties who make risk-seeking decisions will sacrifice utility for no apparent reason.[39] Nevertheless, research from behavioral decision theory suggests that parties facing potential losses in litigation will make decisions that appear risk-seeking.

A. Risk Preferences and Decision Frame

Why would anyone make a risk-seeking decision in litigation? Absent a penchant for risk (which could be satisfied easily and at less cost by taking a trip to Las Vegas), risk-seeking choices make no sense. One plausible explanation for apparent risk-seeking litigation decisions is that the litigant is willing to pay for vindication. Parties may litigate doggedly in pursuit of perfectly rational concerns, such as defending their good name or vindicating an injustice. Likewise, litigious behavior may arise from emotional responses to the case or from an affinity for process. All of these concerns could, of course, be incorporated into economic models of suit and settlement. The framing

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Choice, *supra* note 20, at S259; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 454.

36. Both the economic and psychological theories predict that parties facing potential gains make risk-averse choices. The economic theory predicts that risk-aversion dissipates as an individual's wealth rises relative to the amount at stake—a prediction not shared by prospect theory. But on the whole, in the domain of gains, it will be difficult to test which theory is accurate because they make such similar predictions.

37. One early paper models the effects of a risk-preferring litigant, *see* Gould, *supra* note 1, at 291-93, but ridicules the notion that litigants might actually make risk-seeking choices by noting that such litigants "would be better off not going to court and making the bet on the outcome of a suitably chosen random number generator, because the court costs could then be avoided." *Id.* at 292-93. Cooter and Rubinfeld's review contains no description of a model that incorporates risk-seeking preferences. *See* Cooter & Rubinfeld, *supra* note 1.

38. *See, e.g.*, Cooter & Rubinfeld, *supra* note 1, at 1071-82.

39. For example, imagine a defendant (perhaps a manufacturer) who faces 100 plaintiffs each suing for $10,000, with a 50% chance of a plaintiff's verdict in each case. Assume that the defendant also faces $3,000 in attorney's fees in each case. Suppose that each plaintiff offers to settle for $7,000, but the defendant decides to make risk-seeking choices and rejects these offers. As a result, the defendant will pay 100(.5)($10,000) + 100($3,000) = $800,000. Had the defendant accepted all of the offers, he would have paid $7,000(100) = $700,000.

effect, however, suggests that even a model that incorporates such concerns remains incomplete. The structure of the litigation for typical defendants as a choice among losses leads them to make decisions that appear risk-seeking, even after accounting for nonmonetary concerns. The nature of litigation invites a bias in decisionmaking that induces risk-seeking choices.

In other contexts, risk-seeking choices have been well documented. Research by Tversky and Kahneman, in particular, shows that risk preferences depend upon characterizing a decision as a gain or a loss.[40] When people choose among potential gains, they tend to be risk-averse, but when they choose among potential losses, they tend to be risk-seeking. The nature of the decision, which Tversky and Kahneman refer to as the decision's "frame,"[41] heavily influences people's risk preferences.

Consider the following example, described in their work:

> Imagine that the U.S. is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows:
>
> If program A is adopted, 200 people will be saved.
>
> If program B is adopted, there is a one-third probability that 600 people will be saved, and a two-thirds probability that no people will be saved.[42]

In a second version of the problem, Kahneman and Tversky provided the same introductory paragraph, but altered the description of the two options as follows: "If Program C is adopted, 400 people will die. If Program D is adopted, there is a one-third probability that nobody will die, and a two-thirds probability that 600 people will die."[43] When presented with the first version of the problem, 72% of the subjects made the risk-averse choice of saving 200 people for sure,

40. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 342-44; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 268-69; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S257-60; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 453-55.

41. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 342-44; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 268-69; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S257-60; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 453-55.

42. The example is taken from Tversky & Kahneman, *The Framing of Decisions*, *supra* note 20, at 343.

43. *Id.*

whereas only 22% of the subjects presented with the second version made the same choice—the majority preferred the risk-seeking option instead.[44] The second version of the problem is identical to the first, except that it is framed in terms of lives lost instead of lives saved. Nevertheless, the second version led many more people to prefer the risk-seeking option. Since the two programs have the same expected value, a model of decisionmaking based on expected utility theory makes no prediction about the preferred choice in these two problems, except that throughout both problems, either Program A or Program B should be preferred at a constant rate. The actual data, however, refuted this prediction. The perspective of the decisionmaker as facing gains or losses influenced preferences dramatically.

Framing effects have been documented across a wide range of decisions, including monetary gambles,[45] choices in a commons dilemma,[46] purchasing decisions,[47] life-threatening choices,[48] evaluating one's tax burden,[49] and deciding whether or not to cheat on one's income taxes.[50] Researchers studying the decisionmaking of a wide variety of professionals have demonstrated that expertise does not

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44. *See id.*

45. *See* David V. Budescu & Wendy Weiss, *Reflection of Transitive and Intransitive Preferences: A Test of Prospect Theory*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES, 184 (1987); Peter C. Fishburn & Gary A. Kochenberger, *Two-Piece Von Neumann-Morgenstern Utility Functions*, 10 DECISION SCI. 503 (1979); John C. Hershey & Paul J.H. Schoemaker, *Risk Taking and Problem Context in the Domain of Losses: An Expected Utility Analysis*, 47 J. RISK & INS. 111 (1980); Wing Hong Loke, *The Effects of Framing and Incomplete Information on Judgments*, 10 J. ECON. PSYCHOL. 329 (1989); John W. Payne, Don J. Laughhunn & Roy Crum, *Translation of Gambles and Aspiration Level Effects in Risky Choice Behavior*, 26 MGMT. SCI. 1039 (1980).

46. *See* John A. Fleishman, *The Effects of Decision Framing and Others' Behavior on Cooperation in a Social Dilemma*, 32 J. CONFLICT RESOL. 162 (1988); William C. McDaniel & Francis Sistrunk, *Management Dilemmas and Decisions: Impact of Framing and Anticipated Responses*, 35 J. CONFLICT RESOL. 21 (1991); Christel G. Rutte, Henk A.M. Wilke & David M. Messick, *The Effects of Framing Social Dilemmas as Give-Some or Take-Some Games*, 26 BRIT. J. SOC. PSYCHOL. 103 (1987).

47. *See* James R. Bettman & Mita Sujan, *Effects of Framing on Evaluation of Comparable and Noncomparable Alternatives by Expert and Novice Consumers*, 14 J. CONSUMER RES. 141 (1987); Christopher P. Puto, *The Framing of Buying Decisions*, 14 J. CONSUMER RES. 301 (1987).

48. *See* Stephen A. Eraker & Harold C. Sox, Jr., *Assessment of Patients' Preferences for Therapeutic Outcomes*, 1 MED. DECISION MAKING 29 (1981); Baruch Fischhoff, *Predicting Frames*, 9 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY, & COGNITION 103 (1983).

49. *See* Karyl A. Kinsey, Harold G. Grasmick & Kent W. Smith, *Framing Justice: Taxpayer Evaluations of Personal Tax Burdens*, 25 LAW & SOC'Y REV. 845 (1991); Edward J. McCaffery, *Cognitive Theory and Tax*, 41 UCLA L. REV. 1861 (1994).

50. *See* Henry S.J. Robben, Paul Webley, Russell H. Weigel, Karl-Erik Wärneryd, Karl A. Kinsey, Dick J. Hessing, Francisco Alvira Martin, Henck Elffers, Richard Wahlund, Luk Van

mitigate the effects.[51] Framing effects have been found to influence judgments as well as decisions.[52]

The framing phenomenon seems to have sparked the interest of the medical community in particular. In response to hypothetical treatment options, people's choices depend upon whether mortality statistics associated with treatments are presented in terms of the percent of patients who live as opposed to the percent who die.[53] The decisions of doctors and medical students also follow a similar pattern.[54] Responsiveness to health warnings also varies with the framing of the warning.[55]

Kahneman and Tversky explain the tendency to gamble in the face of losses and the tendency to play it safe in the face of gains as arising from the structure of the decision. Reconsider their disease problem. In the "loss" frame, option C obviously condemns 400 people to death. Compare this to the same choice as described in option A, which highlights saving 200 people. The emphasis on the unpleasant aspects of the decision in option C makes the choice unbearable for many. Kahneman and Tversky propose the decision frame as a

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Langenhove, Susan B. Long & John T. Scholz, *Decision Frame and Opportunity as Determinants of Tax Cheating: An International Experimental Study*, 11 J. ECON. PSYCHOL. 341 (1990).

51. *See* William J. Qualls & Christopher P. Puto, *Organizational Climate and Decision Framing: An Integrated Approach to Analyzing Industrial Buying Decisions*, 26 J. MARKETING RES. 179 (1989) (analyzing the purchasing decisions of managers); Michael J. Roszkowski & Glen E. Snelbecker, *Effects of "Framing" on Measures of Risk Tolerance: Financial Planners are Not Immune*, 19 J. BEHAVIORAL ECON. 237 (1990) (analyzing the decisions of investment brokers); Joel E. Urbany & Peter R. Dickson, *Prospect Theory and Pricing Decisions*, 19 J. BEHAVIORAL ECON. 69 (1990) (analyzing the pricing decisions of retailers). *Cf.* Margaret A. Neale, Vandra L. Huber & Gregory B. Northcraft, *The Framing of Negotiations: Contextual Versus Task Frames*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 228 (1987).

52. *See* Richard D. Johnson, *Making Judgments When Information is Missing: Inferences, Biases, and Framing Effects*, 66 ACTA PSYCHOLOGICA 69 (1987); Irwin P. Levin, Sara J, Schnittjer & Shannon L. Thee, *Information Framing Effects in Social and Personal Decisions*, 24 J. EXPERIMENTAL SOC. PSYCHOL. 520 (1988) (analyzing the judged incidence of cheating); Irwin P. Levin & Gary J. Gaeth, *How Consumers Are Affected by the Framing of Attribute Information Before and After Consuming the Product*, 15 J. CONSUMER RES. 374 (1988) (analyzing the judged quality and taste of hamburger meat).

53. *See* John M. Rybash & Paul A. Roodin, *The Framing Heuristic Influences Judgments About Younger and Older Adults' Decision to Refuse Medical Treatment*, 3 APPLIED COGNITIVE PSYCHOL. 171 (1989); Dawn K. Wilson, Robert M. Kaplan & Lawrence J. Schneiderman, *Framing of Decisions and Selection of Alternatives in Health Care*, 2 SOC. BEHAV. 51 (1987).

54. *See* Barbara J. McNeil, Stephen G. Pauker, Harold C. Sox, Jr. & Amos Tversky, *On the Elicitation of Preferences for Alternative Therapies*, 306 NEW ENG. J. MED. 1259 (1982).

55. *See* Durairaj Maheswaran & Joan Meyers-Levy, *The Influence of Message Framing and Issue Involvement*, 27 J. MARKETING RES. 361 (1990); Dawn K. Wilson, Scot E. Purdon & Kenneth A. Wallston, *Compliance to Health Recommendations: A Theoretical Overview of Message Framing*, 3 HEALTH EDUC. RES. 161 (1988).

form of *representational* problem,[56] meaning that the cognitive structure of the decision leads people to prefer one choice over the other.[57] Breaking out of the representation and recasting the decision presents a cognitive challenge that may be insurmountable, especially because it is not obvious to the decisionmaker that an alternative frame even exists. Thus, increasing the motivations of individuals to get to the "right" answer does not ameliorate the bias. Indeed, increasing a

56. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 344 ("it is more natural to consider financial outcomes as gains and losses rather than as states of wealth"); Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 453-55.

57. Mathematical problems presented in verbal form are one of the most commonly encountered representational problems, and may therefore illustrate the representational issue clearly. Consider the following problem: Imagine a strand of string wound tightly around a basketball. Add sufficient string to this initial strand such that it forms a circle that is raised one inch above the surface of the ball at all points, and call the length of the addition that you needed to add to achieve this X. Now imagine a strand of string wound tightly around the Earth's equator. Add sufficient string to this initial strand such that it forms a circle that is raised one inch above the Earth's equator at all points, and call the length of the addition that you needed to add to achieve this Y. True or false, X = Y? Reliance on the imagery presented by the problem easily leads one astray. To solve the problem, it must be recast in algebraic terms. First calculate the amount of string needed to raise the length around the basketball one inch (X). Call the initial length D_1, the final length D_2, and the radius of the basketball r_1. Since the diameter of a circle is equal to two times the radius times π, X can be calculated as follows:

$$D_1 = 2\,\pi\,r_1$$
$$D_2 = 2\,\pi(r_1 + 1'')$$
$$D_2 - D_1 = X$$
$$D_2 - D_1 = 2\,\pi(r_1 + 1'') - 2\,\pi\,r_1$$
$$D_2 - D_1 = 2\,\pi\,r_1 + 2\,\pi'' - 2\,\pi\,r_1$$
$$D_2 - D_1 = 2\,\pi'' = X$$

To calculate the addition needed for the earth, define the initial length around the equator as D_3 and the final length raised one inch above the equator D_4.

$$D_3 = 2\,\pi\,r_2$$
$$D_4 = 2\,\pi(r_2 + 1'')$$
$$D_4 - D_3 = Y$$
$$D_4 - D_3 = 2\,\pi(r_2 + 1'') - 2\,\pi\,r_2$$
$$D_4 - D_3 = 2\,\pi\,r_2 + 2\,\pi'' - 2\,\pi\,r_2$$
$$D_4 - D_3 = 2\,\pi'' = Y$$

The algebraic representation of the problem makes it obvious that the length of the addition needed to raise the string by one inch depends only on the *increase* in the radius, not on the initial radius. Thus, the initial size of the sphere is irrelevant, and in both cases, the extra length needed is $2\,\pi''$. The algebraic form of the problem makes this transparent, while the verbal form suggests imagery that is misleading. The example is taken from a lecture given by David Rumelhart, Stanford University, September, 1988.

decisionmaker's motivations actually enhances the effect.[58] Even adding significant financial incentives does not eliminate the bias.[59] That it is possible to recast or reframe the problem so as to make the representational bias apparent does not matter—decisionmakers resist such efforts and may not be able to break out of the representational structure without significant prodding.[60]

The framing effect makes traditional microeconomic modeling of decisions difficult. Since any decision may be cast in terms of gains or losses, a researcher has no way of knowing in advance whether people will make risk-averse or risk-seeking choices. Furthermore, although rational models of choice may avoid concerns with irrational preferences by assuming that such irrationalities are distributed randomly, framing effects remove that luxury. Decisions will systematically follow risk-averse or risk-seeking patterns, depending upon the dominant frame of a decisionmaking task. Finally, the effect is large enough that it cannot sensibly be ignored.[61] Thus, "predicting frames" becomes an important component of models of decisionmaking under uncertainty.[62]

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58. Several studies have shown that attaching cash incentives to gambles does not eliminate the change in risk preferences with frame. *See* David M. Grether & Charles R. Plott, *Economic Theory of Choice and the Preference Reversal Phenomenon*, 69 AM. ECON. REV. 623, 623 (1979) (adding monetary incentives increased the size of the framing effect); Sarah Lichtenstein & Paul Slovic, *Response-Induced Reversals of Preferences in Gambling: An Extended Replication in Las Vegas*, 101 J. EXPERIMENTAL PSYCHOL. 16 (1973).

59. *See* Steven J. Kachelmeier & Mohamed Shehata, *Examining Risk Preferences Under High Monetary Incentives: Experimental Evidence From the People's Republic of China*, 82 AM. ECON. REV. 1120 (1992). In the highest payoff condition in their study, these authors provided subjects with the opportunity to win the equivalent of three times their monthly wages, and found behavior that was dramatically inconsistent with expected utility theory.

60. Representational biases stand in sharp contrast to *computational* biases, which can be ameliorated by increasing motivation or effort. To see the difference, consider Kahneman and Tversky's observation that when people are asked to quickly estimate the product of 1 x 2 x 3 x 4 x 5 x 6 x 7 x 8, they generate lower estimates than when asked to estimate the product of 8 x 7 x 6 x 5 x 4 x 3 x 2 x 1. *See* Tversky & Kahneman, *supra* note 18, at 1128. If told that they will be paid for accurate estimates, however, people would avoid the bias by taking the time to accurately do the multiplication. When the estimate is less important, one observes a computational bias in that people anchor their estimate on the product of the first few numbers. Representational biases do not share this quality; they do not dissipate with additional motivation. In other contexts, researchers have documented clear instances of representational biases costing decisionmakers thousands of dollars. For example, a well-known representational problem called the "three boxes" problem, or the "Monty Hall" problem, cost contestants on the game show "Let's Make a Deal" some $10 million in prizes over the life of the show. *See* Daniel Friedman, The Three Door Anomaly: Construction and Deconstruction, 2 n.1 (University of California, Santa Cruz, Working Paper No. 344, 1996).

61. See Fishburn & Kochenberger, *supra* note 45, at 509-11, for estimates of utility functions for gains and losses.

62. *See* Fischhoff, *supra* note 48.

B. Framing of Decisions in Litigation

Most decisions concerning the course of litigation involve risk. As a result, litigation decisions are influenced by the risk preferences of the parties, which, in turn, are determined by the character of the decision as a gain or as a loss. Predicting the behavior of litigants therefore requires an understanding of whether a party views their decision from the perspective of a gain or loss.

Settlement choices seem particularly vulnerable to framing effects. Consider the litigation setting as a rough analog to Kahneman and Tversky's public health hypothetical described earlier:

> Version 1.
> Imagine you are the plaintiff in a copyright infringement lawsuit. You are suing for the $400,000 that the defendant allegedly earned by violating the copyright. Trial is in two days and the defendant has offered to pay $200,000 as a final settlement. If you turn it down, you believe that you will face a trial where you have a 50% chance of winning a $400,000 award.
>
> Do you agree to accept the settlement?
>
> Version 2.
> Imagine you are the defendant in a copyright infringement lawsuit. You are being sued for the $400,000 that the you allegedly earned by violating the copyright. Trial is in two days and the plaintiff has offered to accept $200,000 as a final settlement. If you turn it down, you believe that you will face a trial where you have a 50% chance of losing a $400,000 award.
>
> Do you agree to pay the settlement?

