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## **Better Settle than Sorry: The Regret Aversion Theory of Litigation Behavior**

Chris Guthrie

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# BETTER SETTLE THAN SORRY: THE REGRET AVERSION THEORY OF LITIGATION BEHAVIOR

Chris Guthrie\*

*Legal scholars have developed two dominant theories of litigation behavior: the Economic Theory of Suit and Settlement, which is based on expected utility theory, and the Framing Theory of Litigation, which is based on prospect theory. While Professor Guthrie acknowledges the explanatory power of these theories, he argues that they are flawed because they portray litigants solely as calculating creatures. These theories disregard any role emotion might play in litigation decision making.*

*Guthrie proposes a complementary theory—the Regret Aversion Theory of Litigation Behavior—that views litigants as both calculating and emotional creatures. With roots in economics, cognitive psychology, and social psychology, the Regret Aversion Theory predicts that individuals will seek to make decisions that minimize the likelihood they will experience postdecision regret. Because regret is most likely to arise when individuals discover that they would have obtained better outcomes if they had decided differently, the Regret Aversion Theory predicts that people will make decisions that shield them from this knowledge.*

*Using an experimental survey methodology, Guthrie tests this theory in the litigation context and finds that litigants, when choosing between settlement and trial, systematically prefer settlement because it minimizes the likelihood that they will experience regret. Settling reduces regret by allowing litigants to avoid discovering that trial might have been the better decision; trial offers no such protection. Guthrie concludes by examining the implications of the Regret Aversion Theory for lawyers and for the legal system as a whole.*

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\* Associate Professor of Law and Senior Fellow at the Center for the Study of Dispute Resolution, University of Missouri School of Law. B.A. 1989, Stanford; Ed.M. 1991, Harvard; J.D. 1994, Stanford. For their advice and comments on earlier drafts of this article, I am grateful to Tracey George, Brad Joondeph, Russell Korobkin, Don Langevoort, Jim Levin, Bob Mnookin, Jeff Rachlinski, Len Riskin, Josh Stulberg, Cass Sunstein, Tom Ulen, and participants in a faculty colloquium at the University of Missouri School of Law. I am also grateful to Erik Edwards for his capable research assistance, Diane Collins for her diligent interlibrary loan assistance, and the University of Missouri Law School Foundation for financial support.

## INTRODUCTION

Approaching trial was one thing; going to court after turning down a multimillion dollar offer was another. . . . In court everything is black and white—you argue your case, give it all you've got, and if you lose . . . the judge and jury were against you from the start. *But failing to reach a settlement once negotiations began left only yourself to blame and carried the legal and moral weight of having rejecting a suboptimal deal for possibly none at all.*<sup>1</sup>

Litigants and their lawyers make numerous decisions throughout the litigation process, including whether to file a complaint, how to respond, what sorts of pretrial motions to file, what discovery to undertake, and ultimately, whether to settle or go to trial. Recognizing the ubiquitous decision making that characterizes the litigation process,<sup>2</sup> legal scholars have proposed two dominant theories of litigation behavior,<sup>3</sup> both of which are based on decision theories developed in other disciplines.<sup>4</sup>

Law and economics scholars, drawing upon expected utility theory, have proposed an Economic Theory of Suit and Settlement.<sup>5</sup> The Economic Theory posits that litigants are economically rational actors who make risk-averse<sup>6</sup> or risk-neutral<sup>7</sup> choices designed to maximize outcomes.

1. BARRY WERTH, DAMAGES: ONE FAMILY'S LEGAL STRUGGLES IN THE WORLD OF MEDICINE 327 (1998) (emphasis added) (chronicling one family's medical malpractice action on behalf of their infant son, Tony, who was born with profound birth defects).

2. Decision making is ubiquitous not only in litigation but in life generally. See, e.g., Mark C. Suchman, *On Beyond Interest: Rational, Normative and Cognitive Perspectives in the Social Scientific Study of Law*, 1997 WIS. L. REV. 475, 475 ("Perhaps the most basic aspect of human behavior is 'decision-making'—the process of selecting between alternative, incompatible lines of action. We make hundreds of such selections each day, both as individuals and as members of collectivities.").

3. Two other theoretical efforts to model the litigation process include Mnookin & Kornhauser's strategic bargaining theory, see Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979), and the game-theoretic or asymmetric information models of litigation proposed by Bebchuk, P'ng, and others. See, e.g., Lucian Arye Bebchuk, *Litigation and Settlement Under Imperfect Information*, 15 RAND J. ECON. 404 (1984); Barry Nalebuff, *Credible Pretrial Negotiation*, 18 RAND J. ECON. 198 (1987); I. P. L. P'ng, *Strategic Behavior in Suit, Settlement, and Trial*, 14 BELL J. ECON. 539 (1983); Jennifer F. Reinganum & Louis L. Wilde, *Settlement, Litigation, and the Allocation of Legal Costs*, 17 RAND J. ECON. 557 (1986).

4. "Legal scholars derive most of their positive theory from models developed outside the law. Even the normative theories owe much, and not infrequently everything, to these extralegal models. Hence, we legal academics have a rational interest in cutting-edge ideas developed by professors of philosophy, cognitive psychology, political science, economics, and so forth." William N. Eskridge, Jr., *Rationality and Cognition*, 3 LEGAL THEORY 101, 101 (1997).

5. See *infra* Part I.A.

6. In economic terms, "[a] risk averter is defined as one who, starting from a position of certainty, is unwilling to take a bet which is actuarially fair." KENNETH J. ARROW, *ESSAYS IN THE THEORY OF RISK-BEARING* 90 (1971); see also Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 AM. PSYCHOL. 341, 341 (1984) [hereinafter Kahneman & Tversky, *Choices*] (noting that "a preference for a sure outcome over a gamble that has higher or equal expectation is called risk averse"); Richard P. Larrick, *Motivational Factors in Decision Theories: The Role of Self-Protection*, 113 PSYCHOL. BULL. 440, 440 (1993) [hereinafter Larrick, *Motiva-*

Law and psychology scholars,<sup>8</sup> drawing upon cognitive psychology's prospect theory,<sup>9</sup> have proposed a Framing Theory of Litigation. The Framing Theory posits that litigants are more sensitive to relative gains and losses than they are to absolute outcomes. As a result, litigants are inclined to make risk-averse choices when selecting between gains and risk-seeking<sup>10</sup> choices when selecting between losses.

While these theories explain much litigation behavior, they are ultimately inadequate because they rest on an impoverished view of the human beings actually making litigation decisions. Both the Economic and Framing Theories treat litigants solely as calculating creatures. They allow no role for actual or anticipated emotion in the litigation decision-making process, even though "[m]any decisions," including litigation decisions, "can be understood in terms of a desire to avoid the unpleasant psychological consequences that result from a decision that turns out poorly."<sup>11</sup>

The primary purpose of this article is to propose and test a theory of litigation behavior that recognizes litigants not only as calculating creatures, but also as feeling creatures. The proposed Regret Aversion Theory of Litigation Behavior contends that litigants base at least

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*tional Factors*] (observing that risk-averse decision makers "prefer certain outcomes to risky courses of action that have the same or higher expected value"); Paul J. H. Schoemaker, *The Expected Utility Model: Its Variants, Purposes, Evidence and Limitations*, 20 J. ECON. LITERATURE 529, 532 (1982) ("If some gamble is less . . . preferred than its expected monetary value for sure, the preference is said to be risk-averse.").

7. A risk-neutral decision maker is indifferent between options with identical expected values. See, e.g., A. MITCHELL POLINSKY, *AN INTRODUCTION TO LAW AND ECONOMICS* 53 (2d ed. 1989).

8. The leading proponent of the Framing Theory is Jeff Rachlinski. See Jeffrey J. Rachlinski, *Gains, Losses, and the Psychology of Litigation*, 70 S. CAL. L. REV. 113 (1996); see also Linda Babcock et al., *Forming Beliefs About Adjudicated Outcomes: Perceptions of Risk and Reservation Values*, 15 INT'L REV. L. & ECON. 289 (1995); Russell Korobkin & Chris Guthrie, *Psychological Barriers to Litigation Settlement: An Experimental Approach*, 93 MICH. L. REV. 107 (1994) [hereinafter Korobkin & Guthrie, *Psychological Barriers*].

9. Amos Tversky and Daniel Kahneman formulated "prospect theory" in a series of articles beginning with *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263, 268-69 (1979) [hereinafter Kahneman & Tversky, *Prospect Theory*]. See also Kahneman & Tversky, *Choices*, *supra* note 6, at 342-44; Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. 5251, 5257-60 (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, *Framing*]. For more recent work on prospect theory, see Amos Tversky & Daniel Kahneman, *Advances in Prospect Theory: Cumulative Representation of Uncertainty*, 5 J. RISK & UNCERTAINTY 297 (1992) [hereinafter Tversky & Kahneman, *Cumulative Representation*]; Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference-Dependent Model*, 106 Q.J. ECON. 1039 (1991). For more information about the Framing Theory, see *infra* Part I.B.

10. A risk-seeker's preference is the opposite of the risk-averter's preference. See, e.g., Kahneman & Tversky, *Choices*, *supra* note 6, at 341 ("[T]he rejection of a sure thing in favor of a gamble of lower or equal expectation is called risk seeking"); Larrick, *Motivational Factors*, *supra* note 6, at 441 ("The tendency to favor a gamble that has the same or lower expected value than a certain outcome is known in the decision-making literature as *risk seekingness* or *risk proneness*"); Schoemaker, *supra* note 6, at 532 ("If some gamble is . . . more [ ] preferred than its expected monetary value for sure, the preference is said to be . . . risk-seeking [ ].").

11. Larrick, *Motivational Factors*, *supra* note 6, at 440.

some litigation decisions on "a desire to avoid the unpleasant psychological consequences" of regret arising from "a decision that turns out poorly."<sup>12</sup> This theory, meant to complement rather than compete with the existing theories, seeks to enhance our understanding of litigation behavior. By explaining the role that expected value comparisons (the Economic Theory) and the framing of decision options (the Framing Theory) play in litigation decision making, the existing theories have taken us a long way toward understanding litigation behavior. The proposed Regret Aversion Theory, which acknowledges the incontrovertible fact that litigants are emotional as well as calculating creatures, begins to round out our understanding of litigation.

I proceed below as follows. In part I, I thoroughly explain the existing theories of litigation behavior, the Economic Theory and the Framing Theory, and the decision theories upon which they are based, expected utility theory and prospect theory. I then argue that these theories fail to adequately explain litigation decision making because they are premised on an inadequate account of the human beings making litigation decisions. In part II, I propose my complementary Regret Aversion Theory of Litigation Behavior. In part III, I test the Regret Aversion Theory through hypothetical lawsuit scenarios administered to first-year law students. Using this experimental methodology, I show that both plaintiffs *and* defendants factor anticipated regret into their decision making and systematically prefer settlement to trial as a consequence. In part IV, I explore some of the challenges regret aversion poses to lawyers representing clients in the civil litigation system. Finally, I conclude by observing that our civil justice system uses regret aversion, wittingly or unwittingly, to create an emotional or psychological incentive for litigants to settle.

## I. THE LITIGATION THEORIES

The two prevailing theories of litigation behavior—the Economic Theory of Suit and Settlement and the Framing Theory of Litigation—make different predictions about the behavior of litigants because they rest on different theories of decision making. In this part of the article I introduce each litigation theory and explain the theory of decision making upon which each is based. After explaining the theories, I then argue that they need supplementation because their view of the human beings making litigation decisions is too limited to capture the complexity of litigation behavior.

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12. *Id.*

### A. *The Economic Theory of Suit and Settlement*

The Economic Theory of Suit and Settlement—promulgated by such prominent law and economics scholars as Robert Cooter,<sup>13</sup> John Gould,<sup>14</sup> Benjamin Klein,<sup>15</sup> William Landes,<sup>16</sup> Richard Posner,<sup>17</sup> George Priest,<sup>18</sup> Daniel Rubinfeld,<sup>19</sup> and Steven Shavell<sup>20</sup>—posits that economically rational<sup>21</sup> litigants make risk-neutral<sup>22</sup> or risk-averse<sup>23</sup> choices to maximize outcomes.<sup>24</sup> When deciding whether to settle a case or go to trial, the Economic Theory predicts that litigants compare the value of settlement to the expected value of trial and select whichever of the options promises more value.<sup>25</sup> Because the costs of

13. See generally Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LITERATURE 1067 (1989) (reviewing the law and economics literature to date on litigation).

14. See generally John P. Gould, *The Economics of Legal Conflicts*, 2 J. LEGAL STUD. 279 (1973) (applying the economic model to the disposition of lawsuits).

15. See generally George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984) (presenting an economic model of the litigation process that assesses which cases settle and which cases go to trial).

16. See generally William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & ECON. 61 (1971) (developing an economic model of the trial-versus-settlement decision in the criminal justice system).

17. See Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399, 399 (1973) (applying "the powerful tools of economic theory" to "an understanding of the operating principles of the system for resolving legal disputes").

18. See generally Priest & Klein, *supra* note 15.

19. See generally Cooter & Rubinfeld, *supra* note 13.

20. See Steven Shavell, *Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods for the Allocation of Legal Costs*, 11 J. LEGAL STUD. 55, 56 (1982) (developing a "simple" economic model of the litigation process to assess allocation of legal costs).

21. An economically rational person "has three properties. (a) He is completely informed. (b) He is infinitely sensitive. (c) He is rational." Ward Edwards, *The Theory of Decision Making*, 51 PSYCHOL. BULL. 380, 381 (1954). "The crucial fact about economic man is that he is rational. This means two things: He can weakly order the states into which he can get, and he makes his choices so as to maximize something." *Id.*

22. See, e.g., Cooter & Rubinfeld, *supra* note 13, at 1076 (analyzing risk neutrality and risk aversion); Posner, *supra* note 17, at 418 n.28 ("assum[ing] risk neutrality"); Shavell, *supra* note 20, at 58 ("Most of the analysis that follows will focus on the case where both parties are risk neutral."); Peter J. van Koppen, *Risk Taking in Civil Law Negotiations*, 14 LAW & HUM. BEHAV. 151, 152 (1990) ("In studies of the decision to settle or to sue, it is usually assumed that parties are risk neutral; that is, that parties are biased neither towards continuing negotiations nor towards breaking off negotiations.").

23. See, e.g., Cooter & Rubinfeld, *supra* note 13, at 1076 (analyzing risk neutrality and risk aversion); W. Kip Viscusi, *Product Liability Litigation with Risk Aversion*, 17 J. LEGAL STUD. 101, 103 (1988) (assessing in products liability litigation "how the decisions to drop and to settle a claim are affected by risk aversion, as well as how risk aversion affects the settlement amounts").

24. See, e.g., Priest & Klein, *supra* note 15, at 4 ("According to our model, the determinants of settlement and litigation are solely economic, including the expected costs to parties of favorable or adverse decisions, the information that parties possess about the likelihood of success at trial, and the direct costs of litigation and settlement. The most important assumption of the model is that potential litigants form rational estimates of the likely decision . . ."); Shavell, *supra* note 20, at 56-57 ("If the plaintiff does decide to bring suit, it is assumed that he and the defendant will reach a settlement if and only if there exists some settlement amount that both he and the defendant would prefer to going to trial.").

25. See sources cited *supra* note 24.

litigating a case to a verdict generally exceed the costs of settlement,<sup>26</sup> the Economic Theory predicts that litigants settle most civil cases because of the cost savings they obtain.<sup>27</sup> This "outcome maximization" theory of litigation behavior is based on the modern era's dominant theory of decision making, the expected utility theory.<sup>28</sup>

Rooted in ancient Greek philosophy<sup>29</sup> and seventeenth-century Swiss mathematics,<sup>30</sup> expected utility theory<sup>31</sup> was "founded" by John

26. In fact, the cost of trial generally exceeds the cost of settlement by such a substantial amount that many economic theorists assume the cost of settlement is zero. *See, e.g.*, Cooter & Rubinfeld, *supra* note 13, at 1075 (noting that "trial costs are so much greater than settlement costs that many authors choose the simplifying assumption that settlement costs are nil").

27. For a lucid, nontechnical account of the Economic Theory, see Janet Cooper Alexander, *Do the Merits Matter? A Study of Settlements in Securities Class Actions*, 43 STAN. L. REV. 497, 501-02 (1991). Cooper explains:

In this model, the parties make decisions about settlement based on rational estimates of the expected economic value of the case, including the costs of litigation. Before trial, each side determines the expected value of the case by multiplying the amount of the expected judgment if the plaintiff wins by the estimated probability of a plaintiff's verdict. Each party makes its settlement decisions by comparing its expected economic position after a trial with its position if the settlement proposal is accepted, taking into account the costs of litigation and settlement.

*Id.*; see also 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, 324 (1991). They state:

[The Priest & Klein Economic Model] assume[s] that the parties will settle whenever the defendant's maximum offer is greater than the plaintiff's minimum demand. Because litigation costs are *added* to the defendant's maximum offer and *subtracted* from the plaintiff's minimum demand, settlement will normally occur. Indeed, if plaintiffs and defendants always agreed in their predictions of trial outcomes, there would be no trials at all.

*Id.*

28. *See, e.g.*, PAUL ANAND, FOUNDATIONS OF RATIONAL CHOICE UNDER RISK 131 (1993) ("There can be few theories that would appear to be so important in so many disciplines."); JANET LANDMAN, REGRET: THE PERSISTENCE OF THE POSSIBLE 117 (1993) ("By now utilitarian decision theory has achieved canonical status."); R. J. Herrnstein, *Rational Choice Theory: Necessary but Not Sufficient*, 45 AM. PSYCHOL. 356, 356 (1990) ("Not just economics, but all the disciplines dealing with behavior, from political philosophy to behavioral biology, rely increasingly on the idea that humans and other organisms tend to maximize utility, as formalized in modern economic theory . . . . The scattered dissenters to the theory are often viewed as just that—scattered and mere dissenters to an orthodoxy almost as entrenched as a religious dogma."); John C. Hershey & Jonathan Baron, *Clinical Reasoning and Cognitive Processes*, 7 MED. DECISION MAKING 203, 203 (1987) (noting that expected utility theory "is generally accepted, having formed the basis in the last 40 years for virtually all theoretical and applied research in economics, finance, insurance, marketing, and gambling"); Mark J. Machina, *Decision-Making in the Presence of Risk*, 236 SCIENCE 537, 537 (1987) (arguing that the expected utility theory has "become the dominant, and indeed, almost exclusive model of decision-making under risk in economics, operations research, philosophy, and statistical decision theory"); Schoemaker, *supra* note 6, at 529 ("It is no exaggeration to consider expected utility theory the major paradigm in decision making since the Second World War.").

29. *See* LANDMAN, *supra* note 28, at 117 ("The roots of modern economic decision theory run nearly as deep as those of the Socratic principle, going back at least as far as the philosopher Epicurus (c. 270), who formulated a hedonistic principle that identified the good with the pleasurable. In ethical hedonism, the normative principle is to do what will afford one the greatest pleasure.").

30. *See* Milton Friedman & L. J. Savage, *The Utility Analysis of Choice Involving Risk*, 56 J. POL. ECON. 279, 281 (1948) ("The idea that choices among alternatives involving risk can be explained by the maximization of expected utility is ancient, dating back at least to D. Bernoulli's celebrated analysis of the St. Petersburg paradox."). For a discussion of the St. Petersburg Paradox—which was posed by Nicolas Bernoulli and "solved" by his nephew Daniel Bernoulli—see generally ANAND, *supra* note 28, at 3-5; LEONARD J. SAVAGE, THE FOUNDA-



von Neumann and Oskar Morgenstern<sup>32</sup> in 1944.<sup>33</sup> Von Neumann and Morgenstern proposed expected utility theory “as a normative model of an idealized decision maker, not as a description of the behavior of real people,”<sup>34</sup> though other scholars have developed descriptive expected utility theories purporting to explain actual human decision making.<sup>35</sup>

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TIONS OF STATISTICS 91-95 (1954). Gabriel Cramer and Christianus Huygens are also credited with unraveling the St. Petersburg Paradox. See ANAND, *supra* note 28, at 3 n.3; Mark J. Machina, *Choice Under Uncertainty: Problems Solved and Unsolved*, in THE LIMITS OF RATIONALITY 90, 91 (Karen Scheweers Cook & Margaret Levi eds., 1990).

