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Robert E. Scott

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CONTRACT DESIGN AND THE SHADING PROBLEM

ROBERT E. SCOTT*

Despite recent advances in our understanding of contracting behavior, economic contract theory has yet to identify the principal causes and effects of contract breach. In this Article, I argue that opportunism is a primary explanation for why commercial parties deliberately breach their contracts. I develop a novel variation on opportunism that I identify as “shading,” a behavior that more accurately describes the vexing problems courts face in rooting out strategic behavior in contract litigation. I provide some empirical support for the claim that shading behavior is both pervasive in litigation over contract breach and extremely difficult for generalist courts to detect, and I offer an explanation for why this is so. In contrast to courts of equity in pre-industrial England, generalist courts today are tasked with the challenge of interpreting contracts in a heterogeneous global economy. This has left generalist courts incapable of identifying with any degree of accuracy which of the litigants is behaving strategically. I advance the claim that ex ante design by commercial parties is more effective in deterring opportunism in litigation than ex post evaluation of the contractual context by generalist courts. I illustrate this claim by focusing on the critical roles of uncertainty and scale in determining how legally sophisticated parties, both individually and collectively, design their contracts. By deploying sophisticated design strategies tailored to particular environments, parties are able both to reduce the risk of shading and to cabin the role of the decision maker tasked with policing this difficult-to-verify behavior. I conclude that judges and contract theorists must attend to the unique characteristics of the contracts currently being designed by sophisticated

* Alfred McCormack Professor of Law and Director, Center for Contract and Economic Organization, Columbia Law School. This Article develops ideas first presented as the Robert F. Boden Lecture at Marquette Law School, October 2014. I am grateful for helpful comments from Ron Gilson, Dean Joseph Kearney, Roy Kreitner, Chuck Sabel, and participants at a faculty workshop at Tel Aviv University.

parties because it is the parties, not the courts, that reduce the risks of opportunistic shading in contract adjudication.

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I. INTRODUCTION

The law and economics of contract has had a great forty-year run. Three Nobel Prizes have been awarded to seven scholars for breakthroughs in the economics of information, with others probably yet to come.¹ And, on the law side, there have been a number of seminal papers explicating the economic logic of contract law as well as offering trenchant normative critiques of inefficient doctrines.² But despite these advances, contract design, the central subject at the core of the law and

1. George Akerlof, Michael Spence, and Joseph Stiglitz were jointly awarded the Nobel Prize in economics in 2001 for work on the implications of asymmetric information to contract theory. The work of these scholars is summarized in Karl-Gustaf Löfgren et al., *Markets with Asymmetric Information: The Contributions of George Akerlof, Michael Spence and Joseph Stiglitz*, 104 SCANDINAVIAN J. ECON. 195, 195 (2002). Subsequently, Leonid Hurwicz, Eric Maskin, and Roger Myerson were awarded the Nobel Prize in 2007 for their contributions to mechanism design theory. Finally, Jean Tirole was named the Nobel Laureate in economics in 2014 for his work on the economics of information and regulation.

2. For a review (and a critique) of the contribution of law and economics scholarship to contract law, see Eric A. Posner, *Economic Analysis of Contract Law After Three Decades: Success or Failure?*, 112 YALE L.J. 829 (2003). For a defense of the contribution of law and economics to contract law, see Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 YALE L.J. 541 (2003).

economics of contract, remains something of a mystery. To be sure, there are a few notable papers³ and a well-developed (albeit largely atheoretical) strategic management literature on contract design choices,⁴ but in truth we know very little about the factors that influence how parties in the real world design their contracts. There are several reasons for this gap in our understanding, but one in particular stands out: Economic contract theory has failed to explain adequately the causes and effects of contract breach. One reason for this deficit is that breach is a difficult concept for economists to model. In equilibrium there is no breach, and economics focuses on equilibrium conditions. But common observation tells us that breach of contract is ubiquitous. Faced with this wide gap between theory and reality, the answers to a critical empirical question remain elusive: How do sophisticated parties adjust *ex ante* to the prospect of breach *ex post*?