As in the public health hypothetical, both versions represent economically identical outcomes. Both parties in the problem above choose between keeping $200,000 for sure and a gamble with a 50% chance of winning $400,000 or $0. The context of litigation, however, sets up the defendant as the stakeholder, making it appear that the defendant chooses among losses while the plaintiff chooses among gains.

As a simple demonstration that framing influences risk preferences in litigation, I presented this hypothetical to first-year law school students at Cornell Law School. Of the 13 students evaluating the plaintiff's perspective, 10, or 77%, chose to settle, while only 4 of the 13, or 31%, of the students evaluating the defendant's perspective

chose to settle. Despite the small sample size, the difference in settlement rates was both striking and statistically significant.[63]

Litigation appears to supply a natural frame. When deciding whether to settle a case, plaintiffs consistently choose between a sure gain by settling and the prospect of winning more at trial. This closely resembles a gains frame, although losing at trial may entail the loss of one's attorney's fees[64] and may therefore be a mixed loss/gain prospect. Conversely, defendants choose between a sure loss by settling and the prospect of losing more at trial. This is a choice made in a loss frame. Hence, cross-claims aside, litigation presents a fairly consistent frame.[65]

Aside from the frame, other factors probably affect the settlement decisions of plaintiffs and defendants differently. Defendants, accused of some wrongdoing, may have a greater interest in personal vindication of their good name than their adversaries. For their part, plaintiffs may have more interest in pursuing litigation as a means of avenging or publicizing a personal grievance. Even restricting the discussion to monetary outcomes, plaintiffs more likely consist of individuals with more limited wealth than the defendants, which are more

63. χ^2 (1) = 15.6, $p < .01$. The statistical test indicates that the variation in preferences is less than one percent likely to have occurred as a result of random variation. For a general description of the methods commonly employed in hypothetical studies in experimental law and economics, see Elizabeth Hoffman & Matthew L. Spitzer, *Experimental Law and Economics: An Introduction*, 85 COLUM. L. REV. 991 (1985).

64. This depends, of course, on the fee arrangement. If the attorney is to be paid on contingency, then the plaintiff chooses among pure gains, whereas a plaintiff paying by the hour faces a mixed loss/gain prospect.

65. To be sure, one might argue that both parties in the hypothetical choose among gains, since they are essentially dividing the profits made from the marketing materials protected by copyright. Likewise, in a case where a plaintiff sues to recover for a loss allegedly inflicted by the defendant, the parties might be said to be allocating losses among themselves—the plaintiff begins the suit "holding" the loss and prosecutes the action in hopes of passing the loss on to the defendant. Although this description may apply to some types of litigation, the frame of reference in most cases probably covaries with the role of plaintiff and defendant as described in the hypothetical because people internalize losses and gains relatively quickly. *See* Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *The Endowment Effect, Loss Aversion, and the Status Quo Bias*, J. ECON. PERSPECTIVES, Winter 1991, at 193, 194-97; Tversky & Kahneman, *Loss Aversion*, *supra* note 32, at 1041-42. Since the events that led to the litigation sometimes predate the settlement talks by years, parties have probably endowed the gains or losses by the time litigation occurs. I do not argue that litigation presents a completely fixed frame in all cases. Indeed, later I shall discuss the effect of the manipulation of frame on litigants' willingness to accept a settlement. *See infra* notes 216-32 and accompanying text.

likely to be corporate entities.[66] As a result, differences in their willingness to settle may reflect the risk preferences of the parties. Persistent differences in willingness to settle may therefore result from a variety of factors other than the framing effect, but as demonstrated in the hypothetical above and as described in the next section, empirical evidence supports the hypothesis that framing significantly influences decisionmaking in litigation.

II. EMPIRICAL EVIDENCE OF FRAMING IN LITIGATION

The data from the copyright hypothetical shows that in an abstract setting with few details, settlements are more attractive from the perspective of a plaintiff than from that of a defendant. This difference suggests that framing influences decisions in litigation, but the study is only preliminary. Earlier research on hypothetical choices (simulation studies), and two new studies presented in this Article, also support an important role for framing. Furthermore, data on actual settlement negotiations suggests that the framing phenomenon uncovered by studies of hypothetical disputes influences actual decisions, which cost real parties real money.

A. SIMULATION STUDIES

1. *Previous Research*

A recent paper by Korobkin and Guthrie on the evaluation of settlement offers supports the theory that framing influences decisionmaking in litigation.[67] The researchers created two versions of three different hypothetical litigation scenarios. Each scenario described a settlement offer, which in one version appeared as a gain to the plaintiff and in the other appeared as a loss to the plaintiff.[68] Both settlement offers were, however, economically identical and presented

66. In large classes of litigation, such as products liability and medical malpractice cases, individuals sue corporations. According to the expected utility models of litigation, corporations are risk-neutral. *See* POSNER, 4th ed., *supra* note 8, at 572. Insurers, who are also commonly on the side of the defendants, should also be risk-neutral. *See id.*

67. *See* Russell Korobkin & Chris Guthrie, *Psychological Barriers to Litigation Settlement: An Experimental Approach*, 93 MICH. L. REV. 107, 129-38 (1994).

68. For example, the first scenario depicted a plaintiff who suffered $28,000 in damages in an automobile accident. In one condition, the $28,000 consisted of $4,000 in personal injuries and $24,000 in damage to the car that the plaintiff was driving. In the second condition, the $28,000 consisted of $14,000 in personal injuries and $14,000 in damage to the car that the plaintiff was driving. In both cases, the plaintiff's medical insurance paid for the personal injuries, the plaintiff was uncompensated for the car, and the defendant was potentially liable for the total

identical legal issues. Subjects (undergraduates at Stanford University) evaluated settlement offers within these scenarios from the perspective of the plaintiff. In each scenario, the subjects who were induced to see the settlement as a gain found the settlement more attractive than the subjects who were induced to see the settlement as a loss.[69] Thus, Korobkin and Guthrie demonstrated that the frame of a settlement offer can influence its value, thereby suggesting that litigants' risk preferences depend upon the frame of the decision.

Babcock and her co-authors reported similar results in a somewhat more complicated study designed to test the effects of expectation on settlement offers.[70] In their study, subjects (consisting of undergraduate students[71] and trial attorneys) evaluated a hypothetical products liability suit from the perspective of an attorney representing either the plaintiff or the defendant. The subjects' materials stated that the defendant had already been found liable and that an upcoming trial would determine only the extent of damages.[72] Their materials also included a set of awards handed down in cases similar to the hypothetical case.[73] All sets of awards had identical means but different ranges and variances.[74] The subjects reviewed both the facts of the hypothetical and the set of previous awards, and then they stated their "reservation price" for settling the case.[75] For plaintiffs, this meant the minimum offer that they would accept in exchange for foregoing the litigated outcome.[76] For defendants, this meant the maximum offer that they would be willing to pay to avoid the litigated outcome.[77] Since the authors had fixed the mean of the possible awards, they were able to evaluate whether the parties stated risk-

damages. The scenario stated that the defendant had made a settlement offer of $21,000. *See id.* at 131-32. Hence, the offer represented either a gain of $7,000 or a loss of $3,000 to the plaintiff.

69. The researchers did not require that the subjects make a binary choice, but instead had them rate the settlement offer on a five-point scale, with five being "definitely accept the offer" and one being "definitely reject the offer." The subjects evaluating offers that represented gains rated the offers as roughly one point more attractive on average than subjects evaluating offers that represented losses. *See id.* at 137.

70. *See* Linda Babcock, Henry S. Farber, Cynthia Fobian & Eldar Shafir, *Forming Beliefs About Adjudicated Outcomes: Perceptions of Risk and Reservation Values*, 15 INT'L REV. L. & ECON. 289 (1995).

71. The undergraduate students attended either Carnegie-Mellon or Princeton Universities. *See id.* at 291.

72. *See id.* at 292-93.

73. *See id.*

74. *See id.*

75. *See id.*

76. *See id.*

77. *See id.*

averse or risk-seeking reservation prices. For plaintiffs, a reservation price below the given mean was risk-averse, while a reservation price greater than the mean was risk-seeking. For defendants, a reservation price below the mean was risk-seeking, while a reservation price above the mean was risk-averse.

The results of the Babcock study directly supported the framing hypothesis. Across all ranges and variances, the plaintiffs consistently provided risk-averse reservation prices and were willing to accept between ten percent and twenty percent less than the expected value of the litigated outcome.[78] Defendants provided reservation prices that tended to be risk-seeking, although the trend was not statistically significant.[79] Furthermore, as the variance of the outcome increased, the reservation prices of the plaintiffs decreased.[80] That is to say, as risk increased, plaintiffs were willing to pay a greater premium for a certain outcome—a finding consistent with risk-averse behavior. Defendant subjects exhibited a nonsignificant[81] trend toward increased reservation prices as variance increased—a finding consistent with risk-seeking behavior.

An earlier study by van Koppen, however, generated more ambiguous results.[82] In one condition, van Koppen had subjects[83] read a description of a dispute in a small claims court from either the perspective of a plaintiff or a defendant.[84] Subjects estimated their chances of winning at trial and provided their reservation price for settling the case.[85] Both plaintiff and defendant subjects gave risk-

78. *See id.* at 294-97.

79. *See id.*

80. *See id.* at 298-300.

81. "Non-significant" in the statistical sense of the words means that there was greater than a five percent chance that a larger sample of defendant subjects would have provided risk-neutral or risk-averse responses. However, the defendant subjects did provide a statistically significant different pattern of results from the plaintiff subjects. *See id.*

82. *See* Peter J. van Koppen, *Risk Taking in Civil Law Negotiations*, 14 LAW & HUM. BEHAV. 151 (1990).

83. The subjects consisted of undergraduate students at Leyden University, law students at Erasmus University, and a random sample of residents of Holland. *See id.* at 155-58.

84. *See id.* at 155.

85. Reservation price had the same meaning in van Koppen's study as it did in Babcock's experiment. *See supra* notes 75-77 and accompanying text. For the defendants, reservation price meant the maximum that defendant subjects were willing to pay to settle the case; for plaintiffs, this meant the least that the subjects were willing to settle the case. *See* Van Koppen, *supra* note 82, at 156. Van Koppen's evaluation of the reservation prices as risk-averse or risk-neutral also tracks the analysis in Babcock's experiment.

averse reservation prices.[86] In a second condition, van Koppen supplied the subjects with the probability of winning.[87] Under these circumstances, the plaintiffs gave risk-averse reservation prices and defendants gave risk-seeking reservation prices.[88] Van Koppen also ran duplicate versions of both conditions, but paid the subjects according to their offers.[89] Adding payments resulted in both the plaintiffs and defendants providing risk-averse responses.[90] Thus, although the data from the subjects who were evaluating the plaintiff's perspective supported the framing hypothesis in all conditions, data from the subjects evaluating the defendant's perspective who were paid or who developed their own probability estimates supported a more traditional, expected utility model.[91]

Likewise, results from an experiment done by Coursey and Stanley apparently supported an expected utility model of decisionmaking in litigation.[92] In their study, pairs of subjects (students at the University of Wyoming) played the role of either plaintiff or defendant in negotiating the division of a fixed sum of money.[93] Pairs that failed to settle entered into a winner-take-all gamble designed to simulate a litigated outcome.[94] In one condition, if the pair of subjects failed to settle, each "litigant" forfeited a portion of their payment for the study in order to initiate the gamble. In a second condition, only the ultimate loser of the gamble had to pay for initiating the gamble.[95]

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86. *See id.* at 160.

87. *See id.* at 157-58.

88. *See id.* at 160.

89. At the outset of the experiment, van Koppen paid subjects 10% of the amount said to be at stake in the litigation (100 dfl., equal to about $50). The subjects were informed that after offering their reservation price, the experimenter would announce a settlement offer that was equal to the most generous amount offered by any subject in the opposite role in a pilot study. If the subject's reservation price was lower than this amount (greater for defendants), then the experimenter would declare a settlement and pay the subject as if their reservation price had been accepted. In the event that the reservation price was greater than the amount offered (lower for defendants), a gamble equal to the probabilities of winning at trial was conducted, and the subject received either all or none of the initial payment. All payments thus mirrored the payments that would have occurred had the experiment been a real litigation, except that the costs and benefits were discounted to 10% of the amount said to be at stake. *See id.* at 156-57.

90. *See id.* at 160-62.

91. *See id.*

92. *See* Don L. Coursey & Linda R. Stanley, *Pretrial Bargaining Behavior Within the Shadow of the Law: Theory and Experimental Evidence*, 8 INT'L REV. L. & ECON. 161 (1988).

93. *See id.* at 167.

94. *See id.* at 168-69.

95. *See id.* The study was designed to compare a loser-pays system of litigation to the more conventional system in which parties pay their own litigation expenses.

More pairs settled under the second system.[96] Since the gamble in the second study was riskier than in the first, the authors concluded that risk-aversion made the gamble less attractive. Thus, the results appeared to support an expected utility model—parties made risk-averse choices regardless of their roles as either plaintiff or defendant.

The findings from Coursey and Stanley and van Koppen do not, however, really undermine the framing theory. In both studies, all subjects concluded the study with positive returns regardless of their role as either plaintiff or defendant, because the researchers endowed the subjects with an initial stake. Thus, in Coursey and Stanley's study, rather than plaintiffs negotiating for gains and defendants negotiating for losses, subjects in both roles divided gains. Thus, according to either an expected utility model of decisionmaking or one that incorporates the framing effect, the subjects should have been more likely to settle under the second, higher variance condition. Similarly, van Koppen's defendant subjects based their reservation prices on potential gains, not on possible losses. Although van Koppen worried about the impact this might have on framing and took steps to encourage the subjects to think of the money as theirs,[97] the defendant subjects ultimately left the experiment with more money than they started with, and may simply have viewed the gamble as a gain. Thus, in both studies the cash incentives failed to track the frame of the hypothetical litigation decision and therefore cannot be said to refute the framing theory.[98]

This explanation, however, cannot account for van Koppen's finding that defendant subjects provided risk-averse reservation prices when they generated their own estimates of the probability of winning. Possibly, these subjects expressed risk-seeking proclivities in the process of making their probability estimates. To the extent that these subjects overestimated their chances of winning, their settlement offers would look comparatively risk-averse.[99] Although this theory is

96. *See id.* at 170-71.

97. Van Koppen asked his subject to count the number of bills "to give them the feel of the money." Van Koppen, *supra* note 82, at 157.

98. Holding aside the explanation provided in the text, the studies are inconsistent with earlier work that demonstrates that cash payments do not alter the influence of frame on decisionmaking. *See supra* notes 56-61 and accompanying text.

99. Consider the following example: Suppose the defendant subjects faced a trial with a 50% chance of losing stakes of $1,000. A risk-seeking proclivity can take the form of an expressed estimate of the chances of winning, so that the subject states that she actually has a 70% chance of winning. When asked to generate a reservation price, however, she states that she is willing to pay up to $400 to settle the case. Overall, the reservation price is still risk-seeking

only conjecture and would require more data to be conclusive, it would explain the anomaly in van Koppen's work that similar subjects faced with fixed-probability estimates produced risk-seeking reservation prices.

The previous research on the framing of settlement choices in litigation is somewhat ambiguous, but generally supports the conclusion that settlements viewed as gains are more attractive than settlements viewed as losses. The usual method by which the decision frame varies in litigation is the role of the parties as plaintiff or defendant (or more generally, as nonstakeholder or stakeholder). Thus, a clear demonstration that the role of the party taps into the framing problem would link the previous research with a more general theory of risk preferences in litigation. The abstract copyright hypothetical supplies some supporting data, but it lacks sufficient detail to be truly persuasive.

2. *Study One*

a. *Methods*: To provide this demonstration, subjects (undergraduates at Stanford University) evaluated the merits of a risk-neutral settlement offer in a factually richer hypothetical. In the hypothetical, the plaintiff, a wealthy Silicon Valley executive who owned vacation property in Oregon, sued the bed and breakfast inn adjacent to that property. On a recent vacation, the plaintiff discovered that the neighboring inn had been expanded onto a corner of his property. After efforts to contact the owners failed, the plaintiff filed a lawsuit seeking an injunction ordering the defendant to remove the encroachment. At trial a judge would either issue an injunction with some probability or would order the plaintiff to sell the land to the defendant for its true value ($50). If the court issued an injunction, the defendant would offer to purchase the property for a fixed amount that the plaintiff would be willing to accept ($100,000). Thus, the trial represented a gamble in which the plaintiff stood to win $100,000 or

relative to the objective value of the case. However, the reservation price is risk-averse relative to her estimate of her chances of winning. Determining whether this price is risk-seeking or risk-averse depends upon whether one uses the actual probability of winning (which would suggest that any reservation price below $500 is risk-seeking) or the subject's own, conflated estimate of her chances (which would suggest that any reservation price above $300 is risk-averse). *See* George Loewenstein, Samuel Issacharoff, Colin Camerer & Linda Babcock, *Self-Serving Assessments of Fairness and Pretrial Bargaining*, 22 J. LEGAL STUD. 135 (1993) (documenting overconfidence in evaluation of litigation prospects). As noted, van Koppen used the subjects' estimates of their probability of winning in his evaluation of the subjects' risk preferences. *See* Van Koppen, *supra* note 82, at 160-62.