31. Expected utility theory is variously referred to as “subjective expected utility theory,” e.g., ANAND, *supra* note 28, at 1; “modern utilitarianism,” “‘optimal choice’ theory,” “‘rational choice’ theory,” and “standard or classic decision theory,” LANDMAN, *supra* note 28, at 117; “the economic theory of rational choice,” Herrnstein, *supra* note 28, at 356; and the “‘rational model’ of decisionmaking,” Rachlinski, *supra* note 8, at 116 n.11.

32. Others credited with the founding of modern expected utility theory include Frank Ramsey and Leonard Savage. See Machina, *supra* note 28, at 537.

33. See generally JOHN VON NEUMANN & OSKAR MORGENSTERN, THE THEORY OF GAMES AND ECONOMIC BEHAVIOR (1944). Expected utility theory rests on several mathematical principles or axioms that purportedly characterize ideal, rational decision making. See *id.* at 24-29; Herrnstein, *supra* note 28, at 357 (“[R]ational choice theorists have formalized utility maximization, reducing it to its axiomatic foundations.”).

Scholars disagree about the number and characterization of the principles or axioms underlying the theory. Duncan Luce, for instance, contends that “there are just four major behavioral principles that have been invoked for normative theorizing,” R. Duncan Luce, *Where Does Subjective Expected Utility Fail Descriptively?*, 5 J. RISK & UNCERTAINTY 5, 8 (1992), while Richard Thaler identifies “fifteen specific principles of rationality.” Richard H. Thaler, *The Psychology of Choice and the Assumptions of Economics*, in QUASI-RATIONAL ECONOMICS 137, 138 (Richard H. Thaler ed., 1991) [hereinafter Thaler, *Psychology*]. According to Jeffrey Harrison, “[t]he central concept of rationality is dominance or transitivity. That is, if A is preferred to B, and B is preferred to C, then A is preferred to C.” Jeffrey L. Harrison, *Egoism, Altruism, and Market Illusions: The Limits of Law and Economics*, 33 UCLA L. REV. 1309, 1315 n.26 (1986). See generally SCOTT PLOUS, THE PSYCHOLOGY OF JUDGMENT AND DECISION MAKING 81-82 (1993); Tversky & Kahneman, *Rational Choice*, *supra* note 9, at S252-53.

34. Tversky & Kahneman, *Rational Choice*, *supra* note 9, at S251; see also PLOUS, *supra* note 33, at 80 (“Von Neumann and Morgenstern proposed expected utility theory as a ‘normative’ theory of behavior. That is, classical utility theory was not intended to describe how people *actually* behave, but how people *would* behave if they followed certain requirements of rational decision making.”). But see Jean Hampton, *The Failure of Expected-Utility Theory as a Theory of Reason*, 10 ECON. & PHIL. 195, 209 (1994) (arguing that “the theory as it was originally developed can only be understood as a purely *predictive* theory, and not a descriptive or normative theory”).

35. In his 1982 review of expected utility theory, Schoemaker identifies nine “variants” of expected utility theory, two of which (von Neumann & Morgenstern’s and Leonard Savage’s) he identifies as “normative,” and the others of which he identifies as descriptive. See Schoemaker, *supra* note 6, at 537-38; see also PLOUS, *supra* note 33, at 83 (noting that “[e]xpected utility theory is actually a *family* of theories (although ‘expected utility theory’ is often used as a shorthand reference to the theory developed by von Neumann and Morgenstern)”; Ward Edwards & Detlof von Winterfeldt, *On Cognitive Illusions and Their Implications*, in JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER 642, 662-63 (Hal R. Arkes & Kenneth R. Hammond eds., 1986) (noting that expected utility theories take both descriptive and prescriptive form); William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J. RISK & UNCERTAINTY 7, 7 (1988) (“Current economic thinking embraces the concept of rational choice as a prescriptive and descriptive paradigm.”); Thaler, *Psychology*, *supra* note 33, at 137 (“Neoclassical economics is based on the premise that models that characterize rational, optimizing behavior also characterize actual human behavior. The same model is used as a normative definition of rational choice and a descriptive predictor of observed choice.”).

The central premise of the expected utility theories is that risk-neutral<sup>36</sup> or risk-averse<sup>37</sup> decision makers seek to maximize expected utility.<sup>38</sup> An individual decision maker maximizes expected utility<sup>39</sup>

36. While expected utility theory usually assumes risk aversion, *see infra* note 37, some expected utility models assume decision makers are risk neutral. *See, e.g.,* ARROW, *supra* note 6, at 90 (noting that “[e]xpected utility theory predicts that people make either risk-averse or risk-neutral choices” (emphasis added)); Larry T. Garvin, *Adequate Assurance of Performance: Of Risk, Duress, and Cognition*, 69 U. COLO. L. REV. 71, 152 (1998) (“Those wedded to pure rationality tend to assume that economic actors are risk-neutral; if a person departs from risk-neutrality, she will either forego potentially profitable economic endeavors (risk-aversion) or undertake potentially unprofitable ones (risk-seeking).”).

37. Expected utility theory usually assumes decision makers are risk averse. *See, e.g.,* ARROW, *supra* note 6, at 90 (noting that “[e]xpected utility theory predicts that people make either risk-averse or risk-neutral choices” (emphasis added)); ZUR SHAPIRA, *RISK TAKING: A MANAGERIAL PERSPECTIVE* 24, 26 (1995) (noting that “[c]lassical analyses by Pratt, Arrow, and others, as well as more recent work, assumed that individual human decision makers are risk averse” and contending that risk aversion is one of the “two major tenets of the classical approach to risk attitudes” (citations omitted)); William M. Landes & Richard A. Posner, *The Positive Economic Theory of Tort Law*, 15 GA. L. REV. 851, 867 (1981) (“Generally, people are assumed to be risk-averse.”); Schoemaker, *supra* note 6, at 532 (“An important concept in EU theory is that of risk aversion.”). Expected utility theory makes this assumption even though “risk aversion is neither an axiom of rationality nor a necessary component of economic analysis.” Thaler, *Psychology*, *supra* note 33, at 142.

While expected utility theory generally assumes risk aversion, the reasons for this assumption are not entirely clear. Larrick explains that under expected utility theory, “the reason a person is risk averse is ambiguous. It is not possible to tell whether the person actually derives less value from additional units of money, as the 19th-century economists assumed, or whether the person simply dislikes risk.” Larrick, *Motivational Factors*, *supra* note 6, at 443. Notwithstanding this ambiguity, most scholars attribute the risk-aversion assumption to the former, rather than the latter, explanation. *See, e.g.,* Garvin, *supra* note 36, at 152 (identifying “diminishing marginal utility” as one of the explanations for the risk-aversion assumption); Daniel Kahneman & Dan Lovallo, *Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking*, in *FUNDAMENTAL ISSUES IN STRATEGY: A RESEARCH AGENDA* 71, 73 (Richard P. Rumelt et al. eds., 1994) (“The standard interpretation of risk aversion is decreasing marginal utility of gains.”); Rachlinski, *supra* note 8, at 117 n.13 (attributing risk aversion to “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”); Thaler, *Psychology*, *supra* note 33, at 142 (attributing the risk-aversion assumption to diminishing marginal utility).

38. *See, e.g.,* SAVAGE, *supra* note 30, at 105 (noting that under expected utility theory a “person always decides in favor of an act the expected utility of which is as large as possible”); VON NEUMANN & MORGENSTERN, *supra* note 33, at 1 (seeking “to find an exact description of the endeavor of the individual to obtain a maximum of utility”); Friedman & Savage, *supra* note 30, at 303 (finding that a “consumer unit (generally a family, sometimes an individual) behaves as if . . . [i]t chose among alternatives involving risk that one [alternative] for which the expected utility (as contrasted with the utility of the expected income) is largest”); Schoemaker, *supra* note 6, at 531 (noting von Neumann and Morgenstern’s derivation of “expected utility maximization”).

39. *See, e.g.,* Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 CHI.-KENT L. REV. 23, 23 (1989). Ellickson states:

The economists’ model, in its purest form, is based on elegantly simple propositions about both cognitive capacities and motivations. The model assumes that a person can perfectly process available information about alternative courses of action, and can rank possible outcomes in order of expected utility. The model also assumes that an actor will choose the course of action that will maximize his personal expected utility . . .

*Id.*; *see, e.g.,* J. St. B.T. Evans, *Bias and Rationality*, in *RATIONALITY: PSYCHOLOGICAL AND PHILOSOPHICAL PERSPECTIVES* 6, 8 (K.I. Manktelow & D.E. Over eds., 1993). Evans explains:

The basic principle which drives this theory is the assumption that people choose in such a way as to maximize expected utility—in other words to maximize the benefit or minimize

when he selects the decision option that is the most attractive to him<sup>40</sup> or that provides him with the most "utiles."<sup>41</sup>

When selecting between decision options with *certain* outcomes—e.g., when choosing one of two certain cash prizes, or when deciding whether to buy a mystery or a science fiction novel—utility maximization is easy. To maximize utility under such conditions of certainty,<sup>42</sup> the decision maker simply calculates the utility ("U")<sup>43</sup> of

the cost to themselves . . . . Each choice is associated with one or more possible outcomes which will occur with a given probability and which have a utility for the decision maker . . . . The action with the highest expected utility is the one chosen.

*Id.*

40. Utility is a "subjective" construct, *see, e.g.*, Evans, *supra* note 39, at 8; Edwards & von Winterfeldt, *supra* note 35, at 663 (noting that utility is "a subjective measure"), susceptible to quantification. *See* SAVAGE, *supra* note 30, at 69 (noting that utility is a function that "arithmetizes the relation of preference among acts"); VON NEUMANN & MORGENTHAU, *supra* note 33, at 16 (noting that expected utility theory treats "utilities as numerically measurable quantities").

Utility is variously defined as "a quantity defined so as to represent preferences," John Broome, *Comment: Should a Rational Agent Maximize Expected Utility?*, in *THE LIMITS OF RATIONALITY*, *supra* note 30, at 132, 134, "a person's good," *id.*, "the attractiveness of a possible outcome to the decision maker(s)," Edwards & von Winterfeldt, *supra* note 35, at 663, or "wantability," Daniel Kahneman, *New Challenges to the Rationality Assumption*, 3 *LEGAL THEORY* 105, 107 (1997) [hereinafter Kahneman, *New Challenges*].

"The notion of utility is roughly this," explain Frederick Mosteller and Philip Nogee. "Individuals behave as if they had a subjective scale of values for assessing the worth to them of different amounts of commodities, and this scale is not necessarily merely a stretching or a translation of the 'physical' scale in use in the market place." Frederick Mosteller & Philip Nogee, *An Experimental Measurement of Utility*, 59 *J. POL. ECON.* 371, 371 (1951).

41. A "utile" is "the usual name for the unit of utility." Edwards, *supra* note 21, at 392.

42. Decision theorists normally recognize three types of decision-making situations: certainty, risk, and uncertainty. *See, e.g.*, SHAPIRA, *supra* note 37, at 4. Certainty obtains "where each action is known to lead invariably to a particular outcome." *Id.* Risk obtains "where each action leads to a few known outcomes, *each of which occurs with a specific probability.*" *Id.* (emphasis added). Uncertainty obtains "where each action may lead to a set of consequences, *yet the probabilities of these outcomes are unknown.*" *Id.* (emphasis added).

While decision theorists recognize a distinction between "risk" and "uncertainty," the terms "are often used interchangeably." Lola L. Lopes, *Psychology and Economics: Perspectives on Risk, Cooperation, and the Marketplace*, 45 *ANN. REV. PSYCHOL.* 197, 199 & n.1 (1994) [hereinafter Lopes, *Psychology*]; *see also* FRANK H. KNIGHT, *RISK, UNCERTAINTY AND PROFIT* 19-20, 197-232 (1921) (the classic treatment); Lola L. Lopes, *Between Hope and Fear: The Psychology of Risk*, 20 *ADVANCES IN EXPERIMENTAL SOC. PSYCHOL.* 255, 256 (1987) [hereinafter Lopes, *Hope*] (noting that "risk shades into ignorance and most important decisions are made part way between the poles"); R. Duncan Luce & Howard Raiffa, *Utility Theory*, in *RATIONALITY IN ACTION: CONTEMPORARY APPROACHES* 19, 39 (Paul K. Moser ed., 1990) (recognizing "a mixture of uncertainty and risk" as a fourth decision-making situation). Thus, "risky choice" is often "the term used conventionally to refer to all but the most extreme instances of ignorance or ambiguity." Lopes, *Hope*, *supra*, at 256.

Because this article is about litigation decisions—e.g., whether to accept a settlement offer or proceed to trial—the focus of my analysis will be on decision making under risky conditions.

43. I use the term "utility" rather than "expected utility" because when making decisions under certain or riskless conditions, as here, a decision maker "has usually been assumed to maximize utility," whereas in uncertain or risky conditions, "he is assumed to maximize *expected utility.*" Edwards, *supra* note 21, at 381 (emphasis added); *see also* Paul K. Moser, *Rationality in Action: General Introduction*, in *RATIONALITY IN ACTION: CONTEMPORARY APPROACHES*, *supra* note 42, at 1, 3. Moser states:

When a decision maker is certain about the outcomes of his or her actions relative to actual states of the world . . . [he or she] need only invoke his or her ordinal ranking of outcomes based on personal preferences; the decision maker need only choose the action that has the highest utility on his or her ranking.

each decision option and selects the one that is greatest.<sup>44</sup> If, for example, the utility of decision option "x" exceeds the utility of decision option "y" ( $U_x > U_y$ ), the decision maker will select decision option "x."<sup>45</sup>

Utility maximization is not so easy, however, when one or more of the options available to the decision maker is *uncertain* or *risky*. When making decisions under conditions of risk or uncertainty<sup>46</sup>—e.g., choosing one medical treatment over another, accepting a settlement offer or facing the uncertainty of trial—a decision maker considers not only the utility of each option but also the probability that it will occur if selected. To maximize expected utility under such conditions, a decision maker performs two analytical tasks:

First, he calculates the expected utility of each decision option by multiplying its utility ("U") by the probability that it will occur ("P"). The expected utility ("EU") of decision option "x," for example, is the utility of "x" times the probability "x" will occur:  $EU_x = U_x P_x$ .

Second, he compares the expected utility of each decision option and selects the one that is greatest. If, for example, the expected utility of decision option "x" exceeds the expected utility of decision option "y" ( $EU_x > EU_y$ ), the decision maker will select decision option "x."

Consider the following:

Problem #1: Suppose that a decision maker is asked to choose between (a) a certain \$5,000 cash prize, and (b) a 50% chance of receiving a \$10,000 cash prize (with a corresponding 50% chance of receiving \$0).

The expected value of each decision option in Problem #1 is the same. That is, the value of option (a) is \$5,000 (i.e., \$5,000 x 100% probability = \$5,000), and the value of option (b) is also \$5,000 (i.e., \$10,000 x 50% probability plus \$0 x 50% probability = \$5,000). Because expected utility theory predicts that decision makers select the decision option that promises the greatest outcome, the theory

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*Id.* But see Luce & Raiffa, *supra* note 42, at 22 (criticizing the use of the term "utility" when describing decision making under conditions of certainty or risklessness).

44. The decision maker need not explicitly factor "probability" into his "decision equation" under conditions of certainty. Under such conditions, the probability that each option will occur is 100%. Under the formal "cancellation" axiom, see generally *supra* note 33, the rational decision maker recognizes that because the probability of each option is identical (i.e., 100%), the probabilities cancel each other out and are not taken into account when selecting between them.

45. Despite his reservations about the validity of expected utility theory as a *descriptive* theory, Herrnstein agrees that it "accords with common sense in certain simple settings." Herrnstein, *supra* note 28, at 357. "For example," Herrnstein offers, consider a choice between \$5 and \$10, no strings attached. Any theory of behavior must come up with the right answer here, where there seems to be no issue of obscure motives, or of errors of reckoning, remembering, knowing, and so on. Assuming only that more money has more utility than less money, rational choice theory does come up with it. To argue against rationality as a fundamental behavioral principle seems to be arguing against self-evident truth.

*Id.*

46. See *supra* note 42.

predicts that our decision maker in Problem #1 will be indifferent between the two decision options if he is risk neutral or will prefer the \$5,000 cash prize if he is risk averse. Expected utility theory predicts that he will not select the 50% chance at the \$10,000 prize.

Now consider the following:

Problem #2: Suppose that our decision maker is asked to choose between (a) paying a \$5,000 fine, and (b) facing a 50% chance of paying a \$10,000 fine (with a corresponding 50% chance of paying no fine).

The expected value of each decision option in Problem #2 is also the same. That is, the value of option (a) is  $-\$5,000$  (i.e.,  $-\$5,000 \times 100\%$  probability =  $-\$5,000$ ), and the value of option (b) is also  $-\$5,000$  (i.e.,  $-\$10,000 \times 50\%$  probability plus  $\$0 \times 50\%$  probability =  $-\$5,000$ ). Because expected utility theory predicts that decision makers select the decision option that promises the greatest outcome, the theory predicts that our decision maker in Problem #2 will be indifferent between the two decision options if he is risk neutral or will prefer to pay the certain \$5,000 fine if he is risk averse. Expected utility theory predicts that he will not risk the 50% chance at having to pay the \$10,000 fine.

In either situation, expected utility theory assumes that decision makers compare the expected utility of the decision options available to them and select the one that offers the greatest outcome. This is true regardless of whether the options represent gains (e.g., \$5,000 prize or a 50% chance of a \$10,000 prize) or losses (e.g., \$5,000 fine or a 50% chance of a \$10,000 fine) from a prior position.

Borrowing expected utility theory's central premise,<sup>47</sup> the Economic Theory of Suit and Settlement predicts that litigants, like decision makers generally, seek to maximize outcomes. Consider a simple litigation example:

Problem #3: Suppose that our decision maker is Plaintiff in a breach of contract suit against Defendant. Following discovery, Plaintiff's lawyer estimates Plaintiff has a 50% chance of winning a \$50,000 judgment at trial (and a 50% chance of not winning anything). Suppose further that Defendant has made a final settlement offer of \$25,000 to Plaintiff. Thus, Plaintiff faces a choice between (a) a certain \$25,000 settlement, and (b) a 50% chance of winning \$50,000 at trial (with a corresponding 50% chance of winning \$0).

The expected value of each decision option in Problem #3 is the same. That is, the value of the settlement is \$25,000 (i.e.,  $\$25,000 \times 100\%$  probability =  $\$25,000$ ), and the value of trial is also \$25,000 (i.e.,  $\$50,000 \times 50\%$  probability plus  $\$0 \times 50\%$  probability =  $\$25,000$ ). Because the Economic Theory predicts that litigants decide whether to

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47. See *supra* text accompanying note 38.

settle a case or go to trial based on the value of each option, the theory predicts that Plaintiff in Problem #3 will be indifferent between the two decision options if she is risk neutral or will accept the settlement offer if she is risk averse.

Now consider Problem #3 from the perspective of the defendant rather than the plaintiff:

Problem #4: Suppose that our decision maker is Defendant in a breach of contract suit filed by Plaintiff. Following discovery, Defendant's lawyer estimates Defendant has a 50% chance of losing a \$50,000 judgment at trial (and a 50% chance of not losing anything). Suppose further that Plaintiff has demanded \$25,000 to settle the case. Thus, Defendant faces a choice between (a) paying a certain \$25,000 settlement, and (b) facing a 50% chance of losing \$50,000 at trial (with a corresponding 50% chance of losing \$0).

In Problem #4, as in Problem #3, the expected value of each decision option is the same. That is, the value of the settlement to Defendant is  $-\$25,000$  (i.e.,  $-\$25,000 \times 100\%$  probability =  $-\$25,000$ ), and the value of trial is also  $-\$25,000$  (i.e.,  $-\$50,000 \times 50\%$  probability plus  $\$0 \times 50\%$  probability =  $-\$25,000$ ). Because the Economic Theory predicts that litigants decide whether to settle a case or go to trial based on the value of each option, the theory predicts that Defendant will be indifferent between the two decision options if she is risk neutral or will accept the settlement offer if she is risk averse.

In either situation the Economic Theory assumes that litigants compare the value of settlement to the value of trial and select the one that promises the most value, regardless of whether the options represent gains (as they do to Plaintiff) or losses (as they do to Defendant). In short, the Economic Theory of Suit and Settlement, drawing from expected utility theory, predicts that litigants behave as economically rational actors who calculate the costs and benefits of litigation options and select the one that is greatest.<sup>48</sup>

### B. *The Framing Theory of Litigation*

The Framing Theory of Litigation—promulgated by Jeff Rachlinski<sup>49</sup> and others<sup>50</sup>—“do[es] not question the basic premise [of the Economic Theory] that litigants *try* to achieve the best possible outcome.”<sup>51</sup> Rather, the Framing Theory “question[s] their ability to

48. When the expected value of the litigation options is the same, litigants are either indifferent between the options or prefer the certain one over the uncertain one. See *supra* text accompanying note 47.

