

A Comprehensive Theory of Civil Settlement

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Abstract

A settlement is an agreement between parties to a dispute. In everyday parlance and in academic scholarship, settlement is juxtaposed to trial or some other method of dispute resolution in which a third-party factfinder ultimately picks a winner and announces a score. The “trial versus settlement” trope, however, represents a false choice; viewing settlement solely as a dispute-ending alternative to a costly trial leads to an anemic understanding of how dispute resolution should and often does work. In this article, we describe and defend a much richer concept of settlement, amounting in effect to a continuum of possible agreements between litigants along many dimensions. “Fully” settling a case, of course, appears to completely resolve a dispute, and if parties to a dispute rely entirely on background default rules, a “naked” trial occurs. But in reality virtually every dispute is “partially” settled. The same forces that often lead parties to fully settle—joint value maximization, cost minimization, and risk reduction—will under certain conditions lead them to enter into many other forms of Pareto-improving agreements while continuing to actively litigate against one another. We identify three primary categories of these partial settlements: award-modification agreements, issue-modification agreements, and procedure-modification agreements. We provide real-world examples of each and rigorously link them to the underlying incentives facing litigants. Along the way, we use our analysis to characterize unknown or rarely seen kinds of partial agreements that nevertheless seem to us theoretically attractive, and we allude to potential reasons for their scarcity within the context of our framework. Finally, we study partial settlements and how they interact with each other in real-world adjudication using new and unique data from New York’s summary jury trial program. Patterns in the data are consistent with parties using partial settlement terms both as substitutes and as complements for other terms, depending on the context, and suggest that entering into a partial settlement can *reduce* the attractiveness of full settlement. We conclude by briefly discussing the distinctive welfare implications of partial settlements.

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INTRODUCTION

Every legal dispute is unique. At a sufficiently fine-grained level, of course, the underlying facts of every case make it one-of-a-kind, but disputes also differ from each other along other important dimensions.¹ Even if two cases involve identical facts, for instance, litigation evolves differently when the applicable substantive law and procedural rules vary, and when the litigating parties themselves differ in their sensitivity to risk, in their access to resources, in how informed they are about the material facts, and in their beliefs about the likely outcome of any adjudication. If two parties to a litigation are largely in agreement about the likely outcome of any trial and both are well informed (i.e., each party has a good sense of what the other knows), full settlement is extremely likely,² at least so long as the costs of litigation are nontrivial or at least one of the parties is somewhat sensitive to risk. The basic idea of this well-understood principle is that by entering into the agreement—e.g., with *one* party paying the other party a lump sum in exchange for abandoning his claim—both parties wind up better off.

But what if the conditions preclude this precise arrangement? Fully settling a case dramatically reduces litigation costs (in theory, dropping them to zero) and eliminates risk (again, dropping it to nothing),³ but sometimes litigation costs are not particularly high and not all parties are especially sensitive to risk. Perhaps more important, parties sometimes have divergent,

¹ See, e.g., Samuel C. Damren & Lisa A. Brown, *Every Case Is Unique, But Commercial Cases Are More So—Don't Ever Forget That*, MICH. B.J., Aug. 2014, at 22, available at <http://www.michbar.org/journal/pdf/pdf4article2416.pdf>; cf. David R. Carlisle & Bruce A. Blitman, *Tips for Managing the "Mega-Mediation"*, 67 DISP. RESOL. J. 1 (2013) ("There is no such thing as a simple or typical mediation. Every case you mediate will present unique challenges Just like snowflakes and fingerprints, no two mediations . . . will be the same.").

² Roughly 19 million civil cases were filed in state and federal courts in 2010. ROBERT C. LAFOUNTAIN ET AL., NAT'L CTR. FOR STATE COURTS, EXAMINING THE WORK OF STATE COURTS: AN ANALYSIS OF 2010 STATE COURT CASELOADS (2012), http://www.courtstatistics.org/~media/Microsites/Files/CSP/DATA%20PDF/CSP_DEC.ashx (stating that more than 18% of 103.5 million cases filed in state courts were civil cases); *Judicial Caseload Indicators*, U.S. COURTS, <http://www.uscourts.gov/Statistics/JudicialBusiness/2013/judicial-caseload-indicators.aspx> (stating that roughly 275,000 to 285,000 cases filed in federal courts were civil cases). Among these cases, only 3% reached trial verdict. John Barkai, Elizabeth Kent & Pamela Martin, *A Profile of Settlement*, 42 CT. REV.: J. AM. J. ASS'N 34 (2006). Accordingly, roughly 18.4 million civil cases do not go to trial. These figures do not include the countless number of disputes that are resolved without a complaint ever being filed. Nevertheless, this means that courts adjudicate hundreds of thousands of cases—roughly 600,000—to verdict every year.

³ There is a long and well-established literature on settlement of litigation. See, e.g., John Gould, *The Economics of Legal Conflicts*, 2 J. LEGAL STUD. 279 (1973); William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & ECON. 61 (1971); Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399 (1973); George L. Priest, *Regulating the Content and Volume of Litigation: An Economic Analysis*, 1 SUP. CT. ECON. REV. 163 (1982); Steven Shavell, *Suit, Settlement and Trial: A Theoretical Analysis Under Alternative Methods for the Allocation of Legal Costs*, 11 J. LEGAL STUD. 55 (1982); Kathryn E. Spier, *Litigation*, in 1 HANDBOOK OF LAW AND ECONOMICS 259 (A. Mitchell Polinsky & Steven Shavell eds., 2007)

mutually optimistic beliefs about their prospects at trial.⁴ This occurs when each party is sufficiently confident in its own case such that bearing the costs and risk of trial is preferable to any full settlement arrangement that might be acceptable to the other party.⁵ The possibility of mutual optimism, however, does *not* imply that there exist no alternative arrangements or agreements that the parties would find mutually attractive. Such an outcome is possible in theory (an outcome that leads to what we refer to as a “naked” trial),⁶ but most parties’ beliefs and preferences will allow for *some* agreement or set of agreements—partial settlements—that will reduce litigation costs, minimize trial risk, or increase each party’s expected return or margin of victory. In this very important sense, full settlement is literally just one of the uncountable settlement arrangements parties may find attractive.

Examples of partial settlements abound. First, consider a tacit agreement by both parties to waive (or, rather, not to invoke) a right to a jury trial.⁷ The parties may prefer a judge as a factfinder for very different reasons.⁸ A defendant may believe the judge will be more sympathetic to his position; the plaintiff may agree, but decide that the cost savings of a bench trial outweigh a slight reduction in the chance of his prevailing on the merits. Alternatively, the defendant may prefer the judge because he believes that any verdict for the plaintiff is less likely to be accompanied by an outlandish damages award. Second, note the common “damages only” trial in which the defendant and plaintiff settle on the liability question, with the defendant usually, but not always,⁹ admitting full liability. The plaintiff benefits via reduced risk and lower costs. In fact, settling on a single necessary issue is identical to settling an entire case in its key considerations—in effect, an element of the claim that could have been severed and tried separately is severed and settled.¹⁰ The defendant also saves costs and either receives a discount

⁴ Mutual optimism and self-serving biases have been observed in experimental settings. See Linda Babcock et al., *Biased Judgments of Fairness in Bargaining*, 85 AM. ECON. REV. 1337 (1995); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1472, 1503 (1998); George Loewenstein et al., *Self-Serving Assessments of Fairness and Pretrial Bargaining*, 22 J. LEGAL STUD. 135 (1993). The strategic advantages of optimism have also been explored. See Oren Bar Gill, *Evolution and Persistence of Optimism in Litigation*, 22 J.L. ECON. & ORG. 490 (2006); Daniel Klerman & Alex Lee, *Inferences from Litigated Cases*, 43 J. LEGAL STUD. 209 (2014); George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 12 (1984).

⁵ Every dispute that can fully settle with both parties better off can usually settle in as many ways as the parties can theoretically divide the surplus created by the settlement (read: infinite). The precise allocation to each party is a function of the bargaining process and their bargaining strength.

⁶ For purposes of this paper, we define a naked trial as one in which the parties rely entirely on background default rules—with respect to both substantive law and procedure—as well as any ex ante agreement in place between the parties before the dispute arose. Where determinations must be made during the litigation (e.g., setting a calendar), we imagine that the judge considers the positions of both parties (even if they are identical) and announces a rule.

⁷ Elizabeth Thornburg, *Designer Trials*, 2006 J. DISP. RESOL. 181, 183–85.

⁸ For a discussion of these considerations, see Samuel R. Gross, *Settling for a Judge: A Comment on Clermont and Eisenberg*, 77 CORNELL L. REV. 1178, 1184–86 (1992) (noting that “[c]ost saving as well as risk aversion may cause the parties in some cases to choose bench trials”).

⁹ See, e.g., *Harold v. Houlihan’s Old Place Rest.*, No. L-23036-90, 1993 WL 599795 (N.J. Super. Ct. May 1993) (Verdict and Settlement Summary) (plaintiff sat on a bar stool that was allegedly broken in defendant’s restaurant; 10% of liability assumed by plaintiff).

¹⁰ An example of this practice can be found in “reverse bifurcation,” in which parties have a trial on

on the extent of liability (if liability is less than 100%) or benefits (in the defendant's opinion) strategically by limiting the evidence and issues presented to the factfinder. Finally, contemplate those cases in which parties enter into a high-low agreement.¹¹ Under such an agreement, a plaintiff agrees to a cap (the "high") on potential damages in exchange for a guaranteed minimum (the "low"). These agreements can be jointly beneficial if the parties are too optimistic about their respective chances to find fully settling attractive, but at least one of the parties is too risk averse to prefer a naked trial.¹²

Just as with full settlement, partial settlements will emerge if they make both parties better off in expectation—i.e., at the time they strike the bargain—than they would otherwise be.¹³ As in other transactional settings, adjusting rights and rules can benefit one party at the expense of another, but as the partial settlement examples highlighted above make clear, such adjustments can also benefit both parties simultaneously and in precisely the way that full settlement does: by reducing litigation costs, increasing returns, and mitigating the costs of bearing risk.

Thus, the decision to settle does not pit some particular form of settlement against the prospect of no settlement at all. Rather, parties to litigation necessarily choose from a virtually infinite menu of potential arrangements against the default litigation background.¹⁴ To do this, parties simply offer or agree to accept the type and degree of settlement that improves their respective positions the most, conditional on the requirement that counterparties must agree to the arrangement in question. To be sure, in a large majority of cases, fully settling the dispute dominates other available options, but this is merely a coincidence occasioned by the typical values of key parameters that drive all settling behavior.¹⁵ In Ann Arbor, the temperature only

damages first, and then typically settle on the remaining liability issue, once the stakes are understood by both parties. See Drury Stevenson, *Reverse Bifurcation*, 75 U. CIN. L. REV. 213, 216 (2006).

¹¹ A high-low agreement is a contract "in which a defendant agrees to pay the plaintiff a minimum recovery in return for the plaintiff's agreement to accept a maximum amount regardless of the outcome of the trial." BLACK'S LAW DICTIONARY 746 (9th ed. 2009). For one of the earliest discussions of the advantages of these understudied contracts by a New York state judge, see Leonard Finz, *A Trial Where Both Sides Win*, 59 JUDICATURE 41 (June–July 1975).

¹² J.J. Prescott, Kathryn E. Spier & Albert Yoon, *Trial and Settlement: A Study of High-Low Agreements*, 57 J.L. & ECON 699 (2014).

¹³ As with other forms of contract, rational, self-interested parties will negotiate agreements that are in their mutual interest. For classic discussions, see ANTHONY T. KRONMAN & RICHARD POSNER, *THE ECONOMICS OF CONTRACT LAW* (1979); Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON 1 (1960). In this paper, we assume the expected utility hypothesis holds and use an economic approach to make the ideas of this paper clearer, but this basic idea is not sensitive to this approach.

¹⁴ In this sense, settlement opportunities mirror the seemingly endless array of contractual alternatives that are observed in financial markets more broadly. In addition to stocks and bonds, instruments include derivatives such as options, forwards, futures, and swaps. Innovating through contract is a pervasive phenomenon. See generally Kevin E. Davis, *Contracts as Technology*, 88 N.Y.U. L. REV. 83 (2013).

¹⁵ Fully settling is commonly an attractive option because many possible combinations of potential considerations point in that direction. The optimality of full settlement is often overdetermined. At the margins, full settlement can be the best choice in practice because otherwise preferable partial settlements are infeasible. A carefully calibrated adjudication to determine how to allocate \$5 between two parties is off the table if a trial imposes a minimum fixed cost of \$20 on the parties.

drops below freezing 10% of the time in late April,¹⁶ but no one suggests that the fundamental dynamics of “freezing” weather (trial or arbitration) and “non-freezing” weather (full settlement) ought to be understood and analyzed as separate phenomena.

One might respond to this characterization by arguing that full settlement differs in a more essential way from the partial settlement arrangements we discuss in this paper: full settlements “end” disputes; partial settlements allow them to continue, and eventually involve objective factfinders, at least “a day in court,” and the like. Where is this so-called continuum? Casual observation affirms this perception, but at root this view is just a mirage.

First, in traditional civil lawsuits, full settlements are really just private agreements between parties. Contracts can often be renegotiated, and in truth many “settled” litigations are resolved only so long as both parties continue to be satisfied “on net” with the arrangement.¹⁷ It is not uncommon for parties to the original agreement to challenge settlement contracts; such derivative litigation over the terms of the settlement usually involves traditional contract defenses.¹⁸ If both parties wish to resume litigation, consent and stipulations as to the nature of the original settlement may do the trick.¹⁹ In other words, a full settlement agreement by definition plants seeds that may ripen into a second, related dispute. Second, lawsuits are not monoliths. To see this, it is helpful to visualize litigation as a nexus of many miniscule, but conceptually distinct acts and decisions by the parties and court actors.²⁰ Again, in theory, these can be individually resolved, one by one, by stipulations and mutual or unilateral consent.²¹ Judicial involvement can

¹⁶ *Average Weather for Ann Arbor, Michigan, USA*, WEATHERSPARK, <https://weatherspark.com/averages/29652/Ann-Arbor-Michigan-United-States> (clicking “View in Dashboard” after moving the mouse over the diagram entitled “Fraction of Time Spent in Various Temperature Weather Bands” enables user to view more detailed statistics).

¹⁷ Rebooting litigation later would surely be more expensive than continuing to litigate at the time of the settlement agreement. As time passed, evidence would spoil and memories would fade, making resuscitating the dispute even more unlikely absent a significant change in circumstances. Nevertheless, entering into an agreement necessarily involves potential contract disputes down the road, regardless of whether the settlement agreement involved the dismissal of the original claim with prejudice.

¹⁸ At least in cases in which performance is still owed, it only takes one party’s refusal to comply with a settlement to force renegotiation when the other party has only costly enforcement options available. See Thomas J. Miceli, *Contract Modification When Litigating for Damages Is Costly*, 15 INT’L REV. L. & ECON. 87 (1995).

¹⁹ Admittedly, we know of no such case in which the parties voluntarily reopened a settled case, and it is hard to imagine a situation in which an information shock simultaneously convinces both parties that resuming litigation would be in their respective interests.

²⁰ For a description of an alternative attorney billing practice premised on this conception of litigation, see Theodore V. Itallie et al., *Instead of Billable Hours, What? A Proposal for Litigators*, 27 ACC DOCKET 22, 23 (2009) (“In a nutshell, the concept is to price and pay for litigation services on a component basis. The firm commits to prices for components of the litigation process. Those prices are assembled into an estimate or budget for the case up to the time of trial.”). Interestingly, because trials are relatively infrequent, trial services are explicitly excluded from the proposal. See *id.*

²¹ By all accounts, litigating a case to verdict in the United States takes time and patience—adjudication can be a long and winding road. Most people view settlement as opting for a few hours on a plane rather than a 1,000-mile walk. But 1,000 miles can be covered in many ways: e.g., driving, biking, taking the train, or any combination of methods.

be eliminated piecemeal by agreement of the parties. This follows *a fortiori* from the fact that full settlement removes the judge entirely from the resolution process, barring renegotiation of that agreement resulting from a challenge down the road, of course.

Every resolution of a dispute, therefore, is made up to two complementary parts that, when added together in the context of the pre-determined governing procedural framework, produce the final allocation of rights and responsibilities. The first part is adjudication by a third party—literally, the decisions made by a judge, a jury, or some other entity, even nature.²² The second is effectively a settlement contract—the combination of agreements (explicit or tacit) that determine aspects of the dispute that would otherwise be left to third-party decision makers to resolve. Adjudication and settlement run in opposite directions along the dispute resolution continuum: at one extreme, a case is fully settled, with nothing left to adjudicate; at the other end of the continuum, the parties abide entirely by background rules.

The word “settlement” brings to mind ideas like “termination,” “rest,” and “conclusion,”²³ but settlement as a concept is best interpreted as simply an agreement that happens to occur between parties embroiled in a present dispute—a contract that changes the procedural and/or substantive rules governing that dispute’s resolution. True, the terms of a settlement often change the structure of the litigation game so that subsequent actions by the parties become less relevant to the outcome,²⁴ or even entirely irrelevant to the outcome.²⁵ Yet there is nothing theoretically problematic with parties settling in ways that prompt both sides to spend more time and effort on the litigation. Consider an agreement between litigants to employ the British Rule (loser pays) to shift attorney’s fees instead of the American rule (each party pays its costs).²⁶ Both parties may

²² Importantly, there is no requirement that parties actually engage with the decision maker to ensure that the outcome on the question is accurate. Michael T. Morley, *Avoiding Adversarial Adjudication*, 41 FLA. ST. U. L. REV. 291, 292 (2014) (“There are a variety of procedural vehicles through which litigants may seek a substantive court ruling or order that declares or modifies their legal rights and obligations without actually litigating the merits of a case as a whole, or particular issues within the case.”). On using randomness to resolve outstanding uncertainty, even its use within settlement agreements, see James D. Miller, *Using Lotteries to Expand the Range of Litigation Settlements*, 26 J. LEGAL STUD. 69, 69 (1997).

²³ See *settlement*, MERRIAM-WEBSTER.COM, <http://www.merriam-webster.com/dictionary/settlement> (defining “settlement” primarily as “a formal agreement or decision that ends an argument or dispute”); see also *settlement*, THESAURUS.COM, <http://www.thesaurus.com/browse/settlement> (providing synonyms for the word “settlement,” including “decision,” “conclusion,” “deal,” and “resolution,” alongside more neutral terms such as “agreement”).

²⁴ If parties gain little or nothing from spending time or money on litigation, they will seldom litigate. Avoiding wasteful, offsetting expenditures may in fact be the explicit purpose of the agreement between the parties, as a way to commit to reducing effort while simultaneously increasing efficiency. See Prescott et al., *supra* note 12, at 728–30.

²⁵ A typical “full” settlement contract makes clear that, regardless of party behavior subsequent to the execution of the agreement (unless exceptions are explicitly countenanced), a very particular exchange will occur (e.g., settlement money will be exchanged for claim dismissal and/or a release). In other words, the outcome is rendered entirely insensitive to party behavior.

²⁶ John J. Donohue III, *Opting for the British Rule, Or If Posner and Shavell Can’t Remember the Coase Theorem, Who Will?*, 104 HARV. L. REV. 1093, 1101 (1991). Alternatively, one can imagine a straightforward agreement between the parties to engage in costly behavior—e.g., committing to maintain precautions designed to keep information about the litigation confidential. Since breach would presumably be costly in some way, the effective marginal costs of the activity would drop, thereby increasing effort.

find such an agreement attractive if both are very optimistic about their respective likelihood of success at trial; the British rule would thus amount to doubling down, increasing each party's expected return,²⁷ and would probably generate greater (potentially offsetting, but still possibly privately worthwhile) investments on both sides.²⁸

* * *

In what follows, we describe and develop our comprehensive notion of settlement in context of “traditional” one-on-one litigation.²⁹ Along the way, we show that it clarifies and unifies a number of distinct and seemingly unrelated literatures and practices in litigation. At the same time, this broader notion of settlement provides useful theoretical tools for analyzing dispute resolution arrangements of all types and for understanding what is possible with respect to innovation in this domain.³⁰

In Part I, we begin our analysis by identifying the primary functions that settlement of all flavors has the potential to serve (cost reduction, risk mitigation, and return maximization). We develop a simple analytical framework to link litigant preferences and beliefs as well as the specifics of the adjudication to these functions. In Part II, we define three distinct categories partial settlements (award-modification agreements, issue-modification agreements, and procedural-modification agreements), and we relate these partial settlement types to the ends of the settlement continuum—i.e., naked trials and full settlement. We provide “pure” examples in each category from the real world, and we offer evidence and argument that tends to show that litigants can and do use these settlement arrangements to mutual advantage. In Part III, we explore the relationships between the three categories of partial settlements by examining arrangements in which parties combine (or choose not to combine) terms originating from different categories. More broadly, we discuss how award-modification, issue-modification, and procedure-modification agreements can be used in complementary ways, and yet may also serve

²⁷ When parties are mutually optimistic, fee shifting tends to increase the gap between the least the plaintiff is willing to accept and the most the defendant is willing to pay. *See* Shavell, *supra* note 3; Spier, *supra* note 3.

²⁸ In theory, a litigant will tend to invest more when the stakes of litigation increase. *See* Avery Katz, *Judicial Decisionmaking and Litigation Expenditure*, 8 INT'L REV. L. & ECON. 127 (1988). This is consistent with empirical studies. With respect to federal civil cases, one analysis finds that a 1% increase in stakes was associated with a 0.25% increase in total spending. EMERY G. LEE III & THOMAS E. WILLGING, FED. JUDICIAL CTR., LITIGATION COSTS IN CIVIL CASES: MULTIVARIATE ANALYSIS—REPORT TO THE JUDICIAL CONFERENCE ADVISORY COMMITTEE ON CIVIL RULES (2010), [http://www.fjc.gov/public/pdf.nsf/lookup/costciv1.pdf/\\$file/costciv1.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/costciv1.pdf/$file/costciv1.pdf). For theoretical studies of the effects of the English Rule on litigation spending, *see* Ronald Braeutigam, Bruce Owen, & John Panzar, *An Economic Analysis of Alternative Fee Shifting Systems*, 47 LAW & CONTEMP. PROBS. 173 (1984); John C. Hause, *Indemnity, Settlement, and Litigation, or I'll Be Suing You*, 18 J. LEGAL STUD. 157 (1989); Avery Katz, *Measuring the Demand for Litigation: Is the English Rule Really Cheaper?*, 3 J.L. ECON. & ORG. 143 (1987)

²⁹ Of course many of these ideas apply naturally to situations of aggregate litigation—e.g., class actions—as well. Nevertheless, because this area of law involves more procedural nuance, additional agency issues, and more complicated party dynamics, we focus in this article on standard litigation context of a single plaintiff and a single defendant.

³⁰ David A. Hoffman, *Whither Bespoke Procedure*, 2014 U. ILL. L. REV. 389, 425–29.

as substitutes for each other (and for full settlement) when one or another category of partial settlements is not available or not attractive to one of the parties.

We also empirically study these ideas using a new one-of-a-kind data set from New York’s summary jury trial program. Of the more than eighteen hundred disputes in our data, approximately eighty percent had award-modification agreements and almost sixty percent had issue-modification agreements, not counting the mutual stipulation required for a summary jury trial. Partial settlement, it seems, is a pervasive phenomenon. We find that parties appear to use partial settlement in ways that are consistent with our analysis, with terms from different categories being used as complements or substitutes for each other, depending on context. We conclude the article by briefly examining the unique welfare implications of our comprehensive notion of settlement.

PART I: THE PRIVATE BENEFITS OF PARTIAL SETTLEMENT

Most people recognize that parties fully settle a dispute only if the proposed agreement is mutually beneficial.³¹ Mutual benefit, however, has a precise meaning in this context. It does not mean that the result was fair in any absolute sense.³² It also does not mean that the result was socially beneficial.³³ Nor does it mean that both or even one of the parties will be “satisfied” with the outcome.³⁴ A party accepts a settlement offer if and only if it is better than every other (potentially awful) alternative, including options that are always available such as making a counterproposal and rejecting the offer altogether. Thus, the required “benefit” a party must receive is a relative one. The litigant asks: “relative to the alternatives, and given my option to do nothing (which is simply selecting the status quo), should I accept the offer (or make one of my own)?” The question is pointedly *subjective*. The party’s individual preferences and beliefs are critical to the determination of whether the offer ought to be accepted.

³¹ Gould, *supra* note 3; Landes, *supra* note 3; Posner, *supra* note 3; Spier, *supra* note 3.

³² See Owen Fiss, *Against Settlement*, 93 YALE L.J. 1073 (1984) (providing a critique of settlement).

³³ Settlement can impose costs and also confer benefits on third parties—costs and benefits that are not necessarily internalized by the litigants themselves. First, when deciding whether to go to trial, purely self-interested litigants would not take into account the costs of the judge’s or the jury’s time that would be required during adjudication. Second, insofar as settlement benefits the defendant relative to a naked trial, settlement will dilute the defendant’s incentives to take precautions to avoid harming the plaintiff in the first instance. See A. Mitchell Polinsky & Daniel L. Rubinfeld, *The Deterrent Effects of Settlements and Trials*, 8 INT’L REV. L. & ECON. 109 (1988). The precedent set may also have social value. See William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976). The information revealed in litigation may also have public value in helping others to avoid causing and sustaining future harms. Andrew F. Daughety & Jennifer F. Reinganum, *Hush Money*, 20 RAND J. ECON. 661 (1999); Xinyu Hua & Kathryn E. Spier, *Information and Externalities in Sequential Litigation*, 161 J. INSTITUTIONAL & THEORETICAL ECON. 215 (2005).

³⁴ See Marc Galanter & Mia Cahill, “*Most Cases Settle*”: *Judicial Promotion and Regulation of Settlements*, 46 STAN. L. REV. 1339, 1353–59 (1994). “It is often asserted that parties are more satisfied with settlements than with adjudicated outcomes. But . . . significant numbers of those who settle are not very happy with the outcome.” *Id.* at 1353.

To determine whether a settlement option is more attractive than alternatives, we require a way of evaluating risk, measuring private benefits, representing subjective beliefs, and ranking potential options. The economic notion of “expected utility” is useful in this respect,³⁵ and we use it in this article to organize our ideas. Expected utility theory has many detractors,³⁶ and it clearly fails to capture some important aspects of decision making and subjective experience,³⁷ but for our purposes here, these concerns are unimportant. What *is* important is that using the expected utility hypothesis allows us to identify and analyze the drivers of compromise and settlement in what otherwise might appear to be a zero-sum game.