$50. In each version of the case, the questionnaire stated that a partner in the law firm knew the judge personally, and the partner predicted the outcome with a specific probability which varied in different conditions. Attorney's fees were not mentioned in the questionnaire.[100]

Eight different versions of the materials filled the eight cells of the factorial design. The facts of each version were identical except that they were described from the perspective of either the plaintiff or the defendant. In each of these two perspectives, the plaintiff had either a 70% chance of winning $100,000, a 30% chance of winning $100,000, a 70% chance of winning $200,000, or a 30% chance of winning $200,000. In these four versions, the settlement offers were $70,000, $30,000, $140,000, and $60,000, respectively. All probabilities were given as the chance that the plaintiff would prevail at trial, even in the defendant's materials. Consequently, the comparison of the settlement rates between the plaintiff and defendant subjects within a probability level required comparing the settlement rate for the plaintiff subjects at that probability level with the rate for defendant subjects at the other level. For example, plaintiff subjects who had a 30% chance of a plaintiff's verdict were analyzed with defendant subjects who had a 70% chance of a plaintiff's verdict (and thus had a 30% chance of winning the case themselves).

The top of each questionnaire listed the name of the case followed by a description of the facts. The first line of the facts asked the subject to "imagine that you are an attorney . . . ." The text that followed varied little between the plaintiff's and defendant's versions. The final lines in the materials stated, "It is one day before trial. The plaintiff/defendant has contacted you and informed you that he will be willing to settle for $X. The plaintiff/defendant proposes this as a non-negotiable, final offer."[101]

b. *Results*: The results are described in Table 1. Overall, 81.3% of the subjects who evaluated the case from the perspective of plaintiff

100. The full text of the hypothetical is included *infra* as Appendix A.

101. One separate version of this questionnaire was run in which the subjects were given an open-ended question rather than the dichotomous choice of accepting or rejecting a fixed award. This version requested either the maximum (for defendants) or the minimum (for plaintiffs) amount that they would be willing to tolerate as a settlement. Due to the high rate of missing data and the erratic responses from subjects who answered the question, this study was dropped from the analysis. Another different scenario using a copyright dispute was also run, but it failed to generate consistent or predictable results either supporting or refuting the framing effect.

chose to accept the settlement while only 45.5% of the defendant subjects did so. At each combination of probability and stakes, the plaintiff subjects preferred settlement relative to the defendant subjects. Only one condition failed to produce a statistically significant difference—$100,000 stakes and a 30% chance of winning. But the trend in this condition, which approached significance, suggests that plaintiffs preferred settlement to their defendant counterparts. When subjects had a 30% chance of prevailing at trial, 79.2% of the plaintiff subjects accepted the settlement as compared to 51.7% of the defendant subjects. At the 70% level, 83.6% of the plaintiff subjects chose to settle as compared to 38.2% of defendant subjects.

TABLE 1: SETTLEMENT RATE OF PLAINTIFF AND DEFENDANT SUBJECTS BY CONDITION

Stakes	Prob. of Winning	% of πs Settling	% of Δs Settling	Sample Size (πs)	Sample Size (Δs)	χ^2 Statistic	p-value
$100k	.30	84.0	69.8	44	53	2.7	$p \simeq .10$
$100k	.70	76.3	25.0	38	44	25.6	$p < .001$
$200k	.30	72.7	25.0	33	36	15.7	$p < .001$
$200k	.70	93.1	56.3	29	32	10.7	$p < .01$
Combined Stakes	.30	79.2	51.7	77	89	13.7	$p < .001$
	.70	83.6	38.2	67	76	30.6	$p < .001$
Overall		81.3	45.5	144	165	41.8	$p < .001$

The data support the hypothesis that subjects reviewing a case from the plaintiff's perspective settle more readily than do subjects reviewing that case from the defendant's perspective. At every level of probability and stakes, a higher percentage of plaintiff subjects than defendant subjects accepted the settlement offer. Across all conditions, plaintiff subjects were thirty-six percentage points more likely to settle. The vast majority of the plaintiff subjects accepted the offer while less than half of the defendant subjects accepted. Plaintiff subjects' greater tendency to accept risk-neutral settlement offers suggests that they were more risk-averse than defendant subjects.

The effect was apparent at the high and low stakes and at both levels of probability. When the subjects faced a 30% chance of winning at trial, 79.2% of the plaintiffs accepted the offer whereas only 51.7% of the defendant subjects did so. When winning was 70% likely, the plaintiff subjects settled at a rate of 83.6%, whereas defendant subjects settled at a rate of only 38.2%. Furthermore, within each

level of probability, plaintiff subjects at both high and low stakes settled more often than their defendant counterparts. Although this effect was marginal at the 30% level in the $100,000 stakes, where settlement rates differed by only fifteen percentage points, the trend supported the hypothesis. In the other three cells, the effect was quite potent and ran as high as an approximate fifty percentage-point difference in two of the cells.

c. *Discussion*: The fact that the difference in settlement rates occurred in all four combinations of probability and award size suggests that it cannot be explained by any unique reaction to these variables. In theory, the tendency to accept or reject the awards could have been driven by over-weighing or under-weighing the probability of winning.[102] However, for this phenomenon to explain these data, this bias would have to have affected the plaintiff subjects differently than the defendant subjects, and would have to have occurred in an identical fashion at both levels of probability. This seems somewhat unlikely.

Similarly, the settlement offers at any one level could have seemed unfairly high or low to the subjects. Rejecting or accepting an offer might simply have reflected the subjects' estimated value of the case, rather than their risk preferences. Such an explanation, however, could not account for these data because the effect occurred at two different award levels. The tendency in all four cells of this study for plaintiff subjects to accept the offers more frequently than defendant subjects indicates that the explanation for the effect lies in some feature of being a plaintiff or defendant rather than in a reaction to a probability or award size.

When defendant and plaintiff subjects are considered separately, it becomes clear that the results differ in terms of their conformity to predictions. The overall settlement rate for defendant subjects was

102. Tversky and Kahneman's prospect theory explicitly allows for the possibility that people will treat probability estimates in an extremely subjective fashion. They report that people typically over-weigh low probability events—behaving as if such events are more likely to occur than is actually probable, and under-weigh moderate to high probability events—behaving as if such events were less likely to occur than is actually probable. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 344-46; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 275-77; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S262-S270; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 455-56. This effect occurs even when people agree and have been provided with specific and definite probability estimates. The effect occurs independently from an individual's risk preferences. *See id.* For a complete review of this phenomenon, see Tversky & Kahneman, *Cumulative Representation of Uncertainty*, *supra* note 32.

45.5%, meaning that as a class they neither consistently rejected nor consistently accepted the risk-neutral settlement offer. If they were truly risk-seeking, the dominant response should have been to litigate. By contrast, the plaintiff subjects, as predicted, exhibited an overwhelming tendency to accept the offer, which fully supports the theory that they were risk-averse.

This pattern of results may reflect some consideration of trial expenses. If some of the defendant subjects considered the cost of attorney's fees to their hypothetical clients, then even an ambivalent reaction to the settlement offers would reflect some risk-seeking. The sure cost of further attorney's fees for more litigation makes the decision to reject the settlement offer a relatively risk-seeking choice. Conversely, the consideration of attorney's fees augmented the reluctance of the already risk-averse plaintiff subjects to gamble on a trial. In any case, the higher settlement rate among plaintiffs as compared to defendants shows that whatever the underlying preference structure may be, plaintiff subjects in this study were more risk-averse than their defendant counterparts.

The hypothetical used for this study fails to untangle the distinct interests of attorney and client. That is, attorneys usually have different incentives from their clients, depending upon the fee structure. By withholding all information on both the fee arrangements and the costs of litigation, the materials seemed to allow the subjects to identify with the clients and view the case from their perspective. None of the many open-ended comments made by the subjects reflected any interest in the attorney's fees. Also, the pattern of results does not appear to track the likely impact of fee arrangements. Plaintiff subjects did not find trial more attractive as stakes went up, as they might if they were being paid on a contingency basis.[103] Also, if they focused only on fees, it is not clear why defendant subjects would be affected either by the probability of winning or by the stakes.[104] However, both had an impact on defendant subjects.

103. As stakes at trial rise, the expected fee under a contingent fee arrangement also rises. Hence, the trial would be more attractive in the higher stakes condition. Rather, they found it more attractive when the probability of winning was low and less attractive when the probability of winning was high.

104. Under an hourly rate schedule, defense attorneys would collect the same fee, regardless of the change in stakes.

Thus, in sum these data clearly demonstrate that the role of plaintiff or defendant in litigation influences the attractiveness of a settlement offer in a way that is consistent with the framing theory. Plaintiffs prefer sure, riskless settlement more than defendants.

3. *Study Two*

a. *Methods*: Does framing influence litigation decisions other than settlement? To answer this question, law students in a first-year civil procedure course at Cornell Law School evaluated a litigation strategy from either the perspective of gains or from that of losses.

The materials for this study presented a detailed description of litigation modeled after a recent case.[105] The description asked the subjects to suppose that they were working for a large, prestigious law firm in the Pacific Northwest. It advised them that they were representing a pharmaceuticals manufacturer in a products liability case with the following facts. A young child had suffered severe side effects from being treated for asthma with one of the manufacturer's drugs. The child had been suffering from a viral infection at the time of the treatment, which interacted badly with the drug leaving the child with permanent brain damage. The child's parents filed suit on her behalf against the manufacturer and the pediatrician who had prescribed the drug. The pediatrician also sued the manufacturer. As a defense, the manufacturer claimed that it was unaware of the drug's side effects. During discovery the pediatrician requested a broad array of documents from the manufacturer,[106] but the manufacturer provided only a limited set of files, arguing that the request was overbroad. In preparation for a summary judgment motion, several incriminating documents surfaced in a different set of files that were not produced to either plaintiff. The manufacturer's in-house counsel proposed a highly technical argument for continuing to withhold them.[107] The law firm ultimately rejected these arguments and persuaded the client to produce the documents to the pediatrician. Because the child's parents had not served document requests that encompassed the incriminating documents, the manufacturer and the

105. The case was *Washington State Physicians Insurance Exchange & Ass'n v. Fisons Corp.*, 858 P.2d 1054 (Wash. 1993).

106. The facts state that the suit was filed in a federal district court in Washington State that had opted out of the mandatory disclosure requirements of FED. R. CIV. P. 26.

107. As part of a class exercise, the materials asked the students to decide whether, under these circumstances, they would withhold the documents or not. Only four of the forty-seven students presented with the hypothetical agreed to withhold the documents. The frame of the litigation for this decision was not manipulated.

law firm both agreed that they need not be produced to the child's parents. The firm believed, however, that the parents would eventually receive copies of the incriminating documents from the pediatrician. Finally, the materials stated that the parents had recently offered to settle the case for $3 million. The in-house counsel wanted to accept the settlement.

The materials then posed this dilemma to the subjects: Do you accept the parent's settlement offer immediately or wait until the dust settles from the disclosure of the damaging documents? The materials described the consequences of each choice. If the subject accepted the offer immediately, there was some (unstated) chance that the litigation with the parents would conclude. The parents might not receive a copy of the documents, or if they did receive them, they may not care. Even if they did care, however, they may not be able to alter the settlement in any significant way. The materials left the matter of the parents' recourse ambiguous,[108] but stated that reopening the litigation was possible. The materials said that if the case reopened, the litigation would probably become much more expensive than had the subject merely waited to settle until after the documents had been disclosed. The materials indicated that if the subject accepted the settlement before the parents learned of the documents, the court might sanction the client, the firm, or both. Settling before the parents had a chance to find out about the documents, therefore, was a risky and somewhat deceitful choice.[109] The materials stated that if the subject waited until after the documents were revealed, the parents would still have been likely to settle, although they would probably have demanded at least $5 million. The option to wait avoided the risk of judicial sanctions, however, and avoided provoking the parents into an even costlier litigation strategy. The materials thus presented a choice between a relatively risky option and a more certain option.[110]

108. The materials strongly suggested that the settlement could be reopened if the court discovers the heretofore undisclosed documents. Under ordinary circumstances the settlement would end the case, but because the plaintiff was a minor, a judge had to approve the settlement and could reopen the litigation. *See, e.g.*, Spaulding v. Zimmerman, 116 N.W.2d 704 (Minn. 1962).

109. So long as the parents did not file a document request that covered the documents in question, the attorney could not be sanctioned for failing to disclose the documents to them. *See* MODEL CODE OF PROFESSIONAL RESPONSIBILITY DR 4-101 (1980); MODEL RULES OF PROFESSIONAL CONDUCT Rule 1.6 (1995); Deborah L. Rhode, *The Future of the Legal Profession: Institutionalizing Ethics*, 44 CASE W. RES. L. REV. 665, 673 (1994). The students in this study were in their first month of law school and were unlikely to be aware of this rule.

110. Settling right away has the following possible outcome: Either the $3 million settlement will be paid and no more, or the settlement will increase corresponding to the degree of damage

In one condition, representing the gains frame, the materials stated that the in-house counsel for the manufacturer believed that the litigation with the child's parents had been "going well" and that she had originally expected to pay $5 million. In the second condition, representing the loss frame, the materials stated that the in-house counsel for the manufacturer believed that the litigation with the child's parents had been "going badly" and that she had originally expected to pay only $1 million as a result of the suit.

The materials asked a single question of the subjects: "Do you settle with the parents by accepting their $3 million offer before you produce the documents?" The materials allowed for only a yes or no response, although they included space for open-ended comments.

b. *Results and Discussion*: Of the twenty-seven students evaluating the question in the gains frame, five chose to settle before disclosing the documents (12.5%), whereas nine of the twenty (45%) subjects evaluating the question in the loss frame chose to settle before disclosing the documents. This difference in preferences between the two conditions was statistically significant.[111]

These data clearly support the hypothesis that a litigant's frame influences decisionmaking. Far more of the subjects evaluating the loss frame opted for the riskier course of action. Not only was the option of settling immediately riskier, but subjects also surely recognized its unscrupulous nature. Whether this strategy rose to the level of a violation of the ethics rules of the jurisdiction was a question that was obviously beyond the knowledge of students in their first few weeks of law school, but settling before a party can find out unpleasant facts about one's case smacks of impropriety and unfairness. It is striking that this option became so much more attractive with a relatively trivial manipulation of the background facts—a change in the client's attitude towards the case.[112] These data strongly suggest that

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the incriminating documents do to the defendant's case, plus some sanction and additional amount to incorporate the anger of the parents at the defendant's attempt to defraud them. Settling later will likely result in a settlement greater than the $3 million by some amount that corresponds to the degree of damage done by the incriminating documents. Thus, settling right away entails much more varied outcomes than does settling later, thereby making it the riskier option.

111. χ^2 (1) = 3.85, $p < .05$. Excluding the four students that expressed a preference for withholding the documents, three of the twenty-four (12.5%) students in the gains frame chose to settle immediately, as opposed to eight of nineteen (42.1%) students in the loss frame. This difference is also substantially significant. χ^2 (1) = 4.88, $p < .05$.

112. Out of five pages of materials, only one word and one number varied between the two conditions.

risk-taking in litigation, even in the form of sacrificing one's ethical principles, can be prompted easily by casting a lawsuit as involving unanticipated losses.

The frame changed the nature of the subject's choice. The subjects were told that the manufacturer expected the lawsuit to cost as much as $5 million. The decision to settle later meant sacrificing the $2 million savings that the firm had earned through successful litigation ($5 million budgeted minus the $3 million initial settlement offer), but it avoided any chance of losing more than the $5 million litigation budget. This prospect was sufficiently adverse that it drove nearly all of the gains subjects to avoid it. Although settling later essentially sacrificed $2 million of gains, it avoided the prospect of several additional losses—settlements greater than $5 million that might result from wrathful parents, judicial sanctions for fraudulent settlement negotiations, and a potential loss of reputation.

By contrast, subjects in the loss frame chose among two bad outcomes, both involving the possibility of some loss. In this condition, the settlement talks were already $2 million worse than the client had anticipated, and the more probable outcome of settling later would result in even greater losses. Settling immediately risked the additional adverse outcomes also faced by the gains subjects, but this option also held out the possibility of capping losses at $3 million. From the perspective of the subjects who were not actively involved in any decision before the choice in the hypothetical, the fact that the case was already "over budget" could not have been their fault. But further increases in liability would be attributable to them. Hence the "loss" subjects essentially chose between taking a sure loss of at least $2 million by settling later and the risky option of settling immediately, which involved a chance of losing nothing further and a chance of a worse outcome than the sure loss of at least $2 million. Because it included the prospect of losing nothing, the riskier option became more attractive to subjects in the loss frame, thereby leading more of them to endorse it.

This study also provides some insights into why the decision frame changes risk preferences. The subjects seemed particularly sensitive to avoiding any losses. From the perspective of the gains subjects, any settlement less than the client's $5 million litigation budget was a gain and any settlement greater than the budget was a loss. Only by settling immediately did these subjects risk incurring a loss; settling later avoided this possibility because the later settlement

amount would not exceed the $5 million litigation budget. The subjects' nearly unanimous endorsement for settling later suggests that the potential loss is so aversive that they would sacrifice any potential gain to avoid it. The allure of losing nothing also made the riskier outcome attractive to the subjects in the loss frame. For these subjects, every additional dollar the client had to pay was a further loss. The only way to minimize this loss was to gamble on settling immediately and hope that the $3 million settlement stuck. The possibility of retaining the status quo was so compelling that the gamble became attractive.

4. *General Discussion of Simulation Studies*

The studies presented here, along with the previous research, demonstrate that framing alters the risk preferences of litigants. People facing potential losses from litigation made riskier choices than people facing potential gains. The research also documents two factors that determine frame: the role of stakeholder and expectations.