49. See generally Rachlinski, *supra* note 8.

50. See generally, e.g., Babcock et al., *supra* note 8; Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8.

51. Rachlinski, *supra* note 8, at 118.

identify the most favorable options when risk and uncertainty are involved."<sup>52</sup>

The Framing Theory predicts that litigants will behave differently depending upon how a litigation decision is "framed." Rather than simply comparing options to one another and selecting the larger of the two, litigants evaluate decision options relative to a reference point and make risk-averse decisions when choosing between gains and risk-seeking decisions when choosing between losses.<sup>53</sup> When deciding whether to settle a case or go to trial, the Framing Theory predicts that *plaintiffs* are likely to behave in a risk-averse fashion because they view both settlement and trial as gains from their prior position, while *defendants* are more likely to exhibit risk-seeking tendencies because they view both settlement and trial as losses from their prior position.<sup>54</sup>

The Framing Theory is based on prospect theory, the leading challenger to the expected utility theory of decision making.<sup>55</sup> While economists, mathematicians, and statisticians fashioned expected utility theory via an "armchair method"<sup>56</sup>—that is, "[t]hey ma[d]e assumptions, and from these assumptions they deduce[d] theorems"<sup>57</sup>—

52. *Id.*

53. See, e.g., Babcock et al., *supra* note 8, at 296-97 (noting that their experimental results "suggest that people's risk attitudes may depend on how decisions are framed"); Rachlinski, *supra* note 8, at 128, also notes:

[L]itigation 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.

54. See, e.g., Babcock et al., *supra* note 8, at 296-97. Babcock argues:

A decision task framed in terms of potential gains typically produces risk averse behavior, whereas a decision task framed in terms of potential losses will be more likely to yield risk seeking behavior. The [sic] raises the possibility that plaintiffs, who are facing what may be perceived as gains, will exhibit risk aversion, whereas defendants, who may perceive potential losses, will be (relatively) more risk seeking. In fact, we find that subjects assuming the plaintiff's role are almost all risk averse while a substantial fraction of subjects assuming the defendant's role are risk seeking.

*Id.*; see also, e.g., Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8, at 109, who state:

[W]e predict that settlement rates will depend on whether the offeree understands a given settlement offer as a gain or loss. If an offeree views accepting an offer as a gain, he is likely to prefer settlement—the less risky alternative—to trial; if he sees the offer as a losing proposition, he is likely to prefer trial—the more risky option.

*Id.*; see also, e.g., Rachlinski, *supra* note 8, at 129, who contends,

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 attorneys fees 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.

55. See, e.g., PLOUS, *supra* note 33, at 95 ("Many alternatives to expected utility theory have been proposed . . . but the most widely accepted is 'prospect theory.'"); Rachlinski, *supra* note 8, at 121 (referring to prospect theory as "[t]he leading example of a behavioral decision theory model of choice").

56. Edwards, *supra* note 21, at 381.

57. *Id.*

the cognitive psychologists who “founded” prospect theory, Daniel Kahneman and Amos Tversky,<sup>58</sup> relied on empirical evidence both to demonstrate that decision makers “systematically violate the axioms of expected utility theory”<sup>59</sup> and to propose their “alternative account of choice under risk.”<sup>60</sup> Thus, Kahneman and Tversky’s prospect theory is a “behavioral decision theory”<sup>61</sup> that purports to describe how

58. See *supra* note 9.

59. Kahneman & Tversky, *Prospect Theory*, *supra* note 9, at 263. Kahneman and Tversky, as well as others, have offered sufficient empirical evidence demonstrating that decision makers do not behave in accord with expected utility theory’s underlying axioms, see *supra* note 33, to prompt Herrnstein to write that “[e]xperimental findings by many decision researchers have undermined the descriptive form of the theory by discovering choice phenomena that are consistent with (or at least not inconsistent with) principles of cognitive psychology, but inconsistent with rationality as commonly construed.” Herrnstein, *supra* note 28, at 357; see also ANAND, *supra* note 28, at 131 (“[T]he pressure for a substantial re-evaluation of its status is becoming harder to resist. The numerous and systematic experimental falsifications of SEU’s axioms are now broadly accepted.”); Garvin, *supra* note 36, at 145 (“Cognitive psychology and experimental economics have found a smorgasbord of cognitive errors, which collectively falsify most of the axioms of rational choice theory.”); Schoemaker, *supra* note 6, at 552. Schoemaker states:

[A]t the individual level EU maximization is more the exception than the rule . . . . As a descriptive model seeking insight into how decisions are made, EU theory fails on at least three counts. First, people do not structure problems as holistically and comprehensively as EU theory suggests. Second, they do not process information, especially probabilities, according to the EU rule. Finally, EU theory, as an “as if” model, poorly predicts choice behavior in laboratory situations. Hence, it is doubtful that the EU theory should or could serve as a general descriptive model.

*Id.*

60. Kahneman & Tversky, *Prospect Theory*, *supra* note 9, at 263.

61. Behavioral decision theory “incorporates empirical observations of judgment and choice into a model of decisionmaking.” Rachlinski, *supra* note 8, at 121. “What has characterized the field both historically and theoretically is the comparison of actual decision making with certain principles of rationality in decision making.” Robyn M. Dawes, *Behavioral Decision Making and Judgment*, in 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY 497, 497 (Daniel T. Gilbert et al. eds., 4th ed. 1998). “When actual decisions violate such principles systematically (not just as a result of unreliability or ‘error’), this deviation is termed an *anomaly* . . . .” *Id.* The earliest contributors to behavioral decision theory included those like Allais and Ellsberg who uncovered the first such anomalies. See Richard H. Thaler, *The Psychology and Economics Conference Handbook*, in QUASI-RATIONAL ECONOMICS, *supra* note 33, at 189, 191. More recent contributors include Kahneman and Tversky, founders of prospect theory. See *supra* note 9.

While behavioral decision theory “appears diametrically opposed” to the normative rationality theory, “this appearance is misleading” because behavioral decision theory has “retained the normative kernel of the classical view.” Gerd Gigerenzer & Daniel G. Goldstein, *Reasoning the Fast and Frugal Way: Models of Bounded Rationality*, 103 PSYCHOL. REV. 650, 650 (1996). “For example, a discrepancy between the dictates of rationality and actual reasoning is what defines a *reasoning error* in this program. Both views accept the laws of probability and statistics as normative, but they disagree about whether humans can stand up to these norms.” *Id.*

For overviews of the application of behavioral decision theory to law, see generally Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998); Donald C. Langevoort, *Behavioral Theories of Judgment and Decision-Making in Legal Scholarship: A Literature Review*, 51 VAND. L. REV. 1499 (1998); Cass R. Sunstein, *Behavioral Analysis of Law*, 64 U. CHI. L. REV. 1175 (1997) [hereinafter Sunstein, *Behavioral Analysis*]. Though still “at its inception,” the “behavioral analysis of law” or “behavioral law and economics” field is “showing signs of considerable growth.” Cass R. Sunstein et al., *Assessing Punitive Damages (with Notes on Cognition and Valuation in Law)*, 107 YALE L.J. 2071, 2074 (1998). But see generally Mark Kelman, *Behavioral Economics as Part of a Rhetorical Duet: A Response to Joss, Sunstein, and Thaler*, 50 STAN. L. REV. 1577 (1998); Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551 (1998).



individuals *actually* make decisions rather than how they would make decisions if they were “rational.”

Prospect theory “assumes decisions are based on *changes* in wealth rather than on final states of wealth.”<sup>62</sup> The central premise of prospect theory is that individual decision makers code decision options as gains or losses from a reference point<sup>63</sup> and make risk-averse choices when selecting between gains and risk-seeking choices when selecting between losses.<sup>64</sup>

To illustrate, reconsider Problems #1 and #2 discussed above:

Problem #1: Suppose that a decision maker is asked to choose between (a) a certain \$5,000 cash prize, and (b) a 50% chance of receiving a \$10,000 cash prize (with a corresponding 50% chance of receiving \$0).

Problem #2: Suppose that our decision maker is asked to choose between (a) paying a \$5,000 fine, and (b) facing a 50% chance of paying a \$10,000 fine (with a corresponding 50% chance of paying no fine).

Recall that expected utility theory predicts that our decision maker will evaluate the two problems the same way. In both problems, expected utility theory predicts he will be indifferent between options (a) and (b) if he is risk neutral, or he will select option (a) if he is risk averse.

Prospect theory, by contrast, predicts that our decision maker will evaluate the two problems quite differently. Prospect theory contends in Problem #1 that our decision maker will code each option as a gain—i.e., a \$5,000 prize versus a 50% chance at a \$10,000 prize. When selecting between options that appear to represent gains, as in Problem #1, prospect theory predicts that our decision maker will make the risk-averse selection—i.e., that he will choose option (a). In

62. Larrick, *Motivational Factors*, *supra* note 6, at 442 (emphasis added).

63. See Daniel Kahneman, *Reference Points, Anchors, Norms, and Mixed Feelings*, 51 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 296, 296 (1992) [hereinafter Kahneman, *Reference*] (“Reference points are important because other outcomes are compared to them, and are coded and evaluated in terms of this comparison.”); Daniel Kahneman & Amos Tversky, *The Psychology of Preferences*, 246 SCI. AM. 160, 161 (1982) [hereinafter Kahneman & Tversky, *Psychology of Preferences*] (“[W]e propose that people commonly adopt a limited view of the outcomes of decisions: they identify consequences as gains or losses relative to a neutral point.”).

64. Another key premise of prospect theory is loss aversion, which refers to the phenomenon that “losses generally loom larger than the corresponding gains.” Daniel Kahneman & Amos Tversky, *Conflict Resolution: A Cognitive Perspective*, in BARRIERS TO CONFLICT RESOLUTION 43, 54 (Kenneth J. Arrow et al. eds., 1995). In their original article, Kahneman and Tversky explained the central propositions of prospect theory as follows: “the value function is (i) defined on deviations from the reference point; (ii) generally concave for gains and commonly convex for losses; (iii) steeper for losses than for gains.” Kahneman & Tversky, *Prospect Theory*, *supra* note 9, at 279. Subsequent formulations include Tversky & Kahneman, *Cumulative Representation*, *supra* note 9, at 297-98 (“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 overweighs small probabilities and underweighs moderate and high probabilities.”).

Problem #2, by contrast, prospect theory predicts that our decision maker will code each option as a loss—i.e., a \$5,000 fine versus a 50% chance at a \$10,000 fine. When selecting between options that appear to represent losses, as in Problem #2, prospect theory predicts that our decision maker will make the risk-seeking selection—i.e., that he will choose option (b).<sup>65</sup> In short, prospect theory posits that “[p]eople do not normally think of relatively small outcomes in terms of states of wealth,” as the expected utility theory maintains, “but rather in terms of gains, losses, and neutral outcomes.”<sup>66</sup> That is, “people tend to accept the frame presented in a problem and evaluate the outcome in terms of that frame.”<sup>67</sup>

Borrowing prospect theory’s central premise,<sup>68</sup> the Framing Theory of Litigation predicts that litigants, like other decision makers, code options as gains or losses from a reference point and make risk-averse choices when selecting between gains and risk-seeking choices when selecting between losses. Reconsider the simple litigation problems described above:

Problem #3: Suppose that our decision maker is Plaintiff in a breach of contract suit against Defendant. Following discovery, Plaintiff’s lawyer estimates Plaintiff has a 50% chance of winning a \$50,000 judgment at trial (and a 50% chance of not winning anything). Suppose further that Defendant has made a final settlement offer of \$25,000 to Plaintiff. Thus, she faces a choice between (a) a certain \$25,000 settlement, and (b) a 50% chance of winning \$50,000 at trial (with a corresponding 50% chance of winning \$0).

Problem #4: Suppose that our decision maker is Defendant in the breach of contract suit filed by Plaintiff. Following discovery, Defendant’s lawyer estimates Defendant has a 50% chance of losing a \$50,000 judgment at trial (and a 50% chance of not losing anything). Suppose further that Plaintiff has demanded \$25,000 to settle the case. Thus, Defendant faces a choice between (a) paying a certain \$25,000 settlement, and (b) facing a 50% chance of losing \$50,000 at trial (with a corresponding 50% chance of losing \$0).

Recall that the Economic Theory predicts that Plaintiff and Defendant will evaluate the two problems identically. That is, in both problems, the Economic Theory predicts that the litigants will either be indifferent between settlement and trial or will prefer settlement to

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65. In a series of hypothetical choice problems similar to Problems #1 and #2 above, Kahneman and Tversky found substantial support for prospect theory’s predictions regarding an individual decision maker’s behavior in such risky choice situations. See, e.g., Kahneman & Tversky, *Choices*, *supra* note 6, at 344.

66. *Id.* at 342.

67. Amos Tversky, *Contrasting Rational and Psychological Principles of Choice*, in WISE CHOICES 5, 8 (Richard J. Zeckhauser et al. eds., 1996).

68. See *supra* text accompanying note 64.

trial. Relying on prospect theory's empirical observations regarding decision making under risky circumstances, the Framing Theory, by contrast, predicts that Plaintiff and Defendant will evaluate these problems differently.

The Framing Theory predicts that Plaintiff in Problem #3 will code both settlement and trial as gains from her prior position—i.e., a \$25,000 settlement versus a 50% chance at a \$50,000 trial judgment. When selecting between gains—as plaintiffs generally do<sup>69</sup>—the Framing Theory predicts that Plaintiff will make the risk-averse selection—i.e., that she will choose to settle. By contrast, the Framing Theory predicts that Defendant in Problem #4 will code both settlement and trial as losses from her prior position—i.e., a \$25,000 settlement payment versus a 50% chance at a \$50,000 adverse trial judgment. When selecting between losses—as defendants generally must<sup>70</sup>—the Framing Theory predicts that Defendant will make the risk-seeking selection—i.e., that she will be inclined to try the case rather than settle. In short, the Framing Theory predicts, and demonstrates,<sup>71</sup> that “framing alters the risk preferences of litigants.”<sup>72</sup> Namely, “[p]eople facing potential losses from litigation ma[k]e riskier choices than people facing potential gains.”<sup>73</sup>

### C. *The Limitation of the Existing Theories*

The Economic Theory of Suit and Settlement—which posits that litigants seek solely to select the litigation option that promises the greatest return<sup>74</sup>—is a remarkably durable theory of litigation behavior with considerable intuitive<sup>75</sup> and even some empirical support.<sup>76</sup> The Framing Theory of Litigation—which accepts the Economic Theory's view that litigants seek to maximize outcomes but contends that they are unable to do so because the litigation frame systematically biases them<sup>77</sup>—is increasingly influential<sup>78</sup> and is supported by a ro-

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69. The Framing Theory assumes that plaintiffs typically choose between gains and defendants between losses because “people internalize losses and gains relatively quickly.” Rachlinski, *supra* note 8, at 129 n.65. “Since the events that [lead to] litigation sometimes predate the settlement talks by years, parties have probably endowed the gains or losses by the time litigation occurs.” *Id.*

70. *See supra* note 69.

71. *See, e.g.,* Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8, at 130-38; Rachlinski, *supra* note 8, at 128.

72. Rachlinski, *supra* note 8, at 144.

73. *Id.*

74. *See supra* Part I.A.

75. *See, e.g., supra* note 45.

76. *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, 175 (1988) (reporting “theoretical and empirical results” that “depend on the assumption of rational expectations”).

77. *See supra* Part I.B.

bust body of empirical evidence.<sup>79</sup> Together, the Economic and Framing Theories illuminate much litigation behavior, but they ultimately fail to capture its complexity. The collective shortcoming of these theories is that they rest on such a one-dimensional view of human beings. From the perspective of both the Economic and Framing Theories, litigants are nothing more than calculating creatures. In *Star Trek* parlance, the existing theories assume litigants are Vulcans.<sup>80</sup>

Recall the two litigation problems discussed above. In Problem #3, Plaintiff gets to choose between a certain settlement offer and the prospect of recovering an even larger amount at trial. In Problem #4, Defendant must choose between paying a certain settlement amount to Plaintiff and facing the possibility of an even larger loss at trial. The Economic and Framing Theories posit that our litigants will choose *solely* by making a numerical comparison between the litigation options (Economic Theory) or between the litigation options and a neutral reference point (Framing Theory). In short, both the Economic and Framing Theories assume the human beings making litigation decisions are simply number-crunching, value-maximizing, calculating machines.<sup>81</sup> The only difference between them is that the Economic Theory assumes litigants are good number-crunchers, while the Framing Theory *demonstrates* they are not.<sup>82</sup>

The Economic Theory's limited view of human beings is not surprising, as law and economics scholars often trumpet the simplifying assumptions of the economic model as among its primary virtues.<sup>83</sup>

78. See, e.g., Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8; Rachlinski, *supra* note 8; Thomas S. Ulen, *Still Hazy After All These Years*, 22 L. & SOC. INQUIRY 1011, 1031 n.22 (1997).

79. See *supra* note 71.

80. See, e.g., Harvey R. Greenberg, *In Search of Spock: A Psychoanalytic Inquiry*, 12 J. POPULAR FILM & TELEVISION 53, 55 (1984) (noting that Vulcans are "guided by reason alone" and have suppressed "every affect").

81. While both theories view human beings solely as calculating creatures, their view of the underlying processes of calculation are different. The Economic Theory "see[s] people as incentive driven, basing their actions on self-interest and rationality," meaning "that people reason logically about choices, using all available information and allowing for the effects that current choices will have on future choices and future outcomes." Lopes, *Psychology*, *supra* note 42, at 198. The Framing Theory, based on cognitive psychology, "see[s] people as systems for encoding and processing information." *Id.* Human beings have "internal processes that intervene as stimuli are encoded, interpreted, and finally transmuted into responses." *Id.*

82. See *supra* note 71; see also Jules L. Coleman, *Rational Choice and Rational Cognition*, 3 LEGAL THEORY 183, 184 (1997) ("[E]xperimental cognitive psychologists have raised doubts about the extent to which typical cognizers are capable of performing even the most basic inferential tasks. In fact, the extent to which humans fail to exhibit inferential competence is striking. Even if agents seek to maximize their utility, they may fail because their cognitive processes let them down." (footnote omitted)).

83. See, e.g., Douglas G. Baird, *The Future of Law and Economics: Looking Forward*, 64 U. CHI. L. REV. 1129, 1131 (1997) ("Economists aim to capture as much of the dynamics of behavior as they can with the fewest possible assumptions. The question is not whether economists' assumptions are unrealistic, but whether they capture enough of what is at work to allow us to see basic forces operating in an otherwise impenetrable maze."); *id.* at 1135 (quoting Gary Becker: "[O]ne reason for the great success of Law and Economics is that the principles of economics are so fundamental, so simple really."); Ellickson, *supra* note 39, at 23 ("The econo-

When purporting to characterize litigation decision making on the part of living, breathing, feeling human beings, however, the Economic Theory's limited view of human decision making raises profound questions about the descriptive value of the theory. "Here, more than anywhere else," Martha Nussbaum argues, "the foundations of Law and Economics look as yet underdeveloped and crude."<sup>84</sup> Indeed, "[w]estern philosophers, ever since Plato and Aristotle, have agreed that the explanation of human action requires . . . the concepts of belief, desire, perception, appetite, and emotion—at the very least."<sup>85</sup> Because Economic Theorists "do not even bother to sort out the many different ways in which people . . . are moved, how can we hope to have an adequate descriptive, much less a normative, theory?"<sup>86</sup>

While it may come as no surprise that the economics-based litigation theory rests on a limited view of human beings, it is a little off-putting to find that the psychology-based litigation theory rests on an equally limited view. Lola Lopes, a psychologist herself, complains that "[p]sychologists who study risky choice *don't* talk about a surprisingly large number of factors that are psychologically relevant in choosing among risks."<sup>87</sup> Hence, factors potentially relevant to litigation decision making like "fear, hope, safety, danger, fun, plan, conflict, time, duty, [and] custom" are nowhere to be found.<sup>88</sup> In short, the psychology-based theory, as well as the economics-based theory, "fails to capture some of the more human aspects of decision making."<sup>89</sup>

When confronted with difficult litigation decisions, like whether to settle a case or go forward with trial, litigants will likely number-crunch, calculate, and value-maximize, as the Economic and Framing Theories predict, but they will also feel a range of actual and prospec-

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mists' model, in its purest form, is based on elegantly simple propositions about both cognitive capacities and motivations.").