Understanding how parties adjust to the prospect of breach is essential to a testable theory of contract, and nowhere is that knowledge more relevant today than in the current debate over contract interpretation. Contract interpretation remains the single most important source of commercial litigation and the least settled, most contentious area of contemporary contract doctrine and scholarship.⁵ Initially framed by the clash between the two intellectual giants of

3. See, e.g., Albert Choi & George Triantis, *Strategic Vagueness in Contract Design: The Case of Corporate Acquisitions*, 119 YALE L.J. 848 (2010); Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Text and Context: Contract Interpretation as Contract Design*, 100 CORNELL L. REV. 23 (2014); Robert E. Scott & George G. Triantis, *Anticipating Litigation in Contract Design*, 115 YALE L.J. 814 (2006).

4. See Nicholas S. Argyres, Janet Bercovitz & Kyle J. Mayer, *Complementarity and Evolution of Contractual Provisions: An Empirical Study of IT Services Contracts*, 18 ORG. SCI. 3, 15 (2007) (“[C]ontractual partners . . . that had a longer history of transacting with each other were more likely to include contingency planning in their contracts.”); Kyle J. Mayer & Nicholas S. Argyres, *Learning to Contract: Evidence from the Personal Computer Industry*, 15 ORG. SCI. 394, 396 (2004) (finding that successive contracts between the same two contracting partners become more complex over time as the partners learn how to address contracting hazards); Michael D. Ryall & Rachelle C. Sampson, *Do Prior Alliances Influence Alliance Contract Structure?*, in STRATEGIC ALLIANCES: GOVERNANCE AND CONTRACTS 206, 207 (Africa Ariño & Jeffrey J. Reuer eds., 2006) (finding that contracts are more complete or detailed when firms have prior alliances, whether with the same firm or other firms).

5. An early empirical study found that 25.8% of a sample of 500 cases raised interpretation and parol evidence issues. Harold Shepherd, *Contracts in a Prosperity Year*, 6 STAN. L. REV. 208, 222–24 (1954); see also David A. Dilts, *Of Words and Contracts: Arbitration and Lexicology*, 60 DISP. RESOL. J. 41, 43 (2005) (“The construction of contract language is the controversy most evident in contract disputes.”); John P. Tomaszewski, *The Pandora’s Box of Cyberspace: State Regulation of Digital Signatures and the Dormant Commerce Clause*, 33 GONZ. L. REV. 417, 432 (1997–1998) (“Most contract litigation involves disputes over construction of the terms in a contract.”).

contract, Samuel Williston and Arthur Corbin, and continuing to the present, two opposing positions have competed for dominance in contract interpretation.⁶ Many (indeed most) states follow a traditional, common law, “textualist” approach to interpretation.⁷ Here, when the writing is clear, courts are disabled from inquiring into the context surrounding the contract.⁸ In contrast, in states that follow California,⁹ and in all states where the subject matter involves the sale of goods under the Uniform Commercial Code (UCC), the courts are “contextualists.”¹⁰ Here, courts are invited to consider the context regardless of the clarity of the written

6. For discussion, see Gilson, Sable & Scott, *supra* note 3, at 49–51.

7. A strong majority of U.S. courts continue to follow the traditional textualist or “formalist” approach to contract interpretation. A state-by-state survey of recent court decisions shows that thirty-eight states follow the textualist approach to interpretation. Nine states, joined by the UCC for sales cases and the Restatement (Second) of Contracts, have adopted a contextualist or anti-formalist interpretive regime. The remaining states’ doctrines are indeterminate. See U.C.C. §§ 1-205, 2-202, 2-208 (AM. LAW INST. & UNIF. LAW COMM’N 2014); RESTATEMENT (SECOND) OF CONTRACTS §§ 200, 209 (AM. LAW INST. 1981); Robert E. Scott, State-by-State Survey (Oct. 7, 2009) (on file with author).