First, and perhaps most significantly for the economics of litigation, the role of the stakeholder in the litigation is a significant element in determining a litigation's frame. In the studies, subjects evaluating options from the perspective of a defendant protecting his assets preferred riskier options than subjects evaluating options from the perspective of the plaintiff trying to add to her own wealth.[113]

The role of stakeholder is significant in that it naturally sets the status quo. People value an initial change from the status quo more heavily than like increases or deceases in the amount of change from the status quo.[114] Thus, defendants value the prospect of losing nothing. This leads the subjects in the role of defendants to reject settlement offers, preferring to gamble on trial. In fact, Babcock's study shows that riskier trials are even more attractive to defendants. In these studies, defendants consistently played the role of stakeholder,

113. These roles generally co-vary with stakeholder in that defendants are usually the stakeholder while plaintiffs are not. Obviously, these roles can vary depending upon the nature of the litigation. More complex forms and problems of the general frame of litigation are discussed later. *See infra* notes 223-32 and accompanying text.

114. *See* Kahneman et al., *supra* note 65, at 197-99; Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 342; Kahneman & Tversky, *Prospect Theory*, *supra* note 20, at 279; Tversky & Kahneman, *Rational Choice*, *supra* note 20, at S259; Tversky & Kahneman, *The Psychology of Choice*, *supra* note 20, at 454. It is worth noting that although this status quo preference may explain why people react differently to gains and losses, the preference itself remains unexplained in the literature. Much of this work remains in the descriptive phase, and deeper theoretical explanations remain unavailable at present.

and this role induced risky behavior. The role of plaintiff induced the opposite strategy. Plaintiffs value any positive change in the status quo, which leads to consistently risk-averse strategies. Relative to their defendant counterparts, subjects evaluating the plaintiff's role consistently rejected risk. They generally preferred the sure gains of settlement to the riskier outcome of trial and would accept lower settlements in the face of riskier trials.

For stakeholders in a litigation, usually the defendants, the initial prospect of losing has some value that they will not sacrifice easily. They fight the notion that the litigation requires that they lose something at all. As one defendant expressed, "they can take my first nickel when they pry it from my cold, dead fingers."[115] This refusal to part with the goal of emerging from litigation unscathed appeals to defendants, and they are willing to pay for it. Conversely, the nonstakeholders, usually the plaintiffs, value coming out ahead in litigation. They avoid those options that include gaining nothing in favor of options that ensure them some advancement.

Second, these studies demonstrate the influence of prior expectations on risk preferences. Although the natural frame of litigation seems to be that plaintiffs choose among gains, and defendants among losses, there is clearly more to the story than that. The role of plaintiff or defendant, or even of stakeholder or nonstakeholder, does not completely determine one's risk preferences in all aspects of the litigation. As Korobkin and Guthrie demonstrated,[116] sometimes the characteristics of the litigation can make a settlement look like a loss to a plaintiff. Prior expectations can induce risk-seeking settlement choices even in a plaintiff. Study Two, presented here, demonstrates that a defendant's frame can be affected as well. Defendants preferred riskier litigation strategies as a result of the expectations of the client.

This description of litigation, and the findings in this study that support it, are consistent with findings of behavioral decision theory, but wholly inconsistent with expected utility theory. Expected utility theory has no role for frame and expectations. Expected utility theory does not provide any reason to believe that risk preferences change based on one's position as a stakeholder or a nonstakeholder, or as plaintiff or defendant. Yet, several studies demonstrate precisely this

115. T.J. Rodgers, Anatomy of a Lawsuit (1995) (unpublished manuscript, on file with the author).

116. Korobkin & Guthrie, *supra* note 67, at 130-38.

effect. Additionally, according to expected utility theory, the client's expectations in Study Two should have had no effect on the preferred strategy. The choices had the same economic implications regardless of an artificial litigation budget. Likewise, the initial expectations created by Korobkin and Guthrie do not change the economic implications of the decision to settle, yet they mattered a great deal. By contrast, all of these findings were predicted by and are consistent with Tversky and Kahneman's prospect theory. Thus, these data support the idea that behavioral decision theory generally—and prospect theory more specifically—provide a more comprehensive and accurate portrait of a litigant's behavior than expected utility theory.

These studies demonstrate the influence of framing in hypothetical situations, but does framing affect decisions in actual litigation? Simulations obviously differ from the real world, for the subjects do not actually gain or lose.[117] Furthermore, even if framing affects real decisions, perhaps litigants *reframe* their decisions, such that the basic theory that defendants confront losses while plaintiffs confront gains simply does not apply. This possibility is discussed in greater detail later.[118] Also, other influences on litigation, such as wealth effects and a desire for justice or process, may overwhelm framing and reduce its impact to a marginal one. Finally, perhaps some other aspect of real litigation immunizes it from framing effects in some heretofore unknown way.

Numerous responses may be made to these possibilities. Previous research demonstrates that monetary incentives do not dissipate framing effects.[119] In fact, in some studies, adding cash payments to controlled laboratory gambles *increases* the size of the framing effect.[120] This is consistent with the theory that framing poses a representational, rather than a computational problem. Subjects in a loss frame really believe that a risky option is a better choice, and thus,

117. Van Koppen, *supra* note 82, and Coursey & Stanley, *supra* note 92, did pay their subjects an amount that depended upon the subjects' choices, but as discussed, *supra* notes 57-61 and accompanying text, adding monetary payments caused methodological problems for these studies, making their interpretation difficult. The payment in these studies was also not comparable to the amounts at stake in a lawsuit. Coursey and Stanley paid their subjects between zero and four dollars for their participation, *see* Coursey & Stanley, *supra* note 92, at 167, and van Koppen paid his subjects 10% of the amount at stake in a hypothetical action in small claims court, *see* van Koppen, *supra* note 82, at 157.

118. Types of litigation where framing differs from the basic model dramatically are discussed *infra* notes 223-32 and accompanying text.

119. *See supra* notes 56-61 and accompanying text.

120. *See, e.g.*, Grether & Plott, *supra* note 58, at 632.

when cash incentives are added, subjects are even more likely to prefer the risky choice. Also, several field studies demonstrate that framing occurs in actual decisions with real consequences.[121] Although neither the field work nor the controlled experiments with cash payments involves litigation decisions, each refutes the notion that framing is merely an illusory product of simulation methodology.

The theory that litigants recast their decisions so as to avoid the costly impact of framing presents a stronger case. Little is known about reframing a decision. The sheer duration of litigation virtually ensures that the parties will have an opportunity to view the costs and benefits of litigation differently over time. Indeed, the theory that plaintiffs face potential gains requires that the plaintiffs have "endowed" the loss that gave rise to the suit that they have commenced. For example, imagine a plaintiff injured in a car accident suing to obtain compensation for out-of-pocket medical expenses and lost wages from a negligent defendant. By filing suit, the plaintiff attempts to reallocate a loss to the defendant, and hence the plaintiff might be making choices in the domain of losses.[122] Over time, however, the loss becomes part of the plaintiff's "endowment"; it becomes the status quo. Upon filing the suit, the plaintiff is attempting to gain relative to her status quo. Thus, the basic theory of this Article presupposes that the plaintiff has recast a loss as a gain. Litigation presents sufficient motive to reframe decisions as well, because risk-seeking choices are costly.[123] Litigation also has an active agent to facilitate a change in frame—the attorney. Attorneys may mitigate the costly consequence of framing by reconstructing the litigation for the client.[124] Despite motive, opportunity, and assistance, reframing may be difficult and a litigant may spend a great deal of time and money before being able to see the case from a different perspective.[125] But it is certainly possible that passive intermediaries, such as time, and active intermediaries, such as attorneys, can recast litigation

121. *See supra* note 51.

122. Subjects in some of the conditions in Korobkin and Guthrie's study evaluated settlements from the perspective of plaintiffs choosing among losses. *See* Korobkin & Guthrie, *supra* note 67, at 131-36.

123. *See supra* note 39.

124. This possibility is discussed in detail *infra* notes 216-22.

125. *See, e.g.*, Friedman, *supra* note 60. Note also that even subjects exposed to a problem from two different frames prefer risk-averse choices in the gains version and risk-seeking choices in the loss version. *See* Kahneman & Tversky, *Choices, Values, and Frames*, *supra* note 20, at 343.

in the most sensible light for the litigants, thereby mitigating framing's influence.

Numerous other factors not captured by the simulations, such as wealth and a desire for process and justice, might overwhelm framing effects.[126] In other contexts, the tendency to make risk-averse choices when facing losses and risk-seeking choices when facing gains is large. Field studies describing decisions of managers and consumers demonstrate that framing exerts an influence over choices that, according to expected utility theory, should be ruled by wealth effects.[127] A taste for justice or having one's day in court[128] may lead parties to litigate even when monetary considerations do not justify it. This tendency might also mask otherwise risk-averse litigation decisions by plaintiffs and mimic risk-seeking settlement decisions by defendants.[129] As a class, plaintiffs may not differ very much from defendants in their desire for justice or process, although one could generate support for a theory that either group prefers adjudicated outcomes.

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126. One recent paper has proposed that one aspect of framing not discussed in this Article—the tendency to treat losses as more significant than gains, also known as loss aversion—may be explained by differences in the elasticity of demand for unique goods. *See* Daniel S. Levy & David Friedman, *The Revenge of the Redwoods? Reconsidering Property Rights and The Economic Allocation of Natural Resources*, 61 U. CHI. L. REV. 493, 506-15 (1994). Whatever the relevance of this work to prospect theory, this theory does not address the difference in risk preferences for gains and losses.

127. *See supra* note 51.

128. A preference for an adjudicated outcome, however, should not be confused with reputational effects, meaning a party's concern with the impact of the litigation beyond the scope of the immediate case. Reputational effects can mean anything from a doctor's concern that an adverse outcome in a malpractice case may harm the doctor's practice to a manufacturer's fear that an adverse outcome of a products liability suit will bring further lawsuits. *See* Cooter & Rubinfeld, *supra* note 1, at 1073-74. These effects certainly change the decisionmaking process and make interpretation of a single set of outcomes more problematic. In and of themselves, however, they do not change the features of litigation that are essential to the framing theory. Even accounting for reputation, a litigated outcome is still riskier than a settlement. Consider the doctor's case. While it is true that a settlement may suggest that the doctor has committed some form of malpractice, the settled outcome is still much less damaging than a judgment by a neutral jury indicating that the doctor has committed malpractice. The financial stakes may not matter to the doctor. If, however, the doctor chooses to fully litigate a case, she incurs the risk of losing a great deal more than the original settlement offer in the hope of receiving a favorable verdict. Likewise, the manufacturer hoping to avoid future litigation must surely be aware that nothing attracts potential plaintiffs more than a large, public jury award. The manufacturer who chooses to litigate makes a riskier choice. Reputational consequences raise the stakes but do not alter the basic analysis of risk preferences in the litigation.

129. *See, e.g.*, E. ALLAN LIND & TOM R. TYLER, THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE 83-92 (1988). Other litigation decisions are likely to be unaffected, except that one might observe a greater level of spending on litigation preparation and process in an individual who wants a full adjudication.

In sum, although the data from the hypotheticals support the theory that framing alters litigant's risk preferences, other considerations suggest that the effect might not influence actual litigation. Empirical studies of actual litigants are necessary to buttress the findings from the simulation research.

B. Risk Preferences in Actual Settlement Negotiations

1. *Previous Research*

Few studies that reveal the risk preferences of actual litigants exist. Settlement choices present perhaps the most accessible source of information related to risk preferences, because data on the outcome of cases are widely available,[130] and data on settlements are also, to a lesser extent, accessible.[131] However, in order to estimate litigants' risk preferences, both the settlement offers and the trial outcome from a case are necessary. Settlements alone do not reveal the expected value of the suit, and without settlement offers, the outcome at trial reveals little about the litigant's preferences.

Fortunately, databases containing both settlement offers and trial outcomes are available. Gross and Syverud recently published a study analyzing unsuccessful settlement talks.[132] The authors collected data from *Jury Verdicts Weekly*, a journal that publishes the results of jury verdicts in California.[133] This journal also reports the results of pre-

130. Several databases are publicly available on the world wide web. *See* Theodore Eisenberg & Kevin M. Clermont, *Judicial Statistical Inquiry Form* (visited Jan. 11, 1997) <http://www.teddy.law.cornell.edu:8090/questata.htm> (containing termination data on every suit filed in federal court for the past twenty-five years, along with software to analyze it); *The Inter-university Consortium for Political and Social Research (ICPSR) Homepage* (visited Jan. 11, 1997) <http://www. icpsr.umich.edu/> (containing files with jury verdicts data from California and Cook County, Illinois). WESTLAW and LEXIS also include jury verdicts databases. *See* Verdct library *available in* LEXIS; JV-LRP, JV-CA, and JV-NW databases *available in* WESTLAW.

131. For example, the *National Law Journal Verdict & Settlement Review* and the *Class Action Reports* are two journals that report settlement information.

132. Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 Mich. L. Rev. 319 (1991).

133. *Jury Verdicts Weekly* collects its information by employing individuals who check with local courts each day to determine whether any jury verdicts have been entered. They then summarize each case and poll the attorneys involved to collect additional information. The journal purports to collect data from 90% of the jury trials in California. *See id.* at 332. Gross and Syverud verified the accuracy of the reported information by conducting telephone interviews with the attorneys involved in some of the cases. *See id.* at 332. They concluded that the information contained in the journal is reliable and found no systematic bias among the errors by either plaintiff or defendant to misreport the winning party, the size of the award, or the settlement offers. *See id.* at 389-90.

trial settlement talks. The authors compared the final settlement offers of the defendants to the results at trial and divided the data into several classes of litigation: personal injury, vehicular negligence, medical malpractice, commercial transactions, employment, and real estate. In every category in which an inference can be made, the expected trial award exceeded the average final settlement offer made by the defendants.[134]

This result supports the framing theory. If defendants are engaged in risk-seeking litigation strategies, then they should be somewhat reluctant to settle and should make settlement offers that are lower than the expected value at trial. Gross and Syverud's data shows that real defendants, like their analogs in the paper and pencil hypotheticals, seem to prefer a litigated outcome to a settlement.

Expected utility theory could explain these data, however, if the plaintiffs in the data tended to be less wealthy than the defendants. If this were the case, the defendants may have made low offers believing their adversaries to be risk-averse and therefore more inclined to settle. The defendants in these cases may simply have overestimated the risk aversion of the plaintiffs. Because many of the cases in the study are the types of disputes in which risk-averse individuals sue risk-neutral corporate litigants,[135] the data may support expected utility theory just as much as it supports framing theory. However, even in commercial disputes, which presumably involve risk-neutral parties, the settlement offers were lower than expected utility theory predicts.[136] In fact, in commercial disputes, Gross and Syverud describe plaintiffs' settlement demands as "measly"[137] and note that "defendants frequently refuse to offer anything."[138] Thus, these data are difficult to reconcile with expected utility theory, but correspond exactly with the model presented in this Article.

2. *Study Three*

The third study in this Article analyzes data similar to that used by Gross and Syverud to test the theory that framing influences the settlement strategies of litigants in actual cases in a way that more

134. *See id.* at 354 (personal injury), 357 (vehicular negligence), 369 (commercial transactions), 374-75 (employment). Gross and Syverud do not report their data in a way that allows an analysis of the expected value of medical malpractice and real estate cases.

135. *See supra* note 66.

136. Gross & Syverud, *supra* note 132, at 369.

137. *Id.*

138. *Id.*

clearly rules out the explanations that expected utility theory offers. The study's hypothesis rests on a comparison of the predictions of the expected utility model and those of the framing model as to the settlement offers made by plaintiffs and defendants. According to the expected utility model, when litigation is costly and each side pays its own attorney's fees, a case should settle unless one party believes it has a much greater chance of winning than the other party believes it has. For instance, imagine a case in which a plaintiff sues for $100,000, estimates her chances of winning at trial at 50%, and faces $10,000 in attorney's fees for the trial. Assuming the plaintiff is risk-neutral, the expected utility model predicts that she should be willing to settle for any amount greater than $40,000.[139] In the same case, if the defendant also faces $10,000 in attorney's fees, estimates the plaintiff's chances of winning at 50%, and is risk-neutral, the expected utility model predicts that he should be willing to settle for any amount less than $60,000.[140] The attorney's fees effectively create a bargaining window within which the parties may settle. To the extent that one or both parties are optimistic about their chances of winning at trial, however, the case may not settle. Imagine that the plaintiff in this example believes that she has an 80% chance of winning. Such optimism may result either from a biased evaluation of the available information or from a lack of complete information on the case. The case would not settle, because the plaintiff would not accept less than $70,000 and the defendant would not pay more than $60,000. Likewise, the parties will fail to settle if one or both are too optimistic about the potential award to the plaintiff. As a general matter, the economic model predicts that a case will not settle whenever the "plaintiff's estimate of the expected judgment [meaning the estimated award to the plaintiff times the estimated probability of a plaintiff's verdict] exceeds the defendant's estimate by at least the sum of their legal costs."[141]

The expected utility model attributes the failure to settle either to overconfidence among the parties in their ability to obtain a favorable litigated outcome or to an information asymmetry. The model does not predict which party is likely to be more overconfident or less informed. Thus, in those cases that fail to settle, settlement offers

139. (.5)($100,000) – $10,000 = $40,000. To the extent that she is risk-averse, she would be willing to settle for less. *See* Shavell, *supra* note 8, at 68.

140. (.5)($100,000) + $10,000 = $60,000. To the extent that he is risk-averse, he should be willing to pay more. *See id.*

141. *Id.* at 63.

should approximate the expected award as follows: The plaintiffs' mean final offer should reflect some optimism about the award, and therefore should be slightly higher than the expected award. Likewise, the defendants' mean final offer should be slightly lower than the expected award. On average, the failure to settle should therefore benefit neither party.