84. Martha C. Nussbaum, *Flawed Foundations: The Philosophical Critique of (a Particular Type of) Economics*, 64 U. CHI. L. REV. 1197, 1210 (1997).

85. *Id.* at 1209.

86. *Id.* at 1210.

87. Lopes, *Hope*, *supra* note 42, at 286. While Lopes traces the emotionlessness of psychology-based decision theories to the influence of behaviorism in psychology, she contends that economics is also partially responsible: "Queasiness about the ordinary language of emotion and intention goes back in psychology at least to Watson's behaviorist manifesto and in the area of risky choice has been amplified by exposure to a similar movement in economics termed *positive economics*." *Id.* For a more expansive psychology-based view of decision making, see TOD SLOAN, *LIFE CHOICES: UNDERSTANDING DILEMMAS AND DECISIONS* (1996).

88. Lopes, *Hope*, *supra* note 42, at 286; see also Janet Landman, *Regret: A Theoretical and Conceptual Analysis*, 17 J. THEORY SOC. BEHAV. 135, 136 (1987) [hereinafter Landman, *Theoretical Analysis*] (noting that "cognitive psychologists discourage over-use of vivid, concrete, imaginable, immediate, emotional, and anecdotal information and encourage the use of pallid but rational statistical or base-rate information in problem-solving and inference").

89. Larrick, *Motivational Factors*, *supra* note 6, at 442 (referring to a defect of cardinal utility theory and prospect theory, though this particular defect applies to expected utility theory as well).

tive emotion that they will incorporate into their decision making. Legal scholars seeking to understand, describe, and perhaps even modify litigation behavior need not abandon their elegant, "calculating" theories, but they need to couple them with richer theories that take the reality—not just the rationality—of human beings into account. The balance of this article proposes, tests, and examines the implications of such a theory.

## II. THE PROPOSED REGRET AVERSION THEORY

Litigants are human beings who possess not only the ability to crunch numbers but also the ability to experience emotion. To exclude all consideration of emotion from a litigation theory is to theorize only about the calculating component of litigation decision making. To understand the *human* process of litigation decision making requires consideration of both the calculating and emotive components of litigation behavior. The purpose of this part of the article is to put a human face on litigation by proposing an "emotional" theory<sup>90</sup> of litigation behavior to complement the existing "calculating" theories.<sup>91</sup>

Theorizing *generally* about the impact of emotion on litigation behavior is not fruitful, however, for two related reasons. First, "emotion" is not well understood.<sup>92</sup> Psychologists disagree about such fundamental issues as what emotion is,<sup>93</sup> whether some emotions are

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90. While I refer to the theory as "emotional," the psychology literature refers to the type of theory I am proposing as a "motivational" theory. Motivational theories, according to Richard Larrick, propose some "psychological mechanism that underlies risk attitudes." Larrick, *Motivational Factors*, *supra* note 6, at 443. These theories "propose that people do not simply respond to the enjoyment that outcomes provide," Larrick explains, "nor do they simply have a set attitude about risk. Rather, people respond to the emotional consequences of making a decision that come from self-awareness and a sense of agency: feelings of success and failure, elation and disappointment, efficacy and impotence, rejoicing and regret." *Id.* at 443-44. For a general treatment of the instrumental value of emotion, see ROBERT H. FRANK, *PASSIONS WITHIN REASON: THE STRATEGIC ROLE OF THE EMOTIONS* (1988).

91. While some scholars have argued that the emotion one litigant *feels toward another* might influence litigation behavior, see Peter H. Huang & Ho-Mou Wu, *Emotional Responses in Litigation*, 12 INT'L REV. L. & ECON. 31, 32 (1992) (arguing that anger, pride, and vengeance one litigant feels in response to another may influence litigation behavior); Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8, at 147 (arguing that equity seeking might influence litigation behavior on the part of a litigant who feels wronged by the other party); Mnookin & Kornhauser, *supra* note 3, at 974 (arguing that spite might influence divorce bargaining), this article proposes the first litigation *theory* positing that emotion *systematically* influences litigation behavior regardless of the relationship between the litigants or the behavior of one litigant toward the other. I argue, in other words, that litigants systematically base at least some litigation decisions on emotion evoked not by their adversaries, but by the very structure of the litigation process itself.

92. "[T]heories of emotion come from many fields of psychology, and these theories start with different perspectives, make different assumptions, and seek to accomplish different goals. A global view of research and theory in the field of emotion does not offer a coherent picture." Robert B. Zajonc, *Emotions*, in 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY, *supra* note 61, at 591, 594.

93. In his comprehensive review of research on emotion published in the latest edition of *The Handbook of Social Psychology*, Robert Zajonc refused to define emotion, contending instead that "[a] complete and coherent definition of emotion is equivalent to this entire chapter

more "basic" than others,<sup>94</sup> and sometimes even about the constructs that qualify as emotions.<sup>95</sup> Second, the purpose of a theory is "to define events (concepts), describe relationships among these events, and explain the occurrence of these events."<sup>96</sup> To accomplish this purpose, a theory should be characterized by explanatory power,<sup>97</sup> depth,<sup>98</sup> fertility,<sup>99</sup> falsifiability,<sup>100</sup> social-technical power,<sup>101</sup> simplicity,<sup>102</sup> and

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including the content of its references." Zajonc, *supra* note 92, at 591. In his book, *Ideas and Realities of Emotion*, Brian Parkinson conceded that "no one has been able to come up with a completely satisfactory answer" to the question posed by William James's classic article, *What Is an Emotion?*. BRIAN PARKINSON, *IDEAS AND REALITIES OF EMOTION* 4 (1995) (referring to William James, *What Is an Emotion?*, 9 MIND 188 (1884)). In their review article, Paul and Anne Kleinginna identified "92 definitions and 9 skeptical statements about the concept of emotion, drawn mainly from psychological dictionaries and well-known texts on emotion, motivation, physiological psychology, and introductory psychology." Paul R. Kleinginna, Jr. & Anne M. Kleinginna, *A Categorized List of Emotion Definitions, with Suggestions for a Consensual Definition*, 5 MOTIVATION & EMOTION 345, 347 (1981). Based on their review, Kleinginna and Kleinginna did propose the following definition:

Emotion is a complex set of interactions among subjective and objective factors, mediated by neural/hormonal systems, which can (a) give rise to affective experiences such as feelings of arousal, pleasure/displeasure; (b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; (c) activate widespread physiological adjustments to the arousing conditions; and (d) lead to behavior that is often, but not always, expressive, goal-directed, and adaptive.

*Id.* at 355.

94. Some emotion scholars theorize that certain emotions are "basic," while others are "composites" comprised of those basic emotions. See, e.g., Andrew Ortony & Terence J. Turner, *What's Basic About Basic Emotions?*, 97 PSYCHOL. REV. 315, 315 (1990) ("One of the most ubiquitous notions in the emotion literature is that some emotions have a special status. These privileged emotions are usually called *basic*, *primary*, or *fundamental* emotions."); Zajonc, *supra* note 92, at 593. Although "several contemporary theorists" hold this view, "there is little agreement about how many emotions are basic, which emotions are basic, and why they are basic." Ortony & Turner, *supra*, at 315. For a "representative set" of emotion theorists who hold this view and the emotions they identify as basic, see *id.* at 315, 316 tbl.1. The basic-emotions view "is certainly not held by all and is explicitly rejected by some." *Id.* at 316.

95. See, e.g., PARKINSON, *supra* note 93, at 10 ("[T]here is less than universal agreement about what conditions count as emotions. Psychologists as well as laypeople differ in their opinions of whether certain phenomena are or are not emotional."); Ortony & Turner, *supra* note 94, at 317.

96. JOHN J. SHAUGHNESSY & EUGENE B. ZECHMEISTER, *RESEARCH METHODS IN PSYCHOLOGY* 29 (3d ed. 1994).

97. See Nancy Levit, *Listening to Tribal Legends: An Essay on Law and the Scientific Method*, 58 FORDHAM L. REV. 263, 269 (1989) [hereinafter Levit, *Scientific Method*] ("A theory must possess sufficient explanatory force: it must accurately explain the phenomena under study."); see also Nancy Levit, *Defining Cutting Edge Scholarship: Feminism and Criteria of Rationality*, 71 CHI.-KENT L. REV. 947, 953 (1996) [hereinafter Levit, *Defining*].

98. See Levit, *Scientific Method*, *supra* note 97, at 269 ("Closely aligned with explanatory power is the concept of depth. A deep thesis goes beyond merely stating or describing phenomena. It explains possible causal relationships among observable phenomena, arranges isolated events into general patterns and seeks underlying explanations."); see also Levit, *Defining*, *supra* note 97, at 953.

99. See Levit, *Defining*, *supra* note 97, at 953-54 ("A theory is fertile, or possesses exploratory power, if it gives rise to and searches for new relations and interdependencies."); see also Levit, *Scientific Method*, *supra* note 97, at 270.

100. See Levit, *Defining*, *supra* note 97, at 954 (noting that "[t]heories must be capable of verification and falsification"); see also Levit, *Scientific Method*, *supra* note 97, at 271. Levit states:

Theories must be testable and refutable. If theories are non-falsifiable, they are unscientific. Hypotheses that avoid testability—for example, those concerning the existence of supernat-

"cumulative, comprehensive, and converging evidence."<sup>103</sup> Given the confused state of our knowledge of emotion<sup>104</sup> and the plethora of constructs most of us recognize as emotions, it would be impossible to propose a general "emotion" theory meeting the aforementioned criteria to any satisfactory degree.

Fortunately, however, it is possible to put a human face on litigation by developing a theory based solely on the impact of one particularly potent and universal<sup>105</sup> emotion—regret. This part of the article thus develops the theory that litigants seek to make litigation decisions that minimize the likelihood they will experience postdecision regret. To develop this theory, I explain below what regret is, examine how decision theorists have employed the concept of regret, and propose the Regret Aversion Theory of Litigation Behavior, which I then test in the next part of the article.

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ural beings—are not scientific. Likewise, theories that purport to explain everything, theories that are unconditional and admit no negative evidence and theories that are vague or otherwise self-protected are not falsifiable.

*Id.*; see also Jonathan R. Macey, *Law and the Social Sciences*, 21 HARV. J.L. & PUB. POL'Y 171, 172 (1997) ("The most important and fundamental distinction [between law and social sciences and other approaches to law] is that the law and social sciences seek to develop testable hypotheses, assertions about the law that are empirically refutable.").

101. See Levit, *Defining*, *supra* note 97, at 954 ("The social-technical power of a theory refers to its ability to prevent, modify, invent, start, stop, interconnect, and transform. It is the practical, applicatory end of scientific and rational procedures.").

102. See *id.* (noting that "simplicity or elegance refers to a theory being distinguished as systematically unified and unifying, one which brings together the general and the particular, and which is largely devoid of special circumstances"); see also Levit, *Scientific Method*, *supra* note 97, at 268-69.

103. Levit, *Defining*, *supra* note 97, at 953 ("Cumulative, comprehensive, and converging evidence means evidence gathered over time, in variable contexts (including different disciplines and sub-disciplines) . . .").

104. See *supra* notes 92-95 and accompanying text.

105. Regret is an inescapable part of the human condition, see, e.g., *infra* notes 106-08 and accompanying text, but culture clearly plays a role in the experience of regret. See Blaine B. Alexander et al., *A Path Not Taken: A Cultural Analysis of Regrets and Childlessness in the Lives of Older Women*, 32 GERONTOLOGIST 618, 619 (1992) ("[B]ecause the social is not dichotomously distinct from the personal, regrets are not restricted to the terrain of the individual but are situated in a cultural context.").

Because our culture provides us with what appear to be nearly unlimited opportunities to make good and bad choices, we are particularly susceptible to feelings of regret. See, e.g., CAROLE KLEIN & RICHARD GOTTI, *OVERCOMING REGRET: LESSONS FROM THE ROADS NOT TAKEN* 10 (1992). They state:

Contemporary society intensifies regret because it claims to present us with apparently infinite opportunities. While having so many choices might at first appear to diminish the dilemma of regret—after all, we have so many routes to happiness from which to select—it has just the opposite effect. *Regret, which is inextricably linked to choice, has become a major malady of modern life.*

*Id.*; see also, e.g., Mary Kay DeGenova, *Regrets in Later Life*, 8 J. WOMEN & AGING 75, 76 (1996) ("With the various options of life choices in the American culture, there also is enormous room for regret. Ultimately, the culture in the United States provides great opportunity for choosing paths and regretting paths not taken.").



### A. *Regret, Anticipated Regret, and Regret Aversion*

"We all know regret"<sup>106</sup> because "[a] lifetime of making choices brings with it the knowledge that at least *some* actions were ill-considered, some failures to act unwise. For most of us, it also brings with it the realization that some of these unfortunate outcomes could have been avoided. To live, it seems, is to accumulate at least some regrets."<sup>107</sup>

We may, in fact, "all know regret,"<sup>108</sup> but what is it that we know when we know regret? What, in other words, is the seemingly universal phenomenon we call regret? Philosophers,<sup>109</sup> economists,<sup>110</sup> psychologists,<sup>111</sup> and psychotherapists<sup>112</sup> have proposed a variety of definitions. While there are subtle and not-so-subtle distinctions among these definitions,<sup>113</sup> most scholars define regret as the painful

106. Rüdiger Bittner, *Is It Reasonable to Regret Things One Did?*, 89 J. PHIL. 262, 262 (1992).

107. Thomas Gilovich & Victoria Husted Medvec, *The Experience of Regret: What, When, and Why*, 102 PSYCHOL. REV. 379, 379 (1995) [hereinafter Gilovich & Medvec, *Experience of Regret*]; see also Daniel Matthew Gordon, 'The Road Not Taken': A Phenomenological Investigation of the Experience of Regret 1 (1992) (unpublished Ph.D. Dissertation, University of Tennessee, Knoxville) ("The human experience of regret is an exceedingly common occurrence."); Susan B. Shimanoff, *Commonly Named Emotions in Everyday Conversations*, 58 PERCEPTUAL & MOTOR SKILLS 514, 514 (1984) (finding in an analysis of the everyday conversations of college students and married couples that regret was the second most frequently mentioned emotion).

108. Bittner, *supra* note 106, at 262.

109. See STUART HAMPSHIRE, THOUGHT AND ACTION 241 (1960) (defining regret as "a feeling of unpleasure associated with a thought of the past, together with the identification of an object and the announcement of an inclination to behave in a certain way in the future"); Amelie Oksenberg Rorty, *Agent Regret*, in EXPLAINING EMOTIONS 489, 497 (Amelie Oksenberg Rorty ed., 1980) ("To qualify as a feeling of regret, the feeling must have certain sorts of intentional objects, be accompanied by certain sorts of thoughts. . . . The feeling must be associated with a causal story that connects it to its proper intentional object, in order to qualify as regret.").

110. See, e.g., David E. Bell, *Reply: Putting a Premium on Regret*, 31 MGMT. SCI. 117, 117 (1985) [hereinafter Bell, *Reply*] ("Regret is created by a comparison between the actual outcome and that outcome that would have occurred had the decision maker made a different choice."); Graham Loomes, *Further Evidence of the Impact of Regret and Disappointment in Choice Under Uncertainty*, 55 ECONOMICA 47, 50 (1988) [hereinafter Loomes, *Further Evidence*] (arguing that "regret/rejoicing is based on comparisons between what is received as a result of choosing one action compared with what might have been received under the same state of the world had the individual chosen differently"); Robert Sugden, *Regret, Recrimination and Rationality*, 19 THEORY & DECISION 77, 78-79 (1985) [hereinafter Sugden, *Regret, Recrimination and Rationality*].

111. See, e.g., LANDMAN, *supra* note 28, at 36 (defining regret as "a more or less painful judgment and state of feeling sorry for misfortunes, limitations, losses, shortcomings, transgressions, or mistakes"); Gordon, *supra* note 107, at 124-28.

112. See, e.g., George Greenberg & Mary FitzPatrick, *Regret as an Essential Ingredient in Psychotherapy*, 5 PSYCHOTHERAPY PATIENT 35, 35 (1988).

113. There is some disagreement among scholars about whether a person must bear some responsibility for the action or decision "regretted" in order to claim feelings of regret. In other words, scholars disagree about whether regret requires "decision responsibility." Terry Connolly et al., *Regret and Responsibility in the Evaluation of Decision Outcomes*, 70 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 73, 75 (1997).

Janet Landman proposes the "broadest, most inclusive" conception of regret, see *id.*, defining it, as noted above, as "a more or less painful judgment and state of feeling sorry for misfortunes, limitations, losses, shortcomings, transgressions, or mistakes." LANDMAN, *supra* note 28, at 4. Landman thus believes that one can regret actions or inactions for which one bears no or minimal responsibility. "By Landman's definition, one might experience regret at the loss of

feeling a person experiences upon determining she could have obtained a better outcome if she had decided or behaved differently.<sup>114</sup> Psychotherapists George Greenberg and Mary FitzPatrick, for instance, define regret as "the unpleasant feeling associated with some action or inaction a person has taken which has led to a state of affairs that he or she wishes were different."<sup>115</sup> Similarly, the economist Robert Sugden contends that regret is comprised of "the simple *wish* that you had chosen differently" coupled with a feeling of "*self-recrimination* or *repentance* or *self-blame*."<sup>116</sup> And the psychologist Daniel Gordon explains that "[t]he experience of regret is a painful one in which the individual dwells on the circumstances of the decision—the consequences and missed opportunities—and his or her role in the decision, wishing he or she had done otherwise and feeling he or she should have done otherwise."<sup>117</sup> Indeed, the very "essence of the ex-

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one's wallet or one's temper, at being too short to play competitive basketball, or at catching the flu." Connolly et al., *supra*, at 73. Others appear to share Landman's view that regret does not require responsibility on the part of the individual experiencing the regret. *See id.*; Itamar Simonson, *The Influence of Anticipating Regret and Responsibility on Purchase Decisions*, 19 J. CONSUMER RES. 105, 117 (1992) (arguing that "regret and responsibility should be regarded as separate constructs" because "[r]egret represents the sorrow over something done or not done, regardless of whether the decision maker was responsible for the outcome").

Most scholars, however, assume that regret includes some notion of decision responsibility on the part of the party experiencing regret. *See, e.g.*, Marcel Zeelenberg et al., *The Experience of Regret and Disappointment*, 12 COGNITION & EMOTION 221, 228 (1998) [hereinafter Zeelenberg et al., *Experience*]; Marcel Zeelenberg et al., *Reconsidering the Relation Between Regret and Responsibility*, 74 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 254, 267 (1998) (conducting research showing the "clear effects of responsibility on regret"); Daniel M. Farrell, *Book Review*, 47 PHIL. Q. 397 (1997). I, too, believe that regret necessarily includes decision responsibility. Like philosopher Daniel Farrell, I believe that Landman's conception of regret is misguided because "all we can properly *regret* are our own past actions and decisions; the other 'regrettable' things she mentions, one might say, are, strictly speaking, things whose occurrence we might *lament*, perhaps, or otherwise wish had not occurred, but not things we can intelligibly be said to *regret* in the same sense as that in which we can be said to regret things we have intentionally *done*." Farrell, *supra*, at 399.

Interestingly, the philosopher Bernard Williams sidesteps the entire debate by distinguishing between "general regret" (in which "what are regretted are states of affairs, and they can be regretted, in principle, by anyone who knows of them") and "agent-regret" ("which a person can feel only towards his own past actions"). Bernard Williams, *Moral Luck*, in *MORAL LUCK: PHILOSOPHICAL PAPERS 1973-1980*, at 20, 27 (Bernard Williams ed., 1981). For Williams, in other words, general regret does not require decision responsibility, but agent-regret does.

114. This definition of regret, like most, assumes that regret is comprised of both affective and cognitive components. *See generally* Gilovich & Medvec, *Experience of Regret*, *supra* note 107, at 379. They state:

[T]here is general consensus that regret is an unusually cognitively-laden or cognitively-determined emotion. . . . Judgment is more central, in other words, to the experience of regret than, say, the experience of jealousy or anger. At the same time, regret is more than a simple appraisal or judgment; it is typically loaded with *feeling* and therefore qualifies as a true emotion.

*Id.* Regret, in short, "is an experience of felt-reason or reasoned-emotion." LANDMAN, *supra* note 28, at 36.