Consider two risk-neutral parties who find themselves in a commercial dispute. Under background procedural rules (whether publicly provided by the jurisdiction or contractually developed by the parties prior to the dispute) and the substantive law, the plaintiff company seeks damages— x —for harms resulting from a breach of contract or duty by the defendant. If the defendant company prevails on questions of breach or convinces the judge or jury that, breach notwithstanding, there were no damages, adjudication would set $x = 0$. If the plaintiff convinces the factfinder that the defendant should be liable and that damages were in fact sustained, x would be positive. In this framework, we let $f(x)$ represent the distribution of x under the law and/or the facts—i.e., the probability distribution of x that captures the likelihood of each possible value of x —and we assume (for now) that $f(x)$ is commonly known to both parties. We will also assume (again, for now) that litigation is entirely costless to both sides.

In this stark and deliberately underdeveloped set-up, two conclusions follow: (1) the dispute truly is zero sum in the sense that every dollar of x is a dollar that goes from the defendant to the plaintiff, and (2) because the parties are risk neutral and adjudication is costless, the parties are indifferent between adjudication and settling for the average value of x , $E(x)$, which is the expected value of the claim. To illustrate these conclusions using numbers, imagine a contest in

³⁵ Expected utility theory, which dates back to the work of Swiss mathematician Daniel Bernoulli in the eighteenth century, offers predictions about how individuals will act when faced with choices that involve risk. Rather than simply evaluating choices according to their expected values (that is, simply multiplying the dollar value of the outcomes by the probabilities and summing them), individuals in expected utility theory would explicitly account for the riskiness of the options. See DAVID M. KREPS, NOTES ON THE THEORY OF CHOICE (1988). In their seminal work, John von Neumann and Oskar Morgenstern provided an axiomatic foundation for the choices of rational actors under conditions of risk. See JOHN VON NEUMANN & OSKAR MORGENSTERN, THEORY OF GAMES AND ECONOMIC BEHAVIOR (1953). Using expected utility theory, many scholars have adopted a utilitarian social welfare function for evaluating public policy. See, e.g., John C. Harsanyi, *Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility*, 63 J. POL. ECON. 309 (1955).

³⁶ See, e.g., Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979); Matthew Rabin, *Risk Aversion and Expected-Utility Theory: A Calibration Theorem*, 68 ECONOMETRICA 1281 (2000).

³⁷ The assumption that individuals assign probabilities to risks is particularly controversial. Some scholars maintain that individuals often make decisions under conditions of uncertainty without quantifying such risks. See FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT (1921). “When our ignorance of the future is only partial ignorance, incomplete knowledge and imperfect inference, it becomes impossible to classify instances objectively.” *Id.* at 259. Experiments by Ellsberg and others offer support for the idea that the expected utility model fails to capture all types of uncertainty. See Daniel Ellsberg, *Risk, Uncertainty, and the Savage Axioms*, 75 Q.J. ECON. 643 (1961).

which the court will either find for the defendant and award $x = \$0$, or find for the plaintiff and award $x = \$500$ (in thousands), and that each of these two outcomes is equally likely. In this case, then, $f(0) = .50$, $f(500) = .50$, and $E(x) = .50 \times 0 + .50 \times 500 = \250 , which is the average or expected award. Absent any litigation costs or risk aversion, the plaintiff and the defendant are both indifferent between going to trial and settling out of court for \$250.

We now introduce three key drivers of settlement behavior: costly adjudication, risk aversion, and divergent prior beliefs or information.³⁸ All of these obviously play important roles in the real world of litigation, and if *even one* of these drivers is added to the model, settlement of some kind becomes more attractive (and perhaps optimal), relative to relying on naked adjudication.

A. Costly Adjudication

We begin by adding litigation costs— c_p and c_d for the plaintiff and the defendant, respectively—to our model in a simple way.³⁹ The parties can either fully settle their dispute for some amount of money to be exchanged (presumably a transfer from the defendant to the plaintiff) and pay no costs or they can follow through with adjudication, in which case the parties collectively pay $c_p + c_d$ in return for the court announcing x .⁴⁰ By assumption, both parties know in advance how likely the court is to select any particular value of x , and so choosing adjudication will result in the plaintiff receiving $E(x) - c_p$ on average and the defendant paying $E(x) + c_d$. By settling on the defendant paying the plaintiff $E(x)$ and forgoing adjudication, the parties can avoid paying litigation costs $c_p + c_d$ and make themselves better off.

In our commercial litigation example with $E(x) = \$250$, suppose that litigation is not free and that $c_p = c_d = \$30$. If the case goes to trial, the plaintiff's expected damage award net of litigation costs is $E(x) - c_p = \$250 - \$30 = \$220$, and the defendant's expected payments are $E(x) + c_d = \$250 + \$30 = \$280$. In other words, by settling out of court for \$250, the plaintiff and the defendant are each better off by \$30, and so their joint savings is $c_p + c_d = \$60$. In this simple scenario, both parties would also prefer to settle at \$221 and \$279, and at every point in between, rather than proceed to trial.

More generally, any settlement amount in the range between $E(x) - c_p$ and $E(x) + c_d$ would be better for both litigants than going to trial.⁴¹ The precise value of the settlement amount to be

³⁸ For background literature on the prominent role these factors play in deciding which cases to take to trial, see generally Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319 (1991); Priest & Klein, *supra* note 3; Shavell, *supra* note 3; and Joel Waldfoegel, *Reconciling Asymmetric Information and Divergent Expectations Theories of Litigation*, 41 J.L. & ECON. 451 (1998).

³⁹ In a typical commercial case, these may include attorneys' fees, filing and service fees, discovery and investigation expenses, as well as costs related to expert witness reports and testimony. Many of these costs accrue over the course of the dispute, of course.

⁴⁰ We assume away costs of bargaining in this example, which are certainly nontrivial in many cases but are always less than the costs of litigating the claim. In this sense, $c_p + c_d$ are the costs of litigation net of the costs of settlement, which we assume are always positive.

⁴¹ In other words, one party might succeed at capturing virtually all of the surplus, and thus improve

exchanged would typically depend on the relative bargaining strengths of the two parties, the bargaining tactics each party adopted, and the litigants' reputations for toughness, among other characteristics (i.e., not just each litigant's preferences, but their *perceived* preferences).⁴² For future reference, note that an attractive settlement need not eliminate c_p and c_d altogether; a reduction in litigation costs of any sort is valuable relative to a flat-out trial. Nor is it necessary for the parties to settle on a single number $E(x)$. The parties could agree to any other "gamble," so long as the expected value was the same (or similar) and there were fewer costs associated with resolving the outcome.⁴³

B. Risk Aversion

Now imagine instead that at least one of the parties is risk averse, and that litigation is again costless. Without getting too technical, risk-averse individuals generally prefer a certain, safe amount to an uncertain gamble that otherwise offers the same expected value.⁴⁴ Therefore, a risk-averse plaintiff does not value a trial at its expected value, $E(x)$, but rather discounts the expected value of trial to account for the accompanying risk, $E(x) - r_p$, where r_p is referred to as the risk premium. The plaintiff's risk premium r_p is the additional amount that he would need to receive (or save) to make him indifferent as between an uncertain adjudication with the average result $E(x)$ and a certain payment of $E(x)$.⁴⁵ Following this logic, the plaintiff is indifferent between settling out of court for $E(x) - r_p$ and the risky adjudication. Similarly, the defendant is indifferent between a risky trial and settling for $E(x) + r_d$, where r_d is the defendant's risk premium. Thus, as with the direct cost of litigation $c_p + c_d$, by settling out of court the litigants can achieve a joint savings equal to the sum of the two risk premiums, $r_p + r_d$.

Risk aversion can be introduced in our numerical example in a straightforward way by assuming that any risk premium is proportional to the variance of the court's award, $var(x)$.⁴⁶

upon its position by $c_p + c_d - \varepsilon$, so long as the joint savings is limited to $c_p + c_d$ (i.e., the other party can only improve on the adjudication outcome in this situation by ε).

⁴² See, e.g., Galanter & Cahill, *supra* note 34, at 1363–64 (noting that the division of a given settlement "may reflect differences in experience, information, bargaining skill, or risk aversion").

⁴³ The standard example of an alternative method by which to resolve a dispute is an agreement to engage in binding arbitration. Such an agreement is essentially a precommitment device by which parties agree to have a third-party decision maker resolve a dispute. See, e.g., Keith Hylton, *Agreements to Waive or to Arbitrate Legal Claims: An Economic Analysis*, 8 SUP. CT. ECON. REV. 209, 223 (2000) (styling arbitration as an "alternate court [that] may be more or less accurate than the state court, and more or less expensive").

⁴⁴ More precisely, if $u(x)$ is the expected utility function, then risk aversion implies that $E(u(x)) < u(E(x))$. See KREPS, *supra* note 35 (reporting relevant caveats, clarifications, and citations).

⁴⁵ In their classic corporate finance text, Brealey and Myers define the risk premium as "the expected additional return for making a risky investment rather than a safe one." RICHARD A. BREALEY & STEWART C. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 1048 (2003). To generalize somewhat to clarify the role partial settlements can play, a risk premium can also be conceptualized as the amount needed to equalize the utility of a *more* risky situation and a *less* risky situation (as opposed to a risk-free situation).

⁴⁶ Technically, $var(x) = E(x - E(x))^2$. The mean-variance approach emerges as an exact representation when individuals' expected utility functions are exponential with constant absolute risk aversion (CARA expected utility) or, equivalently, quadratic and the lotteries that they face are normally

Award variance offers a convenient way of measuring risk, and it is often used in financial and economic modeling.⁴⁷ In our numerical example, in which the court awards \$500 with fifty percent probability and zero otherwise, the variance of the court award is \$62,500.⁴⁸ To complete the example, let's assume that the plaintiff's risk premium is $r_p = \alpha_p \text{var}(x)$ and the defendant's risk premium is $r_d = \alpha_d \text{var}(x)$ where the values α_p and α_d are positive numbers that capture the degree of risk aversion of the plaintiff and the defendant, respectively.⁴⁹ If we let $\alpha_p = \alpha_d = .00025$, then we would have $r_p = r_d = \$16$, and so, by settling out of court, the plaintiff and defendant can achieve a joint savings of $r_p + r_d = \$32$.⁵⁰ Importantly, risk aversion generally becomes disproportionately more important the larger the stakes of the litigation.⁵¹

It only takes one risk-averse party for settlement that reduces risk to be mutually advantageous because the benefits of risk reduction can be shared even with risk neutral parties. If the plaintiff is risk averse with respect to x with risk premium r_p , he would prefer settling for $E(x) - r_p/2$, for example, to adjudicating the claim. A risk neutral defendant would prefer a settlement in which he could extract some of the risk premium—e.g., $E(x) - r_p/2$ —to *wasting* that risk premium on risky adjudication that will produce a judgment of $E(x)$ on average. It is

distributed. In other circumstances, the mean-variance approach can be viewed as a useful shorthand or approximation for risk-averse preferences. See also Gary Chamberlain, *A Characterization of the Distributions that Imply Mean-Variance Utility Functions*, 29 J. ECON. THEORY 185 (1983). For literature on measuring risk aversion more generally, see KENNETH J. ARROW, *ESSAYS IN THE THEORY OF RISK-BEARING* (1971), and John W. Pratt, *Risk Aversion in the Small and in the Large*, 32 ECONOMETRICA 122 (1964).

⁴⁷ Analyses of financial markets using this approach include Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952), and J. Tobin, *Liquidity Preference and Behavior Towards Risk*, 25 REV. ECON. STUD. 65 (1958). For work on the economics of contracts that adopts the mean-variance approach, see Bengt Holmstrom & Paul Milgrom, *Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design*, 7 J.L. ECON. & ORG. 24, 29 (1991), and Bengt Holmstrom & Paul Milgrom, *Aggregation and Linearity in the Provision of Intertemporal Incentives*, 55 ECONOMETRICA 303 (1987). For examples of critiques of this approach, see Paul A. Samuelson, *The Fundamental Approximation Theorem of Portfolio Analysis in Terms of Means, Variances and Higher Moments*, 37 REV. ECON. STUD. 537 (1970).

⁴⁸ $\text{Var}(x) = \sum_i (x_i - \bar{x})^2 / n = [(500 - 250)^2 + (0 - 250)^2] / 2 = (250)^2 = 62,500$.

⁴⁹ The value $2\alpha_d$ corresponds to the coefficient of absolute risk aversion. Note that in this setting the degree of risk aversion does not vary with the individual's level of wealth. In practice, however, the degree of risk aversion is often thought to decline with the individual's level of wealth. See, e.g., Irwin Friend & Marshall E. Blume, *The Demand for Risky Assets*, 65 AM. ECON. REV. 900 (1975).

⁵⁰ This simple representation of litigation risk and the parties' risk premiums captures two fundamental—and quite general—properties of risk aversion. First, if litigation risk rises in the sense that the variance of the trial outcome becomes larger, then a litigant's risk premium rises as well. Second, and less obviously, the risk premium rises disproportionately as the stakes at trial increase. To substantiate this latter claim, suppose that our hypothetical lawsuit doubles in size so that the potential damages awarded at trial is \$1,000 instead of \$500 if the plaintiff prevails. In this case, the variance will *quadruple* from \$62,500 to \$250,000 and the risk premium for each litigant will also quadruple from \$16 to \$64. (This property arises because the variance hinges on the squared differences: $\text{var}(2x) = E(2x - E(2x))^2 = 4E(x - E(x))^2 = 4\text{var}(x)$). Conversely, if the lawsuit were to shrink so that the plaintiff would be awarded \$250 instead of \$500, then the risk premium would fall by a factor of four from \$16 to \$4. Thus, the parties stand to gain considerably by reducing the risk of litigation, especially in situations where the risks are large.

⁵¹ See *supra* note 50.

important to recognize that risk premiums are general phenomena; risk-averse parties will value any adjustment to the adjudication that reduces risk by any amount. Therefore, if the parties can collaborate to reduce risk (while not changing the expected outcome), both parties can be made better off, even if one party is risk neutral, by a sharing of the premium.

C. Divergent Subjective Beliefs

Finally, suppose that the plaintiff and the defendant have different subjective views on the likely outcome of the adjudication, but neither party is risk averse and adjudication remains privately costless. Each litigant's subjective beliefs are captured by a probability distribution over the possible values of x that a judge or jury might theoretically announce at the end of the adjudication. The plaintiff's view of the distribution of x is $f_p(x)$ while the defendant's view is represented by $f_d(x)$.⁵² The least that the plaintiff is willing to accept in settlement is $E_p(x)$ and the most that the defendant is willing to pay is $E_d(x)$; because the parties are not risk averse, they value the trial at their respective expected values. If the parties are *mutually pessimistic* about their prospects at trial in the sense that $E_d(x) > E_p(x)$, full settlement will be mutually attractive. By settling out of court for a fixed amount between these two values, the parties will both be made better off relative to going to trial.⁵³ The disparity in beliefs makes settlement mutually attractive because the difference in the party's beliefs, $d = E_d(x) - E_p(x)$, equates to ex ante surplus that can be shared.⁵⁴

Returning to the numerical example, suppose that the plaintiff and the defendant agree that the damages are \$500, but they have different opinions about the likelihood of the plaintiff's winning at trial. The plaintiff believes that the probability is forty percent while the defendant believes that it is sixty percent. Ignoring the costs of litigation and risk aversion, the plaintiff

⁵² For analyses of decision making under subjective uncertainty and non-common priors, see PETER C. FISHBURN, *UTILITY THEORY FOR DECISION MAKING* (1970), and LEONARD SAVAGE, *THE FOUNDATIONS OF STATISTICS* (1954). See also KREPS, *supra* note 35; F.J. Anscombe & R.J. Aumann, *A Definition of Subjective Probability*, 34 *ANNALS MATH. STAT.* 199 (1963).

⁵³ Our illustration continues to abstract from the real world in many ways. For instance, we assume the parties have complete knowledge of all beliefs. Each litigant simply assumes that the other party is mistaken. Therefore, we implicitly ignore the signaling, learning, and other dynamic and strategic behavior that normally follows when new information is introduced during the negotiating process. For instance, if a defendant starts with the belief that the plaintiff probably assesses the case to be at least as strong as the defendant does, the fact that the plaintiff proposes a lower number will upset that belief, suggesting that either the plaintiff (1) is giving away money (unlikely) or (2) views his value of the claim differently. This will influence how the defendant responds to an offer, possibly resulting in a lower counterproposal. A judge, case evaluator, or third party providing an outsider's assessment would inject information in a different way, causing both parties to update their beliefs.

⁵⁴ More generally, we can define the disparity between the parties' expected values as $d = E_d(x) - E_p(x)$ and imagine that full settlement is proposed by a judge or some other independent third party, the amount suggested being $E_p(x) + d/2$. This is clearly better for the plaintiff than going to trial because $E_p(x) + d/2 > E_p(x)$. It is also better for the defendant because $E_p(x) + .5d = E_p(x) + .5(E_d(x) - E_p(x)) = .5E_d(x) + .5E_p(x) = E_d(x) - .5(E_d(x) - E_p(x)) = E_d(x) - .5d$, which the defendant clearly prefers to the alternative of going to trial. So, given what we know about the situation, both parties would assent to the deal.

would be willing to settle out of court for any amount above $E_p(x) = .40 * \$500 = \200 , and the defendant would be willing to settle for any amount below $E_d(x) = .60 * \$500 = \300 . Thus, the divergence between the beliefs of the plaintiff and the defendant have created a surplus of $d = E_d(x) - E_p(x) = \$100$.

The idea that an agreement—whether partial or full settlement—can be attractive to both parties when it reduces costs or risk (the saved value of which can be shared) without otherwise changing the litigation (i.e., the net return) is intuitive.⁵⁵ The notion that differences in ex ante beliefs about the likely adjudication outcomes can generate actual *surplus*, however, is a more difficult idea to grasp.⁵⁶ After all, either the plaintiff or the defendant or both will have made a mistake, if we conceive of the outcome of the adjudication as some representation of the truth. In the abstract, there is some true distribution $f_T(x)$,⁵⁷ which means that in our very simple set-up, except by coincidence, one party winds up worse off and the other better off than had the parties settled at $E_T(x)$.⁵⁸ But litigants have to make decisions on the basis of the information or beliefs they actually possess, and from their perspective at the time of the proposed settlement, what matters is that both parties view the proposal as an improvement.

Now suppose that the litigants are *mutually optimistic* about their prospects at trial, meaning that each party believes it is more likely to prevail than does its rival.⁵⁹ Under such circumstances, both parties may prefer adjudication to fully settling the case, despite the fact that adjudication may be costly and risky. Reversing the probabilities from our last example, suppose that the plaintiff believes that his chances of winning at trial are sixty percent while the defendant believes the plaintiff's chances are forty percent. Under these beliefs, the least that the plaintiff would be willing to accept is $E_p(x) = \$300$, while the most that the defendant would be willing to pay is $E_d(x) = \$200$. Thus, the parties would strictly prefer to go to trial than to settle out of court: by settling out of court, the parties would destroy $E_p(x) - E_d(x) = \$100$ of joint value. In

⁵⁵ See *McDermott, Inc. v. AmClyde*, 511 U.S. 202, 215 (1994) (noting in a commercial admiralty case that “[w]hile public policy wisely encourages settlements, such additional pressure to settle is unnecessary. The parties’ desire to avoid litigation costs, to reduce uncertainty, and to maintain ongoing commercial relationships is sufficient to ensure nontrial dispositions in the vast majority of cases”).

⁵⁶ Thomas J. Miceli, *Settlement Strategies*, 27 J. LEGAL STUD. 473, 474 (1998) (“In the differing perceptions model, a *bargaining* process is envisioned in which the parties arrive at a settlement amount somewhere between their reservation prices. Thus, when a settlement occurs, the parties share the surplus from settlement.” (emphasis in original)).

⁵⁷ The true distribution need not have anything to do with the “truth” of the underlying factual and legal claims made by both sides; rather, there exists a true distribution of how the case is likely to resolve if put to a factfinder and actually adjudicated. This true distribution may be unrelated to which side ought to win in the abstract, and it may be systematically biased, perhaps because certain procedures are likely to lead to inaccurate conclusions (possibly on purpose, in pursuit of some other policy goal) or for the more straightforward reason that judges and juries may themselves be biased.

⁵⁸ See, e.g., *Ziegelheim v. Apollo*, 607 A.2d 1298, 1303 (N.J. 1992). *Ziegelheim* is a malpractice case arising out of a divorce, and the plaintiff discovered—post-settlement—that she could have received an additional 30% of the marital estate had she gone to trial. See *id.* For background literature on the role that regret plays in settlement negotiations, see Chris Guthrie, *Better Settle Than Sorry: The Regret Aversion Theory of Litigation Behavior*, 1999 U. ILL. L. REV. 43.

⁵⁹ For a more thorough definition of mutual optimism, see Prescott et al., *supra* note 12, at 703–07.

this example, note that the value created by going to trial *exceeds* the litigation costs, $c_p + c_d = \$60$, and the costs of risk bearing, $r_p + r_d = \$32$, combined. When all three factors are taken into account, the lawsuit will fail to fully settle.

More generally, differences in information and belief between the parties about the likely outcome of adjudicating the dispute are often what *generate* the desire to litigate rather than resolve the dispute in some other way. One party is confident it will win, but so is the other, making *full* settlement unattractive to both sides. For this reason, many policies, particularly related to discovery and pre-trial management,⁶⁰ explicitly target *educating* the parties about the likely outcomes of any adjudication in hopes of bringing their beliefs closer together.⁶¹ But the fact that full settlement is often unlikely when both parties are optimistic about their chances at trial does *not* imply that partial settlements are equally unlikely. Indeed, there are good reasons to think that because full settlement is a big step, one that requires both parties “giving up” on their optimistic view of their prospects,⁶² partial settlements have a unique potential to offer both parties significant net benefits even when full settlement does not.

* * *

As a group, then, settlements are simply agreements between parties to a dispute that offer value to both on one or more of the following dimensions: reducing adjudication costs, mitigating losses due to risk, and maximizing ex ante returns.

If adjudication is too costly, the parties can agree to dispense with some or all of it, which might also generate valuable reductions in risk.⁶³ If one or more of the parties are risk averse, both may consent to altering the underlying procedures or the governing substantive law to mitigate this risk, perhaps by forgoing a third-party decision altogether (also saving on adjudication costs thereby) or by assenting to other procedural devices (e.g., mediation) likely to reduce uncertainty (but presumably *increasing* adjudication costs in some circumstances).⁶⁴ Finally, settlement agreements can work to maximize the ex-ante returns for both parties by

⁶⁰ See Robert F. Peckham, *A Judicial Response to the Cost of Litigation: Case Management, Two-Stage Discovery Planning and Alternative Dispute Resolution*, 37 RUTGERS L. REV. 253, 255–60 (1985); Robert G. Bone, “To Encourage Settlement”: Rule 68 Offers of Judgment, and the History of the Federal Rules of Civil Procedure, 102 NW. U. L. REV. 1561 (2008) (examining the evolution of Rule 68 and its ability to encourage settlement); Shawn K. Ohl, *Alternative Dispute Resolution*, 51 WAYNE L. REV. 563, 565–69 (2005) (discussing case evaluation as a tool for dispute resolution in the Michigan context).

⁶¹ If one combines costly trials and risk aversion with greater shared understanding about the likely outcome of the trial, settlement becomes more likely.

⁶² Prescott et al., *supra* note 12, at 703–05 (explaining that parties can use high-low agreements to simultaneously speculate and insure to varying degrees based on their optimism).

⁶³ See Thomas J. Stipanowich, *Arbitration: The “New Litigation,”* 2010 U. ILL. L. REV. 1, 4 (stating that conventional wisdom suggests that parties opt for arbitration, which obviates adjudication, because of “cost savings, shorter resolution times, a more satisfactory process, expert decision makers, privacy and confidentiality, and relative finality”).

⁶⁴ Mediation, for example, may be preferred by individuals who want to reduce third-party intrusion into dispute resolution and avoid the uncertainties of litigation. See Margaret F. Brinig, *Does Mediation Systematically Disadvantage Women?*, 2 WM. & MARY J. WOMEN & L. 1, 2, 9–10 (1995).

allowing them to move their bets, for want of another phrase. There is no natural reason why parties should always prefer *full* settlement. On issues or aspects of the dispute about which the parties are mutually optimistic, litigants will prefer to increase their bets, literally hoping to double down (at least if they are not too risk averse).⁶⁵ On issues or aspects about which the parties are less confident, resolving them outright or limiting their joint exposure to them will again be to both parties' tastes.⁶⁶

Settlements can be simple or complex in their effects. An agreement might improve a litigant's position on simply one of these three dimensions, or it might worsen the litigant's position on one dimension (e.g., risk), but more than compensate for the loss on another (e.g., return).⁶⁷ Opposing litigants may agree to settlements for entirely different reasons. A risk-neutral defendant may agree to alter some aspect of the litigation in a way that will reduce uncertainty (beneficial to the plaintiff), but only because the alteration will also reduce his costs or improve his expected returns, the latter possibility perhaps a pill the plaintiff is willing to swallow as the price for the risk reduction he will enjoy.⁶⁸ Finally, settlements may comprise a bundle of seemingly unrelated agreements, a package that, in expectation, improves the lot of both parties.⁶⁹ At all points, rational litigants ought to be thinking *hard* about the relative merits of these potential combinations, but we acknowledge the importance of real-world frictions in considering how our richer conception of settlements works in practice. One would hope that litigants (or their attorneys) would be exploring innovative forms of partial settlement as a matter of course,⁷⁰ given the gains these arrangements can offer, but there are sound reasons to believe that

⁶⁵ Fee-shifting agreements are the best examples. *See supra* notes 26–27 and accompanying text.

⁶⁶ High-low agreements and issue-modification agreements generally are categories of paradigmatic partial settlements that typically serve this role. *See infra* Sections II.A–B.

⁶⁷ Gross, *supra* note 8, at 1184–85 (discussing how defendants may agree to a bench trial in exchange for other partial settlements—for example, a damages-only trial or a high-low agreement—even though they generally prefer a jury because of its likely factual conclusions).

⁶⁸ In insurance litigation, for example, defendant insurance companies will often enter into high-low agreements, despite being insensitive to risk (at least in theory). A high-low agreement might also be attractive to an insurance company because it might reduce costs by restraining wasteful rent-seeking behavior. As many high-low agreements are signed near the time of trial or even during jury deliberations, however, this explanation seems unsatisfactory. *Cf.* Prescott et al., *supra* note 12, at 728–30. This leaves maximizing returns, and suggests the following: a plaintiff might propose a high-low agreement during deliberations to reduce risk, and the insurance company might agree to one that effectively lowers the expected payout to the plaintiff by eliminating more of the upper tail of the damages distribution than it eliminates of the lower tail.

⁶⁹ *See, e.g.,* Convery v. Sullivan, No. 05-51040, 2007 WL 1976841 (Pa. C.P. Apr. 17, 2007) (Verdict and Settlement Summary) (involving a traffic collision in which defendant allegedly made a negligent left turn). The parties in *Convery* entered into three conceptually distinct partial settlements: (1) the parties agreed to preclude live expert witness testimony (procedure modification); (2) the defendant stipulated to liability, thereby allowing the trial to proceed on a damages-only basis (issue modification); and (3) the parties agreed to a \$25,000 cap on damages (award modification).