In contrast, the framing model predicts that settlement offers should be much lower than the expected award at trial. Under the framing theory, plaintiffs are risk-averse and therefore should be willing to accept offers below the expected value of a trial, and defendants are risk-seeking and therefore should be unwilling to accept offers unless they are lower than the expected value of a trial. As a result, in those cases that are litigated to a verdict, the plaintiffs should actually improve their positions.

a. *Methods*: The data consisted of the outcomes of 722 cases of civil litigation decided by juries in the California counties of San Francisco, San Mateo, and Santa Clara between 1981 and 1988, as reported by *Jury Verdicts Weekly*. For each case in the sample, the jury verdict, the damage award, the final settlement offer from the plaintiff, and the final settlement offer from the defendant were recorded. The settlement offers were provided by the litigants, as reported by *Jury Verdicts Weekly*. *Jury Verdicts Weekly* requests that both litigants describe any settlement offers made by either party. In some sixty-eight cases, the parties' reports conflicted with each other. When that happened, the figure used in the analysis was the one reported by the party who had made the offer rather than the party who had received it. For example, if the plaintiff reported having demanded $100,000 to settle, but the defendant reported receiving a demand of only $50,000, the former figure was used in the analysis. In sixty-four cases (or 9% of the total), neither party made a settlement offer—these cases were not considered further in any analysis. In two other cases, the defendant's final offer exceeded that of the plaintiff's, and these cases likewise were dropped from subsequent analyses.

In the remaining 656 cases, jury awards were compared with final settlement offers. In 520 cases both parties made settlement offers. These cases were classified either as a "Defendant Error" if the jury award exceeded the final settlement offer made by the plaintiff (that is, if the defendant would have been better off by accepting the plaintiff's offer than by electing to go to trial); a "Plaintiff Error" if the final

jury award was lower than the final settlement offer made by the defendant (that is, if the plaintiff would have been better off by accepting the defendant's offer); or as "No Error" if the jury gave an award that fell between the two final offers. In those cases where an award matched the final offer of one of the parties, the case was scored as an error against the party who had rejected the offer. For example, if the defendant offered to settle for $50,000, and the jury awarded $50,000, the case was treated as a Plaintiff Error.

In the 136 cases where only one of the parties made a settlement offer, the scoring was somewhat different. In cases in which the defendant made an offer but the plaintiff did not (9 cases), the case was scored as a Plaintiff Error if the defendant's final offer exceeded the jury award and as No Error if the defendant's final offer was inferior to the jury award. In the cases in which the defendant made no settlement offer, (127 cases) a zero was entered as the defendant's final offer. There, a jury verdict in favor of the defendant (a $0 award to the plaintiff) was treated as a Plaintiff Error, an award to the plaintiff that was less than the plaintiff's last offer was treated as No Error, and an award to the plaintiff that exceeded the plaintiff's last offer was treated as a Defendant Error.

A second set of data was analyzed to isolate cases involving only corporate litigants. Because an insufficient number of such cases were available in the initial sample of 722 cases, further cases were obtained by searching three databases available on WESTLAW: Jury Verdicts and Settlements Summaries ("JV-LRP"), California Jury Verdicts ("JV-CA"), and Northwest Jury Verdicts ("JV-NW"). These databases consist of information similar to that reported by *Jury Verdicts Weekly*. The cases in these databases contain the reports of litigants involved in the case, including jury awards and settlement offers. In fact, the "CA-JV" database and *Jury Verdicts Weekly* substantially overlap.[142]

A search of these databases uncovered ninety-nine cases involving only corporate litigants.[143] These cases were analyzed in the same method as those from *Jury Verdicts Weekly*. In eleven cases, neither party made a settlement offer, and in five other cases, the final offer

142. The comparability of the WESTLAW data and the *Jury Verdicts Weekly* data are discussed *infra* at notes 150-55 and accompanying text.

143. The search targeted cases in the library in which words beginning with the letters "corp," "inc," or "co" appeared in both the plaintiff's and defendant's names. These cases involved contracts (n=44), insurance (n=15), real estate (n=8), products liability (n=7), fraud (n=5), negligence (n=5), business torts (n=4), and several other miscellaneous subjects.

reported by the defendant exceeded the offer reported by the plaintiff. These sixteen cases were dropped, leaving eighty-three cases. Of these, three contained discrepancies between the plaintiff's and the defendant's reports of the settlement talks. This analysis used the final offer as reported by the party making the offer, as was done with the *Jury Verdicts Weekly* data.

b. *Results*:

TABLE 2: PERCENT AND MEAN COST OF ERRORS IN SETTLEMENT DECISIONS IN 656 CASES OF LITIGATION

Case Type	# of Cases	% of Cases	Mean Award ($1,000's)	Mean π Offer ($1,000's)	Mean Δ Offer ($1,000's)	Mean Cost of Error** ($1,000's)	Expected Cost of Error** ($1,000's)
Plaintiff Error	368*	56.1	9.4	193.7	37.1	27.7	15.5
No Error	137	20.9	109.6	220.9	35.3	—	—
Defendant Error	151	23.0	553.5	198.6	35.1	354.9	81.6

* Includes 288 cases (78.2% of the total) in which the defendant won outright and 80 cases in which the plaintiff won damages less than the defendant's final offer.

** Cost of error was considered to be the cost to the party who made the error.

The data from *Jury Verdicts Weekly* are presented in Table 2. Plaintiff Errors were the most common of all outcomes, accounting for 56.1% of the cases. Most of these cases (78.2% of them, or 44.1% of all cases) consisted of verdicts for the defendant in which the jury awarded the plaintiff nothing. In the remaining Plaintiff Errors, the plaintiff won less than the defendant's final settlement offer. Overall, in the cases of Plaintiff Error, the plaintiffs won a mean of $9,422, when they could have settled for a mean of $37,109, thus costing them an average of $27,687 ($37,109 minus $9,422) per case. In contrast, only 23% of the cases resulted in Defendant Errors. However, in these cases the errors proved very costly—far more costly on average than the errors that plaintiffs made. The mean award to the plaintiffs was $553,518, while the mean offer made by the plaintiffs had been $198,569, a gap of $354,949 per case. Statistical analysis revealed that the difference in the mean costs of Defendant versus Plaintiff Errors was highly significant.[144]

The expected costs and benefits of the errors to each party were determined by multiplying the mean size of each error times the

144. $t(517) = 5.82, p < .001$.

probability of its occurrence. Using this approach, the Plaintiff Errors cost the class of plaintiffs an average of $15,532 per case [$27,687(.561)], whereas the Defendant Errors cost the defendants an average of $81,638 per case [$354,949(.230)]. Thus, even when the probability of occurrence of the two types of errors was taken into account, the Defendant Errors remain significantly more costly than the Plaintiff Errors.[145]

The expected cost of the errors was then used to determine the overall costs and benefits of litigation to the parties. From the defendant's perspective, the Defendant Errors represented a direct loss that was offset partially by the savings they realized from the Plaintiff Errors—$81,638 minus $15,532 for a net loss of $66,106 per case. Conversely, analysis of costs and benefits from the plaintiff's perspective shows plaintiffs to have benefitted from litigation in the same amount. This analysis ignores the additional attorney's fees and other trial expenses that are incurred by decisions not to settle out of court. Obviously, a more complete cost-benefit analysis would take these into account, increasing the cost of going to trial for defendants beyond the $66,106 figure and reducing somewhat the benefit of doing so to the plaintiff. Although Gross and Syverud used $10,000 as a rough, low-end estimate of attorney's fees at trial,[146] I have simply noted their presence without any attempt to make any estimates, which would be speculative at best. Likewise, these data do not include the potential impact of appeals. A large plaintiff's verdict is obviously worth somewhat less than its face value, as it may be reduced or overturned on appeal. Similarly, a defendant's verdict may not end the matter, as the plaintiff may win some award after a successful appeal. Once again, I simply note the possibility that appeals may alter the results, but have no data to ascertain the effect of appeals.

The data from the No Error cases are not included in the analysis because their costs and benefits are uncertain. In these cases, the failure to settle is arguably "rational." Both sides fared better than they would have by accepting the other party's last offer (ignoring the additional uncertain costs of going to trial), although they may have saved money by further negotiation and compromise to avoid the costs of litigation.

145. $t(517) = 4.87, p < .001$.

146. *See* Gross & Syverud, *supra* note 132, at 336-37.

TABLE 3: PERCENT AND MEAN COST OF ERRORS IN SETTLEMENT DECISIONS IN 84 CASES OF CORPORATE LITIGATION

Case Type	# of Cases	% of Cases	Mean Award ($1,000's)	Mean π Offer ($1,000's)	Mean Δ Offer ($1,000's)	Mean Cost of Error** ($1,000's)	Expected Cost of Error** ($1,000's)
Plaintiff Error	34*	40.5	15.7	703.0	124.0	108.3	43.8
No Error	16	19.0	243.5	660.9	56.1	—	—
Defendant Error	34	40.5	2,080.2	613.2	55.1	1,467.0	594.1

* Includes 26 cases (74.7% of the total) in which the defendant won outright, and 8 cases in which the plaintiff won damages less than the defendant's final offer.

** Cost of error was considered to be the cost to the party who made the error.

Table 3 presents the data from corporate litigants. These data differed somewhat from the *Jury Verdicts Weekly* data. Among corporate litigants, Plaintiff Errors were as common as Defendant Errors. Both accounted for 40.5% of the cases. No Error cases accounted for 19% of the sample. The magnitude of the awards, settlement offers, and errors, showed that much more was at stake in these cases.

Despite these differences, the data from corporate litigants supported the framing theory. In these data, the plaintiffs who should have settled won a mean of $15,734, when they could have settled for a mean of $124,038, thus costing them an average of $108,304 ($124,038 minus $15,734) per case. Once again, errors proved far more costly to the defendants. In the Defendant Error cases, the mean award to the plaintiffs was $2,080,196 while the mean offer made by the plaintiffs was $613,171—a huge loss to the defendants of $1,467,024 per case. The difference in the mean costs of Defendant versus Plaintiff Errors was statistically significant.[147]

Using the probabilities of each error to calculate the costs and benefits of litigation showed that the Plaintiff Errors cost the class of plaintiffs an average of $43,863 per case [$108,304(.405)]. By contrast, the Defendant Errors cost the defendants an average of $594,145 per case [$1,467,024 (.405)].[148] Using the expected cost of the errors to determine the overall costs and benefits of litigation to the parties in these data revealed that failing to settle cost the defendants a net loss

147. $t(66) = 2.00, p < .05$.

148. Statistical analysis of the mean expected size of the plaintiff and defendant errors would be identical to the analysis of the mean size, because each error is equally likely in this data.

of $550,282 per case ($594,145 in expected losses minus $43,863 in savings).[149] Thus, if anything, the effect in the litigation involving only corporations is greater than in the general class of cases.

The differences in the error rates and the award sizes between the *Jury Verdicts Weekly* and WESTLAW data raise questions as to whether these data sets are comparable. Perhaps a reporting bias explains the differences.[150] If plaintiffs that obtain results that exceed their expectations are more likely to report their data to one of the databases than plaintiffs that obtain unsatisfactory outcomes, then an analysis of these databases will uncover a tendency for plaintiffs to exceed their expectations. Because the *Jury Verdict Weekly* collects data on 90% of the jury verdicts, this sample is less susceptible to a reporting bias, but the WESTLAW databases are unsure of the proportion of cases that their samples represent and might be subject to such a bias.

Despite the superficial differences in the two sets of data, however, the WESTLAW data are actually more comparable to the data from *Jury Verdicts Weekly* than they appear. According to Gross and Syverud, plaintiffs in commercial transaction cases are far more likely to win than those in the general class of cases.[151] Gross and Syverud report that plaintiffs in their sample of commercial cases won 87% of the cases,[152] and won awards that exceeded the defendant's final offer in 75% of the cases.[153] Because awards exceeded offers in 59.5% of the WESTLAW sample,[154] if anything this sample is biased against plaintiffs.[155]

To further dispel any concerns about biased sampling, a subset of the corporate litigation, involving only the seventy-one cases that are

149. Once again, attorney's fees and other litigation expenses are not included in the analysis.

150. Jury verdicts data has been criticized as containing such biases. *See* Neil Vidmar, *Making Inferences About Jury Behavior from Jury Verdict Statistics: Cautions About the Lorelei's Lied*, 18 LAW & HUM. BEHAV. 599, 610-11 (1994).

151. *See* Gross & Syverud, *supra* note 132, at 339. Gross and Syverud did not segregate corporate litigants. However, most of the litigation in the WESTLAW sample would have fallen into their commercial litigation category.

152. *See id.* at 335.

153. *See id.* at 339.

154. This occurred in both the Defendant Error and No Error cases.

155. Also, Gross and Syverud report that the mean award in commercial cases was $477,880. *See* Gross & Syverud, *supra* note 132, at 369. In the WESTLAW data, the mean award was $859,109. Thus, more was at stake in the WESTLAW database than in Gross and Syverud's data, though greater stakes do not necessarily mean that the data are biased in a way that serendipitously supports the framing theory.

also reported in *Jury Verdicts Weekly* was analyzed. Of these cases, eight involved no settlement talks and five involved offers by the defendant that exceeded the offer of the plaintiff. Excluding these cases, fifty-eight cases remained in the analysis. The data for these are reported in table 3a, below:

TABLE 3A: PERCENT AND MEAN COST OF ERRORS IN SETTLEMENT DECISIONS IN 58 CASES OF CORPORATE LITIGATION IN CALIFORNIA

Case Type	# of Cases	% of Cases	Mean Award ($1,000's)	Mean π Offer ($1,000's)	Mean Δ Offer ($1,000's)	Mean Cost of Error** ($1,000's)	Expected Cost of Error** ($1,000's)
Plaintiff Error	22*	37.9	21.4	892.8	175.5	154.1	58.4
No Error	13	22.4	183.6	648.5	56.6	—	—
Defendant Error	23	39.7	1,477.1	528.9	65.5	948.4	376.5

* Includes 17 cases (77.3% of the total) in which the defendant won outright, and 5 cases in which the plaintiff won damages less than the defendant's final offer.

** Cost of error was considered to be the cost to the party who made the error.

As can be seen from Table 3a, the data in the California sample were similar to the data in the entire sample. The average cost of the errors made by the defendant exceeded the average cost of the errors made by the plaintiff. In this sample, the difference was not statistically significant ($t(43) = 1.32$, $p = .20$) due to a small sample size and large variance among the size of the errors. The trend was in the same direction as the larger sample, however, and overall Table 3a closely resembles Table 3. Thus, even if there were reporting biases in the WESTLAW databases, they were not of a type that would undermine the conclusions of this study.

c. *Discussion*: In both sets of data, defendants paid a high price for failing to settle with the plaintiffs. In 56.1% of the cases of general litigation, the defendants achieved a better outcome by continuing to litigate, saving them an average of $27,687 (minus litigation costs) in these cases.[156] But, in 23% of these cases, they paid huge

156. The fact that the defendants did better than the plaintiffs in the majority of cases does not refute the framing theory. The fact that defendants, as a class, lost money demonstrates that they were unable to distinguish those cases in which they would win from those in which they would lose.

prices for continuing to litigate—an average of $354,949 (plus litigation costs) per error. Even treating the more numerous Plaintiff Errors as savings to the defendants, failing to settle cost the defendants an average of $66,106 (plus litigation costs) per case. The defendants' losses were even more striking among the corporate litigants. Although in 40.5% of these cases the defendants were $108,304 (minus litigation expenses) better off for having litigated through a trial, their losses in the cases in which they should have settled far outweighed these gains. In a like percentage of cases, these defendants lost a staggering $1,467,024 per case (plus litigation expenses). Overall, the expected loss of litigating was $530,282 per case (plus litigation expenses). If the defendants had made more serious offers, they surely would have induced more plaintiffs to settle, and thereby reduced the loss they suffered. Such offers would have meant forgoing some of the benefits of the Plaintiff Errors, but would have avoided or reduced the prospect of huge losses that resulted from the Defendant Errors. The defendants' failure to make larger offers and avoid some of these losses can only be described as risk-seeking.

Conversely, the plaintiffs' behavior was, on balance, risk-averse. While over half of the plaintiffs in general litigation were worse off at trial than they would have been had they settled (by an average of $27,687), the 23% who gained from going to trial reaped huge rewards—$354,949 per case (minus litigation expenses). On average, these plaintiffs who litigated achieved a $66,106 (minus litigation expenses) reward for having done so. The corporate plaintiffs also reaped tremendous benefits by litigating. Although 40.5% should have settled, overall the corporate plaintiffs were $550,282 (minus litigation expenses) richer for having litigated through a trial. Assuming that a similar pattern of offers occurs in cases that do settle, the data suggest that plaintiffs who accept settlement offers forgo the potential for large rewards and pay a considerable price for their risk aversion. This finding cannot be attributed to wealth effects on the part of plaintiffs. Even among corporate litigants, which expected utility theory predicts are risk-neutral, plaintiffs make low settlement offers and defendants reject them in favor of even lower offers.

In short, the results of this archival study supported the predictions of the framing theory. The data showed that the defendants' decisions to litigate constituted risk-seeking choices. Overall, defendants as a class paid heavily for their decision, although more individual defendants gained from the gamble than lost. Conversely, plaintiffs

generally benefitted from litigation. While failed settlement talks made more than half of the plaintiffs worse off at trial than they could have been in a settlement, the quarter who benefitted from litigation won such enormous awards that, on average, the failures to settle improved the plaintiffs' outcomes. When settlement negotiations failed, the plaintiffs were unwittingly forced to undertake a risk that, on average, benefitted them and cost the defendants dearly.