115. Greenberg & FitzPatrick, *supra* note 112, at 35.

116. Sugden, *Regret, Recrimination and Rationality*, *supra* note 110, at 78-79.

117. Gordon, *supra* note 107, at 115. Gordon developed his conception of regret through in-depth "dialogical interviews" with 12 study participants describing their actual experiences of regret. *See id.* at v.

perience of regret is one of looking back and blaming oneself for a bad decision."<sup>118</sup>

Because people regularly look back and blame themselves for decisions they wish they had made differently, they have learned to anticipate the regret they may feel if a decision turns out poorly. This anticipation is a potent force.<sup>119</sup> Philosophers and economists have long noted that "anticipation of the future has an impact on immediate well-being."<sup>120</sup> It "seems self-evident," in fact, "that much of our feelings of well-being and despair arise from emotions associated with anticipation."<sup>121</sup> Because regret is a painful emotion—because people in the throes of regret feel "a sinking feeling,"<sup>122</sup> think "about a lost opportunity and a mistake they ha[ve] made,"<sup>123</sup> and feel like "'kicking themselves'"<sup>124</sup>—they seek to make decisions that will minimize the regret they anticipate feeling. In other words, people tend to make regret-minimizing or regret-averse decisions.

### B. Regret and Decision Theory

Building on the intuition that people both anticipate and seek to avoid postdecision regret, decision theorists have attempted to construct regret-based decision theories. While such attempts have been characterized by small fits and starts dating back as far as the 1950s,<sup>125</sup>

118. *Id.* at 115.

119. Psychologists have found, for example, that the anticipation of a panic attack has more influence than an actual panic attack on the avoidance behavior of agoraphobics. *See generally* Dianne L. Chambless & Edward J. Gracely, *Fear of Fear and the Anxiety Disorders*, 13 COGNITIVE THERAPY & RES. 9 (1989); Brian J. Cox et al., *Anticipatory Anxiety and Avoidance in Panic Disorder with Agoraphobia*, 29 BEHAVIORAL RES. THERAPY 363, 364 (1991); Michelle G. Craske & David H. Barlow, *A Review of the Relationship Between Panic and Avoidance*, 8 CLINICAL PSYCHOL. REV. 667, 668 (1988).

120. George Loewenstein, *Anticipation and the Valuation of Delayed Consumption*, 97 ECON. J. 666, 666 (1987) (tracing this observation to Jeremy Bentham).

121. *Id.* at 679-80.

122. Ira J. Roseman et al., *Phenomenology, Behaviors, and Goals Differentiate Discrete Emotions*, 67 J. PERSONALITY & SOC. PSYCHOL. 206, 213-14 (1994).

123. *Id.*

124. *Id.*; *see* Zeelenberg et al., *Experience*, *supra* note 113, at 227 (finding that the experience of regret "involves feeling more intensely that one should have known better, thinking about what a mistake one has made, feeling a tendency to kick oneself and to correct one's mistake, and wanting to undo the event and to get a second chance").

125. Conventional wisdom holds that regret is an "underresearched emotion," *see* Roseman et al., *supra* note 122, at 219, that "has only recently been the subject of empirical scrutiny." Kenneth Savitsky et al., *Remembering and Regretting: The Zeigarnik Effect and the Cognitive Availability of Regrettable Actions and Inactions*, 23 PERSONALITY & SOC. PSYCHOL. BULL. 248, 248 (1997); *see also* Farrell, *supra* note 113, at 397 (noting in his review of Janet Landman's book that "apart from a few extremely interesting philosophical pieces, and a small number of empirical studies, there has, as Landman notes, been surprisingly little serious work published on regret" in the recent past).

Conventional wisdom notwithstanding, decision theorists attempted as long ago as the 1950s to factor regret into decision-making models. Leonard Savage, for instance, proposed a "minimax regret" principle, according to which decision makers seek to minimize their maximum loss. *See* SAVAGE, *supra* note 30, at 163-71. The minimax regret principle suffered from formal and empirical problems. *See* LANDMAN, *supra* note 28, at 149. *But see* *Apocalypse Maybe*,

a trio of decision theorists—Graham Loomes and Robert Sugden in one article<sup>126</sup> and David Bell in another<sup>127</sup>—successfully promulgated “modern regret theory”<sup>128</sup> in the early 1980s.<sup>129</sup>

ECONOMIST, Mar. 30, 1996, at 74 (advocating the use of the minimax regret principle to aid Great Britain in addressing the country's response to its mad cow disease problem). Duncan Luce and Howard Raiffa tried to incorporate regret into normative expected utility theory, see R. DUNCAN LUCE & HOWARD RAIFFA, GAMES AND DECISIONS: INTRODUCTION AND CRITICAL SURVEY 280 (1957), but they determined “its use had undesirable properties, such as intransitivity.” David E. Bell, *Regret in Decision Making Under Uncertainty*, 30 OPERATIONS RES. 961, 962-63 (1982) [hereinafter Bell, *Regret in Decision Making*].

Following this early and relatively unsuccessful flurry of activity in the 1950s, scholars largely ignored the empirical study of regret until the 1980s. But see LEON FESTINGER, CONFLICT, DECISION, AND DISSONANCE 97-112 (1964) (examining the role of regret in cognitive dissonance theory); IRVING I. JANIS & LEON MANN, DECISION MAKING: A PSYCHOLOGICAL ANALYSIS OF CONFLICT, CHOICE, AND COMMITMENT 219-42 (1977) (examining the impact of “arousal of anticipatory regret” on decision making); WAYNE LEE, DECISION THEORY AND HUMAN BEHAVIOR 38-39, 126-31 (1971) (exploring the minimax regret principle); Max S. Schoeffler, *Prediction of Some Stochastic Events: A Regret Equalization Model*, 64 J. EXPERIMENTAL PSYCHOL. 615, 615 (1962) (proposing a “regret equalization model”).

“Beginning in the 1980s, however, there has been a growing interest in the study of regret within the quantitative social sciences.” Janet Landman, *Regret and Elation Following Action and Inaction: Affective Responses to Positive Versus Negative Outcomes*, 13 PERSONALITY & SOC. PSYCHOL. BULL. 524, 524 (1987) [hereinafter Landman, *Regret and Elation*].

126. Graham Loomes & Robert Sugden, *Regret Theory: An Alternative Theory of Rational Choice Under Uncertainty*, 92 ECON. J. 805 (1982) [hereinafter Loomes & Sugden, *Regret Theory*]. For additional work by Loomes and/or Sugden on regret theory, see generally Loomes, *Further Evidence*, *supra* note 110; Graham Loomes, *When Actions Speak Louder Than Prospects*, 78 AM. ECON. REV. 463 (1988); Graham Loomes et al., *Are Preferences Monotonic? Testing Some Predictions of Regret Theory*, 59 ECONOMICA 17 (1992); Graham Loomes & Robert Sugden, *A Rationale for Preference Reversal*, 73 AM. ECON. REV. 428 (1983) [hereinafter Loomes & Sugden, *Rationale*]; Graham Loomes & Robert Sugden, *Regret Theory and Information: A Reply*, 94 ECON. J. 649 (1984); Graham Loomes & Robert Sugden, *Some Implications of a More General Form of Regret Theory*, 41 J. ECON. THEORY 270 (1987) [hereinafter Loomes & Sugden, *Implications*]; Sugden, *Regret, Recrimination and Rationality*, *supra* note 110.

127. Bell, *Regret in Decision Making*, *supra* note 125, at 961. For additional work by Bell on regret theory, see generally Bell, *Reply*, *supra* note 110; David E. Bell, *Risk Premiums for Decision Regret*, 29 MGMT. SCI. 1156 (1983) [hereinafter Bell, *Risk Premiums*]. In addition to his work on regret, Bell has also developed a decision theory based on “disappointment,” which he defines as “a psychological reaction to an outcome that does not match up to expectations.” David E. Bell, *Disappointment in Decision Making Under Uncertainty*, 33 OPERATIONS RES. 1, 1 (1985).

128. I will use the terms “regret theory” and “modern regret theory” to refer to both the Loomes and Sugden and Bell versions of the theory, even though there are some differences between them.

129. For formal work on regret theory conducted by scholars other than Bell, Loomes, and Sugden, see, for example, Daniela Di Cagno & John D. Hey, *A Direct Test of the Original Version of Regret Theory*, 1 J. BEHAV. DECISION MAKING 43, 56 (1988) (finding in part that “the original form of Regret Theory appears too restrictive” to explain their experimental evidence); David W. Harless, *Actions Versus Prospects: The Effect of Problem Representation on Regret*, 82 AM. ECON. REV. 634, 646-47 (1992) (finding that the presentation of choice problem affects elicitation of regret); Steven J. Humphrey, *Regret Aversion or Event-Splitting Effects? More Evidence Under Risk and Uncertainty*, 11 J. RISK & UNCERTAINTY 263, 272 (1995) (finding that “regret theory contains significantly less power than was previously thought”); Jonathan W. Leland, *Generalized Similarity Judgments: An Alternative Explanation for Choice Anomalies*, 9 J. RISK & UNCERTAINTY 151, 156-63 (1994) (finding support for and against regret theory); Andrew P. Sage & Elbert B. White, *Decision and Information Structures in Regret Models of Judgment and Choice*, in SMC-13 IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS 136, 144 (1990) (attesting to the descriptive value of regret theory); Chris Starmer, *Testing New Theories of Choice Under Uncertainty Using the Common Consequence Effect*, 59 REV. ECON. STUD.

Modern regret theory "posits two assumptions about the role that regret plays in making decisions under risk."<sup>130</sup> First, following a decision, "people compare what they have received with what they would have received had they made a different choice. If a different choice would have led to a better outcome, then people will feel regret about their decisions . . . ."<sup>131</sup> Second, "[b]ecause people know that they experience these feelings after a decision, they take them into account while they are making a decision and try to make choices that minimize the amount of regret they will feel."<sup>132</sup>

Regret theory assumes, then, that the value of a decision option is a function not only of its outcome but also of the feelings associated with the outcomes of foregone options.<sup>133</sup> As a consequence, "the

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813, 826-28 (1992) (finding some evidence supporting regret theory). See generally Kevin Keasey, *Regret Theory and Information: A Note*, 94 ECON. J. 645 (1984) (applying regret theory to information analysis and questioning whether it is a rational theory of choice).

130. Richard P. Larrick & Terry L. Boles, *Avoiding Regret in Decisions with Feedback: A Negotiation Example*, 63 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 87, 87 (1995).

131. *Id.* See also Bell, *Reply*, *supra* note 110, at 117 ("Regret is created by a comparison between the actual outcome and that outcome that would have occurred had the decision maker made a different choice."), and Loomes & Sugden, *Rationale*, *supra* note 126, at 428, who argue:

The essential notion underlying regret theory is that people tend to compare their actual situations with the ones they would have been in, had they made different choices in the past. If they realize that a different choice would have led to a better outcome, people may experience the painful sensation of regret . . . .

The proponents of modern regret theory recognize that decision makers may also experience the opposite of regret—rejoicing—if they obtain a decision outcome better than the foregone option. See Bell, *Regret in Decision Making*, *supra* note 125, at 963 (allowing that regret can have both positive and negative values); Loomes & Sugden, *Regret Theory*, *supra* note 126, at 809 (defining a "regret-rejoice function"); Sugden, *Regret, Recrimination and Rationality*, *supra* note 110, at 77 (recognizing the phenomenon of decision rejoicing).

During the decision process, however, "the possibility of rejoicing will not be attractive enough to offset the possibility of regret" for a number of reasons. Larrick & Boles, *supra* note 130, at 89. First, a robust body of research demonstrates that individual judgment is influenced more by negative information than by positive information. See, e.g., Shelley E. Taylor, *Asymmetrical Effects of Positive and Negative Events: The Mobilization-Minimization Hypothesis*, 110 PSYCHOL. BULL. 67, 69-70 (1991). Second, losses are more aversive than gains are attractive. See, e.g., *supra* note 64. Third, and more directly relevant, research shows that "the satisfaction associated with receiving an outcome that is better than an alternative is not as great as the dissatisfaction associated with receiving an outcome that is worse." Larrick & Boles, *supra* note 130, at 89.

132. Robert A. Josephs et al., *Protecting the Self from the Negative Consequences of Risky Decisions*, 62 J. PERSONALITY & SOC. PSYCHOL. 26, 26-27 (1992); see also Loomes & Sugden, *Rationale*, *supra* note 126, at 428 ("When faced with new choice situations, people remember their previous experiences and form expectations about the rejoicing and regret that the present alternatives might entail. They then take these expectations into account when making their decisions."); Marcel Zeelenberg & Jane Beattie, *Consequences of Regret Aversion 2: Additional Evidence for Effects of Feedback on Decision Making*, 72 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 63, 72-75 (1997) (demonstrating that the experience of regret influences subsequent decision making).

133. See, e.g., Larrick & Boles, *supra* note 130, at 87 n.1 ("Both versions of regret theory assume that the value of a given option is a function not only of its outcomes but also of how its outcomes compare to the outcomes of possible alternatives. This assumption differs from the standard assumption in alternative-based models of decision making, such as expected utility theory, that only the outcomes of a given option determine its value. Prospect theory also makes this assumption, although the initial editing of prospects may be affected by comparison between

most important determinant of regret is the presence or absence of feedback on foregone alternatives."<sup>134</sup> This seems intuitive for "[i]f feedback is expected on the outcome of a foregone alternative, decision makers know they might learn that a foregone alternative led to a better result than the alternative they chose."<sup>135</sup> On the other hand, "if no feedback is expected, decision makers know they are protected from experiencing the regret of learning that another alternative turned out better."<sup>136</sup> Thus, modern regret theory predicts that regret aversion will be greater "when decision makers expect to learn the outcome of the foregone alternative" than "when the outcome of the foregone alternative will forever remain a mystery."<sup>137</sup> Proponents of regret theory recognize, of course, that decision makers may experience regret even where the outcomes of foregone alternatives remain unrevealed,<sup>138</sup> but they contend, nonetheless, that "the regret stemming from comparisons with imagined outcomes is less painful than regret stemming from comparisons with real foregone outcomes."<sup>139</sup>

Scholars from several disciplines using a wide array of methodologies have demonstrated that decision makers make regret-averse decisions in a variety of contexts. Empirical evidence demonstrates, for

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alternatives." (citations omitted)); Loomes et al., *supra* note 126, at 18 ("The central intuition behind regret theory is that the utility derived from the consequence of a choice is dependent upon the outcome(s) of the alternative(s) foregone, given the state of the world that occurs."); Marcel Zeelenberg et al., *Consequences of Regret Aversion: Effects of Expected Feedback on Risky Decision Making*, 65 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 148, 148 (1996) [hereinafter Zeelenberg et al., *Consequences*] (noting that "the utility of a choice option additionally depends on the feelings evoked by the outcomes of rejected options").

134. Larrick, *Motivational Factors*, *supra* note 6, at 445; see also Bell, *Risk Premiums*, *supra* note 127, at 1165 (arguing that the "[k]ey to the identification of regret as a factor in decision making under uncertainty is the hypothesis that it may matter whether a foregone lottery is resolved or not").

135. Larrick & Boles, *supra* note 130, at 88.

136. *Id.*

137. *Id.*; see also Zeelenberg et al., *Consequences*, *supra* note 133, at 149 ("Resolution of both the chosen and the unchosen option(s) is central to regret theory: if you cannot compare what is with what would have been, there should be no reason for regret.").

138. Decision makers may, for example, experience regret because they compare their decision outcomes to better "imagined alternative outcomes." David S. Boninger et al., *Counterfactual Thinking: From What Might Have Been to What May Be*, 67 J. PERSONALITY & SOC. PSYCHOL. 297, 297 (1994) (emphasis added). Decision makers may, in other words, experience regret because they engage in "counterfactual thinking." See generally WHAT MIGHT HAVE BEEN: THE SOCIAL PSYCHOLOGY OF COUNTERFACTUAL THINKING (Neal J. Roese & James M. Olson eds., 1995); Robert N. Strassfeld, *If . . . : Counterfactuals in the Law*, 60 GEO. WASH. L. REV. 339 (1992). For a broader conception of counterfactual thinking, see Marcel Zeelenberg et al., *Emotional Reactions to the Outcomes of Decisions: The Role of Counterfactual Thought in the Experience of Regret and Disappointment*, 75 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 117, 118 (1998) (defining counterfactual thinking to include "thoughts in which current reality is changed into what might, could, would, or should have been").

139. Zeelenberg et al., *Consequences*, *supra* note 133, at 149 n.2; see also Ilana Ritov, *Probability of Regret: Anticipation of Uncertainty Resolution in Choice*, 66 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 228, 236 (1996) (arguing that "regret is less intense when the foregone outcome is hypothetical"); Marcel Zeelenberg & Eric van Dijk, *A Reverse Sunk Cost Effect in Risky Decision Making: Sometimes We Have Too Much Invested to Gamble*, 18 J. ECON. PSYCHOL. 677, 683 (1997).

example, that anticipated regret influences consumer purchase decisions,<sup>140</sup> driving behavior,<sup>141</sup> adolescent sexual behavior,<sup>142</sup> grain producers' selling decisions,<sup>143</sup> negotiation behavior,<sup>144</sup> medical decision making on the part of doctors<sup>145</sup> and patients,<sup>146</sup> investor prefer-

140. See J. Jeffrey Inman & Leigh McAlister, *Do Coupon Expiration Dates Affect Consumer Behavior?*, 31 J. MARKETING RES. 423 (1994) (finding, based on a review of coupon redemption patterns, that anticipated regret may account for the increase in consumer coupon redemption behavior prior to coupon expiration dates); Simonson, *supra* note 113, at 106-07 (finding that anticipated regret can influence consumer purchasing decisions regarding purchase timing and brand choice); see also Richard H. Thaler, *Toward a Positive Theory of Consumer Choice*, in QUASI-RATIONAL ECONOMICS, *supra* note 33, at 3, 15 (arguing that the prospect of regret induces consumers to "choos[e] not to choose").

141. See Dianne Parker et al., *Extending the Theory of Planned Behaviour: The Role of Personal Norm*, 34 BRIT. J. SOC. PSYCHOL. 127, 134 (1995) (finding that "the more respondents anticipated feeling regret should they commit a driving violation, the less likely they were to report intentions to do so"); Dianne Parker et al., *Modifying Beliefs and Attitudes to Exceeding the Speed Limit: An Intervention Study Based on the Theory of Planned Behavior*, 26 J. APPLIED SOC. PSYCHOL. 1, 14 (1996) (finding that viewers of an "anticipated-regret video" reported more negative attitudes toward speeding).

142. See generally René Richard et al., *Anticipated Affective Reactions and Prevention of AIDS*, 34 BRIT. J. SOC. PSYCHOL. 9 (1995) (finding generally that anticipated regret may promote safe sex practices on the part of adolescents); René Richard & Joop van der Pligt, *Factors Affecting Condom Use Among Adolescents*, 1 J. COMMUNITY & APP. SOC. PSYCHOL. 105 (1991) (finding that anticipated regret was an important predictor of condom use for adolescent boys); René Richard et al., *Anticipated Regret and Time Perspective: Changing Sexual Risk-taking Behavior*, 9 J. BEHAV. DECISION MAKING 185, 196 (1996) (finding that anticipated regret can have a similar effect on the safe sex practices of adults); Joop van der Pligt & René Richard, *Changing Adolescents' Sexual Behavior: Perceived Risk, Self-Efficacy and Anticipated Regret*, 23 PATIENT EDUC. & COUNSELING 187 (1993) (reviewing research on this topic).

143. See BONNIE LEONHARDT LINDEMANN, *THE EFFECTS OF SOCIAL CONTEXT ON GRAIN PRODUCERS' DECISIONS TO HOLD OR TO SELL GRAIN* 121 (1993) (Ph.D. thesis, University of Iowa) ("Despite the advice of marketing analysts, producers are affected by regret and elation. Their feelings are altered, and the future strategies they select are changed by the other outcomes they forgo.").