8. This interpretive approach, followed by a substantial majority of common law courts, privileges integrated contracts over context evidence that arguably suggests the agreement contained additional or different terms or meanings. Textualist jurisdictions, such as New York, use a “hard” parol evidence rule that gives presumptively conclusive effect to merger or integration clauses and, in their absence, presumes that the contract is fully integrated if it appears final and complete on its face. See, e.g., *Morgan Stanley High Yield Sec., Inc. v. Seven Circle Gaming Corp.*, 269 F. Supp. 2d 206, 214–20 (S.D.N.Y. 2003) (holding that the prior agreement is excluded where the writing appears in view of thoroughness and specificity to embody a final agreement); *Intershoe, Inc. v. Bankers Trust Co.*, 571 N.E.2d 641, 643–44 (N.Y. 1991) (same); *Mitchill v. Lath*, 160 N.E. 646, 647 (N.Y. 1928) (upholding the “four corners” presumption and excluding evidence of collateral agreement to land sale contract). In addition, merger clauses are given virtually conclusive effect in New York. See *Tempo Shain Corp. v. Bertek, Inc.*, 120 F.3d 16, 21 (2d Cir. 1997) (“Ordinarily, a merger clause provision indicates that the subject agreement is completely integrated, and parol evidence is precluded from altering or interpreting the agreement.”); *Norman Bobrow & Co. v. Loft Realty Co.*, 577 N.Y.S.2d 36, 36 (N.Y. App. Div. 1991) (“Parol evidence is not admissible to vary the terms of a written contract containing a merger clause.”).

9. See cases cited *infra* note 11.

10. The UCC adopts a broadly contextualist approach to interpretation. See U.C.C. §§ 1-303 cmt. 1, 2-202 cmts. 1(b), 2 (AM. LAW INST. & UNIF. LAW COMM’N 2014). Article 2 of the UCC, adopted in all states except Louisiana, governs all “transactions in goods.” *Id.* § 2-102.

contract.¹¹ Thus the battle is joined: text versus context.¹²

This battle over contract interpretation—which is better, text or context?—illustrates the deep chasm that separates the scholarly debates over contract doctrine from the real world of contract design. Contract doctrine purports to address a single question: What should courts do? Should a court adopt a hard or a soft parol evidence rule? Does the

11. Contextualists argue that formal interpretive rules excluding certain categories of extrinsic evidence deprive the fact finder of indispensable information relevant to deciding the case and thus can distort the court's assessment of what the parties meant by their agreement. Contextualist jurisdictions, such as California, carry this view to its logical limit and reject the notion that words in a contract can have a plain or unambiguous—context-free—meaning at all. By the same logic, they favor a “soft” parol evidence rule. Here the test for integration admits extrinsic evidence notwithstanding an unambiguous merger clause declaring the contract to be an integrated writing or, absent such a clause, notwithstanding the fact that the writing appears final and complete on its face. *Pac. Gas & Elec. Co. v. G.W. Thomas Drayage & Rigging Co.*, 442 P.2d 641, 645 (Cal. 1968) (“[R]ational interpretation requires at least a preliminary consideration of all credible evidence offered to prove the intention of the parties.”); *Masterson v. Sine*, 436 P.2d 561, 564 (Cal. 1968) (admitting parol evidence to vary terms of deed on ground that “[e]vidence of oral collateral agreements should be excluded only when the fact finder is likely to be misled”); see also *Int'l Milling Co. v. Hachmeister, Inc.*, 110 A.2d 186 (Pa. 1955) (finding extrinsic evidence of negotiations and antecedent agreements admissible to show that buyer had not assented to the contract as a complete integration of the contract, despite the presence of an express merger clause); 3 ARTHUR LINTON CORBIN, CORBIN ON CONTRACTS: A COMPREHENSIVE TREATISE ON THE RULES OF CONTRACT LAW § 578 (1960) (“The fact that a written document contains one of these express provisions does not prove that the document itself was ever assented to or ever became operative as a contract. Neither does it exclude evidence that the document was not in fact assented to and therefore never became operative.”).