C. Data on Loser-Pays Litigation

Analysis of a "loser-pays" system of litigation may provide another source of data on the behavior of actual litigants. In a loser-pays system,[157] losing parties must compensate winning parties for their litigation expenses. This contrasts with the conventional system of litigation in the United States, in which parties pay their own litigation expenses.[158] Data comparing the two systems would speak directly to the relative accuracy of the framing and the expected utility models of litigation, because the loser-pays system increases the risks from litigation for both the plaintiff and the defendant. To see this, reconsider the example described earlier,[159] in which both the plaintiff and the defendant believe that the plaintiff has a 50% chance of winning a $100,000 award at trial, both are risk-neutral, and each faces $10,000 in litigation expenses. Under the conventional litigation system, the possible outcomes at trial for the plaintiff are winning $90,000 ($100,000 award minus $10,000 in litigation expenses) or losing $10,000 ($0 award minus $10,000 in litigation expenses). Under a loser-pays system, the possible outcomes are winning $100,000 ($100,000 award and no expenses, since these are paid by the defendant) or losing $20,000 ($0 award minus the plaintiff's own litigation expenses and the defendant's litigation expenses). The defendant faces a like increase in the range of potential outcomes. The loser-pays system is thus much riskier than the conventional system of litigation.

157. Also referred to as the "British Rule," the "English Rule," or an "indemnity" system.

158. *See* Alyeska Pipeline Serv. Co. v. Wilderness Soc'y, 421 U.S. 240, 247-71 (1975). Fee-shifting reforms have, however, become common in the United States. For example, Fed. R. Civ. P. 11 allows for an award of costs to a litigant who successfully defeats a frivolous motion. In the United States, hundreds of fee-shifting statutes and rules create fee shifting of one kind or another, but the backdrop is always a rule that each party pays their own expenses. *See* Alan J. Tomkins & Thomas E. Willging, Taxation of Attorney's Fees: Practices in English, Alaskan, and Federal Courts 49 (1986).

159. *See supra* notes 139-40 and accompanying text.

As a consequence, the framing theory makes very different predictions from expected utility theory as to the effects of adopting a loser-pays system. The framing theory predicts that plaintiffs will suffer under a loser-pays system. Their aversion to risk will make them less likely to file suit and apt to settle suits for less than under a conventional system. Defendants, however, will prefer a loser-pays system. Their penchant for risk makes a trial more attractive under a loser-pays system than under a conventional system. In contrast, expected utility predicts that a litigant's wealth relative to the stakes will determine their reactions to the loser-pays system. Wealthy, risk-neutral litigants will be indifferent to switching systems and (with a few caveats noted below) will make many of the same choices in litigation as they would under a conventional system. Poorer, risk-averse litigants will be less likely to file suit[160] and will be inclined to settle for less than under a conventional system.[161] Furthermore, poorer, risk-averse defendants will be willing to sacrifice more to settle a case under a loser-pays system than under a conventional system.[162]

The two competing behavioral theories do make some common predictions as to the effects of a loser-pays system. Because a loser-pays system raises the stakes in litigation, it can make a litigated outcome more attractive, even to a risk-averse party.[163] Litigants who feel optimistic about their chances of winning at trial may prefer a loser-pays system, since they will recover their costs when they win.[164] Conversely, a loser-pays system makes pessimistic plaintiffs less likely to sue[165] and more inclined to settle.[166] Overall, by raising the stakes at trial, the loser-pays system makes litigation itself more valuable and can discourage settlement.[167]

The predictions of the expected utility model and the framing models are summarized in Table 4 below.

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160. *See* Shavell, *supra* note 8, at 61.

161. *See id.* at 68.

162. *See id.*

163. The effects of the loser-pays system depend upon litigants' beliefs about their chances of winning and their risk preferences. For example, optimistic, risk-averse plaintiffs will prefer the loser-pays system to the conventional system if their level of optimism exceeds their risk aversion, but plaintiffs will prefer the conventional system if their risk aversion exceeds their optimism.

164. *See* Shavell, *supra* note 8, at 59.

165. *See id.* at 59-60.

166. *See id.* at 63-64 (example 5).

167. *See* Katz, *supra* note 8, at 157.

TABLE 4: PREDICTED CONSEQUENCES OF SWITCHING TO A LOSER-PAYS SYSTEM UNDER FRAMING AND EXPECTED UTILITY MODELS OF LITIGATION

Characteristics	Litigation Model	
	Framing Theory	Expected Utility Theory
Optimistic Litigants	Litigation more attractive	Litigation more attractive
Pessimistic Litigants	Litigation less attractive	Litigation less attractive
Wealthy Plaintiffs	Litigation less attractive	Litigation equally attractive
Poor Plaintiffs	Litigation less attractive	Litigation less attractive
Wealthy Defendants	Litigation more attractive	Litigation equally attractive
Poor Defendants	Litigation more attractive	Litigation less attractive

Data comparing the loser-pays and conventional systems are available.[168] In 1980, Florida adopted a loser-pays system for medical malpractice cases,[169] but restored the conventional system five years later.[170] These changes created the opportunity for a thorough study of the reform's effect on litigation before, during, and after its implementation. In a pair of studies, Snyder and Hughes reported their analysis of data on medical malpractice claims filed with insurance companies in Florida from 1975 through 1990.[171] Their data included the disposition of each claim (dropped, settled, or litigated through a judgment[172]), the size of any settlement, the size of any award, and the amount spent by defendants on litigation. Although the data were quite revealing and informative on the medical malpractice system and the general impact of a loser-pays reform on it, the data do not speak directly to the general accuracy of the framing versus the expected utility theory. The authors did not have data on the party's evaluations of their prospects at trial or any proxy for this (such as settlement offers), thereby making it difficult to infer the risk preferences of the parties. Nevertheless, their data allow for some educated guesses.

168. *See* James W. Hughes & Edward A. Snyder, *Litigation and Settlement Under the English and American Rules: Theory and Evidence*, 38 J.L. & ECON. 225, 236 (1995); Snyder & Hughes, *supra* note 8, at 358.

169. *See* Snyder & Hughes, *supra* note 8, at 355.

170. *See id.*

171. *See id.* at 357; Hughes & Snyder, *supra* note 168, at 234-35.

172. The authors treated summary judgments, directed verdicts, and judgments notwithstanding a verdict as judge and jury verdicts at trial. *See* Snyder & Hughes, *supra* note 8, at 357 n.28.

In their initial study,[173] Snyder and Hughes reported that under the loser-pays system, plaintiffs were less likely to make a claim[174] and were more likely to drop claims altogether than under the conventional system.[175] Of the claims that plaintiffs pursued, more settled under the loser-pays system.[176] Snyder and Hughes attribute this to a selection effect. They concluded that the loser-pays system induced plaintiffs to drop significant numbers of cases that were unlikely to settle.[177] After accounting for the selection effects, Snyder and Hughes determined that a case was *less* likely to be settled under a loser-pays system.[178] The authors also reported that defendants spent much more on litigation under a loser-pays system.[179] In their second paper,[180] Hughes and Snyder found that under the loser-pays system plaintiffs obtained larger settlements,[181] were more likely to win at trial,[182] and were awarded more at trial[183] than under the conventional system.

The results present a somewhat puzzling picture for both the framing theory and expected utility models of litigation. Because both models predict that plaintiffs are risk-averse,[184] the increase in risk associated with the loser-pays reform should have led them to be less inclined to litigate. To some extent, this was evident, as plaintiffs in the loser-pays system were less likely to make a claim and were more likely to drop the claims they made during litigation. However, plaintiffs who filed claims achieved better outcomes under the loser-pays system than under the conventional system, even after accounting for

173. *See* Snyder & Hughes, *supra* note 8.

174. *See id.* at 355-56. The authors did not make an exact estimate of the reduction in the filing rate. They noted that claims appeared to increase slightly when the loser-pays rule went into effect, but they attributed this increase to a general trend of increasing numbers of claims over time. The authors noted that a much bigger increase in claims filed occurred after the loser pays system was rescinded. *See id.*

175. *See id.* at 364.

176. *See id.* at 364-65.

177. *See id.* at 365.

178. *See id.* at 366.

179. In fact, defendants spend twice as much on cases that are tried to a verdict and two and a half times as much on cases that settle in the loser-pays system than in a conventional case. *See* Snyder & Hughes, *supra* note 8, at 374-75. Data on plaintiff spending was not available.

180. Hughes & Snyder, *supra* note 168.

181. *See id.* at 243.

182. *See id.* at 241.

183. *See id.*

184. Because the plaintiffs in these cases are individuals, they are very likely to be risk-averse.

the increased number of plaintiffs that dropped their claims.[185] Thus, plaintiffs appeared to fare better under the loser-pays system, despite the contrary predictions of both expected utility theory and framing theory.

Hughes and Snyder attribute the greater success of plaintiffs in the loser-pays system to a case selection effect.[186] They contend that plaintiffs in the loser-pays system are less likely to pursue meritless claims, and as a result, the claims that plaintiffs do pursue are of a much higher quality.[187] Had Snyder and Hughes incorporated the data on filing rates, their data may have shown that potential malpractice claimants, as a class, fared worse under the loser-pays system, thereby supporting the theory that plaintiffs are risk-averse. Furthermore, it may be that medical malpractice plaintiffs are, on average, very likely to win.[188] Because plaintiffs who are likely to win also fare better under a loser-pays system, the plaintiffs' optimism may have overwhelmed their risk aversion.

The defendants' response to the improved position of the plaintiffs in the loser-pays system supports a framing theory. Although they offered larger settlements in the loser-pays system, the defendants apparently only did so much later in the process because they

185. Hughes and Snyder do not make this calculation, but their data allow this comparison. *See* Hughes & Snyder, *supra* note 168. Of the 9,313 plaintiffs in their sample who made claims under the conventional system, 5,073 dropped them with no settlement, 3,546 settled them for an average of $73,786, and 694 litigated them through trial and won an average of $25,190 (including $0 for those who won nothing at trial); overall, plaintiffs won an average of $29,971 in the conventional system. Of the 7,361 plaintiffs in their sample who made a claim under the loser-pays system, 3,673 dropped them with no settlement, 2,822 settled them for an average of $94,489, and 866 litigated them through trial and won an average of $69,390 (including $0 for those who won nothing at trial); overall, plaintiffs won an average of $44,388 in the loser-pays system.

186. *See id.* at 244-45.

187. *See id.*

188. Plaintiffs fare poorly in medical malpractice cases at trial. Hughes and Snyder reported that they win only 11.4% of the cases brought under the conventional system and 21.6% of the cases brought under the loser-pays system. *See id.* at 241. Other medical malpractice data report similar results. For example, Gross and Syverud reported that plaintiffs won 23.7% of the medical malpractice cases in their study. *See* Gross & Syverud, *supra* note 132, at 363. However, the cases that are tried are quite unrepresentative of the general class of malpractice cases. *See id.* at 364-66. In one study of this issue, Danzon and Lilliard estimated that medical malpractice plaintiffs that drop claims have, on average, between a 39% and 53% chance of winning at trial, and plaintiffs that settle claims have, on average, between a 57% and 77% chance of winning at trial. *See* Patricia Munch Danzon & Lee A. Lilliard, *Settlement Out of Court: The Disposition of Medical Malpractice Claims*, 12 J. LEGAL STUD. 345, 368-69 (1983).

spent more money on litigation.[189] Furthermore, their offers were too low as demonstrated by the fact that they settled fewer cases.[190] Thus, increasing the risks of litigation induced defendants to spend more money to obtain worse outcomes. Florida's medical malpractice defendants seemed to know that they had bought into a bad bargain. Insurers, hospitals, and doctors—the same groups who had initially clamored for a loser-pays system—lobbied for the system's repeal in 1985.[191]

Combined with the data from Study Three, a clearer picture of defendants' litigation style emerges. Defendants generally prefer litigation to settlement, and spend more on riskier litigation. Because this extra spending does not appear to confer any benefits upon them, the preference for risky litigation is difficult to reconcile with a conventional theory of rational choice. The preference is well explained, however, by framing theory.

Although the economic literature does have explanations for the behavior of the defendants in the Snyder and Hughes data, they are inadequate for two reasons. First, several earlier analyses predicted that the settlement rate should drop in a loser-pays system.[192] However, none of these analyses considered the impact of risk aversion among the parties.[193] Risk aversion makes settlement more attractive under the loser-pays system, perhaps even opening a bargaining window in a case that could not have settled under the conventional system. Because the individual plaintiffs in the medical malpractice cases are supposedly risk-averse, the loser-pays system should have made settlement more likely. As described above, however, the medical

189. *See supra* note 179; Snyder & Hughes, *supra* note 8, at 374-75. Data on plaintiff spending was not available.

190. *See* Snyder & Hughes, *supra* note 8, at 366.

191. *See id.* at 356.

192. This is because all of the cases that do not settle under the conventional system are those in which the plaintiff's estimate of the expected value of a trial exceeds the defendant's estimated losses of a trial by at least the sum of their attorney's fees. If both parties agree on the likely award in the event of a plaintiff's verdict, there is also an additional range of cases that will settle under the loser pays system, but not under the conventional system. For a full explanation and proof, see Shavell, *supra* note 8, at 65-66 & n.39. As Shavell also notes, however, if parties disagree on the likely award given a plaintiff verdict, then there may be cases which do not settle under the loser-pays system that would have settled under the conventional system. *See id.* at 65-66. Assuming that parties are more likely to disagree on the probability of winning rather than the stakes, fewer cases will settle under the loser-pays system—if the parties are risk-neutral.

193. *See* Donohue, *Opting*, *supra* note 8, at 1108 (noting that the Shavell model was based on risk neutrality).

malpractice plaintiffs may also have been optimistic about their prospects at trial, and hence their optimism may have overwhelmed their risk aversion.

Second, litigation becomes more valuable under the loser-pays system because it raises the stakes.[194] Although defendants could have rationally decided to litigate harder because of the raised stakes, it is not clear why they would also have achieved such poor results.[195] The economic model has no plausible explanation for why defendants would be willing to spend more to litigate bad cases. If the settlement sizes increased because plaintiffs in medical malpractice cases are likely to win at trial, then why did this escape the attention of the defendants? The loser-pays system led them to do something that no risk-neutral party would do—spend more on a worse gamble.

In the end, the data reported by Snyder and Hughes provide wonderful insights into medical malpractice litigation, and the implications of a loser-pays system for it, but the data do not resolve the disparate hypotheses of the framing and expected utility models. The data do not include the party's expectations for trial. As a result, the party's settlement and litigation behavior is ambiguous. The data are, however, troubling for any model of litigation that assumes parties will be able to minimize their costs. The loser-pays reform cost both parties—plaintiffs were less likely to file claims, and defendants paid

194. *See* Katz, *supra* note 8, at 171.

195. The defendants would have had to improve their litigation position dramatically for the increased expense to have been a rational expenditure. In fact, assuming that the plaintiffs spent a like amount on litigation under each system, unless the defendants' 150% increase in spending provided them with a 30% increase in the likelihood of winning, it was irrational. (The increase in stakes is equal to the sum of the litigation expenses, and the increase comprises one-quarter of these expenses.) This is hard to believe. If the increase in spending was so significant to the outcome, then the defendants should have spent it under either system because the potential award likely would exceed the litigation expenses. Also, even after the defendants increased their spending, on average the plaintiffs in this class of cases were still more likely to win. Given this observation and the fact that the high-end estimate for the mean-estimated likelihood of a plaintiff's verdict in cases that settle is 77%, *see* Danzon & Lilliard, *supra* note 188, at 368-69, the defendants had little room to improve their chances of winning. The medical malpractice data suggest that the amount spent on litigated claims is roughly equal to $24,000 under the conventional system (assuming that plaintiffs spend the same amount as defendants). *See* Snyder & Hughes, *supra* note 8, at 375. Also, the mean potential award was $215,828. *See* Hughes & Snyder, *supra* note 168, at 241. Katz estimated that there would be only an 80% increase in spending on litigation if the total litigation expenses equalled 17% of the potential award and the expected probability of a plaintiff verdict was .5. *See* Katz, *supra* note 8, at 167. (The author does not give the estimate if the probability of winning was greater for the plaintiff.)

more to terminate the claims that were filed. This result at least suggests that parties have difficulty minimizing their costs, which is precisely what framing theory predicts. This aspect of the data is discussed further in the next section.

III. IMPLICATIONS

The framing theory's influence over decisionmaking in litigation has several implications for the literature on suit and settlement. I discuss three of these briefly. First, the theory supports the continued reliance on the conventional system of litigation over the loser-pays system. Second, the theory predicts that litigation in which all parties see themselves as confronting losses will be extremely difficult to settle. In such cases, both parties will make costly, risk-seeking choices. Third, the theory suggests that lawyers, as negotiators and counselors, have the power to recast litigation for their clients, thereby ameliorating some of the costs associated with framing.

A. The Inefficiency of the Loser-Pays System

The law and economics literature has had mixed opinions about the loser-pays litigation system.[196] The literature notes two principle benefits of a loser-pays system. First, it would increase the value of a lawsuit for plaintiffs who are likely to win but who face such high litigation costs that the suit is not worth bringing. Second, it would decrease the value of lawsuits for plaintiffs who are unlikely to win but who have a positive expected settlement simply because the defendants face large litigation expenses.[197] By contrast, other writing on suit and settlement concludes that the loser-pays system would be more expensive and wasteful than the conventional system.[198] This work observes that fee-shifting increases the stakes and subsidizes litigation.[199] Thus, the law and economics literature leaves the relative efficiency of the loser-pays system in doubt. On the one hand, it decreases nuisance suits, making the system more efficient overall. On the other hand, it leads litigants to spend more on litigation, making the system less efficient. Despite academia's ambivalence about the loser-pays system and despite the unhappy consequences of Florida's

196. *See supra* note 8.
197. *See* Rosenberg & Shavell, *supra* note 8.
198. *See, e.g.*, Katz, *supra* note 8.
199. *See id.*

flirtation with it, calls to adopt this reform still haunt public debate on civil litigation.[200]

Framing theory sheds light on this debate in two respects. First, the framing model sides squarely against adopting a loser-pays system. Increasing the risks associated with litigation increases the attractiveness of wasteful litigation to risk-seeking defendants. It is significant that the same parties that wanted a loser-pays system in Florida also wanted the system repealed. The simulation studies of litigation and Study Three show that defendants already make poor, inefficient settlement decisions. The data Snyder and Hughes reported strongly suggest that risky litigation further encourages this tendency.