144. In an employment negotiation exercise, Larrick and Boles found that their results "demonstrated that differences in what subjects expected to learn about their foregone alternatives significantly affected their choices." Larrick & Boles, *supra* note 130, at 94. "When coming to agreement would shield them from learning the specific value of their BATNA [i.e., "best alternative to a negotiated agreement"]", subjects were less demanding, more likely to reach agreement, and frequently settled for less than their initial reservation price." *Id.* But "[w]hen coming to agreement would not shield them from learning the specific value of their BATNA, subjects were more demanding, were more likely to reach impasse, and rarely settled for less than their reservation price." *Id.* In short, Larrick and Boles concluded, "[t]he current findings provide a measure of the degree to which people are regret averse." *Id.*; see also Russell Korobkin, *Inertia and Preference in Contract Negotiations: The Psychological Power of Default Rules and Form Terms*, 51 VAND. L. REV. 1583 (1998) (providing experimental data showing that anticipated regret may explain negotiators' preference for default terms in contract negotiations); Zeelenberg & Beattie, *supra* note 132, at 67-75 (finding that anticipated regret influenced subjects' negotiating behavior in the ultimatum game).

145. Dr. Alvan R. Feinstein, for instance, observes that doctors do not make clinical decisions consistent with expected utility theory. Rather, doctors make decisions consistent with regret theory. See Alvan R. Feinstein, *The 'Chagrin Factor' and Qualitative Decision Analysis*, 145 ARCHIVES INTERNAL MED. 1257, 1257 (1985) ("Since the relative magnitudes of chagrin will differ for different types of wrong results, a customary clinical strategy is to choose the option whose wrong result will cause the least chagrin."); see also Christopher C. Colenda et al., *Anticipated Regret Associated with Treatment Decisions for Agitated Dementia Patients*, 3 AM. J. GERIATRIC PSYCHIATRY 68, 72-74 (1995) (finding in hypothetical vignettes that anticipated regret influenced treatment of agitated dementia patients); Stephen D. Nightingale, *Risk Preference*

ences,<sup>147</sup> corporate dividend policy,<sup>148</sup> and gambling behavior.<sup>149</sup> As yet, however, no one has examined whether anticipated regret influences litigation behavior.

### C. Regret and Litigation Behavior

Building on modern regret theory, I propose in this article the Regret Aversion Theory of Litigation Behavior. This theory posits that litigants seek to make litigation decisions that minimize the likelihood they will experience postlitigation regret. In our litigation system, litigants generally must choose between settling and trying their cases. Litigants who settle never learn what they would have recovered at trial, but litigants who reject settlement offers in favor of trial learn the outcomes of both options. Settlement, thus, offers litigants

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and Admitting Rates of Emergency Room Physicians, 26 MED. CARE 84, 87 (1988) (hypothesizing regret aversion as an explanation for hospital admission rates); Cheryl B. Travis et al., *Judgment Heuristics and Medical Decisions*, 13 PATIENT EDUC. & COUNSELING 211, 215 (1989) (proposing regret theory as one possible explanation for clinical treatment decisions).

146. See Tjeerd Tymstra, *The Imperative Character of Medical Technology and the Meaning of 'Anticipated Decision, Regret'*, 5 INT'L J. TECH. ASSESSMENT HEALTH CARE 207, 210, 211 (1989) (arguing that medical patients feel compelled to try new medical technologies due to regret they anticipate feeling if they do not try them and demonstrating in a survey of in vitro fertilization patients that "[p]reventing feelings of regret appears to be a motive for undergoing IVF").

147. See Donald C. Langevoort, *Selling Hope, Selling Risk: Some Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers*, 84 CAL. L. REV. 627, 652-53 (1996) (proposing anticipatory regret as an explanation for investor behavior); Hersch M. Shefrin & Meir Statman, *Explaining Investor Preference for Cash Dividends*, 13 J. FIN. ECON. 253, 268, 280 (1984) (proposing regret aversion as one explanation for investor preference for dividends over capital gains).

148. See generally Chinmoy Ghosh, *A Regret-Theoretic Explanation of Corporate Dividend Policy*, 20 J. BUS. FIN. & ACCT. 559 (1993) (finding that financial managers make corporate dividend policy decisions consistent with the predictions of regret theory).

149. Zeelenberg et al., for instance, gave subjects a choice between a safe gamble and a risky gamble in three simple gambling problems. They also varied the information they provided to subjects about whether the subjects would learn the outcomes of foregone options. See Zeelenberg et al., *Consequences*, *supra* note 133, at 151-56. They found that "[p]articipants who expected to receive feedback on the safe option, regardless of their choice, were likely to choose this option, thereby protecting themselves from threatening feedback on the foregone outcome. Likewise, participants who expected to receive feedback on the risky option tended to choose the risky option." *Id.* at 156. They found, in other words, that "the anticipation of regret, caused by the manipulation of expected feedback on foregone options, can promote risk-averse and risk-seeking choices," prompting them to conclude that "people are *regret averse*, i.e., make choices to minimize their possible future regret. These choices can be relatively risk-seeking or relatively risk-avoiding." *Id.*; see also Maya Bar-Hillel & Efrat Neter, *Why Are People Reluctant to Exchange Lottery Tickets?*, 70 J. PERSONALITY & SOC. PSYCHOL. 17, 26 (1996). They demonstrate that subjects are reluctant to relinquish lottery tickets with identical probabilities and also argue:

[T]he mere fact that two lottery tickets have the potential to result in different outcomes, and in particular, one can result in a desired outcome while the other results in a less desired outcome, suffices to induce an anticipation of regret (which is larger for an exchange than for its refusal). It is not necessary that this potential for having ex post different values actually be realized, far less known [sic]. It is enough that it exists.

*Id.*; see also Josephs et al., *supra* note 132, at 35 (finding generally that regret aversion affects choice behavior, particularly for those with low self-esteem); Ritov, *supra* note 139, at 236 (finding support for the impact of regret aversion on gambling behavior).



an opportunity to avoid, or at least minimize, regret, while trial increases the likelihood litigants will experience regret. Given the structure of our litigation system, the Regret Aversion Theory posits that litigants will choose settlement over trial to avoid feelings of regret associated with learning after trial that they should have settled.<sup>150</sup>

### III. TESTING THE REGRET AVERSION THEORY

To test the proposed Regret Aversion Theory of Litigation Behavior, I developed hypothetical litigation scenarios or vignettes that I administered to students enrolled in first-year courses at the University of Missouri School of Law. In each of the scenarios I administered, subjects read about two litigants who must choose to settle or go forward with trial. After reading the facts of the case, subjects were asked to indicate which of the two litigants would be most likely to settle.

The subjects learn that the two litigants find themselves in identical situations. The only relevant difference between them is the jurisdiction in which each is litigating her case. The subjects learn that one of the litigants is litigating in what I will call a "traditional" jurisdiction. In the traditional jurisdiction, subjects learn that "the judge will cease to participate in the case upon learning that the parties have reached an out-of-court settlement."<sup>151</sup> This means the litigant will not learn what would have happened at trial if she settles the case. The other litigant, the subjects learn, is litigating in what I will call a "regret" jurisdiction. In the regret jurisdiction, subjects learn that "the

150. While the purpose of this article is to propose that *anticipated regret* systematically influences litigation decision making, regret may also affect litigation behavior *directly* if a litigant or lawyer in a given dispute feels regret over some behavior occurring prior to, or during, the litigation process. *See, e.g.,* United States v. Stella, 448 F.2d 522, 524 (9th Cir. 1971) ("No doubt every trial lawyer who has lost a case can, when he holds his own mental post mortem, find some act of omission or commission that he regrets."); South Boston Allied War Veterans Council v. Zobel, 830 F. Supp. 643, 651 (D. Mass. 1993) ("In conclusion, this essentially is a matter in which a disappointed party now regrets its initial decision to litigate its federal claims in state court. This is not an extraordinary circumstance."); Fulton v. Amoco Oil Co., Civ. A. No. 87-4783, 1988 WL 74961, at \*1 (E.D. Pa. July 11, 1988) ("Settlement agreements resolve litigation, not postpone it. That one party comes to regret having settled is no grounds for vitiating the agreement. This is particularly true after the other party has performed its side of the bargain."); United States v. Texas, 523 F. Supp. 703, 714 (E.D. Tex. 1981) ("In hindsight, following the entry of a memorandum opinion and remedial order, defendants apparently regret these tactical decisions made by their legal representative at trial. They believe that the outcome of the case might have been more favorable to them had these stipulations not been entered into."); Fletcher v. Fletcher, 628 N.E.2d 1343, 1348 (Ohio 1994) ("[A]n agreement signed without counsel is not per se invalid, and mere regret at an unwise decision does not establish duress, coercion, fraud or overreaching."); Land v. Land, 605 P.2d 1248, 1251 (Utah 1980) ("Equity is not available to reinstate rights and privileges voluntarily contracted away simply because one has come to regret the bargain made."). *See generally* Jonathan Baron, *The Effect of Normative Beliefs on Anticipated Emotions*, 63 J. PERSONALITY & SOC. PSYCHOL. 320, 320-21 (1992) (describing the four ways in which emotion can affect decision making).

151. Overtime and The Storm (unpublished surveys performed by author) (on file with author); *see also* text accompanying notes 155, 171.

judge is required, upon learning that the parties have reached an out-of-court settlement, to inform the parties of what he would have awarded.”<sup>152</sup> This means the litigant *will* learn what would have happened at trial if she settles the case.

Those litigating in a traditional jurisdiction can minimize the likelihood of experiencing postdecision regret by settling because they will not learn that they could have done better at trial. Those litigating in a regret jurisdiction, by contrast, face a real prospect of regret if they settle because they may learn from the judge that they would have done better at trial. The Regret Aversion Theory of Litigation Behavior thus predicts that litigants pursuing their cases in a traditional jurisdiction will be more inclined to settle than those litigating in a regret jurisdiction.

### A. *The Overtime Scenario*

I administered the first scenario—“Overtime”<sup>153</sup>—to twenty-seven students. In this scenario, the students read about two identical disputes, one between Lisa and her employer and the other between Martha and her employer. Lisa and Martha believe their respective employers, Company ABC and Company XYZ, have failed to pay them overtime compensation. To recover the overtime compensation they believe they are owed, Lisa and Martha have filed suit against their respective employers, seeking payment of \$5,000.

Each learns from her lawyer that due to “the vagueness of the law and the particular characteristics of her job” she has a “50% chance of recovering \$5,000 and a 50% chance of recovering \$0, depending upon whether the judge finds her to be a ‘non-exempt’ or an ‘exempt’ employee.”<sup>154</sup> Thus, both Lisa and Martha face an expected trial verdict valued at \$2,500—i.e., 50% chance  $\times$  \$5,000 + 50% chance  $\times$  \$0 = \$2,500 expected value. Immediately prior to the hearing, Company ABC offers to settle Lisa’s claim for \$2,500, and Company XYZ offers to settle Martha’s claim for \$2,500. Thus, each faces a choice between a certain \$2,500 settlement on the one hand and an expected trial value of \$2,500 on the other hand.

Lisa, the subjects learn, “is litigating in a jurisdiction where the judge will cease to participate in the case upon learning that the parties have reached an out-of-court settlement.”<sup>155</sup> Because Lisa is liti-

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152. Overtime, *supra* note 151; The Storm, *supra* note 151; *see also* text accompanying notes 155, 171.

153. Overtime, *supra* note 151.

154. *Id.* The Fair Labor Standards Act of 1938 (FLSA), 29 U.S.C. §§ 201-219 (1998), requires covered employers to pay minimum wages, § 206, and overtime compensation, § 207, to all nonexempt employees. The FLSA exempts, however, several categories of employees from the minimum wage and overtime requirements. § 213. Thus, an employee’s entitlement to overtime compensation will turn, at least in part, on whether that employee is deemed “exempt” or “non-exempt” under the FLSA.

155. Overtime, *supra* note 151.

gating in a "traditional" jurisdiction, she will not learn what the judge would have decided at the hearing if she accepts the settlement offer. Martha, by contrast, is litigating in a "regret" jurisdiction. She, the subjects learn, "is litigating in a jurisdiction where the judge is required, upon learning that the parties have reached an out-of-court settlement, to inform the parties of what he would have awarded at the hearing."<sup>156</sup> Because Martha is litigating in a regret jurisdiction, she *will* learn what the judge would have decided at the hearing if she accepts the \$2,500 settlement offer. The subjects are then asked to indicate which of the plaintiffs—Lisa or Martha—is "most likely to *accept* the settlement offer."<sup>157</sup>

The substance of the decision facing Lisa and Martha is identical. Both are plaintiffs. Both must choose between a certain \$2,500 settlement offer and an expected trial verdict valued at \$2,500. And both have received identical legal advice from their respective attorneys about the outcome of their cases. Because the substantive decision facing Lisa and Martha is the same, the Economic and Framing Theories assume that subjects will express no preference for either Lisa or Martha. That is, the Economic and Framing Theories predict that half of the subjects will select Lisa and half Martha.

While the substance of the decision facing them is the same, the emotional consequences are quite different. If Lisa accepts the settlement offer, she will not face the prospect of learning she would have done better at trial, but if Martha accepts, she will face that unpleasant prospect. Thus, Lisa can minimize her regret by settling, but Martha cannot.<sup>158</sup> Because Lisa can minimize her regret by settling, the Regret Aversion Theory predicts that subjects will identify Lisa as "most likely to accept the settlement offer."<sup>159</sup>

The results provide support for the Regret Aversion Theory. Of the twenty-seven subjects who responded to the Overtime scenario, twenty-two (81.5%) indicated that Lisa was most likely to accept the settlement offer, while only five (18.5%) picked Martha. The difference between Lisa and Martha is highly statistically significant.<sup>160</sup>

156. *Id.*

157. *Id.*

158. Of course, Lisa could subsequently learn from some other source that she *might* have done better at trial (e.g., a plaintiff like Martha with a similar overtime compensation claim), or she could imagine that she might have done better at trial. While either of these eventualities could potentially produce some regret, the regret would not be nearly as salient for Lisa as for Martha, who faces the daunting prospect of learning that she definitely would have done better at trial. See *supra* text accompanying notes 137-39.

159. See *supra* text accompanying note 157. It is worth noting that there are reasons to suspect that Martha, rather than Lisa, might be more inclined to settle. Curiosity, for example, might make Martha more likely than Lisa to settle because she will learn whether her decision to settle was "correct," while Lisa will not. See Paul Anand, *Testing Regret*, 31 MGMT. SCI. 114, 115 (1985) (identifying fascination, interest, and nosiness as other possible motivations).

160. binomial  $z=3.08$ ,  $p < .001$ . To test whether the results (i.e., 81.5% Lisa versus 18.5% Martha) were statistically significantly different from what the Economic Theory, Framing The-

The survey asked the students why they picked one litigant over the other. Most students provided answers consistent with the proposed Regret Aversion Theory.<sup>161</sup> "If Martha takes the \$2,500 [and] settles," one respondent explained, "there is a chance that she will have to hear from the judge that she could have got [sic] the full \$5,000. Knowing that the judge could say she is entitled to the full \$5,000 when she already accepted the \$2,500 is something she will not want to hear."<sup>162</sup> Another respondent explained that Lisa "can be confident that she did what was best for her, whereas Martha may learn later that the judge would have ruled for her. That knowledge could be an emotional blow to Martha."<sup>163</sup> And still another explained, "I think that the plaintiff in the jurisdiction where the judge ceases to participate upon settlement is most likely to [settle] because never knowing what the judge would have decided, whether she would have been better or worse off, will leave the least amount of regret."<sup>164</sup>

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ory, and chance would have predicted (i.e., 50% Lisa versus 50% Martha), I performed a "binomial test." See FREDERICK J. GRAVETTER & LARRY B. WALLNAU, STATISTICS FOR THE BEHAVIORAL SCIENCES 187 (2d ed. 1988). A binomial test "uses sample data to evaluate hypotheses about the values of  $p$  and  $q$  for a population consisting of binomial data." *Id.* Binomial data "exist whenever a measurement procedure classifies individuals into exactly two distinct categories," like "Lisa" and "Martha." *Id.* at 186.

161. See Survey #2 ("Martha is likely to feel her decision to accept \$2,500 could look foolish if the judge announces he would have awarded \$5,000. Lisa does not feel that pressure."); Survey #9 ("Lisa will feel like she has more control over the settlement + she won't have the feeling, as much as Martha, that she could have possibly gotten more."); Survey #14 ("[Lisa] doesn't have the thought in the back of her head that the judge or anyone else is going to inform her of what the right move on her part might have been. She can accept without reservation that 'the judge might have rewarded me more and he would tell me that is the case.'"); Survey #17 ("If Lisa accepts, she will not have the possibility of knowing the judge would have given her \$5,000, which would make her feel that she made the wrong decision. Martha *would* have that possibility, therefore it may deter her from accepting since she may find out she made a mistake."); Survey #24 ("Because she won't learn what the judge would have decided [sic]. Lisa can feel good about her decision because she will never know. Martha has a chance of being told she would have gotten the entire \$5,000."); Survey #26 ("Martha will be concerned that if she accepts the offer of \$2,500 and then learns she would have won \$5,000, she will be overly upset. Lisa will never know, so she will be more likely to settle."); Survey #39 ("I really think both would [settle], but I chose Lisa because she will never go through the possible agony of hearing a judge say he would have gave [sic] 5K."); Survey #50 ("She [Lisa] has no way of knowing what the judge decided (i.e. getting disappointed over judges [sic] decision)"); Survey #56 ("Because Lisa will never know whether she would have gotten more or less. Martha, on the other hand, is taking a *real* risk no matter what she decides."); Survey #62 ("It is easier to take the money + not know what the judge would have ruled than to take it + possibly find out you would have gotten more."). But see Survey #10 for an arguably rational explanation for why Lisa rather than Martha was the "correct" choice ("B/C if Martha accepts and thinks that after the settlement the judge says [sic] she would have lost, she may be concerned that difficulties may be encountered in collecting the money from XYZ if they know [sic] the true result.").

162. Survey #1.

163. Survey #21.

164. Survey #25.

### B. The Storm Scenario

The Overtime scenario provides support for the Regret Aversion Theory by suggesting that *plaintiffs* will factor anticipated regret into their litigation decision making. To test whether regret aversion also affects *defendants*, I administered a second scenario—"The Storm"<sup>165</sup>—to another group of fifty-three students.<sup>166</sup> In this scenario—in contrast to the Overtime scenario—subjects were asked to identify the settlement preferences of defendants facing losses rather than plaintiffs facing gains. Subjects read about two identical disputes, one between Patricia, a pedestrian, and Allison, a duplex owner, and the other involving Pamela, also a pedestrian, and Elizabeth, the owner of another duplex.

The subjects learn in this scenario that Patricia "slipped and fell on the sidewalk in front of Allison's duplex unit" and that Pamela "slipped and fell on the sidewalk in front of Elizabeth's duplex unit."<sup>167</sup> Because both plaintiffs believe that the duplex owners "negligently failed to remove snow and ice from the sidewalk," and that this negligence caused their injuries, they filed suit against the duplex owners, seeking \$5,000 in damages.<sup>168</sup> Upon being sued, both duplex owners, Allison and Elizabeth, retained counsel. Their respective attorneys informed them that each plaintiff has about a "50% chance of recovering \$5,000 and a 50% chance of recovering \$0" in a bench trial.<sup>169</sup> Thus, both Allison and Elizabeth face an unattractive expected trial verdict valued at  $-\$2,500$ —i.e.,  $50\% \text{ chance} \times -\$5,000 + 50\% \text{ chance} \times \$0 = -\$2,500$  expected value. Immediately prior to the bench trial, "Patricia offered to settle her case and dismiss the lawsuit if Allison would pay her \$2,500," and "Pamela offered to settle her case and dismiss the lawsuit if Elizabeth would pay her \$2,500."<sup>170</sup>

Allison, the subjects learn, "has been sued in a jurisdiction where the judge will cease to participate in the case upon learning that the parties have reached an out-of-court settlement."<sup>171</sup> Because Allison

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165. The Storm, *supra* note 151.

166. By administering the first scenario to one set of subjects and the second scenario to another set of subjects, I avoided the "practice effects" problem often associated with within-subjects designs. See, e.g., SHAUGNESSY & ZECHMEISTER, *supra* note 96, at 214-15 (arguing that repeated testing of a subject may result in practice effects that might undermine the validity of the experimental results obtained).

167. The Storm, *supra* note 151.

168. *Id.*

169. *Id.* To establish negligence claims for their personal injuries, plaintiffs must prove duty, breach, causation, and damages. See generally RESTATEMENT (SECOND) OF TORTS § 281 (1965); W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 30, at 164-65 (5th ed. 1984). While most personal injury cases like this one are tried before juries rather than judges, see, e.g., Kevin M. Clermont & Theodore Eisenberg, *Trial by Jury or Judge: Transcending Empiricism*, 77 CORNELL L. REV. 1124, 1140-41 (1992), roughly 9-35% of personal injury cases are, in fact, bench trials. See *id.* at 1141 (reporting in their sample of federal cases that 8.9% to 34.9% of various types of personal injury cases were tried by judges rather than juries).