⁷⁰ *See generally* Symposium, *Reinventing Civil Litigation: Evaluating Proposals for Change*, 59 BROOK. L. REV. 659 (1993) (discussing the increasing pace of procedural innovation in civil litigation).

negotiation costs, signaling losses, professional norms, and behavioral and cognitive biases will limit the scope of these agreements.⁷¹

PART II: TYPOLOGY AND ANALYSIS OF PARTIAL SETTLEMENTS

Partial settlement agreements can be divided into three categories: award-modification agreements, issue-modification agreements, and procedure-modification agreements. Full settlement agreements can be understood as extreme versions of *each* type of agreement. Parties can design intricate agreements that fall entirely within a single category, the subject of Part II. However, as we will discuss in Part III, litigants can also unite features from multiple categories, presumably because terms from different partial settlement categories can complement each other, including, for example, that certain combinations of terms may be easier to negotiate or may simply be necessary to reach agreement. A term from one category of partial settlement can also serve as an imperfect substitute for partial settlement terms from other categories. This claim follows from the fact that every partial settlement agreement can be linked explicitly to the same functions that drive *all* settlement behavior—reducing litigation costs, mitigating adjudication risk, and maximizing ex ante returns.

To introduce how partial settlements work and how they may be usefully combined in a tangible way, consider one randomly selected case from New York’s summary jury trial docket in 2012:⁷² *Sinclair v. Alan C. David, Inc.*⁷³ The information we have about the case is limited, but the dispute involved a traffic accident and a claim for damages, the kind of case that takes up a large percentage of our civil litigation system’s time and resources.⁷⁴ The plaintiff sought payment under an insurance policy (issued by Progressive) with a policy limit of \$100K. A factfinder ultimately determined the outcome of this case—that is, *the parties never fully settled* their dispute. Nevertheless, the parties agreed to a great many adjustments and made many trades

⁷¹ For examples of real-world frictions that can dampen rational consideration of the merits of different modifications and related innovations, see, for example, JOHN S. MURRAY ET AL., PROCESSES OF DISPUTE RESOLUTION: THE ROLE OF LAWYERS 52, 76–80 (1989); David A. Hoffman & Richard N. Wolman, *The Psychology of Mediation*, 14 CARDOZO J. CONFLICT RESOL. 759 (2013) (discussing how cognitive biases and intense emotions can frustrate rational dispute resolution in the context of mediation); and Steven Shavell, *Sharing of Information Prior to Settlement or Litigation*, 20 RAND J. ECON. 183 (1989).

⁷² By “randomly selected,” we mean simply that we examined the first case from the New York summary jury trial data that we received for this project. Summary jury trial and expedited trial programs exist in many states, and they may be viewed as an attempt by policymakers to prompt the use of partial settlement options, but within the confines of some fixed, non-negotiable switches from the standard default rules. See generally Thomas D. Lambros, *The Summary Jury Trial—An Alternative Method of Resolving Disputes*, 69 JUDICATURE 286 (1986).

⁷³ *Sinclair v. Alan C. David, Inc.*, No. 113332/2009 (N.Y. Sup. Sept. 6, 2012) (Summary Jury Trial Data Collection Form).

⁷⁴ See LYNN LANGTON & THOMAS H. COHEN, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, NCJ 223851, CIVIL BENCH AND JURY TRIALS IN STATE COURTS, 2005 (2008), available at <http://www.bjs.gov/content/pub/pdf/cbjtsc05.pdf> (suggesting that motor-vehicle torts likely constitute a plurality of all civil trials in state courts and a majority of all tort cases that result in civil trials in state courts).

along way, dramatically reducing the effective scope of the litigation. In other words, *Sinclair* is a case that *partially settled*.

At the outset, although not the focus of this article, it is worth noting that the parties in *Sinclair* voluntarily agreed to summary jury trial proceedings,⁷⁵ which translates to a pre-selected bundling of partial settlement terms.⁷⁶ One-on-one, however, the parties also settled many other aspects of their dispute. First, the parties in *Sinclair* agreed to present their case to a judge, not a jury, reducing costs and potentially risk as a result. Second, the parties established that the outcome of the trial would be binding, thus resolving whether there would be any possibility of an appeal or alternative means of re-litigating the dispute. Third, the parties acquiesced to adjudication *only* on the level of damages; the defendant admitted liability, settling the issue, possibly in exchange for one of the other individually negotiated terms. Finally, the parties entered into a high-low agreement, which meant that regardless of the outcome of the trial, the defendant would pay at least the low (\$13K in this instance) and would pay at most the high (\$100K, also the limit of the insurance policy).⁷⁷

After a trial that lasted a day or less, the judge found for the defendant, which we assume amounted to a finding of no damages (alternatively, damages that were less than or equal to the specified low amount, given the judge was aware of the high-low agreement). The practical result was that defendant paid the plaintiff \$13K, resolving the entire dispute.

* * *

We begin our more systematic study of partial settlement agreements by defining and describing award-modification agreements. With a few minor exceptions,⁷⁸ these agreements have received virtually no attention in legal scholarship, yet their study offers considerable insight into settlement dynamics generally.⁷⁹ We then turn in order to issue-modification agreements and procedure-modification agreements.⁸⁰ After defining each category's boundary, we provide "pure" examples of the kinds of partial settlements the category contains, examples in which the terms of the partial settlement come from only that category, to help flesh out the theoretical construct and practical consequences of these innovations.

⁷⁵ *Summary Jury Trial Rules*, N.Y. STATE UNIFIED CT. SYS., <http://courts.state.ny.us/COURTS/2jd/KINGS/Civil/summaryjurytrialrules.shtml>.

⁷⁶ *See id.* (describing agreements, including agreements that preclude appeal, directed verdicts, and motions to set aside verdict, as well as agreements to binding one-day trials). *See also infra* Section II.C.2 (discussing bundled procedure-modification agreements).

⁷⁷ *Sinclair*, No. 113332/2009. Note that all information about this case comes from the summary jury trial data collection form, which is filled out at the conclusion of the trial by either the judge or another court official. The form is on file with the authors.

⁷⁸ Gross, *supra* note 8, at 1884–85; Gross & Syverud, *supra* note 38.

⁷⁹ For a recent systematic study of one important species of this group, explicitly comparing and contrasting it to full settlement, see Prescott et al., *supra* note 12.

⁸⁰ Various terms that fall into these classes of partial settlements have received more academic attention, but not as playing a role in "settlement" behavior. And no one has recognized the common strands that unite all three categories of partial settlements.

We argue that each type of partial settlement serves an identical set of purposes. At least in the abstract, all partial settlements reduce costs, mitigate risks, or maximize returns (or offer some combination of these benefits). Where possible, we present empirical and anecdotal evidence in support of this claim. We use our findings to extrapolate, identifying theoretically plausible partial settlements that might be superior to known, real-world partial settlements, yet may not exist in practice,⁸¹ perhaps for practical reasons. In Part III, we examine the interaction of these different categories of partial settlements (as complements and substitutes), offering examples of disputes where they are used simultaneously, and we offer reasons why parties might find such combinations valuable.

For a few reasons, we devote comparatively less space to discussing procedure-modification agreements. First, we want to avoid repetition where possible, and by the time we reach our discussion of them, the role procedure-modification agreements can and do play in our comprehensive theory will be clear. A central theme of this article is that each category of partial settlement agreements (as well as full settlement agreements) are just different instances of the same thing, with the precise mix being determined by the particulars of the parties, the nature of the dispute, and real-world frictions, like negotiation costs and cognitive and behavioral biases. Second, procedure-modification agreements come in many shapes and sizes;⁸² as a group, they are a hodgepodge. Examples will make our case effectively, but analogy is the primary method of argument we employ, and the empirical evidence we offer is more derivative in nature. Finally, unlike with award-modification and issue-modification forms of partial settlements, there is a large related literature on contract procedure,⁸³ which has an important relationship to procedure-modification agreements and by extension to all settlement, although, other than a few hints here and there,⁸⁴ this connection has never been identified.

On this latter observation, it makes sense at this point to identify the precise domain of the partial settlement agreements we discuss in this article. We study settlement behavior in light of an existing dispute. Perhaps a potential plaintiff has not yet filed an actual complaint, but the facts underlying the dispute (an accident, a contract breach, and so on) have occurred and a background set of rules—both procedural and substantive—are in place, put there either by the

⁸¹ Cf. Michael L. Moffitt, *Customized Litigation: The Case for Making Civil Procedure Negotiable*, 75 GEO. WASH. L. REV. 461, 466–73 (2007) (exploring possible ways in which litigants could customize procedural aspects of civil trials after a dispute has arisen).

⁸² Henry S. Noyes, *If You (Re)Build It, They Will Come: Contracts to Remake the Rules of Litigation in Arbitration's Image*, 30 HARV. J.L. & PUB. POL'Y 579 (2006) (describing a variety of procedural modifications).

⁸³ See generally, e.g., Tom Cummins, *Shute: The Math is Off*, 8 J.L. ECON. & POL'Y 1 (2011); Kevin E. Davis & Helen Hershkoff, *Contracting for Procedure*, 53 WM. & MARY L. REV. 507 (2011); Jaime Dodge, *The Limits of Procedural Private Ordering*, 97 VA. L. REV. 723 (2011); Hoffman, *supra* note 30; Daphna Kapeliuk & Alon Klement, *Changing the Litigation Game: An Ex Ante Perspective on Contractualized Procedures*, 91 TEX. L. REV. 1475 (2013); Noyes, *supra* note 82; Colter L. Paulson, *Evaluating Contracts for Customized Litigation by the Norms Underlying Civil Procedure*, 45 ARIZ. ST. L.J. 471 (2013); Robert E. Scott & George E. Triantis, *Anticipating Litigation in Contract Design*, 115 YALE L.J. 814 (2006); Thornburg, *supra* note 7.

⁸⁴ See, e.g., Robert G. Bone, *Party Rulemaking: Making Procedural Rules Through Party Choice*, 90 TEX. L. REV. 1329 (2012).

law or by some ex-ante contract between the parties.⁸⁵ Settlements are therefore ex-post agreements,⁸⁶ agreements that, while they may affect litigation behavior and investment, do not influence primary behavior, at least not directly.⁸⁷

Ex-ante agreements between parties with pre-existing relationships are the focus of the literature on contract procedure,⁸⁸ and the goals of these procedural contracts differ in important ways from procedure-modification as partial settlement—for example, a key ex-ante goal is reducing the likelihood of a dispute occurring in the first instance.⁸⁹ Not surprisingly, there are ex-ante analogs to the ex-post settlements on which we focus, but we are interested in the *settling* of an actual dispute, and so we take the existence of the dispute as a starting point.

Still, in contract-procedure scholarship, Bob Bone, Michael Moffitt, and a few others have recognized the potential importance of *ex-post agreements* over procedure.⁹⁰ These scholars have disputed (or have failed to recognize) the ex-ante/ex-post divide in the contract procedure literature,⁹¹ claiming in effect that an agreement over procedure is substantively similar in at least some of its causes and effects regardless of whether it happens prior to or following the emergence of a dispute. These discussions are limited to procedure, however, and make no connection between these agreements and full set of ex-post settlement options we describe. Also, the general assumption of the contract procedure authors is that ex-post agreements are necessarily rare or almost trivial. Bob Bone, for instance, indicates that in his own research, “[he] found very few examples of agreements entered into after filing, other than the usual stipulations for additional time and the like. One possible reason is that procedural options after filing are treated as bargaining chips in settlement negotiation, so any agreement takes the form of a settlement ending the suit.”⁹²

⁸⁵ See generally Gross, *supra* note 8; Gross & Syverud, *supra* note 38.

⁸⁶ In this context, ex post refers to agreements formed between litigants after the underlying dispute has occurred. Compare Bruce L. Hay, *Procedural Justice—Ex Ante vs. Ex Post*, 44 UCLA L. REV. 1803, 1804 (1997) (using ex ante to refer to matters before the dispute and ex post to refer to matters after the dispute), and Dodge, *supra* note 83, at 725–26 (implying that ex ante in the context of contract procedure refers to agreements formed before the underlying dispute has occurred or in anticipation thereof), with Ronald J. Gilson & Robert H. Mnookin, *Disputing Through Agents: Cooperation and Conflict Between Lawyers in Litigation*, 94 COLUM. L. REV. 509 (1994) (implying in a slightly different context that ex ante refers to pre-litigation matters and ex post to post-litigation matters).

⁸⁷ Of course, because parties, especially those with ongoing business relationships, will *learn* about each other in the process of litigation, settlement behavior has the potential to affect primary behavior in other aspects of the relationship: other contracts, future behavior, and so on.

⁸⁸ Many of our examples, and much of our empirical evidence, consist of disputes that result from accidents or otherwise involve parties with no prior relationship. Contract procedure scholarship largely ignores such cases, because no pre-dispute understanding is possible.

⁸⁹ See Kapeliuk & Klement, *supra* note 83, at 1486–87 (stating that ex ante agreements “affect[] [parties’] behavior in performing their contractual obligations, the probability that a dispute would arise, and their litigation behavior.”).

⁹⁰ Bone, *supra* note 84, at 1331–32.

⁹¹ See, e.g., *id.* at 1340 (“Some commentators assume that cooperation is nearly impossible during litigation, but they tend to exaggerate the difference between *ex ante* and *ex post*.” (citation omitted)).

⁹² *Id.* at 1342.

Focusing on procedural agreements has thus limited the study of ex-post agreements generally, notwithstanding Bone’s hints about a possible connection between ex-post procedural contracts and settlement.⁹³ By contrast, in our research, we find a wide variety of apparently common partial settlement agreements of all shapes and sizes,⁹⁴ as *Sinclair* exemplifies.

A. Award-Modification Agreements

An award-modification agreement is one in which the parties agree to a particular way of interpreting or enforcing the verdict or any other outcome of an adjudication.⁹⁵ These are binding contracts, and are not necessarily disclosed to judges, juries, or arbitrators.⁹⁶ Such agreements work like functions or formulas: their inputs are the outcomes of the formal adjudication (typically, the damages award, if any), and their outputs are the new obligations of the parties.⁹⁷ Other than derivatively through litigant behavioral shifts resulting from changed incentives or judge or jury responses to learning of the agreements if disclosed,⁹⁸ these agreements, by definition, do not affect the adjudicatory proceedings—neither substance nor procedure. Award-modification circumvents the adjudication rather than altering it.

Because of the form award-modification agreements usually take, practitioners primarily view them as a way for both parties to limit risk.⁹⁹ Most litigators and judges consider them to be an effective mutual hedge, or an insurance contract between the parties, in which the insurable event is the decision (or set of decisions) by the factfinder in question.¹⁰⁰

⁹³ *Id.* at 1341 (“It is true that there is more room for making side payments *ex ante*. But side payments are also possible during litigation.” (citation omitted)).

⁹⁴ *Contra* Hoffman, *supra* note 30, at 393.

⁹⁵ Award-modification agreements do not alter the third-party factfinder’s formally announced outcome but rather map the range of potential third-party determinations onto a range of actual outcomes to be honored by the parties. In the case of high-low agreements, this party choice set is narrower than the factfinder’s choice set. *See* Prescott et al., *supra* note 12, at 703–07 (identifying formal condition for Pareto-optimal high-low form award modification contracts). However, in theory, parties can engineer award modifications that expand the set of possible outcomes.

⁹⁶ *See* Richard Jolly, *Between the Ceiling and the Floor*, 48 U. MICH. J.L. REFORM (forthcoming 2015).

⁹⁷ It is difficult to imagine an *ex ante* damages award-modification agreement, given the specifics that go into developing the arrangement. Nevertheless, a liquidated damages clause has similar features.

⁹⁸ For example, in cases involving both signing and non-signing defendants, the plaintiff has a clear incentive to maximize damages against the non-signing defendant. Admissibility of a high-low agreement in such cases is likely to be contested, as the non-signing defendant will want to inform the jury of the plaintiff’s incentive to shift blame, whereas the signing defendant and plaintiff want to keep the agreement confidential so as not to appear disingenuous, or in the former party’s case, to be signaling fault. *See* Michael L. Forte, *Admissibility of High-low Agreements in Multi-defendant Litigation*, 87 FLA. B.J. 27, 27 (2013) (discussing variation in court treatment of high-low agreement admissibility and factors likely to be determinative).

⁹⁹ *See* Molly McDonough, *High-Lows’ Ups and Downs*, 91 A.B.A. J. 12, 13 (2005) (quoting one practitioner as stating that high-low agreements are used by the defense “to cap its upside risk” and by the plaintiff to “cap its potential downside”).

¹⁰⁰ *Gulf Indus., Inc. v. Nair*, 953 So. 2d 590, 594 (Fla. Dist. Ct. App. 2007) (stating that “the high-low agreement enables parties to manage the risks of litigation and essentially amounts to insurance against a

Yet these partial settlements may have other consequences. First, as noted, award modification may indirectly influence litigant and adjudicator behavior by changing the consequences of particular actions. If in place sufficiently early in the dispute,¹⁰¹ for example, award-modification agreements may influence investment in the litigation,¹⁰² potentially reducing costs (but also potentially increasing them, when the formula enhances incentives to invest in the litigation). Second, these agreements implicitly allow parties to speculate profitably when they are optimistic, while controlling risk, which might otherwise cause the parties to fully settle. We characterize two categories of award-modification agreements.

1. Kinked Award-Modification Agreements

The first set of examples includes agreements that settle the amount to be paid using non-differentiable (even non-continuous) functions of the adjudicated outcome.¹⁰³ In other words, these agreements are “kinked” in shape, with sharp corners at particular values explicitly listed in the agreement (and usually containing linear segments between the function’s kinks). The primary real-world representatives of this category are high-low agreements, which are partial settlements that take the following form:

$$\text{Settlement Amount} = \begin{cases} \text{High}, & \text{if } x > \text{High} \\ x, & \text{if } \text{High} \geq x \geq \text{Low} \\ \text{Low}, & \text{if } \text{Low} > x \end{cases}$$

In this characterization, x represents the damages award produced by the adjudicator, and the parties settle on the “High” and “Low” terms. Figure 1 illustrates the relationship between the damages awarded and the settlement amount under a high-low agreement.

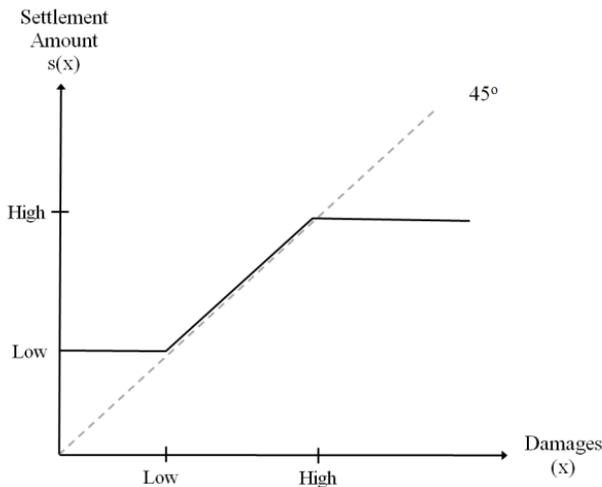
catastrophic verdict, with the premium being the surrender of total victory.” (internal quotation marks omitted)).

¹⁰¹ Often, however, award-modification agreements occur near the end of a “dispute.” See, e.g., *High-low settlement agreements may reduce risk in civil lawsuits*, ACETO, BONNER & PRAGER, PC, <http://www.abplawyers.com/Articles/High-low-settlement-agreements-may-reduce-risk-in-civil-lawsuits.shtml> (law firm’s website stating that “high-low agreements typically take place at the last minute”).

¹⁰² Prescott et al., *supra* note 12, at 728–30.

¹⁰³ We assume the adjudicated outcome is a damages award, but this assumption is by no means necessary. Whatever outcome an adjudication might produce could be included as an input. In theory, one might stretch the definition of “award” to include information not normally considered an outcome, such as how many days the trial lasted, how many jurors sided with the defendant in a non-unanimous jury setting, or how the judge responded to post-verdict motions.

Figure 1



By definition, high-low agreements must specify a high value and a low value (at a minimum), but are otherwise remarkably simple and intuitive contracts.¹⁰⁴ In theory, the task of successfully negotiating *two* numbers may be somewhat more difficult than negotiating a full settlement agreement, which, in the simplest of such agreements, requires agreement on only a single number.¹⁰⁵ Nevertheless, the straightforwardness of the high-low contract makes it a relatively easy alternative to explain to a client.¹⁰⁶

High-low agreements are relatively common, and have become increasingly common in recent years according to some.¹⁰⁷ Upon reflection, the popularity of high-low agreements is not too surprising. Lawyers and their clients should easily comprehend the import of a high-low agreement to their prospects at trial: for the plaintiff, for example, it is not hard to understand that

¹⁰⁴ Sometimes, judges and practitioners use the phrase “high-low” to refer to more complicated kinked agreements. For example, one article published by a law firm uses the term “high-low agreement” to include agreements where the two parties set a high amount and a low amount for damages, and then go to court solely to determine liability allocation. If the factfinder determines that the defendant is liable, then the plaintiff wins the high amount. If the factfinder determines that the defendant is not liable, then the plaintiff wins the low amount. Such an agreement eliminates entirely any middle points between what would normally be the high and low points of a high-low agreement. See Kevin G. Faley & Andre M. Alonso, *High-Low Agreements: Misunderstood Litigation Technique*, N.Y. L.J., Mar. 27, 1998, available at http://www.mdafny.com/_pubs/High-Low%20Agreements.pdf (last visited Jan. 25, 2015). For an example of a case with a more complicated kinked agreement described as a high-low agreement, see *Witherspoon v. Domino’s Pizza, LLC*, No. 27588/05, 2007 WL 3286301 (N.Y. Sup. Oct. 11, 2007) (Verdict and Settlement Summary) (involving parties who entered into an award-modification agreement in which the plaintiff would receive \$250,000 if the defendant was found 100% liable, \$125,000 if the defendant was found 50% liable, and nothing if the defendant was found 0% liable).

¹⁰⁵ This claim is conditional on both parties preferring the agreement in question to all alternatives. It is not a claim about whether high-lows or settlements will be more attractive on average.

¹⁰⁶ See, e.g., *Settling the Case—Plaintiff*, 4 AM. JUR. TRIALS 289 § 7 (1966) (discussing the simplicity of explaining high-low agreements to a client).

¹⁰⁷ See McDonough, *supra* note 99, at 12.

no matter what happens, the defendant will be required to pay at least the low, but no more than the high (leaving aside whatever is owed his attorney). For the defendant, there is often a strong appeal in the fact that no matter what happens, the outlays for any damages award will be capped at a predetermined amount. For certain disputes, such a trade-off is likely to make sense on both sides—in exactly the way that full settlement can sometimes make sense.

High-low agreements have been shown to be mutually beneficial for litigants, beating out both full settlement and a trial without a high-low agreement, but only under certain conditions—particularly, when at least one of the litigants is *not too* risk averse, when costs of litigating under a high-low agreement are *sufficiently* low, and when the parties are optimistic about their prospects at trial.¹⁰⁸ Using the same notation as before, we can provide the basic intuition behind this result with a simple numerical example.

Suppose that the plaintiff and defendant are negotiating prior to a risky trial. The litigants are in complete agreement that the probability that the defendant will prevail is forty percent, $f_p(0) = f_d(0) = .40$. They also agree that there is a ten percent chance of a runaway jury award of \$1000, $f_p(1000) = f_d(1000) = .10$. The litigants' beliefs diverge, however, about what the jury will do the remaining fifty percent of the time: the plaintiff believes that the jury will award \$600 in these circumstances, while the defendant believes that the jury will award \$200. In this example, the litigants are mutually optimistic in the sense in which we previously employed the term, with $E_p(x) = \$400$ and $E_d(x) = \$200$. Under our earlier assumption that the risk premiums of the parties are proportional to the variance of the court award with risk aversion coefficients $\alpha_p = \alpha_d = .00025$, the risk premiums are $r_p = \$30$ and $r_d = \$20$.

Now suppose that the litigants sign a high-low agreement with a floor of \$100 and ceiling of \$600. Note that this high-low agreement does not change the expected return at trial: $E_p(x) = \$400$ and $E_d(x) = \$200$ just as they were before. The high-low agreement reduces the risk faced by both litigants, however; the risk premiums fall to $r_p = \$15$ and $r_d = \$5$. The sum of the risk premiums has fallen from \$50 to \$20, and so the high-low agreement has created surplus of $\$50 - \$20 = \$30$. Consequently, the plaintiff and defendant are unambiguously better off with the high-low agreement than they are with a naked trial.¹⁰⁹

Thus, at least in theory, award-modification agreements can improve on naked adjudication and full settlement under certain conditions, and because they are easy to negotiate and simple to understand (and hence straightforward for lawyers to explain to their clients),¹¹⁰ one would expect lawyers (and their clients) to discuss and agree to high-low agreements (and other forms of partial settlement) when those conditions have been satisfied. In fact, it is clear that parties *do* discuss and agree to award-modification agreements in reasonable numbers, particularly in certain

¹⁰⁸ Prescott et al., *supra* note 12.

¹⁰⁹ The increase in surplus would be even more dramatic if the litigants were more risk averse. If the coefficients were .0009 instead of .00025, then the sum of the risk premiums for a naked trial would be \$180. With the high-low agreement, the sum would fall to \$72, a savings of \$108.

¹¹⁰ For more information about the negotiation costs involved in award-modification agreements, see Prescott et al., *supra* note 12, at 703–05.

categories of litigation, but one might reasonably ask: does such behavior have anything to do with settlement behavior? Do the parties use “partial settlements” to reduce costs, mitigate risk, enhance returns, or all of the above?¹¹¹

Although there is a huge need for additional empirical research on these topics, very recent scholarship does suggest an affirmative answer to this question. Along with a co-author, we recently studied the most common form of award-modification settlements (high-low agreements) by electronically analyzing narrative litigation notes from tens of thousands of insurance disputes.¹¹² In each dispute, we identified whether the parties entered into or even simply discussed the possibility of a high-low agreement.¹¹³ With respect to the characteristics of the disputes themselves, we developed measures of how “risky” and “costly” the cases were likely to be using internal budgeting records and reserve amounts and by studying the litigation costs of past cases with similar characteristics, respectively.

Hypothesizing that award-modification agreements are employed rationally to reduce costs and risk (like full settlement contracts), while also allowing parties to capitalize on their confidence in their litigation positions, we predicted that high-low agreements would appear when *both* litigation costs were expected to be relatively low (i.e., fully settling would be relatively less attractive) *and* adjudication risk was expected to be relatively high (i.e., naked adjudication would be relatively less attractive). Consistent with normal settlement theory, we also anticipated that naked trials would be most common when risks and costs were expected to be low, and thus that full settlement would be high when risks and costs were expected to be high.¹¹⁴ Figure 2 below portrays the basic pattern we find in our data (darker equals more density). Litigants behave in ways that are consistent with both hypotheses.¹¹⁵

¹¹¹ The empirical study of settlement generally is difficult for a host of data and methodological reasons, but examining partial settlements empirically and in a systematic way is even more challenging. When a case fully settles, there tends to be some evidence of this fact, even if it is just the case dropping out of the court system (even a withdrawal is a settlement). Partial settlements, however, occur at all points on the litigation timeline. Many of these exchanges are not recorded in court documents, and they are not sufficiently material to be commonly mentioned in appellate opinions. Furthermore, even litigants who are repeat players do not regularly document the many varieties of partial settlements that become integral parts of their litigation, at least in part because many of them do not have an obvious name.