Second, the framing model resolves, in part, a puzzle surrounding the debate about the loser-pays system: If the Coase Theorem is right,[201] how is it that one system could possibly be more efficient than the other?[202] Donohue has suggested that if the loser-pays system is more efficient, parties litigating in a default conventional system would contract into the loser-pays system, and if the conventional system is more efficient, parties litigating in a default loser-pays system will contract into the conventional system.[203] Despite the potential mutual gains that are available from fee-shifting contracts,[204] there is no evidence that any such contracts exist.[205] The absence of such contracts is especially curious in light of the presence of fee-shifting provisions in prelitigation agreements.[206] The fact that fee-shifting contracts are not observed implies that either no one has thought of it before, the Coase Theorem is wrong (or at least does not apply to litigation), or something else is at work.[207] Donohue suggested that the absence of fee-shifting contracts might be attributed to the legal

200. One recent documentary, *ABC News Special: The Trouble With Lawyers* (ABC television broadcast, Jan. 3, 1996), touted the loser-pays system as the answer to the country's alleged litigiousness. *See also supra* note 7.

201. *See* Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

202. *See* Donohue, *Opting*, *supra* note 8, at 1099-1109; Donohue, *The Effects of Fee Shifting*, *supra* note 8, at 196.

203. *See* Donohue, *Opting*, *supra* note 8, at 1099-1109; Donohue, *The Effects of Fee Shifting*, *supra* note 8, at 196.

204. *See* Donohue, *Opting*, *supra* note 8, at 1100-06.

205. *See id.* at 1110-11.

206. *See id.* at 1110-12.

207. *See id.* at 1109-1118. In light of the significant optimism that has been observed among litigants, *see* Loewenstein et al., *supra* note 99, it is especially troubling that litigants in the conventional system of litigation do not contract into a loser-pays system.

ambiguity of such agreements,[208] the overall efficiency of the conventional system,[209] or the failure of litigants to maximize wealth.[210]

The framing theory of risk preferences in litigation also explains why parties do not enter into fee-shifting contracts.[211] According to the framing theory of litigation, plaintiffs prefer a system with the least amount of risk, thereby preferring the conventional system to the loser-pays system. Defendants, by contrast, prefer the riskier, loser-pays system. Thus, if the default system is a conventional system, plaintiffs will be unwilling to enter into the riskier, loser-pays system. Conversely, if the default system is a loser-pays system, defendants will be unwilling to enter into a less risky, conventional system. Thus, the cases in which both parties prefer one system over the other will almost never exist. For a fee-shifting contract to be mutually desirable, each party would have to be so optimistic about their chances of winning that this optimism would overcome the divergence in risk preferences.[212] Quite ironically, the framing theory of litigation res-

208. *See* Donohue, *Opting, supra* note 8, at 1111-13 (suggesting that fee-shifting agreements among parties might be unenforceable).

209. *See id.* at 1113-14 & n.49.

210. *See id.* at 1114-18.

211. The theory presented here could also be thought of as a subset of Donohue's theory that litigants fail to maximize wealth because such a failure is implicit in the framing theory of litigation.

212. Even under the framing theory, however, cases may exist in which the parties will opt into an alternative system. The parties may make side payments between each other to compensate for the disparity in risk preferences. Imagine a case in which the plaintiff is suing for $100,000, faces $10,000 in attorney's fees, and believes that she has a 50% chance of winning at trial. Imagine that the defendant also believes the plaintiff may win $100,000 and also faces $10,000 in attorney's fees but believes that the plaintiff has only a 20% chance of winning. Further suppose that the framing theory is correct and the plaintiff's risk aversion is such that the plaintiff is willing to pay a premium for a settlement equal to 10% of the range of possible outcomes. (This is obviously a simplistic analysis of risk aversion, but as long as the premium for risk aversion that the plaintiff pays increases with the increase in the range of possible outcomes, the results are the same.) Under a conventional system, the plaintiff will settle for $30,000 [.5($100,000) - $10,000 - $10,000 premium for risk aversion]. Under a loser-pays system, the plaintiff will settle for $28,000 [.5($100,000) - .5($20,000) - $12,000 premium for risk aversion]. Thus, for the plaintiff, the litigation is $2,000 less valuable under the loser-pays system. Assume that the defendant is risk-seeking such that he will demand a premium equal to 10% of the range of possible outcomes to settle the case. Under the conventional system, the defendant is willing to settle the case for $20,000 [.2($100,000) + $10,000 - $10,000 premium for risk-seeking]. Under the loser-pays system, the defendant is willing to settle the case for $12,000 [.2($100,000) + .2($20,000) - $12,000 premium for risk seeking]. Thus, for the defendant, the litigation is $8,000 less costly under the loser-pays system. The defendant therefore could pay the plaintiff any amount between $2,000 and $8,000 to agree so that the loser will pay the litigation costs of the winner.

cues the Coase Theorem from Donohue's critique.[213]

The framing theory also explains why prelitigation fee-shifting contracts are common,[214] while post-litigation fee-shifting contracts are unheard of. When plaintiff and defendant contract before litigation, they have no idea what their litigation posture will be should a dispute arise. The parties almost certainly treat attorney's fees in the event of litigation as a possible loss. Because people are risk-seeking with respect to losses, both parties will make risk-seeking choices about the allocation of these losses in the prelitigation contract. Thus, both parties will likely prefer the loser-pays system. Only after the roles of plaintiff and defendant are fixed will the preferences of the two parties vary so as to preclude changing systems. In another context, Babcock, Loewenstein, Issacharoff, and Camerer have shown that assigning roles to parties can impede parties' ability to make compromises.[215]

B. The Role of Attorneys

Initially, attorneys seem to face an incentive structure that promotes wasteful litigation. To the extent that the litigation lasts longer and the parties decline to settle, attorneys make more money in fees. A more thorough analysis, however, suggests that in many contexts attorneys play a positive role in reducing litigants' costs. For example, attorneys operating on a contingency fee basis share in the client's successes and bear all of the client's expenses. This gives the attorneys a powerful incentive to reduce the costs of litigation.[216] Furthermore, even attorneys paid on an hourly rate may be more interested in maintaining a continuing relationship with their clients than extracting extra fees in any single case. Gilson and Mnookin also have proposed that attorneys have the ability to avoid the prisoner's dilemma that

213. To be sure, any theory that predicts that plaintiffs are more risk-averse than defendants would support a similar analysis. Expected utility theory does make this prediction for cases in which risk-averse individuals sue risk-seeking corporate defendants, but it does not make such a prediction for all types of litigation.

214. *See* Donohue, *Opting*, *supra* note 8, at 1110 n.38.

215. *See* Linda Babcock, George Loewenstein, Samuel Issacharoff & Colin Camerer, *Biased Judgments of Fairness in Bargaining*, 85 Am. Econ. Rev. 1337 (1995).

216. Indeed, the incentive structure of attorneys operating on a contingency fee basis may encourage an excess of caution at their client's expense. *See* Geoffrey P. Miller, *Some Agency Problems in Settlement*, 16 J. Legal Stud. 189, 198-202 (1987).

litigation creates.[217] Thus, it is unclear whether attorneys are a positive or a negative influence on the social costs of litigation.

The framing theory suggests another positive influence attorneys may have in reducing the costs of litigation. An attorney may have some power to reframe a settlement offer, sparing the client the most costly aspects of framing.[218] For example, consider a defendant's settlement decision. Settling requires that the defendant accept a sure loss over a gamble, and the framing effect makes it unlikely that a defendant would make such a choice. But the attorney may be in a position to reframe the litigation, perhaps by pointing out the losses that the defendant is sure to face from continued litigation or by pointing out that a settlement offer is an improvement over previous offers. The attorney is in a position to wrestle the defendant out of the loss frame that would lead the defendant to make risk-seeking choices.[219] The principle benefit that framing theory presents for attorneys lies in the attorney's perspective on the client's choices. Framing asserts, after all, that clients are in a bad position to make

217. Ronald J. Gilson & Robert H. Mnookin, *Disputing Through Agents: Cooperation and Conflict Between Lawyers in Litigation*, 94 COLUM. L. REV. 509 (1994). The dilemma arises in this way: Once a dispute occurs, each party has the incentive to engage in the most vicious, aggressive strategy possible. *See id.* at 514-15. Aggressive maneuvers in a dispute can include such tactics as filing suit first, engaging in extensive discovery, refusing to participate in a mediation, refusing to settle a case, and filing an appeal instead of settling after a trial. *See id.* at 516-19. From an individual disputant's perspective, regardless of the tactics taken by the other side, he is better off by being more aggressive. *See id.* at 515. If the other side takes a conciliatory approach to the dispute, aggressive tactics can lead to terrific gains from exploiting the weak position of one's adversary, and thus is individually an optimal strategy. Likewise, if the opponent engages in an aggressive style, aggression is a good defensive response to keep one from being taken advantage of by the opponent. The collective outcome, however, is inefficient—parties spend more on litigation than they would have had they both simply cooperated. *See id.*

A key feature of the prisoner's dilemma is the difficulty of demonstrating a commitment to cooperation. *See id.* at 516. If opposing parties can signal their willingness to cooperate to the other party, they can avoid the dilemma. *See id.* at 516-20. Gilson and Mnookin propose that attorneys can play a role in breaking this prisoner's dilemma. *See id.* at 522-34. They hypothesize that some firms will build reputations as conciliatory, low-cost litigators, while others will bill themselves as aggressive, hardball (but expensive) litigators. *See id.* at 525-27. By hiring a conciliatory attorney or firm litigants can signal their intention to cooperate in the litigation. *See id.* at 522-24. Litigants then effectively commit themselves to a certain degree of cooperation that the opponent can match by hiring an attorney of similar temperament. *See id. Cf.* Orley Ashenfelter, Lawyers as Agents of the Devil in a Prisoner's Dilemma Game (Working Paper No. 270, Industrial Relations Section, Princeton University, 1990).

218. The notion that institutional agents, such as attorneys, alter decisionmaking in a way that avoids cognitive biases has been suggested in other contexts. *See* Jonathan R. Macey, *Packaged Preferences and the Institutional Transformation of Interests*, 61 U. CHI. L. REV. 1443, 1477-78 (1994).

219. It is obviously possible for the attorney to become trapped in a costly, risk-seeking loss frame as well. Because the attorney is not actually paying the settlement, however, it seems less

decisions in their best interest. To the extent that an attorney is concerned with promoting the client's best interest, framing theory gives them a significant role.

The attorney, of course, may use the ability to influence the client's settlement decision to encourage the client to reject a settlement offer as well. As easily as an attorney can remind a client of the positive progress made in the litigation, an attorney can encourage the client to recall the losses that gave rise to the litigation in the first place. Thus, the framing model of litigation poses a powerful role for the attorney. The attorney can control the client's frame, thereby influencing settlement decisions in either direction. The attorney may or may not use this ability to serve his clients' best interests. An avaricious defense attorney who works on an hourly rate may portray all settlements as losses so as to encourage the risk-seeking proclivities of the client. After all, the defense attorney is the principle beneficiary of risk-seeking decisions in litigation. Likewise, a plaintiff's attorney, operating on a contingency fee and interested in a quick settlement, may encourage the client's inherent risk-aversion.

It is worth noting that the attorney's power to assist the client in avoiding or encouraging costly irrationality lies largely outside of the rules of ethical conduct. The rules require that attorneys convey settlement offers to clients faithfully.[220] They do not, however, make any requirements of attorneys as to *how* to convey the settlement offer or in what frame to present it. This is distinguished from giving the client bad advice to accept or reject settlements—which is prohibited.[221] For good or bad, attorneys probably have unchecked power to encourage a client to reject or accept a settlement offer, even assuming they remain faithful to the ethics rules.[222]

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likely that the attorney will suffer from this problem. The attorney's perspective on the case almost surely differs in many ways from the client's, and although the attorney is subject to bias as well, the attorney's bias may be different and less costly. In other contexts, it has been shown that experts in a field potentially have a greater ability to look beyond the frame and make choices that comport more closely with expected utility theory than novices. *See* Neale, Hueber & Northcraft, *supra* note 51, at 239-40.

220. *See* MODEL RULES OF PROFESSIONAL CONDUCT Rule 1.2(a) (1995) (stating that the client must make all settlement decisions); *id.* Rule 1.4 (creating a duty to communicate with the client to enable him to make informed decisions).

221. "A client is entitled to straightforward advice expressing the lawyer's honest assessment." MODEL RULES OF PROFESSIONAL CONDUCT Rule 2.1 cmt. [1] (1995).

222. Conveying settlement offers in a loss frame may tend to extend litigation, thereby violating an attorney's duty to expedite litigation. *See* MODEL RULES OF PROFESSIONAL CONDUCT Rule 3.2 (1995). Because the client is not being misinformed by such an offer and the client is ultimately in charge of the settlement decision, there is probably not an ethics violation. Also,

The role of attorneys as promoters of efficiency and avoiders of irrationality contradicts the results obtained in Study Three and the interpretation of the data on Florida medical malpractice. If attorneys are so useful in avoiding costly, risk-seeking decisions, how is such data possible? If attorneys for both sides of the cases in Study Three had been able to get their clients to view the settlement offers as gains, then the risk aversion that comes with this frame should have induced settlements rather than litigated outcomes. One explanation may be that cases that fail to settle represent those instances in which reframing was not possible. Second, the attorneys might not have reframed settlement offers in ways that were beneficial to the clients in these cases. Finally, the Florida malpractice data especially suggests that reframing is expensive. Even if the defendants who settled in these cases did so after having the litigation recast for them, they settled only after a protracted period of litigation. The representational power of the original frame might require so much cognitive effort that reframing cannot occur without making it obvious to the client that significant amounts of money are at stake. In turn this may require that the client start receiving large bills for attorney's fees or large but plausible settlement offers from the plaintiffs. Thus, reframing may save the client money, but the data on actual litigation shows that there is a limit to the attorney's power to save clients from their own biases.

C. Disputes That are Difficult to Resolve

Lawyers are not the only agents in the civil justice system with the ability to alter a litigation's frame. Policymaking bodies like courts, legislatures, and administrative agencies also have similar powers. Thus far I have described litigation in a fairly generic fashion—one plaintiff and one defendant (who is also the stakeholder). Litigation, however, is often significantly more complicated, and framing is somewhat more malleable than the basic theory presented here. Different characteristics of a dispute might lead parties to adopt different frames within litigation. Although the only true means to determine the frame of a decision is to observe behavior empirically, some general predictions can be made about certain types of disputes and the likely frames parties will adopt. Furthermore, tinkering with frames can raise or lower the social costs of litigation.

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the ethics rules express "general unconcern about lawyer honesty with clients." Lisa G. Lerman, *Lying to Clients*, 138 U. Penn. L. Rev. 659, 693 (1990).

Framing theory suggests that litigation in which both parties view themselves as the stakeholder should be particularly costly because each party will make risk-seeking choices.[223] For example, divorce suits involve the division of property, ensuring that both husband and wife conclude the litigation with less than they started with. Both must necessarily lose some property that they once shared an entitlement to and therefore they should litigate if any settlement is a loss. In addition to the emotional intensity that divorce suits entail, the losses attached to them ensure that divorce litigation is much more protracted than the expected utility model predicts.

Courts, legislatures, agencies, or other parties in control of the background context of a dispute have some power to avoid the problem of loss-loss litigation. The Internal Revenue Service ("IRS") probably provides one of the best examples of the use of framing in the public policy context.[224] Taxes in the United States must be withheld during the year from individual employees' paychecks, and at the end of the year the employee often files to have some of these funds returned. Clearly, this puts the government ahead of the game simply through the time value of money—the government gets its money earlier and can spend it earlier. But also, it puts the taxpayer in a gains frame when the taxpayer files a return at the end of the year. For example, imagine two employees with different withholding rates but facing the same annual net tax bill. Imagine that they both must pay $1,000 in annual taxes but may consider taking a questionable deduction worth $100. Further suppose that $1,100 has been withheld from Employee *A*'s salary during the year, and thus, at tax time the employee faces a choice between receiving a $100 return for sure, or a risky $200 return if he takes the deduction. Compare this choice with that of Employee *B*, who has only had $900 withheld during the year, and thus, at tax time faces the choice between paying $100 for sure or gambling that paying $0 will be worth the risk of taking the illegal

223. The suggestion that a risk-seeking orientation can frustrate the dispute resolution process is not new and was first suggested by Henry S. Farber & Harry C. Katz, *Interest Arbitration, Outcomes, and the Incentive to Bargain*, 33 INDUS. & LAB. REL. REV. 55 (1979). Since then, several studies have demonstrated that parties who view the dispute from a loss frame are less likely to achieve a mutually beneficial negotiated resolution than parties who view the dispute from a gains frame. *See* Max H. Bazerman, Thomas Magliozzi & Margaret A. Neale, *Integrative Bargaining in a Competitive Market*, 35 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 294 (1984); Margaret A. Neale & Max H. Bazerman, *The Effects of Framing and Negotiator Overconfidence on Bargaining Behaviors and Outcomes*, 28 ACAD. MGMT. J. 34 (1985).