170. The Storm, *supra* note 151.

171. *Id.*

has been sued in a traditional jurisdiction, she will not learn what the judge would have decided in the case if she agrees to pay Patricia the \$2,500 settlement. Elizabeth, by contrast, has been sued in a regret jurisdiction. She, the subjects learn, "has been sued in a jurisdiction where the judge is required, upon learning that the parties have reached an out-of-court settlement, to inform the parties of what he would have awarded at trial."<sup>172</sup> Because Elizabeth has been sued in a regret jurisdiction, she *will* learn what the judge would have decided in the case if she agrees to pay Pamela the \$2,500 settlement. The subjects are then asked to indicate which defendant—Allison or Elizabeth—is "most likely to pay the requested settlement."<sup>173</sup>

Allison and Elizabeth must make identical substantive decisions. Both are defendants. Both must choose between paying a certain \$2,500 settlement or facing an expected trial verdict of -\$2,500. Both have received the same prediction from their respective attorneys about the outcome of their cases. Because the substantive decision facing Allison and Elizabeth is the same, the Economic and Framing Theories assume that subjects will express no preference for either Allison or Elizabeth. That is, the Economic and Framing Theories predict that half of the subjects will select Allison and half Elizabeth.

While the substance of the decision facing them is the same, the emotional consequences are quite different. If Allison agrees to pay the settlement demand, she will not face the prospect of learning she would have done better at trial, but if Elizabeth pays, she will face that unpleasant prospect. Thus, Allison can minimize her regret by settling, but Elizabeth cannot.<sup>174</sup> Because Allison can minimize her regret by settling, the Regret Aversion Theory predicts that subjects will identify Allison as "most likely to pay the requested settlement."<sup>175</sup>

The experimental results provide support for the proposed theory. Of the fifty-three subjects who responded to The Storm scenario, forty-two (79.2%) indicated that Allison was most likely to accept the settlement offer, while only eleven (20.8%) picked Elizabeth. The difference between Allison and Elizabeth, like the difference between

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172. *Id.*

173. *Id.*

174. Of course, Allison could subsequently learn from some other source that she *might* have done better at trial (e.g., a defendant who had a similar slip-and-fall claim lodged against her), or she could imagine that she might have done better at trial. While either of these eventualities could potentially result in some regret, the regret would not be nearly as salient for Allison as for Elizabeth, who faces the daunting prospect of learning that she definitely would have done better at trial. See *supra* text accompanying notes 137-39.

175. See *supra* text accompanying note 173. It is worth noting that there are reasons to suspect that Elizabeth, rather than Allison, might be more inclined to pay the requested settlement. Curiosity, for instance, might prompt Elizabeth to settle because she will learn whether her decision to settle was the "right" one, while Allison will not. See Anand, *supra* note 159, at 115 (identifying fascination, interest, and nosiness as other possible motivations).

Lisa and Martha in the Overtime scenario, is highly statistically significant.<sup>176</sup>

When asked on the survey why they chose the way they did, most students provided answers consistent with the proposed Regret Aversion Theory of Litigation Behavior.<sup>177</sup> One respondent exclaimed, "I don't think Eliz[abeth] could stand *knowing*, if it did go the other way after paying."<sup>178</sup> Another student echoed these sentiments, explaining that Allison "will never know if she would have won or lost. Elizabeth may be distraught at finding out she [paid] \$2,500 unnecessarily."<sup>179</sup> And another respondent chose Allison because "if Elizabeth pays & later finds out she wouldn't have needed to, she would really regret it."<sup>180</sup>

### C. Conclusion

The experimental work reported here provides evidence that litigants seek to minimize postdecision regret by settling rather than trying their cases. In the Overtime scenario, *plaintiffs* Lisa and Martha faced identical substantive decisions, yet Lisa (traditional jurisdiction) appeared substantially more likely than Martha (regret jurisdiction) to accept the settlement offer. Similarly, in The Storm scenario, *defendants* Allison and Elizabeth faced identical substantive decisions, yet Allison (traditional jurisdiction) appeared substantially more likely than Elizabeth (regret jurisdiction) to pay the requested settlement

176. binomial  $z=4.12$ ,  $p < .0001$ . See GRAVETTER & WALLNAU, *supra* note 160, at 187.

177. See Survey #121 ("She doesn't want to know if she made [a] mistake."); Survey #128 ("Never knowing what the judge will decide makes it easier for Allison to take the settlement and convince herself that she's made the best choice. She doesn't face the possibility of knowing that she chose incorrectly."); Survey #133 ("Realistically no difference, but it just feels better to settle if you don't know. Ugly dogs aren't unhappy because they don't know their [sic] ugly."); Survey #136 ("Allison will never experience the pain of knowing what might have been. Better to not know."); Survey #137 ("Because if you paid the \$ you want that to be the end of things, you wouldn't want to know what the judge would have decided if you hadn't paid because he could have decided in your favor."); Survey #138 ("Not knowing the outcome would not result in 2nd thoughts by Allison. But it would in Elizabeth's case."); Survey #143 ("Because she won't have to find out that the judge decided [sic] she never had to pay anything."); Survey #145 ("If Elizabeth is going to find out how the judge would decide the case, it would probably anger her more afterwards if she paid \$2,500 and discovered later she would have won the case."); Survey #150 ("Allison will never know that she was possibly wrong! People who will find out if [sic] they were possibly wrong are hesitant to act."); Survey #163 ("I think myself, and a lot of people would rather pay the money either 1/2 or all or whatever and never know if they could have won in court so they wouldn't always kick themselves if they would have won. Its [sic] better to just assume that your money was well spent."); Survey #167 ("It seems you would more [sic] about regretting your choice where you would learn of the judges [sic] decision."); Survey #171 ("She knows that her piece of mind will not be disturbed by a judge telling her that he would've ruled in her favor."); Survey #172 ("It would be too painful to find out you should not have settled. If you couldn't just settle + have the lawsuit over with, you might as well go on w/ the lawsuit. Part of settling is going on w/ life + leaving the conflict behind you."). *But see* Survey #120 ("It is easier to pay the 2500.00, if you know that no one will second guess your decision.").

178. Survey #132 (emphasis in original).

179. Survey #146.

180. Survey #160.

demand. Both Lisa in the Overtime scenario and Allison in The Storm scenario appeared more likely to settle because of the prospective emotional consequences—i.e., the anticipated regret—associated with their decisions.

While I acknowledge the methodological limitations associated with the hypothetical scenario approach—including its within-subjects design<sup>181</sup> and concerns about external validity<sup>182</sup>—I contend nonetheless that this approach makes it possible to isolate the role anticipated regret plays in litigation decision making in a way that few, if any, other methodologies could.<sup>183</sup> Moreover, the experimental work reported here is corroborated by prior experimental work in other domains,<sup>184</sup> anecdotal evidence,<sup>185</sup> and our collective intuition about

181. A “within-subjects” or “within-groups” design—in contrast to a “between-subjects” or “between-groups” design—is one in which subjects are assigned to a single group. The experimenter administers the independent variable being tested to all subjects within the group and derives conclusions regarding the impact of that variable by observing differences *within* the group, rather than *between* an experimental group and a control group. See ROBERT THOMAS MALESKE, FOUNDATIONS FOR GATHERING AND INTERPRETING BEHAVIORAL DATA 210 (1995); SHAUGHNESSY & ZECHMEISTER, *supra* note 96, at 212-24.

The potential problem with within-subjects designs is that “they are liable to induce the effect which they are intended to test.” Daniel Kahneman & Amos Tversky, *On the Study of Statistical Intuitions*, 11 COGNITION 123, 131 (1982). While I acknowledge this methodological concern, I do not think it is warranted here. The scenarios I employ admittedly focus subjects’ attention on the difference between the decisions facing the litigants in each scenario, but the decisions facing the two litigants differ along many dimensions—regret-minimizing versus regret-maximizing, curiosity-satisfying versus non-curiosity-satisfying, passive versus active, usual versus unusual, etc. Thus, the scenarios do not simply induce subjects to make regret-averse choices.

Moreover, a number of researchers have employed a design comparable to this one to study aspects of regret. See, e.g., Thomas Gilovich & Victoria Husted Medvec, *The Temporal Pattern to the Experience of Regret*, 67 J. PERSONALITY & SOC. PSYCHOL. 357 (1994) [hereinafter Gilovich & Medvec, *Temporal Pattern*]; Daniel Kahneman & Amos Tversky, *The Psychology of Preferences*, 246 SCI. AM. 160, 173 (1982); Landman, *Regret and Elation*, *supra* note 125, at 528-34. But see Ahogni N’gbala & Nyla R. Branscombe, *When Does Action Elicit More Regret Than Inaction and Is Counterfactual Mutation the Mediator of This Effect?*, 33 J. EXPERIMENTAL SOC. PSYCHOL. 324, 325 (1997) (arguing that there are interpretational problems associated with the use of within-subjects designs in research on the differential impact of action and inaction on regret).

182. External validity “is a measure of how certain we are that a relationship observed in a controlled experiment will also be valid outside of the conditions of that experiment.” MALESKE, *supra* note 181, at 150. “It is often difficult to generalize from results obtained under such conditions [contrived laboratory experiments] to more realistic injurious experiences and disputes.” Dan Coates & Steven Penrod, *Social Psychology and the Emergence of Disputes*, 15 L. & SOC’Y REV. 655, 667 (1981). See generally Korobkin & Guthrie, *Psychological Barriers*, *supra* note 8, at 126-28. While I recognize the external validity concerns that can be voiced about the methodology I use here, I contend, nonetheless, that this type of experimental approach is the most reliable means of establishing the impact of a given variable on behavior.

183. Additionally, while “[e]very type of study, and every individual study, inevitably will be imperfect,” Michael J. Saks, *What Do Jury Experiments Tell Us About How Juries (Should) Make Decisions?*, 6 S. CAL. INTERDISCIPLINARY L.J. 1, 5 (1997), the advantage of a “law and social science” approach like this one is that it offers “assertions about the law that are empirically refutable.” Macey, *supra* note 100, at 172. Thus, further work can provide additional support for, or refutation of, the assertions I make about the impact of anticipated regret on litigation behavior. See, e.g., Saks, *supra*, at 5 (arguing that “replication” and “triangulation” can provide “increasing confidence in the conclusions”); *supra* note 100.

184. See *supra* notes 140-49.



how people make decisions under risky conditions. Taken together, this evidence provides ample support for the Regret Aversion Theory.<sup>186</sup>

#### IV. REGRET AVERSION AND LAWYERING

The proposed Regret Aversion Theory posits—and the evidence reported here suggests—that litigants systematically prefer settlement to trial because it enables them to avoid regret they anticipate feeling posttrial. The fact that litigant decision making is systematically influenced by anticipated regret raises profound questions for lawyers. While a comprehensive treatment of this topic is beyond the scope of

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185. See, e.g., WERTH, *supra* note 1; see also Jerome Groopman, *Decoding Destiny*, NEW YORKER, Feb. 9, 1998, at 42, 46-47. Describing how his patient Karen had been persuaded by her older sister Ruth to undergo a preemptive mastectomy/oophorectomy, the author writes:

"Ruth said that I was one of the lucky ones," Karen went on, her eyes moist. "I had been given advance warning, by our mother and by her. That my relationship with Sam could survive any changes in my body, as hers had with her husband, despite the cancer and chemotherapy. And that I would never stop being who I am." Karen paused, and I reached out to grip her trembling hand. "Ruth said she wished someone had told her to have a mastectomy. Not just in hindsight, not just because now she has cancer. But because she would know that she had done everything possible to try to prevent it, and wouldn't live with regret."

*Id.*; see also Jason Zweig, *Five Investing Lessons from America's Top Pension Funds*, MONEY, Jan. 1998, at 114, 118 (Professor Harry M. Markowitz, Nobel Prize-winning economist, reports how he invests his personal retirement funds: "I should have computed the historical covariances of the asset classes and drawn an efficient frontier. Instead, I visualized my grief . . . if [the stock market] went way down and I was completely in it. My intention was to minimize my future regret. So I split my contributions fifty-fifty between bonds and equities.").

186. While the Regret Aversion Theory posits that regret aversion systematically influences litigation decision making, litigants appear to behave in a *regret-seeking* way in a tiny minority of civil cases involving "high-low agreements." In a high-low agreement, "[t]he plaintiff agrees to collect no more than a maximum amount specified in the agreement, regardless of a higher jury verdict, while the defendant agrees to pay no less than a minimum amount specified in the agreement, regardless of a lower jury verdict." Samuel R. Gross & Kent D. Syverud, *Don't Try: Civil Jury Verdicts in a System Geared to Settlement*, 44 UCLA L. REV. 1, 61 (1996). See generally Robert Coulson, *Negotiating Control Contracts: Trial Counsel Reduce Their Need for Appeals*, 52 JUDICATURE 190 (1968); John L. Shanahan, *The High-Low Agreement*, FOR THE DEFENSE, July 1991, at 25. Thus, both parties bargain for the prospect of facing regret because they agree to face the prospect of learning that they would have done better through trial than they did through their high-low settlement agreement.

Consider, for example, a \$200,000/\$100,000 high/low agreement. "If a jury returns a no cause verdict or \$1 up to and including \$100,000, then the plaintiff is awarded \$100,000. If a jury returns a verdict of \$100,000.01 up to and including \$200,000, then the specific verdict amount governs. (In other words, if the verdict is \$150,000, then the plaintiff receives \$150,000.) If a jury returns a verdict exceeding \$200,000, then the plaintiff is entitled to only the \$200,000 maximum." Steven R. Gabel, *High-Low Settlement Agreements: Method for Dispute Resolution*, 73 MICH. B.J. 74, 74 (1994). In this instance, then, plaintiff faces the prospect of regret if the jury returns a verdict in excess of \$200,000, while the defendant faces the prospect of regret if the jury returns a verdict less than \$100,000.

For recently reported high-low agreements and the resulting jury verdicts, see, for example, *\$18.6 Million Verdict in Suit Arising from Uterine Rupture During Childbirth*, 17 VERDICTS, SETTLEMENTS & TACTICS 469 (1997); *Dentist Found Liable for Negligent Injection of Lidocaine*, 17 VERDICTS, SETTLEMENTS & TACTICS 425 (1997); *Settlement in Dram Shop Suit*, 17 VERDICTS, SETTLEMENTS & TACTICS 3 (1997); *Surgeon Found Liable for Delay in Treating Trauma Patient*, 17 VERDICTS, SETTLEMENTS & TACTICS 344 (1997); *Surgeon Found Liable in Suit Involving Colostomy*, 17 VERDICTS, SETTLEMENTS & TACTICS 240 (1997).

this article, I briefly explore in this part three key challenges facing the regret-savvy lawyer: recognizing regret aversion, advising the regret-averse client, and litigating against the regret-averse adversary.

### A. Challenge #1: Recognizing Regret Aversion

The first challenge facing regret-savvy lawyers is to assess the extent to which regret aversion is likely to influence their clients *and* adversaries. Litigants are generally prone to regret-averse decision making,<sup>187</sup> but the degree to which any particular litigant is regret averse is likely to depend on a number of factors. While there are no hard and fast rules for assessing litigant regret aversion, I suggest below that lawyers can look to certain clues—the type of litigant, litigant personality, case type, and procedural posture—to help them assess the extent to which their clients *and* adversaries are likely to base litigation decisions on regret aversion.

#### 1. Type of Litigant

Lawyers should first look to the type of client they are representing, and the type of adversary they are litigating against, because certain types of litigants seem more likely to make regret-averse decisions than others. Most significantly, lawyers are likely to find that *individual* litigants are more likely to exhibit regret aversion than *institutional* litigants.

Institutional litigants, like insurance companies, governmental bodies, and Fortune 500 corporations, are generally repeat players with active caseloads who are likely to view litigation primarily as a financial matter,<sup>188</sup> while individual litigants are often one-shot players who are more prone to view litigation as a financial *and* emotional matter.<sup>189</sup> Moreover, because institutional litigants may make hundreds of litigation decisions in their various cases, the financial *and* emotional consequences of a “wrong” decision do not loom as large for them as for the individual litigant making relatively few such decisions. Finally, individual litigants may be advised by loved ones and lawyers, but they ultimately make litigation decisions that will have financial and emotional consequences primarily for them. Institutional litigants, by contrast, are often comprised of teams of decision makers—in-house lawyers, middle managers, and executives—making decisions that will have consequences primarily for the institution of which they are a part.<sup>190</sup> Regret aversion seems more likely to affect

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187. See *supra* Part III.

188. See generally Marc Galanter, *Why the “Haves” Come Out Ahead: Speculations on the Limits of Legal Change*, 9 L. & SOC’Y REV. 95 (1974).

189. See generally *id.*

190. Of course, such decisions may also have consequences for the individual or individuals making the decisions on behalf of an institution, but the primary impact will usually be on the institution rather than the individual or individuals.

individuals deciding for themselves than groups deciding for an institution.

## 2. *Litigant Personality*

Second, lawyers should also recognize that some *individual* litigants are likely to be more susceptible to regret aversion than others. There is empirical evidence suggesting, for instance, that individuals with lower self-esteem are more likely to exhibit regret aversion than those with relatively higher self-esteem.<sup>191</sup> Thus, litigants who lack confidence generally, or about the litigation process specifically, may be more prone to settle due to regret aversion than relatively more confident litigants.

## 3. *Case Type*

Lawyers should also assess the type of case in which they are involved because regret aversion may play a more prominent role in certain types of cases than in others. It seems likely, for instance, that regret aversion may play a more prominent role in ordinary civil cases than in cases fraught with emotion. Consider, for example, a bread-and-butter civil case—like a simple auto accident case where plaintiff and defendant bear no particular ill will toward one another—and a relatively emotional case—like a libel case or a medical malpractice case. Because feelings of anger, pride, and vengeance in the libel and malpractice cases may “trump” prospective regretful feelings (at least on the part of the allegedly libeled plaintiff and the defendant doctor), it seems likely that regret aversion will play a more prominent role in the ordinary civil case. Consistent with this hypothesis, ordinary civil cases, e.g., auto accident cases, settle at a much higher rate than libel and medical malpractice cases.<sup>192</sup>

## 4. *Procedural Posture*

Finally, lawyers should also expect regret aversion to play a more prominent role in litigant decision making at certain points in the litigation process, namely, when the prospect of regret seems most salient. The prospect of regret is likely to seem most salient when clients expect to receive imminent, potentially adverse, case-threatening rul-

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191. See Josephs et al., *supra* note 132, at 28; Larrick, *Motivational Factors*, *supra* note 6, at 446.

192. See Randall P. Bezanson, *The Libel Suit in Retrospect: What Plaintiffs Want and What Plaintiffs Get*, 74 CAL. L. REV. 789, 790 n.3 (1986) (noting that “[i]nformation provided from a variety of sources, including the case histories of over 1300 insurance claims, suggests that the incidence of settlement activity in libel cases is much lower than for civil litigation in general”); Gross & Syverud, *supra* note 186, at 58 (noting that “the trial rate in medical malpractice cases is considerably higher across the nation than for any other category of personal injury litigation”); Gross & Syverud, *supra* note 27, at 364 (reporting that “[o]nly about 2% of California personal injury suits go to jury trial,” while “[n]ational studies indicate that at least 6-7% of medical malpractice suits reach jury trial, and perhaps as many as 10%”).

ings.<sup>193</sup> So, for example, litigants are particularly likely to feel regret averse on the eve of trial, and perhaps, may settle as a result.<sup>194</sup> Indeed, regret aversion may partially explain the plethora of "court-house steps" settlements.<sup>195</sup>

### B. Challenge #2: Advising the Regret-Averse Client

The second challenge facing regret-savvy lawyers is to determine how to advise regret-averse clients to make optimal litigation decisions. At a minimum, lawyers should recognize that their clients are generally prone to regret aversion and that regret aversion may either facilitate *or* frustrate optimal client decision making.