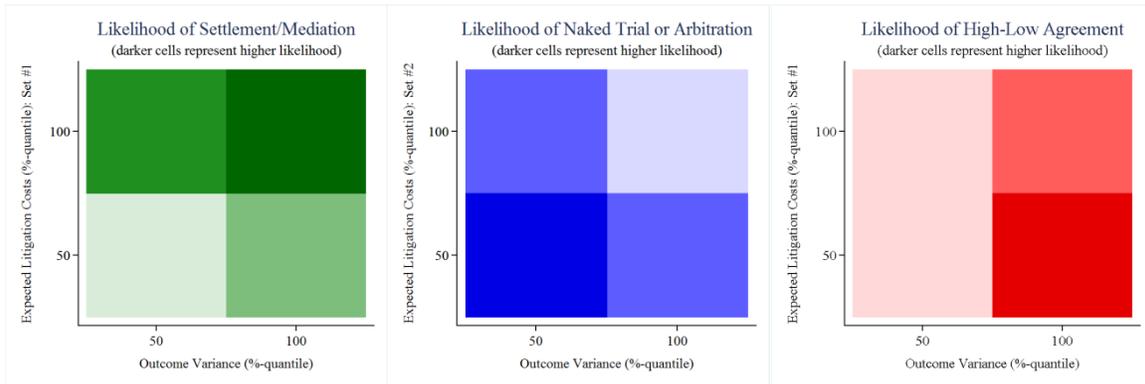
¹¹² The insurance company did not record its use of a high-low agreement in any other way.

¹¹³ If the parties concluded a high-low contract, we recorded the high and low terms, along with many other details about the bargaining process.

¹¹⁴ See Prescott et al, *supra* note 12.

¹¹⁵ Other anecdotal evidence in our insurance data suggests that award-modification agreements like high-low contracts are a form of partial settlement. First, high-low discussions and full-settlement discussions were always intertwined in negotiations. Second, a majority of cases involving high-low agreements ultimately settled, and there was clear evidence from lawyer notes that a high-low agreement was a “partial solution” when settling the case was a goal. Third, there was some understanding among practitioners that securing a high-low actually increased the likelihood of a full settlement eventually occurring, most likely for behavioral reasons. See Prescott et al., *supra* note 12.

Figure 2



Award modification, and partial settlements in general, we conjecture, are simply evidence of parties behaving rationally when approaching the resolution of a dispute. Most decisions in life are not all or nothing; the same is true with settlement behavior. When circumstances *do* support the parties fully settling the case, most of the time they will. But when full settlement is somewhat attractive, but not possible for some reason, it would be strange to assume that litigants throw up their hands and litigate as if they had never had any interest in fully settling—in reducing costs, mitigating risk, and maximizing returns.

High-low agreements are a perfect example of a simple way to compromise.¹¹⁶ On the other hand, the constrained nature of a high-low contract (linear, two kink points, and fixed slopes, two of which are flat and one of which increases along the 45-degree line) implies that there are surely cases in which other forms of award modification would be superior: not just to the best high-low agreement, but also to naked trial or full settlement when those choices would otherwise have been superior to the best high-low agreement.¹¹⁷

Litigants can and do write other, more complicated forms of award-modification agreements. Consider a partial settlement agreement from a 2006 case out of New Jersey: “Under the terms of the agreement, if the defendant were found by the jury to be not at fault, or less than 50% at fault, the plaintiff would recover \$6,000; if the defendant were found to be 50% at fault, the plaintiff would recover \$11,250; and if the defendant were found to be over 51% at fault, [the plaintiff] would recover \$22,500.”¹¹⁸ An agreement that takes this form differs from a traditional high-low agreement not only in the type of input it requires (it uses percentage of liability),¹¹⁹ but also in

¹¹⁶ Although Michael Moffitt focuses on contract procedure in his work, he does briefly discuss high-low agreements as a sort of contract procedure. Moffitt, *supra* note 81, at 496–97. We disagree with this characterization. High-low agreements affect litigation only indirectly, and they need not even be known to anyone other than the parties themselves.

¹¹⁷ In other words, there would be a greater number of circumstances in which the optimal award-modification agreement would edge out both settlement and naked adjudication than there would be sets of conditions under which high-low agreements would do this, even if high-lows are sometimes optimal.

¹¹⁸ *Clemente v. Duran*, No. L-003405-04, 2006 WL 4643243 (N.J. Super. Ct. Dec. 18, 2006) (Verdict and Settlement Summary).

¹¹⁹ The full extent of the plaintiff’s damages must have been resolved separately through an issue-

that it is not even a continuous function of that input: there is no way under this contract for the plaintiff to receive, say, \$20,000 as damages. The plaintiff will receive \$6,000, \$11,250, or \$22,500. From the perspective of the parties, no other values were even on the table, whatever the outcome of the jury's deliberations.

The use of just a few kink points in award-modification agreements is almost certainly a consequence of negotiation costs and cognitive limits.¹²⁰ Complicated functions that allow for, say, a different value for every possible level of damages the court might award would require too much time to consider and discuss (leaving aside writing it down). In effect, parties appear to rely on a boilerplate way of improving on their options of a full adjudication or a full settlement, boilerplates that they come to know through their training or experience, rather than by carefully considering alternative forms. Parties appear to use cognitive short cuts to identify the required “high” and “low” contract terms as well:¹²¹ high-low agreements and full settlement negotiations often occur simultaneously, with the high and low terms the parties consider often exactly mirroring recent settlement demand and offer amounts.¹²² In any event, kinked award-modification agreements seem unlikely, except by extreme coincidence,¹²³ to be the best way for the parties to partially settle their disputes.

modification agreement. We discuss this form of partial settlement in Section II.B, *infra*.

¹²⁰ Given continuous belief distributions and differentiable utility functions, rational agents would likely choose a continuous mapping of the distribution of damages onto legal obligations—i.e., a smooth award-modification function without kinks. Several cognitive limitations might also prevent realization of this ideal. Agents are subject to information-processing constraints that limit their perceptions of differences between potential payouts and limit their ability to optimize when negotiations are complex. See ARIEL RUBENSTEIN, MODELING BOUNDED RATIONALITY 89 (1998) (noting that agents often infer inappropriate similarities between outcomes, effectively collapsing the set of possible outcomes); Chaim Fershtman & Ehud Kalai, *Complexity Considerations and Market Behavior*, 24 RAND J. ECON. 224, 224–35 (1993) (showing that agents who can choose a strategy involving only a limited number of contingencies will have weaker equilibrium outcomes). An analogous and well-studied problem is found in the optimal tax literature. Assuming a continuous talent distribution and the absence of administrative and compliance costs, the welfare-maximizing income-tax obligation is a continuous function of a taxpayer's income. See James Mirrlees, *An Exploration in the Theory of Optimum Income Taxation*, 38 REV. ECON. STUD. 175 (1971).

¹²¹ Frequently, high and low terms are identical to the most recent settlement offers made by each party. This may reflect the parties' excessively optimistic beliefs about the likelihood of the award amount being equal or below the lower bound (in the case of the defendant) or equal to or above the higher bound (in the case of the plaintiff). But just as all students in Lake Woebegone cannot be above average, parties that place undue attention on their personally favorable outcome may be insufficiently focused on the full award distribution. For a discussion of optimism bias in legal contexts, see Christine Jolls, *Behavioral Law and Economics*, in BEHAVIORAL ECONOMICS AND ITS APPLICATIONS 123 (Peter Diamond & Hannu Vartiainen eds., 2007), and Cass Sunstein, *Behavioral Analysis of Law*, 64 U. CHI. L. REV. 1175, 1183 (1997). In addition, choosing high and low terms based on the most recent settlement offers might be explained by the availability heuristic, which biases agents toward using information that is salient or readily available when making decisions. See Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 203–04 (2006).

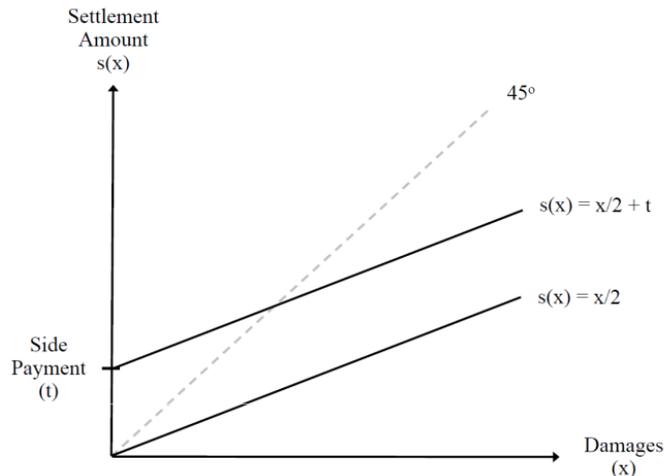
¹²² See, e.g., *Kirchoff v. Kirchoff*, No. 668638, 1995 WL 17007841 (Mo. Cir. Ct. Nov. 8, 1995) (Verdict and Settlement Summary).

¹²³ Specifically, the high and low would have to correspond with sharp inflection points (in an informal sense) in the distributions of the parties' beliefs. And, in models more complicated than those in Prescott et

2. Smooth Award-Modification Agreements

One can imagine many flexible ways to modify a damages award, but here we focus on agreements that “smoothly” relate any award amount to the settlement payment,¹²⁴ usually in a monotonic or even a linear way.¹²⁵ To illustrate just one of many possibilities, consider the award-modification agreement in Figure 3 below. In this agreement, the plaintiff will receive a certain payment, t , regardless of the verdict. In exchange for this fixed payment, the plaintiff agrees to a fifty percent “haircut,”¹²⁶ and would receive only fifty cents on every dollar the jury awards in damages. Thus, if the jury determines that $x = 0$, the plaintiff will receive the fixed payment t . If the jury determines that $x = \$600K$, then the plaintiff would receive half of that amount, or $\$300K$ in addition to the fixed payment. Interestingly, this award-modification contract offers many of the same advantages as a high-low agreement. It limits risk for both parties, and it is also not difficult to explain to clients.

Figure 3



al., *supra* note 12, in party preferences and risk-aversion levels at different levels of wealth.

¹²⁴ By “smooth,” we mean the function is continuous and differentiable at all points.

¹²⁵ A monotonic function is one that preserves the ordering of the inputs in the ordering of the outputs. In other words, an increase in damages would always lead to an actual payment under the contract that is at least as high as it would have been without the increase. High-low contracts are weakly monotonic and continuous, but are not differentiable. A linear function is a monotonic function of the form $y = t + bx$ where t and b are constant numbers—i.e., it results in a straight line, possibly with an intercept.

¹²⁶ In the litigation context, the term refers to the percentage by which a jury’s damages determination is reduced by a subsequent settlement. David Hyman et al., *Do Defendants Pay What Juries Award? Post-Verdict Haircuts in Texas Medical Malpractice Cases, 1988–2003*, 4 J. EMPIRICAL LEGAL STUD. 3, 68 (2007) (defining “haircut” as “a nonnegative fraction of the adjusted verdict”). A plaintiff often agrees to a haircut after the verdict in order to avoid appeals, or to bring awards in line with statutory damages caps or insurance policy limits. See David A. Hyman & Charles Silver, *Medical Malpractice and Compensation in Global Perspective: How Does the U.S. Do It?*, 87 CHI.-KENT L. REV. 163, 195–96 (2012).

Whether a smooth contract is likely to be optimal (or at least preferable to a kinked award-modification agreement) will turn on the relative smoothness of the distributions of the beliefs and preferences (specifically, the sensitivity to risk) of the parties.¹²⁷ If one makes certain standard assumptions about these distributions,¹²⁸ when litigants are mutually optimistic about their prospects at trial, the optimal settlement agreement is upward sloping,¹²⁹ perhaps even linear, as we see in the example depicted in Figure 3.¹³⁰ If the parties are relatively more risk averse, the lump sum transfer to the plaintiff will be larger and the slope of the settlement schedule will flatter.¹³¹ The award-modification agreement evolves into a full settlement agreement if the slope is totally flat—i.e., if the settlement amount were insensitive to the damages award produced by the adjudicator, the drive to reduce costs would lead the plaintiff to withdraw the case, since its outcome would be irrelevant. If the parties are not too risk averse, and are *very* optimistic about their likely success at trial, you might see a settlement schedule that is steeper than one,¹³² a situation analogous to the parties doubling down. If one party is less enthusiastic about doubling down, a side payment might seal the deal.

Thus, formally modeling the design of award-modification agreements leads to a number of predictions about the shape these agreements will take—i.e., what they might look like in the real world if negotiation costs were eliminated or even just much lower, perhaps as a result of lawyers and repeat clients becoming accustomed to using such contracts.¹³³

¹²⁷ For example, traffic collision disputes often involve a damages cap (or a high when the parties enter into a high-low agreement) set at or near the defendant's car insurance policy limit. *See, e.g., Dodge v. Knibbs*, No. 92L-12939, 1993 WL 663017 (Ill. Cir. Aug. 1, 1993) (Verdict and Settlement Summary) (high set equal to the policy limit). When insurance is limited, a defendant's sensitivity to risk is not smooth; it rises sharply at or near the insurance policy limit, making kinked-award modification attractive.

¹²⁸ Litigants must have subjectively divergent beliefs about the expected outcome of litigation and one litigant must be *moderately* risk averse. If the litigants hold the same subjective beliefs or are extremely risk averse, they will fully settle. *See Prescott et al., supra* note 12, at 703–07.

¹²⁹ Note the implication: nonlinear award-modification agreements might well be optimal as well.

¹³⁰ It is possible to show formally that linear award-modification contracts emerge as optimal when parties have expected utility with constant absolute risk aversion, and when the distribution of outcomes at trial is bell-shaped and normal, and when the litigants have different subjective assessments of the means or averages of these bell-shaped curves. The precise nature of the contract—the slope and the lump sum payment—will of course be determined by the particulars of the lawsuits and the characteristics of the parties themselves. Under more general conditions, including the monotone likelihood ratio property, the schedule would not necessarily be linear but under quite general conditions it will be smooth and increasing with the court-determined damages. *See Kathryn E. Spier & J.J. Prescott, Tailored Suits: Contracting on Litigation* (Oct. 31, 2014) (unpublished manuscript) (on file with authors).

¹³¹ A high lump-sum payment further protects the plaintiff from the risk of a jury determination that awards the plaintiff little or nothing. A greater haircut further protects the defendant from the risk of a jury determination that awards the plaintiff a high amount.

¹³² For example, if the parties agree that the defendant would owe the plaintiff 200% of the damages determined by a jury, presumably in exchange for some benefit to the defendant (assume a large *ex ante* payment to the plaintiff), then the slope would be steeper than the 45 degree line and would cross that line from underneath.

¹³³ *See generally Spier & Prescott, supra* note 130.

Note that the flexibility (and therefore the potential attractiveness) of these contracts is enhanced by the possibility of an accompanying side payment.¹³⁴ In Figure 3, the plaintiff would have never agreed to a fifty percent haircut had it not been for the assurance of receiving t as a side payment. Of interest is the fact that a high-low agreement essentially involves a financial side payment (the guaranteed “low”), which in theory could be discounted and provided up front.¹³⁵ Specifically, under a high-low agreement, in exchange for agreeing to a minimum payment *under all circumstances*,¹³⁶ the defendant receives a cap on his exposure at trial. In practice, these side payments might take the form of a lump sum transfer of money up front (from the defendant to the plaintiff, or vice versa, under some circumstances),¹³⁷ but might alternatively consist of non-monetary, in-kind benefit, like agreeing to a costly procedural adjustment or a substantive issue concession.¹³⁸ In fact, partial settlements in which an early monetary transfer between the parties would make sense are, in our research, uniformly accompanied instead by a non-financial side-payment (i.e., a compensating in-kind partial settlement).¹³⁹

While “pure” linear contracts with monetary side payments are rare, linear award-modification agreements that involve another form of partial settlement as a side payment are not uncommon. Take a case filed in 2007 between Oracle and SAP involving copyright infringement.¹⁴⁰ In exchange for dropping any request for punitive damages (which are usually a multiple of compensatory damages—i.e., Oracle agreed to take a percentage of what it might otherwise have received), SAP agreed to pay \$120 million.¹⁴¹ Importantly, the case did not *fully* settle; the dispute went to the jury, the jury found for Oracle, and awarded compensatory damages only.¹⁴² A better example of a pure award-modification agreement would involve an agreement that did not “touch” the actual adjudication at all—a side agreement in which the parties agreed that \$120 million would be paid in lieu of any punitive damages the jury happened to award. SAP and Oracle most likely benefited substantially from avoiding the additional costs of punitive damages litigation. Moreover, SAP surely did not want a jury publicly determining that it ought

¹³⁴ See Bone, *supra* note 84, at 1341–42.

¹³⁵ It appears that while the low could be paid in advance if the litigation was long and drawn out, in practice this does not happen (or happens extremely rarely). There is no separate upfront payment. In an interview with a general counsel of a large insurance company, we confirmed this impression.

¹³⁶ In other words, the defendant essentially provides the plaintiff with a note with a future maturity date, which is the financial equivalent to a present transfer of value.

¹³⁷ On this latter possibility, if the plaintiff is not too risk averse and very optimistic about the outcome at trial, the optimal side payment could be negative. That is, the plaintiff would prefer to double down, paying money *to the defendant* in exchange for, say, double damages. In reality, it seems more likely that plaintiffs would offer a side payment in the form of issue or procedure modification. See *infra* Sections II.B–C and Part III.

¹³⁸ See *infra* Sections II.B–C.

¹³⁹ See, e.g., *E.P. v. Gannett*, No. 09-cv-02091, 2010 WL 4016047 (N.D. Ohio July 21, 2010) (Verdict and Settlement Summary) (a case involving parties who agreed not to present expert medical evidence and in which the plaintiff also agreed to dismiss her claim for punitive damages).

¹⁴⁰ *Oracle Corp. v. SAP AG*, No. 07-cv-01658, 2010 WL 5064389 (N.D. Cal. Nov. 23, 2010) (Verdict and Settlement Summary).

¹⁴¹ *Oracle Corp. v. SAP AG*, No. 07-cv-01658 (N.D. Cal. Nov. 3, 2010) (partial settlement reached).

¹⁴² *Oracle*, 2010 WL 5064389.

to pay punitive damages.¹⁴³ Consequently, it settled that issue with Oracle, and continued with the rest of the adjudication.

B. Issue-Modification Agreements

An issue-modification agreement is one in which the parties agree to change the underlying substance of the legal dispute. In contrast to award-modification agreements, judges (typically) and jurors (sometimes) may be aware of these settlements; after all, unless the parties are able to restructure the framing of the underlying dispute prior to any formal process,¹⁴⁴ others will be able to recognize the disparity of the claims asserted with the governing law or the facts that emerge. Perhaps a more precise way of defining issue-modification agreements is that they will change the set of issues the factfinder is ultimately tasked with resolving, but will not transform further any conclusion produced by the factfinder (award-modification agreements) nor alter the procedural rules of the game (procedure-modification agreements). While the substance that is run through the machine might look different, the machine itself remains the same.¹⁴⁵

In practice, parties to a dispute appear to use issue-modification agreements for the primary purpose of reducing litigation costs.¹⁴⁶ In theory, issue-modification agreements could be used to add or complicate issues (which would presumably increase costs),¹⁴⁷ or to generate facts that trigger the application of more intricate legal doctrines.¹⁴⁸ But these potential uses seem less likely to happen in the real world, although they are not unimaginable: for instance, a defendant

¹⁴³ This is an instance of a more general phenomenon. Award-modification agreements cannot “undo” *everything* by contract when the adjudication happens in public and consequences other than the payment of damages may result from any outcome. For this reason, other forms of partial settlement may be preferred in such situations. Issue-modification agreements and procedure-modification agreements have the ability to alter what happens in court. *See infra* Section III.B.

¹⁴⁴ Compare “charge bargaining” in the criminal context: a prosecutor drops or modifies certain charges in exchange for a defendant’s cooperation. *See* Jackie Gardina, *Compromising Liberty: A Structural Critique of the Sentencing Guidelines*, 38 U. MICH. J.L. REFORM 345, 365 (2005). This cooperation can take the form of the defendant pleading guilty to other charges or providing testimony against alleged accomplices.

¹⁴⁵ For an analogy to illustrate, recognize that a prosecutor who charges a defendant in a homicide case with manslaughter instead of murder submits a very different question to the jury. *Compare* MODEL PENAL CODE § 210.2 (1962) (requiring purpose, knowledge, or recklessness manifesting extreme indifference to the value of human life for a conviction of murder), *and* MODEL PENAL CODE § 210.3 (1962) (requiring recklessness for a conviction of manslaughter). Thus, an agreement to reduce charges may alter what goes into the machine, but leaves the machine itself untouched.

¹⁴⁶ *See, e.g.*, 2 LANE GOLDSTEIN TRIAL TECHNIQUE § 10:68 (3d ed. 1995) (explaining that a defendant may admit liability to prevent a plaintiff from revealing aggravating details and also to gain a psychological advantage with the jury by appearing fair)

¹⁴⁷ *See, e.g.*, Moffitt, *supra* note 81, at 467–69 (notably omitting any discussion of fact bargaining)

¹⁴⁸ For early examples of parties agreeing to facts that would implicate federal statutes or create federal jurisdiction, see Gary Lawson, *Stipulating the Law*, 109 MICH. L. REV. 1191, 1203–09 (2011). Note, however, that an agreement to invoke federal jurisdiction would be a better example of a procedure-modification agreement—though an invalid one in any case as jurisdiction cannot be created by agreement of the parties. *See id.* at 1205; *see also* *Ex parte McCordle*, 74 U.S. 506, 514 (1868) (“Without jurisdiction the court cannot proceed at all in any cause. Jurisdiction is power to declare the law, and when it ceases to exist, the only function remaining to the court is that of announcing the fact and dismissing the cause.”).

might agree to a plaintiff's request to add claims to a complaint in exchange for the plaintiff's conceding a sufficient (but not necessary) element or in exchange for allowing some compensating procedural modification.

Issue-modification agreements have a more ambiguous relationship to risk mitigation. Parties might use a partial settlement to resolve the most uncertain issues, leaving behind less risky issues worth litigating on both sides; alternatively, multiple risky, but negatively correlated issues may generate something of a hedge for both parties, and eliminating one side of the hedge might increase risk for both parties. Finally, issue modification has the potential to affect a party's ex ante returns. These agreements can clearly reduce costs and therefore indirectly increase the attractiveness of continuing a lawsuit. But, intuitively, resolving a disputed, necessary, and material issue will also accomplish the same thing directly. A defendant's decision to fully admit liability, for example, directly increases the likelihood of there being damages awarded in the case and therefore the plaintiff's expected return.

It is well established that settlement is more likely to occur the closer two parties are in their views of the likely outcome of their case.¹⁴⁹ It follows that if the parties had two separate disputes—with shared beliefs about one and divergent, mutually optimistic views about the other—the parties might well settle the first and litigate the second. The same logic is true when multiple distinct issues are at play in the same case, even if the issues cannot be litigated as separate cases. The relationship of the issues to each other and to the eventual outcome—i.e., the substantive law—is not surprisingly integral to partial settlement behavior.

The dynamics of issue-modification agreements turn on three sets of considerations:

- First, conceptually, issues may be discrete or divisible.¹⁵⁰ Determining “liability” is apparently divisible into at least 100 parts:¹⁵¹ people can be 50% or even 53% at fault, apparently.¹⁵² States of mind, however, appear to be less so: it is difficult to conceive of what being 50% “aware” of something might mean. Discrete issues are thus those that

¹⁴⁹ See, e.g., Priest & Klein, *supra* note 5, at 17; Shavell, *supra* note 3, at 63–65. Shared beliefs, or shared information, are likely to focus the parties on finding settlement terms at a minimum simply to save costs (as prediction becomes perfect, the settlement amount becomes the expected value minus the defendant's share of the saved costs).

¹⁵⁰ “Discrete” is used here to mean an object that can take one of up to two distinct values, or what in other contexts is referred to as having a binary outcome. “Divisible,” in contrast, refers to an object that can take more than two possible values.

¹⁵¹ We recognize that law matters to this determination. In the context of liability, for example, it matters that many states in the U.S. are comparative-fault or modified comparative-fault jurisdictions. In the former, the defendant owes his proportionate share of the damages. In contributory-negligence states, by contrast, any fault of the plaintiff would preclude recovery.

¹⁵² See, e.g., *Ewers v. Theodore*, No. 20068/09 (N.Y. Sup. Ct. May 2, 2012) (Summary Jury Trial Data Collection Form) (reporting a summary jury trial outcome in which a plaintiff was found to be 53% negligent). In theory, liability is “infinitely divisible,” meaning a factfinder could assign the defendant's liability to any real number between zero and one. In practice, divisions finer than 100 parts are unlikely, perhaps due to cognitive limitations on agents' ability to finely partition choice sets. See generally RUBENSTEIN, *supra* note 120, at 87–93 (discussing agents' limited attention and computational challenges).

cannot easily be divided into smaller issues and still be coherent, and so must be settled, if they are to be settled, one way or the other.¹⁵³

- Second, the substantive law in question can involve different numbers of interdependent issues. If an issue is entirely severable from others in the sense that only the outcome on that particular issue matters to the outcome of the case—and the process of adjudicating the issue will have no effect (or perhaps only offsetting effects) on other issues—then the decision to settle that issue is much more straightforward as a processing matter, and partial settlements may be easier.¹⁵⁴ A large number of interdependent issues make issue-modification agreements more challenging to negotiate on average and may more easily result in more risk and cost.¹⁵⁵
- Third, any particular set of interdependent issues can work together as either complements or substitutes.¹⁵⁶ Naturally, all elements that are necessary to make out a cause of action are complements by definition—e.g., a determination that there is liability *and* that there has been harm is necessary for a plaintiff to be compensated. By contrast, a Title VII plaintiff that alleges race *and* gender discrimination (which are entirely distinct claims) or a defendant that offers inconsistent (but individually sufficient) legal defenses has a few different bites at the apple.¹⁵⁷

Recognizing that litigants bargain over particular issues, that issues can be all-or-nothing, and that issues are connected to each other in their relationship to an adjudication's outcome are neither great nor new insights.¹⁵⁸ Instead, we are interested in an important implication of these facts: an issue's characteristics and its interactions with other issues may render partial settlement

¹⁵³ An object is indivisible if it cannot be divided into constituent objects of the same class. For example, in the set of positive integers, one is indivisible.