224. *See generally* McCaffery, *supra* note 49.

deduction. Both employees face the same economic choice, but the research suggests that Employee *B* is more likely to cheat than Employee *A*.[225] Furthermore, whether or not they take the deduction, Employee *A* will have a much more favorable impression of the tax system generally and of its fairness.[226]

Other agencies in other areas of law do not find themselves in such a favorable position. Compare the situation of the IRS collecting taxes to that of the Environmental Protection Agency ("EPA") in its efforts to obtain compensation for the cleanup of hazardous waste sites under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").[227] Under CERCLA, the EPA must identify hazardous waste facilities that are leaking waste into the environment and organize a cleanup. The EPA must pay for it with federal funds and recover the expenses from the parties responsible for the facility.[228] Because each responsible party is jointly and severally liable for the costs of the cleanup[229] and almost no real defenses are available,[230] CERCLA's defendants should settle quickly. However, this has not been CERCLA's fate. A significant portion of the money spent on CERCLA has gone toward litigating liability, both against the EPA and between the responsible parties.[231] The EPA's collection problems, as compared to the IRS, are manifold. But one source of their difficulties lies in the fact that the agency must perpetually recover money from parties who treat payments as losses. The IRS, by contrast, collects much of its money in surreptitious ways, and in a dispute it is often dealing with parties who are worried about foregone gains rather than future losses. Hence, the EPA's targets are much more likely to litigate their liability than the IRS' targets are.

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225. *See* Robben et al., *supra* note 50.

226. *See generally* Kinsey et al., *supra* note 49.

227. 42 U.S.C. §§ 9601-9675 (1994).

228. *See* WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW § 8.1B, at 687-90 (2d ed. 1994). Responsible parties under CERCLA include a wide variety of people—the generators of the waste, the transporters, and the site's owners. *See* 42 U.S.C. § 9607(a) (1994); RODGERS, *supra*, § 8.7, at 767-83.

229. *See* RODGERS, *supra* note 228, § 8.7, at 785-86.

230. *See id.* at 791-99.

231. *See* LLOYD S. DIXON, DEBORAH S. DREZNER & JAMES K. HAMMIT, PRIVATE-SECTOR CLEANUP EXPENDITURES AND TRANSACTION COSTS AT 18 SUPERFUND SITES 25 (1993) (estimating that 42% of the money spent on CERCLA has been on transaction costs—65% of which consist of legal fees).

The framing theory suggests several ways that CERCLA could be administered so as to ameliorate some of its collection woes. For example, a tax on generators of hazardous waste could fund the program. Currently, taxes on chemical feedstocks pay for some of the costs of the cleanup, but this covers only a fraction of the cost. Increasing this tax to pay for the whole program, and perhaps returning funds to generators that can demonstrate that they are not responsible for improper disposal practices would alter the frame. Alternatively, the EPA could use some sort of initial allocation scheme to divide liability early in the case.[232] This allocation may then serve to set the responsible party's status quo. Rather than viewing the payment of this amount as a loss, the parties may then view paying less than this as a gain.

Thus, courts and agencies can use an understanding of the framing context throughout disputes to expedite settlements and reduce overall transaction costs. Just as the loser-pays system induces excessive litigation, so too does litigation in which both parties view the litigation as a loss. Courts, legislatures, and attorneys can allow parties to avoid circumstances that would lead to such a costly perspective on the dispute.

CONCLUSION

The expected utility model of litigation has proven enormously useful. The model has inspired a productive line of scholarship that has influenced public debate. Its basic tenets are almost certainly irrefutable: As the size of the stakes rises, the size of potential settlements rises, and the amount that parties spend on litigation also rises. But the theory is less useful on the finer details of litigation. The literature's confusion and internal debate about the loser-pays system is telling. Determining whether the loser-pays system is better than the conventional system is a complex matter. It may be that the expected utility model will have difficulty accurately informing public debate on such details. This is especially true in light of its deep reliance on a normative theory of human decisionmaking. The model is not founded on empiricism and hence may fail to predict the finer details of the decisions of real people in real situations.

232. Congress recently considered early allocation of liability as a means of reducing transaction costs in CERCLA. *See* H.R. 3800, 103d Cong. (1994).

Behavioral decision theory has much to offer the law and economics literature. The alternative to the expected utility model of human choice is not chaos and uncertainty. The findings of behavioral decision theory are consistent, robust, and replicable—the hallmarks of useful empiricism. The failure to incorporate observed phenomena of human judgement subjects the law and economic literature to easily avoided criticisms. It is true that incorporating such biases into the literature adds some complexity and additional wrinkles, but the complexity is worth having. As this Article demonstrates, adding the notion of risk-seeking defendants to an existing set of law and economics literature need not subvert the basic endeavor. Rather, doing so enriches the field, opens new hypotheses, and provides greater predictive power.

APPENDIX 1: STIMULUS MATERIALS FOR STUDY ONE

Real Resorts Hypothetical—Plaintiff's Version

Imagine that you are an attorney for a large law firm. You are representing a client, Tom Smith, in a land dispute. Mr. Smith owns a large piece of property in Oregon, where he has a vacation home. During his last visit several months ago, he was surprised to discover that the neighboring bed and breakfast inn had expanded. In fact, a new set of rooms had been added on a small corner of *your client's* property by the owner, Real Resorts, Inc., a small chain of bed and breakfast inns. Your client then had you file this lawsuit against Real Resorts.

As it turns out, your client was correct, and the rooms are actually built in part on a thirty by ten square foot section of his property. Real Resorts does not dispute this fact, and has stipulated that they erroneously built the new rooms on your client's land. You have stipulated that your client's land has suffered only a nominal reduction in value as a result of the loss of use of part of the property.

Under Oregon law, as in most states, Real Resorts has clearly trespassed on your client's land and is continuing to do so. The judge assigned to the case will have her choice of two different legal remedies: (1) order Real Resorts to remove the structure from your client's property, or (2) order your client to sell the corner of his property to Real Resorts for its value, probably $50. In previous contacts with the defendant, you have learned that if the judge orders them to remove the buildings, rather than tear them down, they will offer your client [$100,000/$200,000] for the corner of property that they have taken. You are sure that your client would accept this amount. In other words, depending upon the judge's decision, your client stands to win either [$100,000/$200,000] or $50 for his square of property. (He would of course keep the remainder of his land either way.) You have consulted a senior partner in your firm who knows the judge. He has stated that she is [/not] an adamant defender of property rights who [hates to order forced sales of land/and prefers to order forced sales of land]. He believes that she will probably decide in [your favor/against you] and estimates your chances of winning an order against Real Resorts at about [70/30] percent.

Your client has indicated that if he loses in front of the judge, he will be unwilling to incur the expense of an appeal and will drop the case. It is now one day before trial. The defendant has contacted you

and made a settlement offer of [seventy/thirty/one-hundred forty/ sixty] thousand dollars. The defense proposes this as a non-negotiable, final offer.

Do you agree to accept the $ [70/30/140/60] ,000 settlement?

Yes No (circle one)

Real Resorts Hypothetical—Defendant's Version

Imagine that you are an attorney for a large law firm. You are representing a small chain of bed and breakfast inns, Real Resorts Inc., in a land dispute. Your client recently expanded one of its inns in Oregon, by erecting a number of new rooms and buildings. Due to a surveying error, a small but costly part of the new complex was inadvertently built on a thirty by ten foot piece of the property of a neighbor, a man who owns a vacation home. The survey firm has subsequently filed in bankruptcy court and there is no chance of receiving any compensation for their error. The owner of the land, Tom Smith, filed this lawsuit to order your client to remove their new rooms.

As it turns out, the plaintiff was correct, and the rooms are actually on his property. You have stipulated that your client erroneously built the new rooms on the plaintiff's land. The plaintiff has stipulated that his land has suffered only a nominal reduction in value of [sic] as a result of the loss of use of part of the property.

Under Oregon law, as in most states, Real Resorts has clearly trespassed on the plaintiff's land and is continuing to do so. The judge assigned to your case will have her choice of two legal remedies: (1) order your client to remove the structure from the plaintiff's property, or (2) order the plaintiff to sell the property to your client for its value, probably $50. You have consulted a senior partner in your firm who knows the judge. He has stated that she is [/not] an adamant defender of property rights who [hates to order forced sales of land/ likes to order forced sales of land]. He believes that she will probably decide [against you/in your favor] and estimates your chances of losing and facing and [sic] order to tear down the new building to be about [70%/30%].

Your client has indicated that if they lose in front of the judge, they will be unwilling to incur the expense of an appeal. Your client has decided that if the judge orders them to remove the buildings, that they will offer the plaintiff [$100,000/$200,000] for the corner property

that they have taken: an amount that you are sure that the plaintiff will accept. In other words, your client faces a loss of either [$100,000/ $200,000] or $50 for the property depending on the judge's decision. It is now one day before trial. The plaintiff has contacted you and informed you that they will be willing to settle for [seventy/thirty/one-hundred forty/sixty] thousand dollars. The plaintiff proposes this as a non-negotiable, final offer.

Do you agree to pay the $ [70/30/140/60] ,000?

Yes No (circle one)

APPENDIX II: STIMULUS MATERIALS FOR STUDY TWO

Discovery Problem

You are working for a large, prestigious law firm in the Pacific Northwest. You are representing F Corp., a pharmaceutical manufacturer and one of your firm's largest clients, in a products liability suit. One of F Corp.'s products, Somophyllin Oral Liquid (Somophyllin), is a brand name for the generic drug "theophylline." F Corp. promoted and distributed the product until recently, when it was withdrawn from the market. The product, available by prescription, was one of a number marketed to alleviate the effects of asthma.

In January 1994, two-year-old Jennifer P suffered severe and permanent brain damage after being treated with Somophyllin while she was experiencing a viral infection. Shortly thereafter, Jennifer's parents sued the pediatrician who prescribed the drug for her, Dr. K, and your client, F Corp., in a federal district court that has opted out of the disclosure provisions in Rule 26 of the Federal Rules of Civil Procedure. The parents allege that the drug interacted with a viral infection the child was experiencing, producing toxic effects. In August 1994, the doctor's insurer settled with the family for $1.1 million.

The doctor (along with his insurer) cross-claimed against the drug company, seeking compensation for his settlement with the family and for injury to his reputation. The doctor alleged that F Corp. failed to warn him about the dangers of the drug, particularly the toxic effects of its use by a child with a viral infection. Your client's primary defense is that it was not aware of the potential toxicity of the drug, and therefore could not have warned the doctor. Dr. K has refused even to discuss settlement.

In November 1994, the doctor served requests for production of documents pursuant to Rule 34 on the drug company. Among the requests were the following (along with your responses):

> "*Request for Production No. 2*: All documents pertaining to any warning letters, including 'Dear Doctor letters' or warning correspondence to the medical professions regarding the use of the drug Somophyllin Oral Liquid.
>
> "*Answer*: Documents responsive to this request, if any, will be produced at a reasonable time and place convenient to F Corp. and its counsel of record.
>
> . . . .

> "*Request for Production No. 3*: Produce genuine copies of any letters sent by your company to physicians concerning theophylline toxicity in children.
>
> "*Answer*: Such letters, if any, regarding Somophyllin Oral Liquid will be produced at a reasonable time and place convenient to F Corp. and its counsel of record.
>
> . . . .
>
> *Request for Production No. 6*: All documents contained in all files from the regulating department, marketing department, drug surveillance department, pharmaceutical development department, product manager department and the medical departments regarding all cromolyn products of F Corp. [Although Somophyllin is not a cromolyn product, other cromolyn products developed by F Corp. are also used to treat asthma.]
>
> *Answer*: Defendant objects to this discovery request as over broad, not reasonably calculated to lead to the discovery of admissible evidence, and as incredibly burdensome and harassing. This discovery request encompasses millions of pages of completely irrelevant documents. Neither cromolyn, nor any cromolyn product, nor the properties or efficacy of cromolyn is at issue in this litigation.

Your response to discovery requests also contained the following general objection:

> *Requests Regarding Fisons Products Other Than Somophyllin Oral Liquid.* F Corp. objects to all discovery requests regarding F Corp.'s products other than Somophyllin Oral Liquid as overly broad, unduly burdensome, harassing, and not reasonably calculated to lead to the discovery of admissible evidence.

After consulting with the in-house counsel for F Corp., you determined that complying with request number 6 would result in the production of between 1 and 2 million documents. You made the above-noted objection because you believe that these documents are unrelated to the litigation, and that the request is part of a fishing expedition by the plaintiffs. An extremely cursory review of the relevant files supports your belief, and the in-house counsel assures you that the files do not contain any relevant documents (although she has not conducted an exhaustive review either). Consequently, you made a motion for a protective order to avoid producing these documents. An affidavit supporting this motion, drafted by you and signed by the in-house counsel, contained the following statement:

> "I have personally examined the scope and extent of documents responsive to the plaintiff's request number 6. Producing all of the documents responsive to the plaintiff's request would be extremely burdensome and oppressive to the to Defendant. Between one and two million pages of documents, most of which have no colorable relevance to the issues in this action, would have to be located, assembled and made available for review or copying. The time, expense, and intrusion upon the day-to-day business of Defendant would be immense.
>
> "I have identified those documents reasonably related to the claims asserted by plaintiffs in this litigation and arranged to have them copied and forwarded to the plaintiffs."

The motion for a protective order was granted. Pursuant to the remaining document requests, you and your client produced thousands of documents to the doctor. No further motions regarding the document production were made by either side. Further pretrial proceedings, including the taking of a number of depositions, occurred during 1994 and 1995 in preparation for a scheduled trial date in October 1995. Neither the documents produced nor the depositions taken led to the discovery of any evidence that anyone at F Corp. was aware, before Jennifer P's illness, of the potentially toxic effects of an interaction between Somophyllin and a viral infection. As the discovery phase of the litigation ended in August 1995, you and the in-house counsel for F Corp. agreed that the case was in a good position for a motion for summary judgment against the doctor—which would avoid a trial and save F Corp. hundreds of thousands of dollars in attorneys' fees.

While conducting a final search of F Corp.'s files, in preparation for the summary judgment motion, you reviewed the file of a drug called Intal. The drug is a cromolyn product that is also used to treat asthma. During the review of this file, you discovered the following two documents:

> *Document 1.* In June 1989, a letter from F Corp.'s manager of medical communications, Cedric G, was sent to a select group of 2,000 physicians (not including Dr. K). Addressed "Dear Doctor," and entitled "Re: Theophylline and Viral Infections," the letter warned that theophylline "can be a capricious drug." G stressed a published study showing "life-threatening theophylline toxicity when pediatric asthmatics on previously well tolerated doses of theophylline contract viral infections." The letter promoted another F Corp.

product for treatment of asthma, Intal, as safer than competing drugs based on theophylline.

Document 2. A July 1993 internal memorandum from Cedric G to a vice-president of F Corp. reported the dangers of theophylline and suggested that the company end its promotion of theophylline products. The memo began: "An alarming trend seems to be surfacing in the medical literature and as a manufacturer of theophylline products we need to be aware of it. . . . [There has been] a dramatic increase in reports of serious toxicity to theophylline in 1993 medical journals." The memo went on to state that many doctors who prescribe theophylline products "may not be aware of this alarming increase in adverse reactions such as seizures, permanent brain damage, and deaths." The memo concluded by asserting that an "epidemic of theophylline toxicity provides strong justification for our corporate decision to cease promotion activities with our theophylline line of products and encourage the use of cromolyn based drugs."

Both documents contradict your client's primary defense to the failure-to-warn claim by showing that the company knew of the risk of theophylline at least four years before Jennifer P was severely disabled by the drug, and that it had seriously considered removing the drug from the market several months before her injury. Production of the documents will eliminate the possibility of obtaining summary judgment against the doctor, will result in re-opening of discovery, and will likely lead to a substantial judgment in favor of the doctor at trial. The documents might also adversely affect the litigation with the parents, which had been approaching a reasonably favorable posture for a settlement. Your client's in-house counsel, arguing that these documents were kept in files dealing with Intal, a product distinct from Somophyllin that does not contain theophylline, strongly urges that these damaging documents not be produced. You are in charge of the litigation, however, and must make the decision.

After reflecting on the matter, please fill out the form below and return it to the instructor with your response.

I will take the following action (circle one):

Produce the documents Do not produce the documents

COMMENTS:

Now assume that instead of deciding for yourself, you took the matter to the firm's in-house ethics counsel. On his advice, you have

decided to go ahead with production of the documents, You know this will hurt your case with the doctor, but you are now concerned about its impact on the litigation with the parents.

As mentioned above, you are engaged in serious settlement discussions with the parents. The day after you filed the summary judgment motion against the doctor, the parents offered to settle for $3 million. You have not yet produced the documents described above to the doctor, and there is no question but that the parents' discovery requests do not require the production of these documents. (The parents had limited their request to the files at F Corp. labeled "Somophyllin Oral Liquid.") You believe that if you produce the document described above to the doctor's attorney, the parents might find out about them. You are also concerned that if the parents receive these documents, they may withdraw their settlement offer, and may insist on a much greater settlement—at least $5 million.

In previous discussions, F Corp.'s in-house counsel has informed you that the Company was prepared to face liability of up to [$5/$1] million to the parents. She now tells you that the case is currently "[under/over] budget." Out of concern that these documents will fall into the hands of the parents and result in a substantial increase in liability for F Corp., she has requested that you accept the $3 million settlement offer immediately.

Settling before production of the documents is risky, however, as the parents are not without recourse if they feel that they have been duped into accepting an unjust settlement. You would risk incurring judicial sanctions, damaging the firm's reputation, and causing further expensive litigation. On the other hand, if you settle now, the parents may never find out about the documents, or may not be willing to reopen their litigation. If you wait until after these documents are produced, F Corp. may have to pay a higher settlement, but you will be free from any allegations of ethical impropriety. This time, you must decide for yourself.

Do you settle with the parents by accepting their $3 million offer before you produce the documents? (Circle one)

Yes, settle now No, wait until after production

If you have any other comments on this survey, please make them on the reverse side of this paper.