There are good reasons for lawyers to encourage their clients to base their litigation decisions at least in part on the regret they might feel if a decision turns out poorly. Although economic theorists believe that "rational people base their decisions on their expectations of the future rather than on their regrets about the past,"<sup>196</sup> regret is "something we shall experience just as surely as we experience the other consequences of our decisions."<sup>197</sup> Thus, it seems rational—at least in a lay sense<sup>198</sup>—to factor the prospect of anticipated regret into litigation decision making.<sup>199</sup> Moreover, anticipated regret may "facil-

193. See *supra* notes 137-39 and accompanying text.

194. Scholars have observed settlement behavior akin to this (though they have offered an alternative explanation for it) in final offer arbitrations conducted in major league baseball where "almost all cases proceed to the point where offers are submitted to the arbiter," but "relatively few cases actually proceed to arbitration." Amy Farmer & Paul Pecorino, *Bargaining with Informative Offers: An Analysis of Final-Offer Arbitration*, 27 J. LEGAL STUD. 415, 415 (1998). "For example, in major league baseball in 1992, 157 players filed for arbitration. Of these cases, 21 settled prior to the exchange of offers, and 20 cases proceeded to the arbitration stage. In 116 cases, final offers were exchanged, but settlement occurred prior to the arbitration hearing." *Id.* at 416.

195. See, e.g., Peter Toll Hoffman, *Valuation of Cases for Settlement: Theory and Practice*, 1991 J. DISP. RESOL. 1, 30 ("It is common knowledge among trial attorneys that serious settlement discussions often do not begin until the eve of trial, and there are many tales of settlements made literally on the courthouse steps.").

196. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 8 (4th ed. 1992).

197. Hershey & Baron, *supra* note 28, at 207.

198. See generally Kahneman, *New Challenges*, *supra* note 40, at 105.

199. Scholars have engaged in a fairly lively debate about whether individuals who factor regret into their decision making can be said to be deciding "rationally." In their initial work on regret theory, Loomes and Sugden proposed regret theory as a theory of rational choice and argued that "if an individual does experience such feelings [i.e., regret or rejoicing], we cannot see how he can be deemed irrational for consistently taking those feelings into account." Loomes & Sugden, *Regret Theory*, *supra* note 126, at 820. In a later article, however, Sugden modified his earlier position, arguing that regret theory is a rational choice theory of a different kind. Sugden, *Regret, Recrimination, and Rationality*, *supra* note 110, at 77. Explaining the difference between expected utility theory and regret theory, Sugden writes:

A person who acts according to expected utility theory has a complete and internally consistent pattern of preferences—a master plan—for dealing with every possible contingency within a very broad class of choice problems. If the axioms of that theory have normative content, it is because they provide guidance to individuals when drawing up such master plans.

itate[ ] high-quality decision making"<sup>200</sup> by prompting a litigant to engage in "vigilant appraisal of each course of action"<sup>201</sup> and to construct "inventive solutions that take account of calculated risks."<sup>202</sup>

There are also good reasons, however, for lawyers to attempt to dissuade their clients from basing litigation decisions solely, or even primarily, on anticipated regret. First, individuals are notoriously bad at predicting how they will feel in the future. They "have a hard time assessing what [an] experience will actually be like,"<sup>203</sup> "lack skill in the task of predicting how their tastes might change,"<sup>204</sup> and "overestimate the overall magnitude and generality of the positive or negative feeling generated by an event."<sup>205</sup> Researchers have found, for instance, that lottery winners are not as happy as might be expected and paralyzed accident victims are not as unhappy.<sup>206</sup>

Even assuming people correctly anticipate the regret they will feel, their regrets are likely to change over time. Researchers have found that there is "a consistent temporal pattern to the experience of regret."<sup>207</sup> While much of this work has focused on the intriguing research result that "[a]ctions produce greater regret in the short-term,

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... Regret theory, in contrast, comes into its own when people don't have master plans of this kind. . . . In other words, people may repeatedly behave as regret theory predicts, but they do not do so as part of a conscious plan. Regret theory describes some of the regularities in human behaviour that occur because people sometimes don't know how they should choose.

*Id.* at 96. *But see* Keasey, *supra* note 129, at 648 (challenging Loomes's and Sugden's claims that regret theory is rational).

I agree with Cass Sunstein that "[i]t is far less important to struggle over whether" it is rational for litigants to incorporate regret into their decision making "than to be as clear as possible on how human beings actually behave." Sunstein, *Behavioral Analysis*, *supra* note 61, at 1175 n.3.

200. JANIS & MANN, *supra* note 125, at 222.

201. *Id.* at 224.

202. *Id.*

203. Sunstein, *Behavioral Analysis*, *supra* note 61, at 1184.

204. Kahneman, *New Challenges*, *supra* note 40, at 121-22.

205. Philip Brickman et al., *Lottery Winners and Accident Victims: Is Happiness Relative?*, 36 J. PERSONALITY & SOC. PSYCHOL. 917, 926 (1978).

206. *See id.*

207. Gilovich & Medvec, *Temporal Pattern*, *supra* note 181, at 361. For additional sources documenting the "temporal pattern . . . of regret," see, for example, Gilovich & Medvec, *Experience of Regret*, *supra* note 107, at 381 (reviewing evidence regarding the temporal pattern of regret and proposing "a framework to organize the various psychological mechanisms that give rise to this temporal pattern"); Richard T. Kinnier & Arlene T. Metha, *Regrets and Priorities at Three Stages of Life*, 33 COUNSELING & VALUES 182, 183 (1989) (exploring "the most often cited regrets and priorities of men and women at three stages of life"); Savitsky et al., *supra* note 125, at 249 (hypothesizing that "the Zeigarnik effect, or the tendency for people to remember incomplete tasks better than completed tasks, might play an important role in the temporal pattern to the experience of regret" (citation omitted)).

For sources examining the life regrets of particular subpopulations, see, for example, Alexander et al., *supra* note 105 (older women); DeGenova, *supra* note 105 (retired individuals); Nina Hattiangadi et al., *Failing to Act: Regrets of Terman's Geniuses*, 40 INT'L J. AGING & HUM. DEV. 175 (1995) (elderly gifted individuals); Arlene T. Metha et al., *A Pilot Study on the Regrets and Priorities of Women*, 13 PSYCHOL. WOMEN Q. 167 (1989) (women).

whereas inactions generate more regret in the long run,"<sup>208</sup> this work stands for the general proposition that people experience regret differently over time. Thus, even if litigants accurately anticipate the regret they will feel posttrial, lawyers should bear in mind that their clients' feelings of regret are likely to dissipate, change, and hopefully even disappear in time.<sup>209</sup>

Third, even if time does not heal, litigants may be able to minimize, or even eliminate, regret through a number of psychological mechanisms, including dissonance reduction,<sup>210</sup> feature matching,<sup>211</sup> and cognitive buffering.<sup>212</sup> Research on these mechanisms suggests lit-

208. Gilovich & Medvec, *Temporal Pattern*, *supra* note 181, at 361.

209. *But see* Len Lecci et al., *Life Regrets and Current Goals as Predictors of Psychological Adjustment*, 66 J. PERSONALITY & SOC. PSYCHOL. 731, 737 (1994) (noting that for a number of reasons "regrets may turn more decidedly negative as the individual ages").

210. Cognitive dissonance theory, as originally formulated by Leon Festinger, was comprised of two hypotheses. First, "[t]he existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance." LEON FESTINGER, *A THEORY OF COGNITIVE DISSONANCE* 3 (1957). Second, "[w]hen dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance." *Id.* "Cognitive dissonance can be seen," in short, "as an antecedent condition which leads to activity oriented toward dissonance reduction just as hunger leads to activity oriented toward hunger reduction." *Id.*

According to the theory, "dissonance is an almost inevitable consequence of a decision." *Id.* at 36. Because dissonance is unpleasant, "the existence of dissonance will give rise to pressures to reduce it." *Id.* at 42. Individuals can reduce postdecision dissonance "by increasing the attractiveness of the chosen alternative and decreasing the attractiveness of the rejected alternative." Leon Festinger, *Introduction, in* CONFLICT, DECISION, AND DISSONANCE 1, 5-6 (Leon Festinger ed., 1964). Experimental data confirms that this process of "spreading apart of the attractiveness of the alternatives" does in fact occur. *Id.* at 6. For more recent refinements, see Thomas R. Shultz et al., *Free Choice and Cognitive Dissonance Revisited: Choosing "Lesser Evils" Versus "Greater Goods"*, 25 PERSONALITY & SOC. PSYCHOL. BULL. 40 (1999) (showing that a difficult choice between less desirable alternatives produces a large increase in a decision maker's postdecision evaluation of the chosen alternative, while a difficult choice between more desirable alternatives produces a large decrease in the decision maker's postdecision evaluation of the rejected alternative).

211. Closely related to dissonance reduction is "feature matching." *See* David A. Houston et al., *Feature Matching, Unique Features, and the Dynamics of the Choice Process: Predecision Conflict and Postdecision Satisfaction*, 27 J. EXPERIMENTAL SOC. PSYCHOL. 411 (1991). Researchers have found that postdecision regret or satisfaction "will differ depending on which features of the items are unique and whether the chosen or the rejected item is the focus of attention." *Id.* at 426. Thus, when individuals have selected between unique good items, they can increase postdecision satisfaction and minimize postdecision regret "by concentrating on the chosen alternative." *Id.* When individuals have chosen between unique bad items, they can increase postdecision satisfaction and minimize postdecision regret "by concentrating on the rejected alternative." *Id.*

212. Recognizing that "people have available to them positive illusions about themselves, the world, and the future that enable them to experience positive emotions," Shelley E. Taylor et al., *Emotions as Psychological Achievements, in* EMOTIONS: ESSAYS ON EMOTION THEORY 219, 219 (Stephanie H.M. Van Goozen et al. eds., 1994), researchers have explored whether "similar processes may buffer individuals against the negative outcomes of decisions that they choose or for which they assume responsibility." *Id.* at 224. Researchers studied the efforts of renal patients to cognitively buffer the adverse consequences associated with their decisions to undergo kidney transplants that were ultimately unsuccessful. *See id.* at 225-27. They found "that when people are involved in decisions that affect them, they may be cognitively buffered, at least to a degree, against the adverse outcomes of those decisions." *Id.* at 227.

igants possess the psychological wherewithal to dampen regretful feelings associated with an unfortunate litigation decision.

Finally, even if litigants anticipate and experience postdecision regret, they may find that the regret they feel is actually a productive emotion that can help them improve future decision making.<sup>213</sup> Because regret can provide the impetus for improvement, lawyers again might dissuade their clients from allowing the fear of regret to prevent them from making the litigation decisions they would otherwise make.

### C. Challenge #3: Litigating Against the Regret-Averse Adversary

The third challenge facing regret-savvy lawyers is to use their adversaries' regret aversion to facilitate favorable litigation results for their own clients. Lawyers should recognize not only that their clients are prone to regret-averse decision making, but also that their adversaries are prone to regret-averse decision making.<sup>214</sup> Armed with this insight, lawyers can create *emotional* leverage in settlement negotiations by proposing settlement at those points in the litigation process when their adversaries are most likely to feel regret averse, e.g., after filing a dispositive motion but prior to receiving a judge's ruling.

Consider, for example, the medical malpractice case chronicled in the recently published book, *Damages*.<sup>215</sup> In that case, the Sabia family filed suit against a doctor and hospital for injuries resulting to their son, Tony, prior to his birth. Near the end of a lengthy litigation process, counsel for the defendant, Doyle, used regret aversion to facilitate settlement. Doyle filed a motion to strike plaintiff Donna Sabia's claim for emotional distress. Doyle realized, at least intuitively, that Donna would anticipate feeling regretful if she refused to settle and the judge subsequently ruled favorably on Doyle's motion:

Doyle as promised filed his last-minute motion to strike Donna's claim for emotional stress. With a trial imminent, he wanted the

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213. Psychotherapists often view regret as a tool for therapeutic change. See, e.g., Greenberg & FitzPatrick, *supra* note 112, at 35-36 (arguing that regret is an "essential ingredient" in psychotherapy); Harold H. Mosak, *Guilt, Guilt Feelings, Regret, and Repentance*, 43 *INDIVIDUAL PSYCHOL.* 288, 292 (1987) (arguing that therapists should seek to "substitute regret for guilty feeling[s]"); Jeanne Shaw, *The Usefulness of Remorse*, 5 *PSYCHOTHERAPY PATIENT* 77, 78-79 (1989) (arguing that regret or remorse can be a productive emotion). See also IRVIN D. YALOM, *LYING ON THE COUCH* 179-80 (1996), stating:

With many of his patients, Ernest [a psychotherapist in this novel] introduced the concept of regret into his therapy. He asked patients to examine regrets for their past conduct and urged them to avoid future regrets. "The goal," he'd say, "is to live so that five years from now you won't look back on these five years filled with regret." Occasionally Ernest's "anticipatory regret" strategy fell flat. Generally it proved meaningful.

But see Stanley Rosner, *On the Place of Regrets in Psychoanalytic Psychotherapy*, 11 *PSYCHOANALYSIS & PSYCHOTHERAPY* 86, 87 (1994) ("Fear of facing regrets may serve as a form of resistance to entering treatment as well as resistance to remaining in and progressing further in the treatment process."); Peter Shabad, *Fixation and the Road Not Taken*, 4 *PSYCHOANALYTIC PSYCHOL.* 187, 197-200 (1987) (arguing that feelings of regret may produce resistance to change).

214. See *supra* Part IV.A.

215. WERTH, *supra* note 1.

Sabias to know that one of the costs of refusing to settle was that Donna might well end up with no money of her own. Whether or not he knew the intimate details of the Sabias' domestic history, he, like Koskoff [plaintiff's counsel], knew exactly which buttons to push to make his opponents squirm.<sup>216</sup>

In short, lawyers, like Doyle, who recognize that their adversaries are prone to regret-aversion should be able to use this knowledge to facilitate favorable settlements for their clients.

## V. CONCLUSION

The Regret Aversion Theory proposed in this article offers new insights into litigant decision making by providing evidence suggesting that litigants are systematically inclined to settle due to the regret they anticipate feeling posttrial. The Regret Aversion Theory also poses novel challenges to lawyers seeking to understand their clients' needs and wishes, to help their clients make optimal decisions, and to obtain desirable results for their clients through the litigation process. Perhaps most significantly, however, the Regret Aversion Theory sheds new light on the civil justice system within which litigants and lawyers litigate their disputes.

The civil justice system is characterized first and foremost by settlement.<sup>217</sup> The conventional view of our settlement-dominated civil justice system—the economic view—sees litigants as economically rational actors who seek to maximize their financial outcomes. Because the cost of trial exceeds the cost of settlement, the Economic Theory posits that most litigants will settle for financial reasons. According to the Economic Theory, the civil justice system facilitates settlement by creating financial incentives to settle and financial disincentives to go to trial.

The Framing Theory offers an alternative view of the civil justice system. The Framing Theory views litigants not merely as litigants, but as plaintiffs and defendants. Plaintiffs view potential litigation results as gains, so they exhibit a preference for settlement. Defendants view potential litigation results as losses, so they are more inclined to litigate. From the perspective of the Framing Theory, as law and eco-

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216. *Id.* at 331.

217. See, e.g., Marc Galanter & Mia Cahill, 'Most Cases Settle': Judicial Promotion and Regulation of Settlements, 46 STAN. L. REV. 1339, 1339 (1994) (noting that "settlement is the most frequent disposition of civil cases in the United States"); Gross & Syverud, *supra* note 186, at 2 ("Of the hundreds of thousands of civil lawsuits that are filed each year in America, the great majority are settled; of those that are not settled, most are ultimately dismissed by the plaintiffs or by the courts; only a few percent are tried to a jury or a judge."); Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort Litigation System—And Why Not?*, 140 U. PA. L. REV. 1147, 1212 (1992) (noting that "[s]ettlement is where the action is"); David M. Trubek et al., *The Costs of Ordinary Litigation*, 31 UCLA L. REV. 72, 81 (1983) (finding in their sample that approximately eight percent of civil suits filed in state and federal courts went to trial).



nomics scholar Tom Ulen observes, "litigation is more likely than previous analysis had suggested."<sup>218</sup>

The competing views offered by the Economic and Framing Theories raise a puzzling question about the workings of the civil justice system: Given that the Framing Theory rests on a much stronger empirical foundation than the Economic Theory,<sup>219</sup> why do the Economic Theory's predictions about the high rate of settlement seem more accurate? While a number of answers to this question are possible,<sup>220</sup> I suggest that the Regret Aversion Theory offers a particularly plausible response.

The Regret Aversion Theory views litigants as regret-averse human beings who settle their cases at least in part to avoid the unpleasant feeling of regret. According to this theory, the civil justice system—through its very structure,<sup>221</sup> its rules of procedure,<sup>222</sup> and the behavior of its judges<sup>223</sup> and lawyers<sup>224</sup>—facilitates settlement by

218. Ulen, *supra* note 78, at 1031 n.22.

219. See *supra* text accompanying notes 74-79.

220. Russell Korobkin and I have argued elsewhere, for instance, that one factor that may account for the apparent accuracy of the Economic Theory's predictions is the participation of lawyers in the litigation process. Russell Korobkin & Chris Guthrie, *Psychology, Economics, and Settlement: A New Look at the Role of the Lawyer*, 76 TEX. L. REV. 77, 81 (1997) (seeking to "provide experimental evidence supportive of the hypothesis that lawyers as a class share an analytical orientation to decisionmaking that can facilitate a higher rate of settlement than behavioral scientists would expect litigants to negotiate on their own").

221. See *supra* text accompanying note 150.

222. Federal Rule of Civil Procedure 68, for example, is designed "to significantly increase the incentives for settlement by attaching financial penalties (through a cost-shifting mechanism) to the rejection of a settlement offer that was eventually proved (by the verdict) to have been reasonable." Lesley S. Bonney et al., *Rule 68: Awakening a Sleeping Giant*, 65 GEO. WASH. L. REV. 379, 380 (1997). If a plaintiff rejects an offer and then fails to recover more at trial, the plaintiff cannot recover his own costs and must pay the defendant's post-offer costs as well. See *id.* Thus, Rule 68 provides additional incentive for the plaintiff to settle by increasing the amount of regret the plaintiff is likely to feel if he rejects an offer and then recovers less at trial. See, e.g., Maj. Terry L. Elling & Maj. Scott L. Kilgore, *Contesting Applications for Attorneys' Fees and Costs in Government Contract Litigation*, ARMY LAW., July 1994, at 21, 21 ("A contractor that declines a settlement offer or offer of judgment eventually may regret that decision. If the contractor prevails on a dollar amount less than or substantially equal to the rejected settlement offer, it may lose its claim for fees and costs incurred after the date of the offer.").

There is a healthy body of literature on Rule 68, much of which is devoted to economic analysis of the rule. See, e.g., David A. Anderson, *Improving Settlement Devices: Rule 68 and Beyond*, 23 J. LEGAL STUD. 261 (1996); David A. Anderson & Thomas D. Rowe, Jr., *Empirical Evidence on Settlement Devices: Does Rule 68 Encourage Settlement?*, 71 CHI.-KENT L. REV. 519 (1995); Tai-Yeong Chung, *Settlement of Litigation Under Rule 68: An Economic Analysis*, 25 J. LEGAL STUD. 261 (1996); Geoffrey P. Miller, *An Economic Analysis of Rule 68*, 15 J. LEGAL STUD. 93 (1986).

223. Judges work with litigants to promote settlement in a significant percentage of cases. See generally FED. R. CIV. P. 16 (providing for judicial settlement conferences); Galanter & Cahill, *supra* note 217, at 1342-43. Judges use a variety of techniques to promote settlement. See, e.g., WAYNE D. BRAZIL, *EFFECTIVE APPROACHES TO SETTLEMENT: A HANDBOOK FOR LAWYERS AND JUDGES* (1988); D. MARIE PROVINE, *FEDERAL JUDICIAL CTR., SETTLEMENT STRATEGIES FOR FEDERAL DISTRICT JUDGES* (1986); Stephen McG. Bundy, *The Policy of Settlement in an Adversary System*, 44 HASTINGS L.J. 1, 60-73 (1992). Among other techniques, judges use regret-aversion—intentionally or unintentionally, wittingly or unwittingly, explicitly or implicitly—to facilitate settlement by gently or not-so-gently encouraging litigants to consider the emotional as well as financial consequences associated with rejecting a settlement offer in favor of

capitalizing on litigants' regret aversion. The Regret Aversion Theory, in short, posits that the civil justice system facilitates a high rate of settlement not only by offering financial incentives to settle, but by offering emotional or psychological incentives as well.

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trial. *See, e.g.*, PETER H. SCHUCK, *AGENT ORANGE ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS* 155-64 (1986) (describing Judge Weinstein's use of regret aversion to encourage both plaintiffs and defendants to settle at the 11th hour in the Agent Orange litigation).

224. *See supra* text accompanying note 216.