12. The scholarly debate is both heated and voluminous. Textualist scholars emphasize the importance of bespoke design of contracts and minimize the role of courts in reassessing that design in litigation. For discussion, see Jody S. Kraus & Robert E. Scott, *Contract Design and the Structure of Contractual Intent*, 84 N.Y.U. L. REV. 1023 (2009); Geoffrey P. Miller, *Bargains Bicoastal: New Light on Contract Theory*, 31 CARDOZO L. REV. 1475, 1475 (2010) (concluding that “[t]he revealed preferences of sophisticated parties support arguments by Schwartz, Scott, and others that formalistic rules offer superior value for the interpretation and enforcement of commercial contracts”); Schwartz & Scott, *supra* note 2; Alan Schwartz & Robert E. Scott, *Contract Interpretation Redux*, 119 YALE L.J. 926 (2010). For the contextualist, willfully restricting a court's access to the trove of information bearing on the parties' real relationship degrades judicial interpretation and frustrates these parties' efforts to govern their transactions efficiently. For a sampling of the contextualist scholarship supporting this view, see generally Shawn J. Bayern, *Rational Ignorance, Rational Closed-Mindedness, and Modern Economic Formalism in Contract Law*, 97 CALIF. L. REV. 943 (2009); James W. Bowers, *Murphy's Law and the Elementary Theory of Contract Interpretation: A Response to Schwartz and Scott*, 57 RUTGERS L. REV. 587 (2005); Juliet P. Kostritsky, *Plain Meaning vs. Broad Interpretation: How the Risk of Opportunism Defeats a Unitary Default Rule for Interpretation*, 96 KY. L.J. 43 (2007–2008). Steven Burton has developed an intermediate view that admits of some sources of extrinsic evidence but excludes other. See, e.g., STEVEN J. BURTON, *ELEMENTS OF CONTRACT INTERPRETATION* (2009); Steven J. Burton, *A Lesson on Some Limits of Economic Analysis: Schwartz and Scott on Contract Interpretation*, 88 IND. L.J. 339 (2013).

common law plain meaning rule still apply? Are merger clauses conclusive evidence that the writing is integrated?¹³ But the design choices lawyers make for their commercial clients are motivated by quite different considerations. Transactional lawyers who design contracts for sophisticated parties are much more concerned with managing the *role* of a court in resolving contract disputes than in debates over styles of interpretation. And, as I will argue, designing a contract that successfully manages the court's role is not an easy task.

My goal in this Article is to shift the focus of discussion from the potential generalization of (competing) doctrinal prototypes to what I call the design space for contracting: key features in the transactional environment that incline contracting parties to choose a particular regime and a complementary form of adjudication to govern their relationship. Across this space, we observe parties writing contracts with very different styles and forms. The question, then, is this: What motivates these observable and predictable differences in contract design? In the discussion that follows, I argue that a central objective motivating sophisticated parties in each of these environments is to reduce the anticipated opportunism costs that are inherent in *ex post* adjudication of breach of contract claims.¹⁴ The task is difficult because exogenous factors will determine which party is likely to behave opportunistically, and any effort to design the contract to preclude one party from asserting an opportunistic claim inevitably increases the risk of strategic behavior by the counterparty.¹⁵ The design challenge is compounded by the fact that opportunistic behavior, in whatever form and by whatever party, is very difficult to discover during the litigation process. Hence, the ultimate design goal is to avoid handing a generalist court an interpretive task that the court is unlikely to be able to perform successfully.

Drawing on earlier work with Ronald Gilson and Charles Sabel,¹⁶ I

13. For a discussion of the ways common law courts address these various questions, see ROBERT E. SCOTT & JODY S. KRAUS, *CONTRACT LAW AND THEORY* 537–42, 588–95 (5th ed. 2013).