¹⁵⁴ Interdependence of issues increases complexity by correlating outcomes of each issue. See Kathryn E. Spier, *Settlement Bargaining and the Design of Damage Awards*, 10 J.L. ECON. & ORG. 84, 85 (1994) (showing that legal complexity, when combined with asymmetric information, can reduce the likelihood of parties reaching efficient settlement outcomes); cf. Stevenson, *supra* note 10, at 263 (arguing that reverse bifurcation is an example of an issues-severance procedure meant to encourage settlement). There is also empirical evidence that legal complexity reduces the likelihood of settlement. See, e.g., Daniel Kessler, *Institutional Causes of Delay in the Settlement of Legal Disputes*, 12 J.L. ECON. & ORG. 432 (1996) (finding that the use of comparative negligence, a proxy for case complexity, delays settlement in an empirical analysis of automobile bodily injury claims).

¹⁵⁵ See *supra* note 154. In contrast, several independent issues may facilitate bargaining. See Donald G. Gifford, *A Context Based Theory of Strategy Selection in Legal Negotiation*, 46 OHIO ST. L.J. 41, 55–56 (1985) (noting that creative negotiation techniques are generally more successful when there are multiple issues—and therefore several outcomes over which the parties can trade—rather than a single issue on which the parties' interests are inherently opposed).

¹⁵⁶ Issues are complements when they must all realize specific outcomes to achieve a particular outcome in the adjudication. Issues are substitutes when only one must realize a specific outcome to achieve a particular outcome in the adjudication.

¹⁵⁷ For example, the multiple defenses asserted by defendants in civil lawsuits are substitutes—success with any one guarantees the defendant a victory. See generally Jef De Mot & Alex Stein, *Allocation of Errors and the Architecture of Liability* (Cardozo Law Sch. Legal Studies Research Paper No. 417, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2328456.

¹⁵⁸ For an overview of law-and-economics analysis of the determinants of settlement, see Andrew F. Daughety & Jennifer F. Reinganum, *Settlement*, in 10 ENCYCLOPEDIA OF LAW AND ECONOMICS (Chris W. Sanchirico ed., 2012).

more or less difficult, and consequently may influence the types of partial settlements we are likely to see in practice.¹⁵⁹ Substantive law and how it is organized may directly influence settlement behavior. Accordingly, parties may prefer alternative approaches to partial settlement in those areas of the law that are relatively inhospitable to issue-modification agreements on account of the area's structure and substance. We organize our discussion by analyzing first agreements over discrete issues and then agreements over divisible issues.

1. Discrete Issue-Modification Agreements

In disputes with multiple discrete issues, if parties are forced to “settle” or “go to trial,” each litigant will calculate some overall view of the value of their case and proceed accordingly in how they bargain for settlement. Issue-modification agreements free parties to settle separately on one or more issues. By settling only that part of a case that ought to be settled, given costs, beliefs, and preferences, and then litigating the remainder, parties may be able to benefit relative to naked adjudication or full settlement.¹⁶⁰ In a phrase, the parties can get rid of some of the bad (unnecessary risk and cost) while keeping most or all of the good (expected returns).

To see this, imagine a hypothetical cause of action that involves two issues (say, scienter and damages), both of which must be proved by the plaintiff.¹⁶¹ To be precise, if the plaintiff fails to prevail on *either* issue, the adjudication would set $x = 0$. Let us also assume that proving scienter and the extent of damages (and defending against such proof) are both costly, and that it is impossible for either party to ignore an issue without it affecting the party's prospects in the adjudication in a negative way, perhaps because a good deal of the facts underlying the dispute are relevant to both issues, and so demurring at one stage (and allowing the other side to put on its evidence) would have significant consequences at later stages.¹⁶² In this case, the defendant is 90% sure he is going to lose on the scienter issue, but is 95% sure that any damages award will

¹⁵⁹ There is a substantial literature devoted to how earlier decisions by parties to drop, settle, or continue litigation influence the composition of disputes resolved through trial. For an early but concise discussion of the case-selection literature, see W.K. Vicusi, *Product Liability Litigation with Risk Aversion*, 17 J. LEGAL STUD. 101 (1988).

¹⁶⁰ A related concept in economics is third-degree price discrimination, under which a firm with market power is able to set different prices in different markets, as opposed charging a single price in all markets. Partial settlement allows parties the flexibility to choose different strategies for different issues, as firms able to price discriminate can choose different prices in different markets. Partial settlement may also result in certain cases being adjudicated that otherwise would have settled, just as a firm's discriminatory price in a market may facilitate commerce while the nondiscriminatory price would be too high. See Richard Schmalensee, *Output and Welfare Implications of Monopolistic Third-Degree Price Discrimination*, 71 AM. ECON. REV. 242 (1981).

¹⁶¹ In this example, we assume that scienter and damages are both necessary and complementary issues under the governing substantive law.

¹⁶² To simplify, this assumption eliminates the possibility that one of the parties can partially settle by unilaterally conceding an issue at no cost. We assume evidentiary “connectedness”—that at least some evidence in the case is relevant to multiple issues and that allowing one party to present evidence unimpeded by any response on one issue would be costly to the other party with respect to the outcome on other issues. Thus, at least some of the time, this connectedness forces a litigant to decide either to adjudicate the issue fully (at a cost) or to settle the issue beforehand. Nonetheless, the litigant cannot just not show up; it would raise his rival's costs, but these gains would not justify the losses.

be nominal—i.e., he'll lose the first battle, but win the war. The plaintiff is also 90% sure that he will win on the scienter question, and further is 95% certain that the jury will award him significant damages at the end of the trial, as well—i.e., he will win the first battle, and the war as well. How should the parties proceed?

Assume the defendant finds that disputing scienter will actually prove more costly than it is worth to him in expectation—in the narrow sense that the chance of winning on the issue multiplied by the expected outcome at the damages stage if scienter is found is not worth the cost of disputing the issue.¹⁶³ (By contrast, the plaintiff naturally finds proving scienter worthwhile in this same narrow sense—the plaintiff cannot win without it!) In this scenario, the defendant will simply settle the issue by conceding it,¹⁶⁴ or perhaps bargain non-credibly for some other concession,¹⁶⁵ attempting to extract some of the benefit the plaintiff receives through lower litigation costs. Because a finding of scienter is highly likely, there is little risk mitigation to the settlement on either side.¹⁶⁶ Examples of this sort of partial settlement behavior abound, usually where everyone is confident about the likely outcome and there will be no consequence of the concession for the outcome of future issues.

Instead, assume the defendant concludes that disputing scienter would have been worth it in expectation in the narrow sense, but litigating the issue will have negative consequences for the adjudication of the damages issue because the issues are connected; evidence presented by the plaintiff that is admissible only as to the first issue might nonetheless influence a jury's determination with respect to the second issue. On the whole, the defendant decides that the effort is not worth it.¹⁶⁷ Under these circumstances, the defendant also concedes, essentially trading with himself by happily exercising his option to stipulate to scienter, thereby settling the issue. The two main issues in this scenario are not distinct in the way separate lawsuits are usually thought to be distinct; settling one issue has consequences for the resolution of another issue.

¹⁶³ If the defendant disputes scienter, then the defendant's subjective probability of losing the case is $.90 \times .05$ or 4.5 percent. The defendant will settle the scienter issue if the litigation costs exceed the benefit (to the defendant) of a one-half-of-one percent reduction in the likelihood of losing. Note that the plaintiff gains considerably when the defendant settles scienter. The plaintiff's subjective likelihood of winning rises from $.90 \times .95$ or 85.5% to 95%. Cases where the plaintiff's expected litigation costs exceed the expected judgment, known as negative-expected-value suits, exist due to the plaintiff's expectation of a positive settlement offer (net of costs) from the defendant. Lucian Bebchuk, *Suits With Negative Expected Value*, in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 551 (Peter Newman ed., 1998).

¹⁶⁴ See Warren Schwartz & Abraham Wickelgren, *Advantage Defendant: Why Sinking Litigation Costs Makes Negative-Expected-Value Defenses but Not Negative-Expected-Value Suits Credible*, 38 J. LEGAL STUD. 235, 237 (2009).

¹⁶⁵ A defendant has nothing to lose by prolonging settlement bargaining. Schwartz & Wickelgren, *supra* note 164, at 237–38. In general, the plaintiff can credibly commit to moving forward, since the first stage is necessary to winning and pursuing the case has positive expected value. The plaintiff gets to move first and will require the defendant to move if she does, so conceding appears optimal.

¹⁶⁶ A 95% probability generates less risk aversion than a 50% probability.

¹⁶⁷ For instance, the defendant might find greater value in a partial settlement that avoids the admission of evidence that could influence a jury's perception of a second issue in the case than he would in fully litigating the first issue.

Consider the plaintiff's perspective: unlike in the first scenario, where presumably the plaintiff's position is improved because costs are reduced and because the small chance of losing the first battle has been removed,¹⁶⁸ here, the concession may actually worsen the plaintiff's position by reducing his chances of succeeding at the damages stage. Unfortunately, the plaintiff is usually powerless to prevent the defendant's concession.

It is a stretch, however, to think about these simple scenarios as settlements involving "agreements." The defendant has private reasons for conceding the issue in both cases (reducing costs and maximizing returns), regardless of the plaintiff's preferences. In addition, no partial settlement on the issue going the other way (i.e., in favor of the defendant rather than the plaintiff) is possible given the assumed construction of the cause of action and plaintiff's burden of proof. Both issues constitute necessary elements (by assumption), and so the plaintiff's conceding of any discrete issue would equate to a full settlement of (or an agreement to dismiss) the claim.¹⁶⁹ However, by complicating the scenario in two ways, true partial settlements over issues become plausible and potentially attractive alternative to parties.

Return to the initial scenario, but now assume it *is* worth it in all senses for the defendant to dispute the scienter element: in expectation, the gains from doing so outweigh the costs, plus any potential increase in risk that might result.¹⁷⁰ Assume that the plaintiff would prefer to settle the issue; the cost of proving the issue outweighs any positive consequences any adjudication on the issue might have for other parts of the case. Under what circumstances might the defendant agree to admit scienter? Consider two instances: First, imagine that the defendant has an affirmative defense for which he has the burden of proof.¹⁷¹ The defense (say, qualified immunity) has two or more necessary elements (including that the government actor must have been acting within the scope of his employment) that must both be proved by the defendant.¹⁷² Second, imagine the plaintiff has more than one way of proving the cause of action: in other words, rather than all issues being necessary, at least two are substitutes for each other and therefore offer the plaintiff at least two distinct avenues for relief. For example, in a defamation cause of action, the plaintiff

¹⁶⁸ True, in retrospect, a plaintiff may find that a case would have been less costly overall had he conceded near the outset of the litigation. But a plaintiff believes dropping out in the initial period to be a guaranteed loss, whereas proceeding to the second period has the potential to yield positive value (and on balance is expected to do so). See Schwartz & Wickelgren, *supra* note 164, at 239.

¹⁶⁹ Model civil jury instructions direct the jury to issue a verdict for the plaintiff if all elements have been proved; conversely, juries are instructed to issue a verdict for the defendant if any element has not been proved. See, e.g., MICH. MODEL CIVIL JURY INSTRUCTIONS § 16.08, at 155 (2014), available at <http://courts.mi.gov/Courts/MichiganSupremeCourt/mcji/Pages/home.aspx>.

¹⁷⁰ To clarify, settlement results in a certain outcome, while a decision *not* to settle results in an uncertain outcome and the accompanying risk.

¹⁷¹ See Bruce Hay & Kathryn E. Spier, *Burdens of Proof in Civil Litigation: An Economic Perspective*, 26 J. LEGAL STUD. 413, 427 (1997) (asserting that, when optimally assigned, "the burden of proof may minimize the expenditures devoted to gathering, presenting, and processing information in litigation").

¹⁷² See Karen M. Blum, *Qualified Immunity: A User's Manual*, 26 IND. L. REV. 187 (1992) (discussing in detail the elements defendants must prove to establish a qualified immunity defense).

might prove defamation per se or defamation per quod, alleging in the latter that actual monetary damages resulted from the false statement.¹⁷³

Under these conditions, pure issue-modification agreements can and do occur. Logrolling, in a word, allows for partial settlement of the dispute. The defendant might agree to concede scienter in exchange for the plaintiff conceding one of the elements of the affirmative defense (in other words, both are granted one “free” issue). Alternatively, the plaintiff might agree to forgo one of her two theories of liability. Whether such arrangements make sense turns on the relative advantages of continuing to litigate a partially settled dispute versus naked adjudication or fully settling the dispute. Resolving an issue (or two) presumably reduces costs;¹⁷⁴ changes in some manner the expected return (the effect is ambiguous, because it might help one party more on net than the other, as discrete issues that have some ex ante probability of going one way or the other would move either to zero or one); and may alter the uncertainty associated with the overall dispute (again, in an ambiguous way, depending on the joint probability distribution versus the marginal probability distribution). Nevertheless, it is easy to imagine cases in which partial settlement would make a lot of sense, if only to reduce costs.

It is perhaps surprising, then, that these settlements sometimes occur late in adjudication when costs are probably not a significant driver of the decision: litigants often resolve these issues and partially settle their cases while designing, bickering about, and agreeing to the jury instructions.¹⁷⁵ On both sides, clear, simple jury instructions with less substantive complexity reduce the likelihood of jury confusion.¹⁷⁶ If risk reduction or value maximization accounts for partial settlement at such a late stage, it likely matters at earlier stages as well.

Additional evidence in favor of the potential mutual attractiveness to parties of “pure” issue modification agreements can be found in the patent litigation context, in which partial settlements on particular issues appear early in the litigation timeline. Specifically, discrete issue-modification plays a significant role in “claim construction” proceedings, the absolutely critical process by which courts work out the definitions of disputed patent terms.¹⁷⁷

To provide some context, in *Markman v. Westview Instruments*,¹⁷⁸ the seminal case on patent claim construction, the Supreme Court held that district courts must determine as a matter of law

¹⁷³ See Duane L. Isham, *Libel Per Se and Libel Per Quod in Ohio*, 15 OHIO ST. L.J. 303, 303–05 (1954) (discussing differences between per se and per quod actions in the context of one type of defamation lawsuit—libel).

¹⁷⁴ Gross & Syverud, *supra* note 38, at 62.

¹⁷⁵ See Moffitt, *supra* note 81, at 501.

¹⁷⁶ J. Alexander Tanford, *The Law and Psychology of Jury Instructions*, 69 NEB. L. REV. 71, 80–82 (1990).

¹⁷⁷ In the words of Judge Kimberly Ann Moore of the Federal Circuit, “Claim construction is the single most important event in the course of a patent litigation. It defines the scope of the property right being enforced, and is often the difference between infringement and non-infringement, or validity and invalidity.” *Retractable Technologies v. Becton Dickinson*, 659 F.3d 1369, 1370 (Fed. Cir. 2011) (Moore, J., dissenting).

¹⁷⁸ 517 U.S. 370, 372 (1996).

the meaning of patent claim terms. However, neither the Supreme Court nor the Federal Circuit has offered guidance on the claim construction *process*, giving considerable leeway to district courts to manage and design appropriate procedures.¹⁷⁹ Since the *Markman* decision, more than two dozen district courts have adopted local patent rules to manage and streamline claim construction proceedings.¹⁸⁰ While the specifics of these local rules vary widely, they typically establish timetables for discovery, provide standards for document production and disclosure, and—most importantly—create significant opportunities and incentives to the parties themselves to narrow the scope of their disagreement through partial settlement.

For example, local patent rules may explicitly limit number of claim terms that parties may contest in their litigation. In the Northern District of California, which was the first jurisdiction to adopt local patent rules,¹⁸¹ parties are limited to just 10 disputed terms.¹⁸² Litigants are required to “confer for the purposes of limiting the terms in dispute by narrowing or resolving differences and facilitating the ultimate preparation of a Joint Claim Construction and Prehearing Statement. The parties shall also jointly identify the 10 terms likely to be most significant to resolving the parties’ dispute, including those terms for which construction may be case or claim dispositive.”¹⁸³ In those districts without mandated maximums, parties may be required to make a reasonable effort to narrow the scope of their disagreement.

In such an environment, discrete issue-modification agreements will be the norm, with parties settling on the definition of many terms *before* litigating the remaining terms, either the most important ones or the ones over which the litigants are most at odds. Once this process is complete, the litigants put it all on paper, by supplying the court with a claim construction statement in which they explicitly agree to interpretations of certain materially relevant terms, but

¹⁷⁹ See *Ballard Med. Prods. v. Allegiance Healthcare Corp.*, 268 F.3d 1352, 1358 (Fed. Cir. 2001). (“*Markman* does not require a district court to follow any particular procedure in conducting claim construction.”). See also Meghan M. La Belle, *The Local Rules of Patent Procedure*, 47 ARIZ. ST. L.J. 63, 67 (2015).

¹⁸⁰ See Pauline M. Pelletier, *The Impact of Local Patent Rules on Rate and Timing of Case Resolution Relative to Claim Construction: An Empirical Study of the Past Decade*, 8 J. BUS. & TECH. L. 495, 454 (2013); La Belle, *supra* note 179, at 65 (2015).

¹⁸¹ Local patent rules were adopted by the Northern District of California in 2000. The original rules, which were later revised and amended, did not include a maximum number of claim terms. See James Ware & Brian Davy, *The History, Content, Application and Influence of the Northern District of California’s Patent Local Rules*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 965, 997 (2008).

¹⁸² Pelletier, *supra* note 180, at 464, 468. Similar limits have been adopted in other districts including the Eastern District of Texas. See Ware & Davy, *supra* note 181, at 1001. Local rules arguably facilitate settlement and simplify and shorten court proceedings. According to Pelletier, seventy percent of cases settle within one year of a claim construction order in the Northern District of California. Pelletier, *supra* note 180, at 488 (Table 8). Moreover, in jurisdictions with local patent rules, more cases reach a decision on claim construction than in jurisdictions without these rules. *Id.*, at 458 (Table I.A).

¹⁸³ N.D. CAL. PAT. L. R. 4-1(b) (2014). Under N.D. CAL. PAT. L. R. 4-3(c) (2014), the parties are asked to identify “the terms whose construction will be most significant to the resolution of the case up to a maximum of 10. The parties shall also identify any term among the 10 whose construction will be case or claim dispositive. If the parties cannot agree on the 10 most significant terms, the parties shall identify the ones which they do agree are most significant and then they may evenly divide the remainder with each party identifying what it believes are the remaining most significant terms....”

also identify others as “disputed claim terms,” which they expect the court to adjudicate.¹⁸⁴ A great deal of patent litigation, therefore, is built on issue-modification agreements.

In effect, partially settling a dispute using issue-modification agreements allows the parties to carefully tailor their litigation in a way that makes continuing the adjudication more attractive than all available alternatives. By dispensing with issues about which they have shared beliefs on the likely outcomes, parties can spend less on litigation. Assuming that uncertainty as to issues is mutually orthogonal,¹⁸⁵ issue modification allows parties to reduce their exposure. Yet, at the same time, parties can continue to pursue adjudication when both are mutually optimistic about remaining (including necessary) issues, creating leverage and higher net returns.¹⁸⁶

2. Divisible Issue-Modification Agreements

One of the challenges to partial settlement in the discrete issue context is the required all-or-nothing resolution of the issue: the basic substance of many laws entails lots of *necessary* elements with the burden of proof all on one side.¹⁸⁷ In such a setting, the plaintiff can concede *nothing* without conceding everything, leaving little room for settling individual issues.¹⁸⁸ Space in which parties can partially settle must be injected into the litigation by adding alternative, substitute elements to the claim or affirmative defenses.¹⁸⁹ Alternatively, space for partial settlement can exist when issues are divisible, an idea we explore without the complex set-up from the previous Subsection, using a simple illustrative example.

¹⁸⁴ For a recent example, see Amended Joint Claim Construction and Prehearing Statement, Purdue Pharm. Prods. L.P. v. Actavis Elizabeth LLC, No. 12-cv-05311 (D.N.J. Sept. 19, 2013).

¹⁸⁵ In this context, the phrase “mutually orthogonal” refers to parties sharing beliefs with respect to some issues, but possessing subjectively divergent beliefs (i.e., mutual optimism) with respect to other, substantively *unrelated* issues. To be mutually orthogonal, two sets of issues ought to have little or no relationship with each other. Otherwise, settling on the first set of issues will alter the litigation landscape with respect to the second set of issues.

¹⁸⁶ By leverage, we mean the ability to generate a higher rate of return by earning the same absolute return (i.e., damages) on a smaller investment stake (i.e., lower litigation costs).

¹⁸⁷ For example, in a cause of action for negligence the plaintiff must prove each of the following: (1) a duty of care, (2) a breach of that duty, (3) causation (proximate and in-fact), and (4) damages. RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTIONAL HARM § 6 cmt. b (2010). And in a case for defamation, a plaintiff must establish (1) a defamatory statement, (2) publication, (3) fault, and (4) actionable harm. RESTATEMENT (SECOND) OF TORTS § 558 (1977).

¹⁸⁸ Note the analogy to a contributory-negligence system, which bars recovery to a plaintiff if his own negligence contributed *at all* to his harm. See Peter Nash Swisher, *Virginia Should Abolish the Archaic Tort Defense of Contributory Negligence and Adopt a Comparative Negligence Defense in Its Place*, 46 U. RICH. L. REV. 359, 360 n.4 (2011). Jurisdictions employing this traditional approach subscribe in effect to a *discrete* contributory-fault regime. This stands in contrast to states like New Jersey (N.J. STAT. ANN. §§ 2A:15-5.1 to -5.8 (West 2014)), New York (N.Y. C.P.L.R. § 1411 (McKinney 2014)), or California (Cal. Civ. Code. § 1714(a) (West 2014)), which have adopted comparative negligence laws. These laws provide that a plaintiff’s recovery is reduced *by the degree* to which his own negligence contributed to his harm. This is an example of a more *divisible* contributory-fault regime.

¹⁸⁹ This possibility suggests a particular empirical hypothesis: because the underlying substance of some areas of the law (but not others) is more structurally amenable to issue-modification agreements, we ought to observe, all else equal, more issue-modification partial settlements in those areas.

Assume another hypothetical cause of action with two elements: liability and damages. Because of the nature of the claim (*both* elements must be proved for the plaintiff to recover), the defendant does have wiggle room at the discrete issue level—he may concede liability if defending against the issue is not worth the associated adjudicatory costs—but the plaintiff must aver that there was *some* liability and that there were *some* damages or else fully settle. The key adjective here is “some”; any finding of liability, even a small fraction of fault attributed to the defendant, allows the plaintiff to “prevail” and recover at least some damages (although those damages may not cover costs, of course).¹⁹⁰ Damages determinations in theory offer the same flexibility.¹⁹¹ Damages could of course be transformed after the fact using a high-low agreement or some alternative, but the parties could also settle the issue before the adjudication, removing the issue from the factfinder.

We can easily extend the example from Part I with risk-averse, mutually-optimistic litigants to evaluate the concrete benefits of issue modification.¹⁹² Consider a dispute in which the plaintiff believes that the chance of prevailing at trial is sixty percent, and the defendant believes that it is forty percent. Both agree that, conditional upon a finding of liability, the court will award damages of either \$200 or \$800 with equal likelihood. So, conditional on a finding of liability, the average damages award is \$500 as before. In this scenario, the plaintiff and the defendant face more risk than previously, however. By agreeing to damages of \$500 with certainty rather than the gamble at trial between \$200 and \$800, the plaintiff and the defendant are both better off. The subjective expected values of the risky trial are the same as before, $E_p(x) = \$300$ and $E_d(x) = \$200$, but the risk premiums are smaller.¹⁹³

We have already briefly discussed real-world examples of these agreements to shed light on the potential value of award-modification.¹⁹⁴ Pure, divisible issue-modification agreements are easy to find in practice and, like high-low agreements, are easy to explain to clients.

In the context of our scenario, for instance, consider disputes in which the parties disagree over liability, but settle on the extent of damages. In the cases we have studied, these issue-modification agreements often take the form of a damages amount stipulated to the court. In

¹⁹⁰ See, e.g., *Barati v. Metro-North R.R. Commuter R.R. Co.*, 939 F. Supp. 2d 143, 145 (D. Conn. 2013). In *Barati*, the plaintiff crushed his left big toe when he lowered the load of a railroad jack onto it while working for the defendant. Although the jury found the defendant liable, they also found that the plaintiff’s own negligence had caused 60% of his injuries. The jury awarded him \$50,000 in damages, which the court reduced by 60% to \$20,000. The plaintiff was also awarded the statutory cap of \$250,000 for a count related to his wrongful discharge by the defendant, bringing his total damages award to \$270,000. Based on these liability determinations, the plaintiff’s attorneys went on to recover \$287,961.28 in attorneys’ fees and costs. *Barati v. Metro-North R.R. Co.*, 939 F. Supp. 2d 153, 159 (D. Conn. 2013) (subsequent opinion about the attorneys’ fees and expenses).

¹⁹¹ See *supra* Section II.A.2.

¹⁹² See *supra* Part I.

¹⁹³ The plaintiff’s risk premium would fall from 29 to 15, and the defendant’s would fall from 24 to 15.

¹⁹⁴ Recall that in *Oracle Corp. v. SAP AG*, Oracle eliminated an entire issue—punitive damages—in exchange for a cash side-payment; it was not a pure issue- or award-modification case. See *Oracle Corp. v. SAP AG*, No. 07-cv-01658 (N.D. Cal. Nov. 3, 2010) (partial settlement reached).

Hellsinki v. Estate of Szwondrak,¹⁹⁵ for instance, the parties agreed upfront to \$65K of damages, and only adjudicated who bore legal responsibility. The jury returned a verdict of 25% liability for the defendant,¹⁹⁶ presumably resulting in an award of \$16,250 for the plaintiff. It is worth observing that the decision to settle on the extent of damages produced an exact analog to a high-low agreement, with a high of \$65K and a low of \$0. Given that the partial settlement did not ensure any nonzero minimum damages, either the plaintiff's cost savings from stipulating damages or plaintiff's benefit from avoiding uncertainty on the issue must have been substantial,¹⁹⁷ even if the beliefs of the parties about the likely outcome of the issue were similarly aligned, making settlement on the issue mutually beneficial.¹⁹⁸

We have collected a number of these cases, and have noticed that in roughly 90% of the cases, the outcome of the adjudication was either 0% liability or 100% liability.¹⁹⁹ If this ratio is representative of all outcomes, and if evidence in favor of liability is not actually so one-sided in most cases, then liability determinations appear to be fairly risky, even relative to damages questions.²⁰⁰ Liability thus retains something of its all-or-nothing character in the eyes of the factfinder, despite being technically divisible.²⁰¹ If it is the case that liability determinations have probability distributions with fatter tails (meaning more risk), what causes parties to settle on damages as opposed to the extent of liability likely turns on some compensating advantage emerging from the other two dimensions relevant to partial settlement—i.e., how much can the

¹⁹⁵ *Hellsinki v. Estate of Szwondrak*, No. L-4196-96, 1999 WL 35218987 (N.J. Super. Ct. Apr. 1, 1999) (Verdict and Settlement Summary) (plaintiff who was hired by defendant estate to clean out house allegedly fell and suffered injuries because of inadequate house lighting).