14. While I will argue that a central purpose of contract design is to reduce the costs associated with opportunistic behavior stimulated by contract disputes (particularly disputes over the meaning of the contract), I do not mean, thereby, to suggest that this is the only purpose of contract design. Clearly, parties also design contracts so as to maintain both parties' opportunities and incentives to realize gains from the relationship over time. It is the case, however, that maintaining the relationship requires a contractual design that reduces the incentives for either party to advance strategic claims during litigation. *See generally* Kostritsky, *supra* note 12.

15. *See, e.g., id.* at 72.

16. In previous work, my co-authors Ronald Gilson, Charles Sabel, and I have assessed

sketch a typology illustrating the wide range of design options sophisticated parties can use to cope with the risk of strategic behavior in litigation. There are two crucial characteristics of the contracting environment that influence how these parties design their contracts. The first is the level of uncertainty—whether commercial practices are stable and predictable, or, alternatively, are continuously disrupted by unforeseeable changes in technical possibilities and market conditions.¹⁷ All else equal, the higher the level of uncertainty, the more difficult it is for parties to write complete, state-contingent contracts and the greater the challenge for courts to interpret the parties' instructions correctly. The second crucial characteristic is the scope, thickness, or scale of the market—whether there are many traders or only a few engaged in a particular class of transaction using similar contracting strategies.¹⁸ All else equal, the greater the number of traders engaged in a transaction, the more likely that the contractual regime—terms adapted to current need and a mechanism for adjusting terms as needs change—will be provided by a collective entity, such as a trade association, and disputes arising under it are likely to be resolved by a specialized arbitral body.¹⁹ By

how two key factors—uncertainty and scale—shape how contracting parties deal with a particular manifestation of uncertainty: the need to change existing contracting practices in order to respond to new circumstances created by changes in the economic environment. *See generally* Gilson, Sabel & Scott, *supra* note 3; Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contract and Innovation: The Limited Role of Generalist Courts in the Evolution of Novel Contractual Forms*, 88 N.Y.U. L. REV. 170, 172–74 (2013).

17. It is commonplace to follow Frank Knight and distinguish between risk—the likelihood of an event that can be estimated probabilistically—and uncertainty—the likelihood of whose occurrence, or even whether it could happen at all, is unknown. FRANK H. KNIGHT, *RISK, UNCERTAINTY AND PROFIT* (1921); *see also* Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431, 433 n.2 (2009). Any particular transaction will present elements of both risk and uncertainty but in different proportions. I will treat the term “low uncertainty” as covering situations in which probabilistic assessments can be made in important respects, and I will use the term “high uncertainty” for circumstances where probabilistic assessments are of little consequence. Thus, a high level of uncertainty exists when exogenous events that may affect the parties' obligations to perform are unknown or cannot be estimated probabilistically. In contrast, under conditions of low uncertainty, sophisticated parties can identify the relevant risks that may impede future performance, estimate their occurrence probabilistically, and allocate those risks in the resulting agreement. For a helpful discussion of how the incomplete foresight associated with Knightian uncertainty is central to institutional (contractual) design, see Rudolph Richter, *Efficiency of Institutions: From the Perspective of New Institutional Economics with Emphasis on Knightian Uncertainty* 17–21 (July 13, 2012) (unpublished manuscript), <http://ssrn.com/abstract=2105604> [<http://perma.cc/C5UU-X4PV>].

18. A thick market is one in which many commercial actors are exchanging goods or services by using the same or similar contracting behaviors and strategies. Hence the contracting is multilateral. In thin markets, the contracting is bilateral.

19. Gilson, Sabel & Scott, *supra* note 16, at 176–79.

deploying sophisticated design strategies tailored to these particular environments, parties are able both to reduce the risk of opportunism and to cabin the role of the decision maker tasked with policing this difficult-to-verify behavior.