¹⁹⁶ *Id.*

¹⁹⁷ See, e.g., Gross & Syverud, *supra* note 38, at 328; Priest & Klein, *supra* note 4, at 4

¹⁹⁸ See Bruce L. Hay & Kathryn E. Spier, *Litigation and Settlement*, in 3 *THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW* 444 (Peter Newman ed., 1998) (explaining that “settlement becomes more likely when the information of the litigants is more closely aligned,” since this makes it “easier to find mutually acceptable settlement terms”).

¹⁹⁹ In a large majority of the cases we reviewed, juries assigned either 0% liability or 100% liability to the defendant. Compare, e.g., *Iwinski v. Brantley*, No. 95-1964, 1996 WL 34605324 (Fla. Cir. Ct. Feb. 21, 1996) (Verdict and Settlement Summary) (plaintiff motorist allegedly rear-ended by defendant motorist; jury assigned 0% liability to the defendant), and *Dottoli v. McDonnell's Bar & Grill*, No. L-6900-03, 2007 WL 8026005 (N.J. Super. L. Feb. 1, 2007) (Verdict and Settlement Summary) (plaintiff sustained injuries when she allegedly fell in interior stairs of defendant's tavern; jury assigned 0% liability to the defendant), and *Daniel v. Lord & Taylor*, No. 109637/93, 1994 WL 16877087 (N.Y. Sup. Sept. 13, 1994) (Verdict and Settlement Summary) (plaintiff allegedly tripped over a clothing rack placed in the middle of the aisle in defendant department store; jury assigned 0% liability to the defendant), with *Clark v. Hines*, No. 95-0501779, 1996 WL 34605921 (Pa. C.P. Sept. 16, 1996) (Verdict and Settlement Summary) (traffic collision that occurred when plaintiff motorist made a left turn; jury assigned 100% liability to the defendant).

²⁰⁰ This seems unsurprising. Damages calculations are very different. While there is a natural break-point at zero, there are not obvious ways to select damages (say, in \$10K intervals?) in the same way as in liability determinations (0%, 25%, 50%, 75%, 100%).

²⁰¹ For instance, empirical studies have shown that, more than legal standards or instructions, narrative plays a key role in the juror decision-making process. See John H. Blume et. al., *Every Juror Wants A Story: Narrative Relevance, Third Party Guilt and the Right to Present A Defense*, 44 AM. CRIM. L. REV. 1069, 1086 (2007); see also W. LANCE BENNETT & MARTHA S. FELDMAN, *RECONSTRUCTING REALITY IN THE COURTROOM: JUSTICE AND JUDGMENT IN AMERICAN CULTURE* (1981).

parties save by stipulating to damages as opposed to liability, and how much more mutually optimistic were the parties about the outcome on the liability issue.

The mirror image of these “liability only” cases are civil trials in which the parties have partially settled their dispute by resolving the liability question, opting instead to fully adjudicate the damages question (“damages only” cases).²⁰² In our research, these agreements do not appear to be uncommon, and round numbers clearly play a role in the bargaining. In the cases we have recorded, we have found agreement to 90/10 splits,²⁰³ 80/20 splits,²⁰⁴ 75/25 splits,²⁰⁵ 70/30 splits,²⁰⁶ 60/40 splits,²⁰⁷ and 50/50 splits.²⁰⁸ Issue-modification agreements of this sort are much easier to understanding from a risk-mitigation perspective as well as from a cost-reduction perspective. Neither party has to spend precious resources proving or defending against a finding of liability, the parties agreeing to split the difference. For example, in *Panzella v. Lunny*,²⁰⁹ the plaintiff brought suit for the negligent operation of a vehicle.²¹⁰ The parties agreed in advance to off-setting liability percentages: the plaintiff agreed that she was 10% liable, and the defendant admitted to 90% liability. After what was presumably a much shorter trial, the jury awarded the plaintiff \$90,000, which was reduced by the court to \$81,000 in accord with the agreement. Thus, splitting the difference plays an important role in divisible issue-modification cases, as we would expect in any other settlement situation.²¹¹

²⁰² *E.g.*, *Mallon v. Weiss*, No. 93-CIV-0007494, 1995 WL 17998969 (S.D.N.Y. Aug. 24, 1995) (Verdict and Settlement Summary) (boating-accident case); *Widdowson v. Modine*, No. 004542/2003, 2005 WL 6934678 (N.Y. Sup. Ct. Nov. 28, 2005) (Verdict and Settlement Summary) (brush fire property damage case).

²⁰³ *See, e.g.*, *Senchyshyn v. Heijari*, No. BER-L6631-07, 2009 WL 9055003 (N.J. Super. Ct. July 2009) (Verdict and Settlement Summary) (plaintiff motorist allegedly rear-ended by defendant motorist; 10% of liability assumed by plaintiff).

²⁰⁴ *See, e.g.*, *Bryan v. Supermarkets Gen. Corp.*, No. L-07909-89, 1991 WL 446257 (N.J. Super. Ct. Feb. 1991) (Verdict and Settlement Summary) (plaintiff allegedly struck by a plastic frosting container that fell from a display stacked too high in defendant store; 20% of liability assumed by plaintiff).

²⁰⁵ *See, e.g.*, *Bill v. Jamesway Dep’t Store*, No. L-02934-89, 1000 WL 41308 (N.J. Super. Ct.) (Verdict and Settlement Summary) (plaintiff allegedly fell on a tissue paper from a shoe box in defendant store; 25% of liability assumed by plaintiff).

²⁰⁶ *See, e.g.*, *Pekovsky v. Altenburg*, No. L-003234-97, 2000 WL 36095239 (N.J. Super. Ct. May 11, 2000) (Verdict and Settlement Summary) (plaintiff motorist allegedly struck by defendant motorist who failed to yield before turning left; 30% of liability assumed by plaintiff).

²⁰⁷ *See, e.g.*, *Schwartz v. U.S. Fid. & Guar. Co.*, No. 714-955, 1990 WL 459104 (Wis. Cir. Ct. Jan. 1990) (Verdict and Settlement Summary) (plaintiff, a child, was allegedly struck by a motorist while crossing the street; 40% of liability assumed by plaintiff).

²⁰⁸ *See, e.g.*, *Neves v. Maione*, No. MRS-L-56-08, 2011 WL 5189900 (N.J. Super. Ct. Feb. 10, 2011) (Verdict and Settlement Summary) (plaintiff motorist allegedly rear-ended by defendant motorist; 50% of liability assumed by plaintiff).

²⁰⁹ *Panzella v. Lunny*, No. 11612/1999, 2001 WL 36369070 (N.Y. Sup. Ct. Aug. 8, 2001) (Verdict and Settlement Summary) (plaintiff motorist allegedly struck by defendant motorist while turning left; 10% of liability assumed by plaintiff).

²¹⁰ Plaintiff’s husband also sued for loss of consortium. *Id.*

²¹¹ For another case where the parties split the difference, see, for example, *Palimere v. Supermarkets Gen.*, No. 05186, 1989 WL 395822 (Pa. Com. Pl. Dec. 1989) (Verdict and Settlement Summary) (premises liability case where the jury awarded \$125,000 and the plaintiff received 75% of it pursuant to liability

Issue divisibility also reveals the way in which issue-modification agreements can be isomorphic to award-modification agreements.²¹² In particular, note the smooth linearity of the partial settlement in the *Panzella v. Lunny* case—effectively, the issue modification contract is equivalent to an award modification agreement with the shape $S(x) = .9x$, where x is the damages award announced by the jury.²¹³ Importantly, simple issue-modification agreements may be effective substitutes for linear award-modification agreements, and if the former are easier to understand and negotiate and explain to clients, we might understandably expect to see fewer smooth award-modification agreements in the real world.

Intriguingly, the shape of the *Panzella* settlement contrasts sharply with a kinked award-modification contract, e.g., a high-low agreement, which caps damages against extreme outcomes.²¹⁴ For example, if the jury had determined that damages were \$0 (although one supposes that this outcome was unlikely, given liability—at least “some”—had been conceded and the nature of the injury in the case), the plaintiff would have received \$0. Likewise, the upside of the award was not capped; if the jury had unexpectedly awarded \$10 million, the payment under the agreement would have been just as unexpected. The fact that the parties found this contract to be jointly beneficial may thus offer some insight into their underlying beliefs, preferences, and cost expectations about the litigation. Specifically, because the slope of the agreement is relatively steep, either the parties were not too risk averse,²¹⁵ or their beliefs about the likely outcome of the adjudication did not implicate plausibly extreme ends of the distribution (the more likely explanation, it would seem). Because neither party had to litigate the question of liability, both parties presumably spent less overall on the litigation. With the concomitant reduction in risk, it seems reasonably likely that both parties were made better off ex ante, although which party got the better deal is impossible to determine.

In the end, the complexities of discrete issue-modification agreements often disappear in the divisible-issue case because small-bore deals or marginal adjustments on divisible issues can accommodate relationships between the issues being settled and the issues being adjudicated. First, no inter-issue horse trading is required; the parties can split the difference on a single issue. Second, to the extent that settling the liability question has some consequences for the damages outcome, the parties can, for example, compensate for this spill-over by adjusting, say, a 60/40 settlement split (the ex-ante expectations of the litigants on the likely outcome on the issue had it been adjudicated) to a 70/30 settlement split. The flexibility the parties have with respect to

stipulation agreement).

²¹² This ignores other features, *see infra* Section III.B, on which these categories differ, such as the court’s necessary involvement and the fact that the jury’s decision as to damages may have been influenced by the absence of a trial on liability.

²¹³ *See supra* Figure 3.

²¹⁴ Constructing an issue-modification agreement that would mimic a high-low agreement (at least in which the low is nonzero—see Section III.C) seems likely to be a non-trivial task, certainly more complicated than reconstructing a linear modification agreement (at least for some areas of substantive law with multiplicative elements). If true, this distinction accounts for the fact that kinked award-modification agreements appear to be more common than smooth ones.

²¹⁵ We discuss this in greater detail in Section II.A.2, *supra*.

settling a single divisible issue, in fact, can accommodate the many potentially complicated consequences of altering the jury's substantive task elsewhere. In this important sense, divisible issues amount to liquidity that both parties can spend, liquidity that facilitates partial settlement by making feasible agreements mutually preferred by the parties.

C. Procedure-Modification Agreements

A procedure-modification agreement is one in which the parties agree to change how the game is played, but not how it is scored. As with issue-modification agreements, these forms of partial settlement will usually become known to the court,²¹⁶ in many cases because any such resolutions must be disclosed,²¹⁷ but not necessarily.²¹⁸ In these partially settled adjudications, the judge or jury are asked to resolve the same substantive questions (both fact and law), but the evidence with which they may be presented, the length of the trial, the extent of discovery, and even the type of factfinder are all areas of possible settlement.²¹⁹ As contract procedure scholars have recognized,²²⁰ the scope of potential compromise in this domain is wide, and everyone appears to concede that such agreements are, by definition (although with some necessary clarifying caveats),²²¹ in the parties' interests.²²² The tight correspondence of these "interests" to the basic drivers of settlement behavior, however, has received no attention.²²³ Instead, scholars

²¹⁶ See, e.g., Moffitt, *supra* note 81, at 472–473 (describing a case in which the parties explicitly presented to the court an agreement not to object to hearsay violations).

²¹⁷ See, e.g., *id.* at 463 (observing that any agreement to use a certain set of jury instructions must, by definition, be "disclosed" to the court, if only by the other party's obvious failure to object in a situation where an objection would be expected); Thornburg, *supra* note 7, at 192 ("Choice of law clauses are also enforced unless they offend a significant public policy of the state whose law would have applied absent the clause.").

²¹⁸ Moffitt, *supra* note 81, at 476 (recognizing that if parties mutually agree not to appeal a court's decision, they may choose not to disclose this agreement to the court, leaving the judge and other court personnel to assume that appellate review is still an option); *cf.* Thornburg, *supra* note 7, at 185 ("[T]he right to a jury trial is treated as a private right and can be waived by the parties through agreement or through inaction during the course of the lawsuit.").

²¹⁹ Many potential agreements appear to be off the table due to constitutional limits and public concerns about litigation and the protection of nonlitigants. See Moffitt, *supra* note 81, at 463–64.

²²⁰ Bone, *supra* note 84; Moffitt, *supra* note 81; Thornburg, *supra* note 7.

²²¹ See, in particular, our concluding thoughts below. We also make some assumptions here, such as full information on both sides. It is also the case that many *ex ante* agreements, such as consumer contracts in which consumers waive their rights to class actions in favor of mandatory alternative dispute resolution, are not necessarily "in their interest" in a conventional sense because bargaining is nonexistent. See, e.g., Jean R. Sternlight, *Panacea or Corporate Tool?: Debunking the Supreme Court's Preference for Binding Arbitration*, 74 WASH. U. L.Q. 637, 637–38 (1996) (noting the general unawareness of customers and employees who sign mandatory binding arbitration clauses as indicating a lack of bargaining).

²²² See Bone, *supra* note 84, at 1360–80 (summarizing the various arguments against procedural contracts, including: (1) inequality of bargaining power leading to concerns about consent and the potential for contracts of adhesion; (2) harm to interested third parties not privy to the agreement; (3) the failure of private parties to internalize the public costs the court system, resulting in procedural rules that reduce private costs but increase public costs; (4) increasing or skewing the risk of error, which can negatively affect future suits that rely on earlier suits as baselines for settlement, and which can negatively affect the quality of legal precedents; (5) increasing risks to judicial legitimacy).

²²³ See Moffitt, *supra* note 81, at 478–91 (offering reasons for favoring the use of contract procedure,

have envisioned “contracting over procedure” and the private ordering that results as quite unrelated to settlement behavior.²²⁴

1. Simple Procedure-Modification Agreements

À la carte procedure-modification agreements come in every shape and color—at least in theory.²²⁵ Such agreements (practically, and theoretically) are typically easier to connect to cost reduction, but not always—risk mitigation and value maximization also clearly matter with respect to at least some kinds procedure-modification agreements.

Take parties who tacitly agree to waive a jury.²²⁶ The use of a jury requires a lot of time (and money), to be sure, but parties often have some intuition about whether a jury or a judge is more likely to find in their favor (value maximization), and indeed, their respective intuitions appear uncorrelated, at least some of the time: given how common waiving a jury trial is, defendants and plaintiffs regularly act as if they both *simultaneously* believe that a judge would more likely side with them.²²⁷ A sizeable literature also exists on the possibility that juries are less predictable and more extreme in their decisions,²²⁸ perhaps as a result of polarization dynamics on juries.²²⁹ When it comes to agreeing to a new factfinder, then, parties consider all of the typical issues traditionally associated with deliberations over full settlement.²³⁰

including greater procedural fairness, efficiency, and preserving litigation as a means for dispute resolution, on the basis of values like dignity, participation, and the republican function of the jury trial).

²²⁴ See Bone, *supra* note 84, at 1354–66 (summarizing parties’ motivation for private contracting over procedure as including reducing litigation cost and speedier trials, encouraging better pre-suit behavior, and credibly signaling private information). Some of the factors Bone discusses, like reducing costs, link directly to settlement behavior. More tangentially, agreements based on the parties’ calculation of the probability of a future lawsuit are likely related to a desire to reduce risk. Although Bone comes close, he never makes these connections explicit.

²²⁵ Contract procedure scholarship does an excellent job at identifying the vast range of potential procedure-modification agreements. See Moffitt, *supra* note 81, at 465–75 (discussing an array of possible independent procedure-modification agreements involving joinder, discovery, evidence, and appeals, with specific examples, including agreements to limit permissive joinder, to prohibit requests to extend discovery, to forgo certain objections under the rules of evidence, and to waive the right to appeal); Bone, *supra* note 84, at 1342–52 (describing other procedure-modification agreements, including waivers of jury trial, choice of forum contracts, and agreements to shorten or lengthen statutes of limitations); Thornburg, *supra* note 7, at 181–82 (identifying hypothetical agreements).

²²⁶ See, e.g., *Great Earth Int’l Franchising Corp. v. Milks Dev.*, 311 F. Supp. 2d 419, 437 (S.D.N.Y. 2004) (enforcing waiver of a jury trial).

²²⁷ See Gross, *supra* note 8, at 1180 (describing these dynamics, and also offhandedly mentioning partial settlement as an idea: “the choice to try such a case before a judge represents a limited agreement between the parties—in effect, a *partial* settlement” (emphasis added)).

²²⁸ See, e.g., John Lande, *Failing Faith in Litigation? A Survey of Business Lawyers’ and Executives’ Opinions*, 3 HARV. NEGOT. L. REV. 1, 21, 33 (1988) (presenting evidence from interviews and surveys reflecting the view, particularly of business lawyers, that juries are less accurate and more extreme).

²²⁹ Cass R. Sunstein, *Deliberative Trouble? Why Groups Go to Extremes*, 110 YALE L.J. 71, 102–03 (2000).

²³⁰ See Michael J. Bolton, *Choosing to Consent to a Magistrate Judge: A Client’s View*, 61 FED. LAW. 90, 90 (2014) (reporting that parties, especially corporate parties, consent to civil trials by magistrates to

At the most basic level, parties often modify procedure by adjusting the timing and other work-a-day aspects of litigation.²³¹ It seems unlikely that these very minor procedure-modification agreements mitigate risk or increase expected returns in any tangible or predictable way; rather, these mini-settlements reduce costs by allowing the parties (specifically, their attorneys) to smooth their obligations over time, avoiding what can be the expensive bunching of deadlines. In other contexts, an almost trivial partial settlement can emerge from a simple decision not to object,²³² which might emerge out of a desire not to irritate an adjudicator. A single litigation often involves many such contracts, raising the possibility of a sequential form of bargaining and exchange.²³³ Specifically, even if a deadline extension would only benefit one party, the other party may agree in anticipation of similar treatment in the future, which reduces his costs on average in expectation.²³⁴ Because the first party expects to make more than one such request over the course of the litigation, rational cooperation can emerge; collusion between the parties may evolve into what appear as professional norms of courtesy. In reality, such concessions are almost never giveaways, but intelligent, non-cooperative practice.

Simple procedure-modification agreements work in one of at least two ways. First, they can serve as a coordinated way to change a rule of the game that necessarily imposes more costs, more risk, and possibly lower returns to one that performs better. Examples here include adhering to a briefing schedule or the rules of evidence. Neither party may wish to adhere to these procedural dictates, and yet may have no choice under the default established by the judge or the law. In other words, procedure is often not optional. Take the option to appeal: parties have the *right* to appeal certain outcomes, and have the option to file an appeal, so long as the appeal is filed within a certain number of days. An option allows a party to unilaterally choose how a dispute will unfold, and no agreement is necessary. By contrast, the appeal “deadline” is not an option, and in situations of this variety, parties may need either the leave of the judge or the consent of the other party (or both) to change the rules of the game. Procedure modification allows the parties to move from one rule to another they would prefer.

attain fairer, speedier trials with an increased likelihood of settlement).

²³¹ Bone, *supra* note 84, at 1342–52.

²³² Thornburg, *supra* note 7, at 203 (“At trial, a party can easily waive the impact of most rules of evidence simply by failing to object.”); *see also* Elizabeth G. Thornburg, *The Managerial Judge Goes to Trial*, 44 U. RICH. L. REV. 1261, 1283–84 (2010).

²³³ Lawyers may be encouraged to engage in such mini-settlements by the standards of professionalism and civility that govern their conduct. *See, e.g., Rules of Practice, Appendix V—Utah Standards of Professionalism and Civility*, U.S. DISTRICT CT. FOR THE DISTRICT OF UTAH (Dec. 1, 2014), <http://www.utd.uscourts.gov/documents/rules.html#appendv> (stating that “[l]awyers shall agree to reasonable requests for extension of time and waiver of procedural formalities when doing so will not adversely affect their client’s legitimate rights.”). Lawyers may also engage in such settlement behavior for strategic reasons that are unrelated to civility. *See* Stewart S. Manela, *Motions in Limine: On the Threshold of Evidentiary Strategy*, A.B.A. (2003), <http://apps.americanbar.org/labor/lel-aba-annual/papers/2003/strategic.pdf> (stating that “[o]bjecting repeatedly throughout a trial is guaranteed to both alienate the judge and irritate the jury”).

²³⁴ *See* David H. Taylor & Sara M. Cliffe, *Civil Procedure by Contract: A Convolved Confluence of Private Contract and Public Procedure in Need of Congressional Control*, 35 U. RICH. L. REV. 1085, 1105 (2002).

Second, simple procedure-modification agreements may allow parties to commit to behavior that is preferable (relative to the default, when both parties would retain an option), but only if the other party *also* commits to certain behavior.²³⁵ For instance, with the judge’s permission and with certain outside limits, both parties are usually free to decide what and how much evidence they present to the factfinder. Freedom of this sort, however, can be costly; it may lead both parties to (rationally, optimally) overinvest in presenting evidence that really only serves to offset the evidence of the other party (who also has the same incentives).²³⁶ Consequently, the parties might profitably agree to limit the number of experts in their case.²³⁷ The basic idea that parties might mutually tie each other to the mast to reduce costs is not new.²³⁸ What is new, however, is the interpretation of what is happening in such situations and the implications of this interpretation: procedure-modification agreements, like all other partial settlements, work to slowly align litigants, allowing them to jointly optimize in the face of a dispute.²³⁹ In this sense, procedure-modification agreements are simply a very direct way of achieving what settlement does more generally and in a more complete way: fully settling a case allows each party to commit to avoid overdoing evidence at trial; in this case, by reducing the payoff to zero. Procedural agreements accomplish this more directly by increasing the price of overmuch expert testimony, which has the immediate effect of reducing overall expenditures.

Agreements to restrict the presentation of evidence appear to fit clearly in the camp of reducing costs, as do many of the typical à la carte procedure-modification agreements: limiting discovery,²⁴⁰ agreeing to use a magistrate,²⁴¹ tolling agreements,²⁴² among others.²⁴³ But one

²³⁵ See, e.g., Moffitt, *supra* note 81, at 472–73 (reporting a case in which each side agreed to allow experts to testify about what would otherwise be hearsay, essentially colluding to ignore the rules of evidence, presumably because each party concluded that the effect of its expert’s testimony would outweigh the effect of the other side’s expert).

²³⁶ See Prescott et al., *supra* note 12, at 728–29 (explaining how high-low agreements naturally allow both parties to avoid overinvestment in litigation); see also Moffitt, *supra* note 81, at 470–71 (discussing how parties may avoid overinvestment through mutually agreed-upon limits on discovery and by setting a tight discovery schedule that is enforced by judicial order).

²³⁷ The savings associated with reducing the number of expert witnesses have been widely acknowledged. See, e.g., Robert J. Grey, Jr., *Striving for a Just Solution: Our Work to Improve the Dispute Resolution System Benefits Society and the Profession*, A.B.A. J., July 2005, at 6, 6 (noting that certain jurisdictions have managed the time and costs associated with litigation by successfully employing “creative approaches [which include] . . . reducing the number of expert witnesses”).

²³⁸ For instance, Michael Moffitt relies on the classic *Odyssey* allusion to ask, “Could litigants lash themselves to the mast of a particular set of discovery rules and fill judges’ ears with wax?” Moffitt, *supra* note 81, at 471. He goes on to note that because discovery represents such a significant component of litigation, litigants might mutually desire mechanisms for limiting its use. *Id.* When stretched, however, the weaknesses of this theoretical frame are apparent. It is not clear why the parties would not simply seek to renegotiate and free themselves from their commitments if doing so later became mutually beneficial. Litigation is unpredictable, and so one would expect precisely this sort of bargaining.

²³⁹ See, e.g., *Jane Doe v. Unnamed Restaurant*, 2007 WL 2491507 (Cal. Sup. Ct. June 7, 2007) (Verdict and Settlement Summary) (slip-and-fall dispute in which the parties agreed to accept one orthopedic surgery expert’s evaluation of the plaintiff’s condition as relevant injury evidence).

²⁴⁰ See Jay E. Grenig, *Stipulations Regarding Discovery Procedure*, 21 AM. J. TRIAL ADVOC. 547, 563 (1999) (concluding that effective use of discovery stipulations can save all parties time and money); see also FED. R. CIV. P. 29 advisory committee notes (encouraging parties “to agree on less expensive and time-consuming methods to obtain information” during discovery).

implication of this analysis is that we ought to be able to identify procedure-modification agreements that also mitigate risk and enhance value, as full settlement does.²⁴⁴ One example has already been given above—agreeing to use a judge instead of a jury. Swapping out the factfinder actually fits the bill for all three functions of settlement, but risk reduction and increased returns seem more at the core of what parties appear to care about when agreeing to this partial settlement. While the use of a judge probably does reduce costs on the whole by eliminating the time and effort that go into empaneling a jury,²⁴⁵ most litigants opt for judges because they are thought to be more predictable (reducing risk premiums on both sides) *and/or* because both sides are more confident that a judge (as opposed to a jury) will find in their favor.²⁴⁶

Another useful example is a mutual agreement between the parties to keep all feasible aspects of the litigation secret.²⁴⁷ Maintaining secrecy in return for the other side doing the same is likely to increase out-of-pocket costs on both sides, and seems unlikely to affect the actual outcome of the adjudication. Rather, both parties appear to be limiting the risk of the trial by reducing the possibility of spillover effects from discovery (influencing primary activity or other ongoing litigation) or the outcome of the litigation itself.

Settling on the use of a “bellwether,” by contrast, appears to modify procedure in a way that reduces litigation costs, allowing the parties to more profitably continue the litigation, but at the price of greater risk.²⁴⁸ When a case is composed of many distinct and often almost identical

²⁴¹ See R. Lawrence Dessem, *The Role of the Federal Magistrate Judge in Civil Justice Reform*, 67 ST. JOHN'S L. REV. 799, 828–29 (1993) (arguing that consenting to trial before a magistrate judge offers the possibility of an earlier trial date and reduced cost and delay).

²⁴² By agreeing to toll the statute of limitations on a claim, parties have more time to negotiate before a suit must be filed, and expensive litigation might be avoided. See Ronald J. Scalise, Jr., *For Whom the Clock Tolls*, 61 LA. B.J. 182, 183 (2013) (recognizing that tolling agreements allow extra time for pre-litigation negotiations, avoiding costs for parties and courts).

²⁴³ For example, parties may agree to litigate in a different forum than would otherwise decide their dispute in order to reduce costs and for greater convenience. See Moffitt, *supra* note 81, at 492–93. Parties may also consent to a smaller jury to reduce the cost of jury selection; similarly, parties may consent to judgment on a non-unanimous jury verdict, to reduce the length of the trial. See FED. R. CIV. P. 48.

²⁴⁴ This is not strictly true; as we'll see in Part III, there may be good reasons why substitute issue-modification and award-modification agreements might better accomplish these goals.