The Article proceeds as follows: In Part II, I focus on a neglected area of legal scholarship: What explains why parties breach their contracts? Here I develop a novel variation on opportunism that I identify as “shading,” a behavior that more accurately describes the vexing problems courts face in rooting out strategic behavior in contract litigation. Part III provides some empirical support for the claim that shading behavior is both pervasive in litigation over contract breach and extremely difficult for generalist courts to detect and offers an explanation for why this is so. Part IV addresses history to show that in pre-industrial England generalist courts, in contrast to today, were better able to police shading behavior. The merger of law and equity together with the growing heterogeneity of the modern global economy has left generalist courts incapable of identifying, with any degree of accuracy, who among the litigants is behaving strategically.

Finally in Part V, I focus on the critical roles of uncertainty and scale in determining how legally sophisticated parties, both individually and collectively, design their contracts. Here I advance the claim that, in each of the environments that make up the design space for contracting, *ex ante* design by commercial parties is a more effective means of deterring opportunism than is *ex post* evaluation of the contractual context by generalist courts. By deploying sophisticated design strategies tailored to particular environments, parties are able to cabin (and thereby render more effective) the role of the decision maker tasked with policing difficult-to-verify shading behavior.

II. WHY DO CONTRACTING PARTIES BREACH?

The fundamental challenge for lawyers in designing a contract is that contractual obligations are agreed to *ex ante* (at the time the contract is formed) but are enforced *ex post* (after the transaction has broken down and parties are litigating). Because courts have the benefit of hindsight, the *ex post* world sometimes, though not always, resolves the uncertainties of *ex ante* contracting. In order to resolve those uncertainties, however, courts must be empowered to interpret contract terms. But here is the rub: The invitation to interpret the agreement

creates an opportunity for a mulligan,²⁰ a “do-over,” where either party can behave strategically. The party who is disappointed by subsequent events may argue that the contract as written does not fully reflect the parties’ true agreement, and conversely, the party who was blessed by fate may argue that the contract as written is exactly what the parties intended even though it appears in hindsight to lead to unreasonable results.²¹ Anticipating this problem, the challenge for contract design is to choose between two very different options: either to expend additional drafting and negotiating costs in order to devise innovative contract terms that reduce the likelihood of future strategic behavior or to postpone those costs and delegate discretion to a later court to root out and deter this strategic behavior once litigation arises.

There are several reasons why contract law doctrine does not provide any guidance on how best to respond to this challenge, but one in particular stands out: Contract law scholars have neglected one of the most significant reasons why parties are found to be in breach of their contracts. The difficulty starts with a misspecification of the problem. It is incorrect to think of contract breach as either the actions (or inactions) of one party who thereby fails to perform its contractual obligations satisfactorily. Properly understood, breach does not follow automatically from the alleged non-performance of one of the parties to the contract. Rather, breach is the *legal conclusion* reached by a court after it has assessed the actions of both parties.²² So let’s ask the question more precisely. Given the coercive power of the state to enforce contracts and award compensatory damages, why do parties ever act in ways that lead courts to declare a breach? There are three major explanations. First, many actions that lead to breach are inadvertent; that is, parties are held in breach because they are unable to provide a timely and conforming performance. For our purposes it does not matter why—it could be failures in production, supply, or any other of a host of exogenous shocks that prevent full and complete performance. In any event, inadvertent breach does not implicate contract design (at least not directly).

20. A “mulligan” is a second chance to perform an action, usually after the first chance went wrong through bad luck or a blunder.

21. See Kenneth Ayotte, Ezra Friedman & Henry E. Smith, *A Safety Valve Model of Equity as Anti-Opportunism* (Nw. Law & Econ., Research Paper No. 13-15, Mar. 30, 2013), <http://ssrn.com/abstract=2245098> [<http://perma.cc/AZ73-7UJV>].

22. In litigation there is only one breacher, and that party frequently loses the entire benefit of its bargain by sacrificing what may have been extremely valuable return rights in the contract. I have elsewhere identified this as “the breacher-status” problem. See Charles J. Goetz & Robert E. Scott, *The Mitigation Principle: Toward a General Theory of Contractual Obligation*, 69 VA. L. REV. 967, 983–84 (1983).