²⁴⁵ See Thornburg, *supra* note 7, at 190 (concluding that the “reduced expense and delay” of bench trials are desirable for judges and parties).

²⁴⁶ Most litigants believe juries are more likely than judges to award higher damages and are less predictable in their judgments. By opting for a bench trial, parties can reduce their perceived risk, particularly if the identity of the judge, and the judge's history of decisions in previous cases, is known ahead of time. Gross, *supra* note 8, at 1185.

²⁴⁷ For an overview of the practical arguments for and against confidentiality in civil litigation, see Jack H. Friedenthal, *Secrecy in Civil Litigation: Discovery and Party Agreements*, 9 J.L. & POL'Y 67, 76–98 (2000). For a discussion of how parties may use information suppression as a bargaining chip in litigation, see Judith Resnik, *Procedure as Contract*, 80 NOTRE DAME L. REV. 593, 653 (2005). A mutual agreement to keep litigation and settlement terms secret may benefit parties in different ways. Defendants prefer to avoid negative publicity and to keep damaging evidence out of other litigation. Plaintiffs may receive a larger settlement than they otherwise would by agreeing to keep quiet. See Martha Neil, *Confidential Settlements Scrutinized*, 88 A.B.A. J., July 2002, at 20, 22 (2002).

²⁴⁸ In common parlance, a “bellwether” refers to an indicator or predictor of something. See *bellwether*,

mini-disputes,²⁴⁹ rather than try each issue or determine each fact separately, parties may agree to draw a sample of representative mini-disputes (perhaps even just one),²⁵⁰ and then extrapolate from these “bellwether” findings to conclude the entire case.²⁵¹ Bellwether trials can be complex.²⁵² Consider, for example, a prominent 1990 asbestos case in Texas involving three thousand wrongful death claims.²⁵³ The judge “allocated [160 claims] into five disease categories and averaged the awards, including zero awards, within those categories,” ultimately calculating awards for the rest of the plaintiffs on the basis of their membership in a particular disease group.²⁵⁴ All else equal, rolling the dice by use of a bellwether increases risk, but the parties can control the cost/risk trade-off with precision by choosing the size and contours of the sample, the method of extrapolation, and averaging techniques (e.g., mean, median or mode).

Two other kinds of agreements are often considered “procedural,” but may be better fitted in the award-modification category: agreements that limit appeal rights and agreements that affect fee shifting.²⁵⁵ Both “operate” after the conclusion of the adjudication:²⁵⁶ an agreement limiting appeal does not “bind” until one party has received very bad news, and fee-shifting agreements are effectively a formula that depends in part on the outcome of the adjudication. Nevertheless, both are clearly partial settlements (illustrating again the isomorphism of partial settlements), and both seem unlikely to primarily target cost reduction.

First, appeal waiver agreements have an ambiguous effect on cost reduction; no second bite at the apple eliminates the expected cost of litigating the second bite, but also increases the incentives to invest in first-bite litigation.²⁵⁷ In practice, however, the mere existence of waivers

MERRIAM-WEBSTER.COM, <http://www.merriam-webster.com/dictionary/bellwether> (defining “bellwether” as “something that . . . shows what will happen in the future”).

²⁴⁹ Mass tort cases, in which a single wrongdoer is alleged to have harmed many individuals in roughly the same way, often fit the bill. Richard O. Faulk et al., *Building a Better Mousetrap? A New Approach to Trying Mass Tort Cases*, 29 TEX. TECH L. REV. 779, 791 (1998).

²⁵⁰ See, e.g., *Am. Geophysical Union v. Texaco*, 802 F. Supp. 1, 5 & n.1 (S.D.N.Y. 1992), *aff’d* 60 F.3d 913 (2d Cir. 1994).

²⁵¹ Alexandra D. Lahav, *Bellwether Trials*, 76 GEO. WASH. L. REV. 576, 581–82 (2007).

²⁵² See, e.g., Faulk et al., *supra* note 249, at 791–97 (discussing the complexities involved in selecting a representative sample of cases that can constitute bellwether trials); Lahav, *supra* note 251, at 605–10 (discussing the complexities involved in determining representativeness of cases and the variables used for extrapolation).

²⁵³ Lahav, *supra* note 251, at 583.

²⁵⁴ *Id.* at 584.

²⁵⁵ Likewise, while high-low agreements are most readily described as award-modification agreements, some commentators have considered them to be “procedural.” See, e.g., Jolly, *supra* note 96 (describing non-disclosed high-low agreements as “procedural contracts that modify the jury’s adjudicative role”); Moffitt, *supra* note 81, at 497 (describing high-low agreements as “an option for extrajudicial customization of the litigation experience”).

²⁵⁶ But see James E. Pfander & David R. Pekarek Krohn, *Interlocutory Review by Agreement of the Parties: A Preliminary Analysis*, 105 NW. U. L. REV. 1043, 1058 (2011) (arguing that financial incentives may lead parties to mutually agree to interlocutory review when “early resolution of controlling questions of law can obviate the necessity for trial, provide important information to shape the way the case proceeds to trial, and eliminate the possibility of a post-trial appellate invalidation of the judgment”).

²⁵⁷ See Steven Shavell, *On the Design of the Appeals Process: The Optimal Use of Discretionary*

hints that the former effect might outweigh the latter. Risk mitigation seems unlikely to explain such waivers: by eliminating error detection, such agreements appear to unambiguously increase risk.²⁵⁸ On the other hand, appeal waivers may increase litigants' perceived ex ante return under conditions of mutual optimism. In effect, both parties are happy to dispense with any appeal because neither party seriously expects to lose in the first place!

Agreements that alter the post-adjudication allocation of fees show a similar dynamic, and therefore have a complicated, ambiguous relationship to litigation costs. But, assuming the parties agree to replace the American Rule (pay your own way) with the English Rule (loser pays), risk for both parties *increases*, but presumably by too little to offset the higher returns expected when the parties are sufficiently mutually optimistic.²⁵⁹

Potential procedure-modification agreements thus run the gamut. The theoretical list of ways that parties can mold their dispute to enhance its value is virtually limitless, but all tend to the same three goals underlying settlement: reducing costs, mitigating risk, and maximizing return. When discussing procedure-modification agreements, it is important to remember that it is not necessary that *both* parties prefer a single new rule in an absolute sense; as before, exchange can occur between litigants. To return to one of our hypotheticals above, one party may be indifferent or even prefer having the rules of evidence enforced, but may also desperately prefer a different briefing schedule. The other party may have the opposite preference, a situation that leaves room for gains in trade. These potential gains, when they can occur on both sides, should result in partial settlement, either improving the outlook for both parties, or reducing the scope of potential loss during the adjudication by mitigating risk or reducing future litigation costs. In other words, these agreements move the litigation down the settlement path.

Review Versus Direct Appeal, 39 J. LEGAL STUD. 63, 64 (2010) (arguing that the availability and scope of appellate review affects social, judicial, and private costs); *see also* Moffitt, *supra* note 81, at 475–78 (discussing appeal waivers and arguing that “prelitigation customization that reduces or eliminates the prospect of appeal would merely change the timing of the decision whether to appeal”).

²⁵⁸ There is also a question in any given case of whether the appeal waiver is even necessary in light of the scope of appeals and the types of issues that may be appealed. *See generally* Steven Shavell, *The Appeals Process as a Means of Error Correction*, 24 J. LEGAL STUD. 379, 418–20 (1995).

²⁵⁹ To see the underlying logic, revisit the example from Part I with risk-averse, mutually-optimistic litigants. Assume the damages are commonly known and equal to \$500. The plaintiff believes that the chance of prevailing at trial is sixty percent, and the defendant believes that it is forty percent. The risk premiums were $r_p = r_d = \$15$, and the litigation costs are $c_p = c_d = \$30$. The plaintiff's certainty equivalent from trial is $.6 \times (\$500) - c_p - r_p = \$300 - \$30 - \$15 = \$255$ and the defendant's certainty equivalent is $.4 \times (\$500) + c_d + r_d = \$200 + \$30 + \$15 = \$245$. Now suppose that the costs are shifted, so the plaintiff receives the full \$500 if the case is won but must pay a total of $c_p + c_d = \$60$ if the case is lost. This has two effects. First, ignoring the effect on the risk premiums, this will increase the subjective values of both the plaintiff and the defendant. The plaintiff would rather pay $c_p + c_d = \$60$ forty percent of the time (an expected value of \$24), than pay $c_p = \$30$ one hundred percent of the time. The defendant sees a similar advantage, since from the defendant's perspective the expected litigation costs are \$24 instead of \$60. Second, fee shifting will create more risk and so the risk premiums will increase. In this example, the increase in the risk premiums is relatively small (they rise from \$15 to \$19). So the litigants would find it in their mutual interest to shift the litigation costs, thereby confidently gambling on (or, rather, investing in) the trial.

2. Bundled Procedure-Modification Agreements

On the menu are not just individual procedural adjustments that must be cobbled together by the parties in the shadow of naked adjudication, but bundles of changes, often designed and sanctioned by “neutral” third parties long before the dispute arose. Classically, parties may agree to forgo traditional adjudication in a court altogether in favor of third-party arbitration.²⁶⁰ While the underlying law would be the same (no issue or award modification), the way the adjudication would play out on the ground would differ in many significant respects. The full package would not be perfectly tailored for every dispute, but the fact that arbitration is relatively well-understood and has been “pre-packaged” likely means that a bundled agreement is significantly easier to negotiate (switching from one default regime to another) in the face of a dispute than is a series of piece-meal negotiations between parties at odds.

Traditionally, arbitration is thought to be faster and less costly,²⁶¹ but arbitration swaps out a jury in favor of another, typically more experienced arbitrator, and almost certainly affects the evidence that will be heard, and so risk mitigation may also play an important role.²⁶² This may be especially true where the arbitration agreed to occurs before a panel selected by the parties to insure against an extreme outcome. Parties also increasingly make use of summary jury trial options (SJT). As bundles of procedure-modification agreements, SJTs are actually adjudications within courts (and usually before judges), but parties commit to very stringent fixed limits on the presentation of evidence, as well as a relatively fixed set of choices that parties must make one way or the other at the time they agree to the bundle.²⁶³ SJTs are at least in part designed to encourage full settlement,²⁶⁴ but even a complete SJT adjudication is much further along the continuum toward settlement relative to a naked adjudication.

On the whole, there is very little to distinguish policies self-consciously designed to encourage full settlement from policies offering off-the-rack bundles of procedure-modification

²⁶⁰ For over thirty years, the Supreme Court has explicitly recognized a strong federal policy favoring arbitration. *See, e.g.,* *Moses H. Cone Mem'l Hosp. v. Mercury Constr. Corp.*, 460 U.S. 1, 24–25 (1983).

²⁶¹ *See* Eric J. Mogilnicki & Kirk D. Jensen, *Arbitration and Unconscionability*, 19 GA. ST. U. L. REV. 761, 762–65 (2003). *But see* Noyes, *supra* note 82, at 584–94 (arguing that arbitration may not necessarily be faster and cheaper than litigation).

²⁶² *See* Theodore Eisenberg et al., *Arbitration's Summer Soldiers: An Empirical Study of Arbitration Clauses in Consumer and Nonconsumer Contracts*, 41 U. MICH. J.L. REFORM 871, 872 (2008) (“Professional arbitrators are neutral, outcomes are at least as favorable to consumers as the outcomes of litigation, and a majority of participants express satisfaction with the process.”); *see also* Christopher R. Drahozal, *A Behavioral Analysis of Private Judging*, 67 LAW & CONTEMP. PROBS. 105, 105–106 (2004) (arguing that private arbitrators may be less subject to the effects of certain cognitive illusions than judges or juries, and thereby producing “‘better’ decisions”).

²⁶³ For an overview of the various forms of summary jury trials, *see generally* Steven Croley, *Summary Jury Trials in Charleston County, South Carolina*, 41 LOY. L.A. L. REV. 1585 (2008), and Jeremy P. Ehrlich, *The Expedited Jury Trials Act: Enhancing Access, Reducing Costs, and Increasing Efficiency*, 42 MCGEORGE L. REV. 515 (2011).

²⁶⁴ *See* Ehrlich, *supra* note 263, at 519 (noting that California adopted a summary jury trial program in part for the purpose of enhancing settlements); Telephone Interview with Lucindo Suarez, Statewide Coordinating Judge for Summary Jury Trials in New York (Dec. 17, 2014).

agreements for parties to employ. The limited number of choices and the limited number of options per choice likely makes agreement on something—or something more substantial than otherwise—much easier. Furthermore, because disinterested third parties typically set the ground rules for these bundles of changes, parties appear more open to considering them than they might be if opposing counsel were to suggest a similar set of procedures.²⁶⁵ In the end, the inducements of full settlement—fewer costs, less risk, and better outcomes—also support the use and growth of bundled procedure-modification agreements, and perhaps justify fewer of the objections made by scholars who view private contract procedure as socially problematic.

PART III: PARTIAL SETTLEMENTS AS COMPLEMENTS AND SUBSTITUTES

By entirely eliminating adjudication, full settlements are like happy families, essentially identical to each other.²⁶⁶ The terms of the agreements and the actual exchanges, of course, vary considerably, but by concluding the dispute and leaving nothing left to adjudicate,²⁶⁷ each full settlement lies at the same point—the end—on the adjudication/settlement continuum. Like unhappy families, and like naked adjudications, disputes involving partial settlements (even identical partial settlements) necessarily retain their distinctiveness—if only because the adjudication counterpart remains. The world of partial settlements is thus just as complex as the world of civil adjudication. Indeed, they are mirror images of each other.

In Part II of this paper, we sought to identify and carefully describe three classes of partial settlement contracts. We defended two additional claims as well. First, litigants can and do enter into partial settlement agreements that involve only terms arising from a *single* partial settlement class. Specifically, both parties can benefit even if they are limited to exchanging *only* award-modification terms, *only* issue-modification terms, or *only* procedure-modification terms.²⁶⁸ Second, when parties do agree to partially settle a dispute, they do so because, by definition, they are better off, and better off *for the same reasons* that parties who find it optimal to fully settle are better off.²⁶⁹ Settlement is simply the parties agreeing to alter the means of resolving their dispute

²⁶⁵ See generally Leonard L. Riskin, *Understanding Mediators' Orientations, Strategies, and Techniques: A Grid for the Perplexed*, 1 HARV. NEGOT. L. REV. 7 (1996) (outlining the benefits of third-party neutrals and their ability to evaluate and facilitate disputes so as to promote cooperation).

²⁶⁶ Cf. LEO TOLSTOY, ANNA KARENINA 1 (Everyman's Library ed., Louise & Aylmer Maude trans., 1992) (1877).

²⁶⁷ Or, rather, significantly less left to adjudicate. See *supra* notes 17–18 and accompanying text (questioning full settlement as an idea, in light of parties' ability to renegotiate, either by mutual agreement or by attacking the terms and conditions of the settlement *ex post*).

²⁶⁸ As we note, issue-modification agreements may not be possible in particular cases involving specific structures of substantive law. For example, plaintiffs may have nothing to trade (other than full settlement) when the cause of action involves only a few discrete and necessary elements.

²⁶⁹ Our short discussion of welfare considerations in the conclusion observes that this claim requires a very particular way of valuing beliefs if we are interested *not* in what the parties will do but in how society ought to value their choices. As we note early in this article, see *supra* Part I, when *ex post* “facts” rather than *ex ante* “beliefs” provide the foundation for welfare calculations, parties need not be better off as the result of a partial settlement agreement.

to make the experience jointly optimal. Often this results in full settlement, but sometimes pursuing lower costs, less risk, and higher returns points *not* to fully settling the case, but to relying on third parties or institutions to fill a few carefully defined gaps. Settlements thus arise from parties repositioning themselves in the shadow of a dispute, either settling in and preparing for a fight, or mutually declaring an end to hostilities.

But if settlement behavior is simply parties working to optimally redefine adjudication in light of their joint resources, beliefs, and preferences, it should be no surprise that parties do not stick to working only within a particular category of partial settlements. Rather, litigants choose to mix and mingle settlement terms when doing so produces a more attractive package. In this sense, partial settlement terms of all stripes can be used together as *complements*,²⁷⁰ with the possibility of adjusting one term making the possibility of adjusting another much more beneficial. At the same time, because different terms from different settlement categories may produce similar effects in terms of cost reduction, risk mitigation, or greater expected returns, terms from one category can serve as *substitutes* for terms from another category.²⁷¹ Indeed, the fact that certain combinations of terms can serve as effective substitutes for others may explain why we observe only some of the combinations that theory would predict.

A. Complements in Partial Settlements

Partial settlement terms from different categories can complement each other in at least two ways. First, the fact that there are more terms to trade in three categories, rather than one, means that there are simply more partial settlement combinations that might be preferred to full settlement or naked adjudication.²⁷² Second, certain terms may be more attractive in partial settlement negotiations when they can be combined with terms from other categories, either because the combination of two or more terms is more than the sum of its parts,²⁷³ or because the combination helps litigants capitalize on the benefits of the terms while mitigating or eliminating the downsides of their use.²⁷⁴ Relatedly, the possibility of more complicated packages helps to

²⁷⁰ The *Oxford Dictionary of Economics* defines “complementarity” as “[a] relation between two goods or services in which a rise in the price of one decreases demand for the other, because these goods are often purchased and/or used together.” JOHN BLACK ET AL., A DICTIONARY OF ECONOMICS 73 (4th ed. 2012).

²⁷¹ The *Oxford Dictionary of Economics* defines “substitute” as follows: “At an informal level, one good or service is a substitute for another if it can be used to satisfy the same need, or at least a similar need. Formally, a pair of goods are said to be substitutes if, holding the utility level constant, a rise in the price of one of them increases demand for the other.” BLACK ET AL., *supra* note 270, at ***. How strong any substitutability is in this context depends not just on its relative effects on the three functions of settlement but also on outside considerations like the visibility of the agreement to the public.

²⁷² Liquidity in specie and flexibility in negotiation increase the size of the bargaining zone.

²⁷³ For example, combining two terms may reduce risk in a multiplicative rather than in an additive way. So, if two particular terms reduce risk by three units when employed alone, they may reduce risk by nine units when employed together.

²⁷⁴ Imagine a liquidity-constrained party that is unable to accept any partial settlement that will increase its litigation costs. Now imagine a partial settlement term that reduces risk by ten units but also increases costs by five units. While normally off the table, this term becomes not just attractive but viable when it is combined with a term that increases risk by one unit but reduces costs by five units. By combining these two terms, the party can reduce risk by nine units at no additional cost.

overcome the fact that some terms are lumpier or discrete (e.g., it is not possible to waive 50% of a jury), a feature that can interfere with the ability of the parties to identify a partial settlement that is superior to full settlement or naked adjudication.

In practice, we observe many partial settlements with terms originating from more than one category, even leaving to one side the fact that virtually every adjudicated case involves some number of procedure-modification agreements. A common example is a defendant waiving liability (an issue-modification term) in exchange for the plaintiff's agreement to a damages cap or a high-low agreement (an award-modification term).²⁷⁵ Of significance is the fact that a damages cap can be very precisely calibrated to ensure that the stipulation to liability is attractive for the defendant. To a lesser extent, the defendant's stipulation to liability can also be calibrated; as we have seen, defendants can stipulate to specific percentages of liability (usually round numbers) in exchange for set damages, a damages cap, or high-low agreement.²⁷⁶ Although likely more difficult for parties to value (because their relationship to the ultimate outcome of the adjudication is more ambiguous), procedure-modification agreements also come in small denominations, and may serve to ease partial settlement activity.

In other words, when there are just a few discrete issues are on the table, plaintiffs often must rely on award-modification or procedure-modification terms to compensate a defendant for any agreement to a pro-plaintiff issue-modification term.²⁷⁷ If the plaintiff *must* prove two necessary, reasonably discrete issues to prevail, but would benefit significantly from the defendant's agreeing to waive a particular substantive defense, trade on issue-modification terms alone is impossible. Instead, in exchange for the waiver, the plaintiff may agree to a limitation on how

²⁷⁵ See, e.g., *Princic v. Clarkin*, No. CV-95-21, 1996 WL 696129 (Me. Super. Ct. July 1, 1996) (Verdict and Settlement Summary) (plaintiff motorist allegedly rear-ended by defendant motorist); *Kim v. Schulman*, No. 700405/11, 2014 WL 1088243 (N.Y. Sup. Ct. Feb. 4, 2014) (Verdict and Settlement Summary) (same); *Debenedetto v. Ruscotto*, No. 001821/01, 2004 WL 6221367 (N.Y. Sup. Ct. Apr. 1, 2004) (Verdict and Settlement Summary) (same); *Gardner v. Chienku*, No. L114093, 1993 WL 765193 (Va. Cir. Ct. Apr. 1, 1993) (Verdict and Settlement Summary) (plaintiff motorist allegedly struck head-on by defendant motorist).

²⁷⁶ See, e.g., *Sandy v. Propper*, No. 8218/94, 1998 WL 35468299 (N.Y. Sup. Ct. Dec. 14, 1998) (Verdict and Settlement Summary) (plaintiff motorist allegedly struck by defendant motorist when defendant motorist made a left turn onto the plaintiff motorist's path).

²⁷⁷ In some instances, procedure modification alone can pay for issue modification. See, e.g., *Steelman v. Sicari*, No. L-000018-05, 2007 WL 8025954 (N.J. Super. Ct. Jan. 1, 2007) (Verdict and Settlement Summary) (involving a partial settlement in which the defendant stipulated liability in exchange for expediting trial by excluding medical testimony). In other instances, procedure modification is exchanged for award modification. See, e.g., *Lewis v. Scott*, No. 37-2013-00052155, 2014 WL 3721315 (Cal. Super. Ct. July 9, 2014) (Verdict and Settlement Summary) (involving a partial settlement in which the parties agreed both to expedite trial and to a high-low agreement); *Rose v. Kosmin*, 1000 WL 179201 (Unknown State Ct. (N.J.)) (Verdict and Settlement Summary) (involving a partial settlement in which the parties agreed to exclude medical testimony and to cap damages at \$25,000).

much evidence he can present on one of the two necessary issues,²⁷⁸ sufficiently reducing the claim's chance of prevailing to make the package attractive to the defendant.²⁷⁹

B. Substitutes in Partial Settlements

Partial settlements can take many shapes, but they all target cost reduction, risk mitigation, and maximizing returns. Consequently, whenever a cat needs skinning, there is usually more than one way to do it. When discussing award-modification agreements, we noted that despite the fact that linear contracts (which take the form $S(x) = t + bx$) ought to be optimal (or near optimal) under certain typical circumstances, we see far more kinked award-modification agreements (like high-low contracts) than we see smooth agreements. One possibility is that negotiating a smooth contract, even a linear one (which requires only two terms) may be more difficult than identifying an issue-modification agreement that accomplishes something similar, as in *Panzella v. Lunny*, where the parties agreed that the defendant was 90% liable, and so would pay 90% of the damages figure produced by the jury. Having selected the slope (b), no side payment may have been required ($t = 0$), or the parties may have agreed to some procedural change likely to benefit one party more than the other to even the playing field.²⁸⁰

Although one can play with the idea of rebuilding each partial settlement in different ways using pieces from all three categories of terms, there are a few unique features to each category that weakens substitutability across categories.²⁸¹

Award-modification agreements, for instance, need not be disclosed to the court or the jury,²⁸² which potentially facilitates negotiation and allows a different level of collaboration between the parties, since bargaining can occur behind closed doors and will not influence the

²⁷⁸ In other words, parties may use procedure-modification terms to make substantive elements and defenses *effectively* divisible even when they are discrete on their face.

²⁷⁹ We also observe partial settlements involving terms originating from all three categories. One common combination involved a procedure-modification term to expedite the trial, an issue-modification term by which the defendant waives liability, and an award-modification term that capped damages. *See, e.g.,* *Kates v. Ruiz*, No. CAML-002239-11, 2013 WL 2003161 (N.J. Super. Ct. Jan. 28, 2013) (Verdict and Settlement Summary); *Bianchini v. Ulrich*, No. MIDL-007668-09, 2012 WL 6653469 (N.J. Super. Ct. June 5, 2012) (Verdict and Settlement Summary); *Glenn v. Iman*, No. PAS-L-5047-07, 2010 WL 2509995 (N.J. Super. Ct. May 27, 2010) (Verdict and Settlement Summary); *Sealer v. Whitaker*, 2009 WL 9055089 (N.J. Super. Ct. Mar. 1, 2009) (Verdict and Settlement Summary); *Yanez v. Calvert*, No. ESX-L-7823-07, 2010 WL 751908 (N.J. Super. Ct. Feb. 9, 2010) (Verdict and Settlement Summary).

²⁸⁰ By contrast, using issue-modification and procedure-modification to replicate a high-low agreement with a non-zero low seems more difficult in principle.

²⁸¹ One important friction arises from the ethics rule or professional norm that appears to require that an attorney obtain client consent to any partial settlement involving a monetary term. We surmise that one of the reasons financial side payments are relatively rare, for instance, is that they require client consent, and thus are more costly for lawyers to negotiate. High-low agreements and other award-modification terms also seem likely to require client consent. By contrast, presumably almost all procedure-modification terms and many issue-modification terms (e.g., waiving a defense) are within a lawyer's strategic discretion, making them, all else equal, much easier to employ.

²⁸² *See, e.g.,* Jolly, *supra* note 96.

factfinder's perception of the dispute.²⁸³ On the other hand, because they do not affect the adjudication directly, award-modification terms cannot always “undo” all of the consequences that might flow from a naked adjudication. For this reason, in the *Oracle v. SAP* case,²⁸⁴ we do not see an agreement in which the parties contract to disregard any punitive damages award. Rather, the defendant not surprisingly preferred that a jury not even *announce* any such award,²⁸⁵ and so the parties opted for a mostly issue-modification approach instead. Where there are no such spillovers, however, it would seem that award-modification provisions trade in terms that the parties ultimately care about the most—damages.

Procedural modifications are more difficult to gauge in terms of their likely effects on the outcome of the adjudication. How to translate limited discovery into lower costs is one thing; figuring out how it will affect the outcome of the trial requires more experience and more calculation than simply agreeing to limits at the outset and is therefore quite another.²⁸⁶ For its part, the usefulness of modifying issues is limited by the category's defining features: how many issues there are, how divisible they are, and how they interact.²⁸⁷ Where issues are discrete, issue modification is often too blunt of a tool to be able to replicate precisely the effects of a narrow procedure-modification agreement that can fine-tune changes in risk or costs, such as opting for a magistrate over a judge, or extending the time to complete discovery.

Despite these limits, the fact is that all three categories of partial settlements ultimately serve one or more of the same ends—reducing costs, mitigating risks, and maximizing returns. This cross-category correspondence in function makes clear that, at least when they are likely to generate similar mixes of benefits to the parties, partial settlement terms from the same and different categories will serve as rough substitutes for each other. One important implication is that certain partial settlement terms that have particularly close and attractive substitutes may rarely be seen in practice.

²⁸³ It is easier for parties to reach an agreement if they can speak freely with each other, without fear that their statements will be used against them in trial. See FED. R. EVID. 408 advisory committee's note (settlement communications are “inhibited” when they are admissible). Parties may also wish to avoid distortion of damages awards through “anchoring” effects created by jury awareness of an award-modification agreement or damage cap. See Rebecca Hollander-Blumoff & Matthew T. Bodie, *The Effects of Jury Ignorance About Damage Caps*, 90 IOWA L. REV. 1361, 1363, 1377 (2005) (discussing how damages award can be skewed by the jury's knowledge of specific statutory damage caps).

²⁸⁴ *Oracle Corp. v. SAP AG*, No. 07-cv-01658 (N.D. Cal. Nov. 3, 2010) (partial settlement reached).

²⁸⁵ The reasoning behind this preference, however, is unclear. Some commentators have suggested that little stigma attaches to a punitive damages award, although *Oracle v. SAP* was no ordinary case. See Jill Wieber Lens, *Justice Holmes's Bad Man and the Depleted Purposes of Punitive Damages*, 101 KY. L.J. 789, 818 (2013) (“The notorious difficulty of establishing actual harm or damages in a defamation claim also shows that any alleged reputational harm resulting from a punitive damage award likely does not affect the defendant materially. Simply put, it is difficult to show actual harm caused by a damaged reputation.”).

²⁸⁶ One of the relative advantages of procedure modification—and surely one of the reasons for its pervasiveness as a mode of settlement—is precisely that any effects on the outcome of the adjudication are extremely uncertain in many instances, which allows both parties to focus on the cost savings (when applicable) and otherwise to engage in wishful thinking as to the likely consequences of the terms of the partial settlement.

²⁸⁷ See *supra* Section II.B.

C. Empirical Patterns in Summary Jury Trials

The potentially idiosyncratic examples we describe above provide a rough idea how and why parties may choose to enhance their adjudication strategy by selecting some partial settlement approaches over others (substitutes) or by combining various terms in ways that create additional value (complements). One might reasonably ask, however, whether litigants as a class appear to behave in ways consistent with these conjectures. To provide more *systematic* evidence on the relationship of partial settlement terms in actual litigation, we make use of unique summary jury trial data from New York's summary jury trial program.²⁸⁸ These cases are typically smaller civil cases, insurance litigation over car accidents, primarily,²⁸⁹ but in many ways they are the bread and butter of our litigation system.²⁹⁰ As part of the program, parties are able to settle on terms that change the nature of the adjudication. These choices have been recorded for the last several years,²⁹¹ and we were able to obtain much of the existing data.²⁹²

Partial settlement terms in summary jury trials, as in all adjudications, hail from all three categories.²⁹³ With respect to award modification, data collection forms reveal whether parties agreed to some sort of damages cap as well as whether the parties entered into a high-low agreement.²⁹⁴ With respect to issue modification, the parties report whether the adjudication involved liability only, damages only, or both.²⁹⁵ Finally, with respect to procedure modification, we know whether the summary jury trial was binding, whether parties opted for a judge over a jury, and many details about how the presentation of evidence occurred *in fact*, from which one might plausibly draw inferences about other agreements.²⁹⁶ Our data begins late in 2009 and

²⁸⁸ Kings County in New York provides an information sheet on Summary Jury Trial Program that details the features, rules, and procedures in that county's program, which is representative of the programs in other counties throughout the state. See *Summary Jury Trial Rules*, N.Y. STATE UNIFIED CT. SYS., <http://www.nycourts.gov/COURTS/2jd/KINGS/Civil/KingsSupreme-SummaryJuryTrialRules.pdf>.

²⁸⁹ See Appendix Table A1 for more details on the data.

²⁹⁰ Cf. Stephen Daniels & Joanne Martin, *The Strange Success of Tort Reform*, 53 EMORY L.J. 1225, 1237–38 (2004) (concluding on the basis of a survey of lawyers in Texas at the turn of the century that “auto cases are the bread-and-butter business of the plaintiffs’ bar. Eighty percent (80.2%) of all respondents reported handling at least some auto cases. For all respondents, the average percentage of caseload made up by auto cases was 33.3% and the median was 25.0%. One hundred and eighty-five respondents (33.4% of all respondents) had at least 50% of their business in this area, a group we consider to be auto specialists” (footnote omitted)).

²⁹¹ See Appendix, Figure A1, which displays one of the data collection forms used by the State of New York to collect case-level data.

²⁹² Despite their many advantages, to our knowledge, these data have never been carefully studied, although involved judges have occasionally drawn examples or trends from the data in presentations to practitioners. With their advantages, of course, come some disadvantages. The group of cases we study is necessarily a selected sample, and so assumptions are required in order to draw inferences from the behavior of parties involved in summary jury trials to litigant behavior more generally.

²⁹³ See Appendix, Figure A1.

²⁹⁴ For example, we have collected over 1,400 cases that involve high-low agreements.

²⁹⁵ Indeed, most of the cases we studied included an issue-modification term, with over a thousand of the cases involving trials *only* on liability or *only* on damages.

²⁹⁶ Almost all of the cases in our data were “binding,” meaning the parties agreed that there would be no appeal from any judgment, although we do observe that some settlements occur “after SJT,” which

extends through approximately October of 2013. The cases occur across New York, but the geographic variation in summary jury trial activity is significant.²⁹⁷ We hand-coded the data, and though we are unable to discern all hand-written entries, and some forms were not entirely complete, the data is of high quality. In total, we successfully assembled fine-grained detail on over 1,800 cases. Of these cases, more than eighty percent had high-low agreements and almost sixty percent agreed on one issue (settling damages or liability before trial). Summary statistics from the data can be found in Appendix Table A1.

Although we believe future research in this area will benefit greatly from these summary jury trial data, we ask two relatively basic empirical questions in what remains of this article: First, does the decision by parties to use partial settlement terms from one category co-vary meaningfully with the use of terms from another category? In other words, do we see a pattern of term use that is consistent with different categories of partial settlements serving as substitutes or complements for each other? Second, does the use of a partial settlement term have any association with the decision of the parties to fully settle their dispute? Put differently, are partial settlement terms more likely on average to appear in cases that ultimately fully settle (consistent with partial settlement *facilitating* full settlement)? Or are such term less likely (consistent with partial settlement serving as a substitute for full settlement)?

In Table 1, we present a straightforward comparison of group means to examine the first question.²⁹⁸ We analyze whether settling key substantive issues (in this case, whether the parties agreed to adjudicate only liability or only damages, as opposed to going to trial on both issues) has any association with the parties' decision to engage in award modification—specifically, whether the parties agreed to cap damages or otherwise enter into a high-low contract.²⁹⁹

might mean after deliberations but before a verdict was announced. It might also mean that the parties—unsurprisingly—retain some practical ability to challenge or obstruct any judgment.

²⁹⁷ Our research suggests that this variability has to do with the nature and quantity of the underlying SJT-relevant litigation activity as well as the openness of various judges to using summary jury trials to resolve disputes. For our purposes in this article, what matters is whether any geographic selection might confound any coincidence between various partial settlement terms. While we cannot rule out such a concern, we also see no reason to believe it might be problematic in the data. Moreover, our analysis here has descriptive aims; we have presented reasons to believe that parties will be thinking about and entering into *packages* of partial settlement terms, and our data offer an opportunity for a more systematic, yet cursory examination of this possibility.

²⁹⁸ We have conducted more sophisticated analyses of these data, using logistic regressions and controlling for other features of the litigation, including the county and court of the adjudication, time, the number of attorneys and the officer presiding, whether the defendant was an experienced insurer, and the policy limit (when appropriate). The results are substantively the same, but we prefer a more straightforward presentation, not only because we can be more concise but also because the reader can verify our calculation. Additional analyses are available from the authors on request.

²⁹⁹ Here, we treat damage-cap agreements and high-low contracts as interchangeable. Damage-cap agreements occur in our data when the parties agree to a “high” but set the “low” at zero—in other words, the low remains where it would have been by default.

Table 1: Partial Settlement Complementarity

	(1)	(2)	(3)	(4)
	All Cases	Damages Only	Liability Only	Liability and Damages
Num Cases (Total)	1,803	950	104	749
High-Low Agreement				
Num High-Low Cases	1,447	808	67	572
Mean	0.8026	0.8505	0.6442	0.7637
Standard Error	0.0094	0.0116	0.0472	0.0155
Difference (versus column (4))		8.68%	-11.95%	
Standard Error		0.0194	0.0497	
t-statistic		4.48	-2.41	

Notes: Table shows simple difference in mean calculations, i.e., the difference in the likelihood of the dispute involving a high-low agreement in cases involving only damages (column (2)) and in cases involving only liability (column (3)), both relative to a dispute involving both liability and damages (column (4)).

We find that when parties settle on litigating only damages, a high-low agreement or damage-cap arrangement is *more* likely to occur between these parties (by 8.7 percentage points).³⁰⁰ In our framework, this result intimates that settling liability and constraining any award are complements, which may not be surprising, given that a defendant’s decision to accept at least some fraction of liability can at best provide only limited legal protection against a run-away verdict (and none if the defendant accepts full liability). By contrast, when the parties agree to litigate only the scope of liability, we find that a high-low agreement or damage cap is *less* likely to occur between the parties (by 11.95 percentage points).³⁰¹ Upon reflection, this association should not be at all surprising. Indeed, an adjudication in which the parties stipulate to the amount of damages and litigate liability effectively *has* a high-low agreement in place, with the low set at zero (when the defendant is found to be faultless) and the high set at the agreed-upon level of damages (when the defendant is determined to be 100% responsible for the harm).³⁰²

In Table 2 and Table 3, we explore the second question. We study whether parties who enter into partial settlement agreements at the outset of their litigation are more likely on average to fully settle their cases.³⁰³ We might understandably hypothesize that partial settlements and full settlements are likely to be complements. Entering into a partial settlement might ease a transition to full settlement, presumably for behavioral or bargaining-related reasons.³⁰⁴ Nevertheless, in our

³⁰⁰ This estimate is produced by subtracting the percentage of high-low cases under “Damages Only” (column (2))—85.05%—from the percentage of high-low cases under “Liability and Damages” (column(4))—76.37%.

³⁰¹ This estimate is produced by subtracting the percentage of high-low cases under “Liability Only” (column (3))—64.42%—from the percentage of high-low cases under “Liability and Damages” (column(4))—76.37%.

³⁰² See *supra* notes 194–198 and accompanying text.

³⁰³ Specifically, we examine whether agreeing either to a trial only on liability or only on damages or, alternatively, agreeing to a high-low agreement is associated with full settlement.

³⁰⁴ See, e.g., Prescott et al., *supra* note 12, at 718 n.52. There might even be a more mechanical reason: the sheer fact that the parties are able to negotiate a rather significant partial settlement would suggest that negotiation costs between the parties or their lawyers are relatively low, or that risk aversion and litigation

data, we find that all three partial settlements that we study (agreeing to litigate only damages, agreeing to litigate only the issue of liability, and agreeing to an award-modification contract) are associated with a *lower* settlement rate, all else equal.³⁰⁵

Table 2: Issue Modification and Full Settlement Complementarity

	(1)	(2)	(3)	(4)
	All Cases	Damages Only	Liability Only	Liability and Damages
Num Cases (Total)	1,803	950	104	749
Full Settlement				
Num Cases Fully Settling	352	145	16	191
Mean	0.1952	0.1526	0.1538	0.2550
Standard Error	0.0093	0.0117	0.0356	0.0159
Difference (versus column (4))		-10.24%	-10.12%	
Standard Error		0.0198	0.0390	
t-statistic		-5.18	-2.60	

Notes: Table shows simple difference in mean calculations, i.e., the difference in the likelihood of the dispute fully settling in cases involving issue modification (settling liability in column (2) and settling damages in column (3)), both relative to a dispute involving both liability and damages (column (4)).

We interpret these findings as consistent with partial settlements (or at least *these* partial settlements) functioning as substitutes for full settlement—relative to naked adjudication, partial settlements are an improvement and indeed optimal with respect to full settlement as well, given the parties’ revealed preferences.³⁰⁶ More precisely, when parties find plausible full settlement packages particularly unattractive because their confidence in their respective cases requires that they sacrifice too much to *fully* settle, partial settlement offers another path to reducing costs and limiting risk, while still allowing the parties to capitalize on their respective optimism.

costs matter significantly to the parties (at least where the partial settlements in question help to address these concerns).

³⁰⁵ Specifically, in Table 2, our data show that cases in which the parties have settled liability and are litigating only damages, fully settling the case is 10.25 percentage points (column (2)) less likely to occur than cases in which the parties are at least initially slated to litigate both liability and damages. Likewise, in column (3), we find that in disputes in which the parties initially agree to litigate just liability, settlement is 10.12 percentage points less likely to occur, relative to the comparison cases in column (4). In Table 3, in the context of award modification, we find a pattern consistent with a slightly stronger substitution effect (although the difference is not statistically significant). Cases that begin with high-low agreements are 11.37 percentage points (column (2)) less likely to settle. All of these calculations are made in the same manner as in Table 1. *See supra* notes 300 & 301.

³⁰⁶ Care must be taken in interpreting the high-low results in Table 3. In our data, parties entered into high-low agreements early in the dispute. As we have noted before, this does not generally appear to be the case with high-low agreements, which may be negotiated simultaneously with full settlement, often on the courthouse steps.

Table 3: Award Modification and Full Settlement Complementarity

	(1)	(2)	(3)
	All Cases	High-Low Agreement	No High-Low Agreement
Num Cases (Total)	1,803	1,447	356
Full Settlement			
Num Cases Fully Settling	352	250	102
Mean	0.1952	0.1728	0.2865
Standard Error	0.0093	0.0099	0.0240
Difference (versus column (3))		-11.37%	
Standard Error		0.0260	
t-statistic		-4.38	

Notes: Table shows simple difference in mean calculations, i.e., the difference in the likelihood of the dispute fully settling in cases involving a high-low agreement (column (2)), relative to a dispute involving both liability and damages (column (4)).

Overall, we view our empirical analyses of partial settlements in New York’s summary jury trial program as confirming the intuitions and themes we have developed throughout this article. The conventional view of settlement as ending litigation is simply too narrow. A more capacious understanding of settlement behavior directs our focus more productively to the underlying drivers of settlement. This perspective frees scholars and practitioners alike to concentrate their efforts on understanding how partial settlement agreements of all types work together (either as complements or as substitutes) in the hands of litigants and lawyers to tailor litigation to achieve what parties want while minimizing cost and risk.

CONCLUDING THOUGHTS: WELFARE IMPLICATIONS OF PARTIAL SETTLEMENTS

Scholars and practitioners have long pointed to the shared private benefits generated by settlement in civil litigation to explain its pervasiveness. Fully settling (for all intents and purposes, ending the litigation) reduces risk to zero, eliminates most ongoing costs, and in some settings increases expected returns from the litigation. In this article, we contend that partial settlement agreements are also “settlements,” that these agreements serve the same purposes as full settlement, and that, in the end, all settlement agreements exist on a continuum, with the optimal arrangement determined by the particulars of the dispute and the preferences (including aversion to risk) of the parties.

But, are partial settlements—including award modification, issue modification, and procedure modification—in the interest of society as a whole? Should the legal system encourage parties to partially settle their cases, as is being done in the New York’s summary jury trial program and others, or should the legal system restrict or discourage the use of partial settlement agreements? While answers to these fundamental questions are nuanced and often empirical in nature, general insights and lessons from our analysis can frame key aspects of these inquiries.

First, when compared with a hypothetical system in which partial settlements are formally suppressed, the private arrangements described in our article will tend, *all else equal*, to dilute the

incentives of potential parties and discourage them from taking precautions or otherwise complying with the law or their contractual obligations. This conclusion follows logically from the fact that defendants will settle if, and only if, an agreement is perceived to be superior to the alternatives, namely full-blown trials or full settlements.³⁰⁷ At the same time, however, plaintiffs may benefit from the availability of partial settlements as a way to tailor their lawsuits. If it is effectively less expensive and less risky for plaintiffs to adjudicate a claim to verdict, then injury or damage that might otherwise have been ignored by potential plaintiffs or the plaintiffs' bar or resolved out of court might instead be the source of a valuable legal claim. In other words, some claims may become less costly to defendants, but others may become more costly, depending on the many particulars of the litigation landscape.

If defendants are forward looking, and expect that the partial settlements will be available to them in the future as a means of reducing litigation costs and risk, then they will estimate the balance of how these two effects trade off. Whether the availability of partial settlement affects the primary behavior of defendants is therefore an empirical question.³⁰⁸ Note, however, that even were we to determine that the availability of partial settlements diluted incentives to take care, that conclusion alone would not imply that society as a whole is worse off. If defendants were over-deterred to begin with, taking excessive precautions in anticipation of the weighty burden of future litigation, then partial settlements may in fact help to align a defendant's private interests with those of society.³⁰⁹

Second, for every accident or infringement of the law that does occur, the private and social costs of litigation (and the risks of litigation) are likely to fall when partial settlements are freely available relative to a world in which their use is restricted. Parties will tend to settle issues on which they largely agree, in order to avoid the costs and risks of litigation, and modify their procedures to streamline the resolution of all remaining issues. These factors surely serve to reduce private litigation costs directly, and also serve to reduce the time and other resources of judges, juries, and other court personnel, not to mention the use of taxpayer financed buildings and equipment.³¹⁰ Moreover, partial settlements may also further reduce the costs of litigation

³⁰⁷ By the same logic, the ability of parties to settle their lawsuits out of court will dilute incentives as well. See Polinsky & Rubinfeld, *supra* note 33, at 109.

³⁰⁸ One that appears very ripe for empirical research, although the challenge of finding the appropriate data to study this question in a comprehensive way may be Sisyphean.

³⁰⁹ See Steven Shavell, *The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System*, 26 J. LEGAL STUD. 575 (1997); Kathryn E. Spier, *A Note on the Divergence Between the Private and the Social Motive to Settle Under a Negligence Rule*, 26 J. LEGAL STUD. 613 (1997). Partial settlement agreements may compromise the accuracy of the damages paid by the defendant to the plaintiff. For discussions of this issue, see Louis Kaplow, *Accuracy in Adjudication*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 1 (Peter Newman ed., 1998), and Louis Kaplow & Steven Shavell, *Accuracy in the Determination of Liability*, 37 J.L. & ECON. 1 (1994).

³¹⁰ Partial settlement could either help or hurt the development and evolution of the common law. Since particular issues will be settled out of court, the law on those issues may evolve more slowly. On the other hand, since the ability to reduce costs by settling some issues will allow the parties to more effectively pursue litigation on other issues, the law regarding the litigated issues may develop and evolve more efficiently. See William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249 (1976); George L. Priest, *The Common Law Process and the*

indirectly: by narrowing the scope of disputes in particular ways, litigants may be able to commit to moderate the intensity of their litigation effort.³¹¹

There are circumstances, however, under which the risks and private costs of litigation will rise when the parties can freely employ partial settlement. As before, cases that plaintiffs might never have filed or that would have fully settled will go to trial instead. Given the flexibility of the partial settlement apparatus, litigants can fine-tune their dispute to suit their beliefs and preferences, making court proceedings privately more attractive. For these cases, both private litigation expenses and the burden on taxpayers would rise.

Finally, the welfare implications of partial settlement are distinctive because the “gains” generated by subjective beliefs when adjudication is ongoing might be considered illusory by society. When parties fully settle, opinions about what *would* have happened at trial are never tested; instead, any potential speculative gains are sacrificed *ex ante* in exchange for reducing costs and mitigating risk. When partial settlement options are available, however, parties may choose to speculate, accepting risk and cost (if full settlement would otherwise have been attractive) in return for capitalizing on what they view as their most reliable claims or defenses. Indeed, if litigants’ beliefs are very divergent, they may “optimally” choose to gamble on their trial, writing contracts that exacerbate the risks. Doubling down can indirectly raise the costs of litigation by magnifying the scope of the disagreement and encouraging greater litigation expenditures.³¹² If a particular partial settlement increases total costs and risk, but the parties nonetheless view it as attractive solely because of their differing subjective *ex ante* beliefs, prohibiting the partial settlement in question may be optimal, both from society’s and from the parties’ collective *ex post* perspective.³¹³

Selection of Efficient Rules, 6 J. LEGAL STUD. 65 (1977); Paul H. Rubin, *Why Is the Common Law Efficient?*, 6 J. LEGAL STUD. 51 (1977).

³¹¹ When parties adopt a high-low agreement, for example, they have eliminated the possibility of outlier awards and so have reduced the scope of their disagreement. In the majority of partial settlement agreements that we have studied, there is less to fight over and so litigants should find it in their interest to scale back their litigation investment. *See supra* note 24. *See also* Prescott et al., *supra* note 12, at 728–30.

³¹² *See supra* notes 26–27 and accompanying text.

³¹³ The issue of whether and how to account for the perceived benefits that parties experience from speculation is debated in the economics literature. Because both parties believe that they are better off signing such contracts in advance of trial, one might argue that their private beliefs create a social benefit from speculation, which in turn suggests that gambling on trials should be encouraged. On the other hand, when evaluated *ex post*, it must be the case that one or both of the parties is incorrect and so their perceived value from speculation may be illegitimate or at best short-lived. Eric Posner and Glen Weyl discuss related issues in the context of financial securities and insurance law. *See* Eric A. Posner & E. Glen Weyl, *An FDA for Financial Innovation: Applying the Insurable Interest Doctrine to Twenty-First-Century Financial Markets*, 107 NW. U. L. REV. 1307 (2013). For a more general discussion of welfare analysis when parties have different beliefs, see Markus K. Brunnermeier et al., *A Welfare Criterion for Models with Distorted Beliefs*, 129 Q.J. ECON. 1753 (2014).

Figure A1



STATE OF NEW YORK
UNIFIED COURT SYSTEM

SUMMARY JURY TRIAL
DATA COLLECTION FORM

UCS-413 (04/07)

Please mail, fax or scan this Data Collection Form for every Summary Jury Trial. Submit to Office of Court Research, Rm. 975, 25 Beaver St., New York, NY 10004; Fax: 212-428-2987, phone: 212-428-2990. Attention: Antoinette Coleman, acoleman@courts.state.ny.us

- 1. INDEX NUMBER:
2. CASE NAME:
3. COUNTY:
4. COURT:
5. CASE TYPE:
6. NUMBER OF ATTORNEYS:
7. JUDICIALLY DETERMINED TRIAL DAYS IF NO SJT:
8. SJT DATE:
9. ISSUES:
10. WAS SJT:
11. INSURANCE CARRIER(S):
11a. Policy Limit(s) \$
12. IF THERE WAS A HIGH/LOW AGREEMENT, PLEASE INDICATE:
13. DID THE CASE SETTLE?
13a. When?
13b. What was the settlement amount?

THE PROCEEDINGS

- 14. WHO PRESIDED OVER THE SUMMARY JURY TRIAL?
15. HOW MANY JURORS WERE ON THE PANEL CALLED FOR THE SUMMARY JURY TRIAL?
16. HOW MUCH TIME (IN MINUTES) WAS ALLOTTED FOR VOIR DIRE?
17. HOW MUCH TIME (IN MINUTES) WAS ALLOTTED FOR...
18. HOW MANY WITNESSES TESTIFIED (LIVE OR BY VIDEO) FOR THE...
19. HOW MANY EXPERT REPORTS WERE SUBMITTED FOR THE...
20. WAS ANY DOCUMENTARY OR DEMONSTRATIVE EVIDENCE GIVEN TO THE JURY?

THE VERDICT

- 21. FOR HOW LONG (IN MINUTES) DID THE JURY DELIBERATE?
22. VERDICT:
23. DAMAGES AWARDED:

WHO COMPLETED THIS FORM?

NAME:
PHONE NUMBER:
DATE:

Table A1: Summary Jury Trial Summary Statistics

	Liability Only Cases	Damages Only Cases	High-Low Cases	All Cases	Total Count
Num of Cases	104	950	1,447		1,803
Year of SJT:					
2009	20.0%	26.7%	80.0%	0.8%	15
2010	5.3%	48.7%	81.7%	22.07	398
2011	4.7%	44.1%	70.7%	16.5%	297
2012	5.0%	54.1%	82.2%	33.3%	601
2013	7.5%	60.9%	82.5%	26.7%	481
missing	0.0%	27.3%	81.8%	0.6%	11
Award Modification:					
High-Low Agreement	10.4%	39.9%	100.0%	80.3%	1,447
No High-Low Agreement	4.6%	55.8%	0.0%	19.7%	356
Issue Modification:					
Liability Only	100.0%	0.0%	64.4%	5.8%	104
Damages Only	0.0%	100.0%	85.1%	52.7%	950
Liability and Damages	0.0%	0.0%	76.4%	41.5%	749
Procedure Modification:					
Clearly Binding	5.9%	52.0%	84.0%	73.7%	1,329
Possible Bench Trial	5.8%	53.0%	78.6%	29.5%	532
Judge Presiding	5.8%	54.4%	81.4%	92.0%	1,659
County of SJT:					
Queens	6.8%	60.3%	92.8%	28.5%	514
Bronx	3.4%	42.9%	77.7%	28.1%	506
Kings	3.7%	42.5%	78.9%	16.3%	294
Suffolk	13.8%	71.9%	82.4%	11.7%	210
Erie	11.1%	33.3%	64.4%	2.5%	45
Rockland	0.0%	78.1%	68.8%	1.8%	32
All Other Counties	3.5%	53.0%	59.9%	11.2%	202
SJT Case Outcomes:					
Fully Settled	4.6%	41.2%	71.0%	19.5%	352
Defendant Verdict	6.8%	51.8%	82.3%	41.0%	739
Plaintiff Verdict	4.7%	62.0%	84.0%	37.5%	676
Damages (mean)	\$4,555 (81151.1)	\$57,959 (101802.8)	\$66,436 (155427.5)	\$67,528 (151371.2)	
Average Case Characteristics					
Trial Days if No SJT	2.560 (1.474)	2.946 (2.633)	2.985 (2.572)	2.864 (2.434)	
Policy Limit (per incident)	\$136,404 (225795.7)	\$286,194 (4071812.1)	\$232,701 (3277713.0)	\$227,156 (3116740.2)	
Num Plaintiff Attys	1.049 (0.216)	1.035 (0.361)	1.047 (0.331)	1.043 (0.308)	
Num Defendant Attys	1.039 (0.194)	1.027 (0.180)	1.074 (0.283)	1.072 (0.277)	
Num Witnesses (total)	2.262 (0.874)	1.405 (0.840)	1.801 (0.945)	1.858 (0.971)	
Num Expert Reports (total)	1.286 (1.806)	3.777 (2.021)	3.450 (2.141)	3.289 (2.149)	

Notes: Percentages are out of row totals, but because not all categories are included (e.g., liability and damages cases and non-high-low cases are omitted), the rows do not total to 100% in each category. Averages are taken over non-missing values, and standard deviations are reported in parentheses.