What about advertent (or purposive) actions that result in a breach of contract judgment? Here there are two candidates. One hypothesis can be traced rather directly to an article that Charles Goetz and I wrote thirty-five years ago.²³ Developing an idea first suggested by Robert Birmingham in 1969²⁴ and further developed by Richard Posner in 1972,²⁵ we coined the phrase “efficient breach.” Efficient breach theory was based on the premise that a contractual obligation is not necessarily an obligation to perform but rather an obligation to choose between performance and compensatory damages. Goetz and I explained the standard default rule of expectation damages by hypothesizing that “breach will occur where the breaching party anticipates that paying compensation and allocating his resources to alternative uses will make him ‘better off’ than performing his obligation.”²⁶ It was a nice try but, in fact, the theory does not fit the data very well. There are very few examples in the case law of an efficient breach in which one party has chosen not to perform and instead offered to pay the expectation damages that are subsequently assessed by a court.²⁷ What commercial

23. Charles J. Goetz & Robert E. Scott, *Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach*, 77 COLUM. L. REV. 554 (1977).

24. Robert L. Birmingham, *Damage Measures and Economic Rationality: The Geometry of Contract Law*, 1969 DUKE L.J. 49.

25. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 4.9 (2d ed. 1972).

26. Goetz & Scott, *supra* note 23, at 558.

27. A variant on the idea of efficient breach that I have offered elsewhere is to shift the focus to “efficient salvage.” This analysis focuses on the question: which party has the advantage in acquiring substitute goods in an imperfect market?

Once a regret contingency has occurred, the promisor has two principal options: (1) perform the contract notwithstanding the contingency and accept any corresponding losses or (2) breach the contract and pay a compensatory damage award. Since the disappointed promisor will bear the full cost of the choice between “perform and lose” and “breach and pay,” she is motivated to choose the least costly option. Thus, if a seller believes that she can cover more cheaply than the buyer, she will simply purchase substitute goods on her own initiative and perform her obligation by supplying the substitute goods. (In such a case, the buyer may never know there was ever a problem with the seller’s performance.) Indeed, there are strong incentives for most sellers to select the ‘perform and lose’ option and not to breach. . . .

Thus, given the fact that the law requires compensation for breach, why would any seller ever breach? One possible explanation is that the seller might breach when she determines that the buyer is better able to cover on the market and thus reduce the seller’s anticipated losses on the contract. Breach, under this conception, is a “cry for help” by the seller. It is a request for the buyer to salvage the broken contract at least cost and to send the seller the damage bill.

parties do who wish to reserve an option on the contract performance is to stipulate in the contract an exercise price for the option to terminate and walk away from the contemplated exchange. The option may take the form of “break up” fees, a stipulated damages clause, or a term that permits one party to terminate, cancel, return, or redeem goods.²⁸ What parties do not do, however, is to leave the exercise price to be determined at the discretion of a court following a declaration of contract breach. In that sense, efficient breach is both a null set as well as an oxymoron. So, while we meant well, Goetz and I are probably primarily responsible for leading a generation of scholars down the wrong garden path.²⁹

Does this mean that the data show there is no such thing as an advertent breach in the sense of a conscious action that is later found by a court to be a breach of a promise to perform? Not at all! There are literally hundreds of cases where parties have been found by a court to have consciously breached their obligations under the contract. The interesting thing about these cases, however, is that “breach” is not the result of a rational choice between the alternatives of undertaking a performance that costs more than it is worth or paying equally costly compensatory damages. Rather, it is a conclusion reached by a court following a trial in which both parties insisted that their behavior was entirely proper under the contract. So what is going on here?

One possibility is that one of the parties—let’s call him “the doofus”—is simply miscalculating the kind of performance the contract requires. If so, then the party’s actions are merely inadvertent, the product of a mistaken judgment, and thus are no different from any other error that prevents a party from performing as promised. A second—much more likely—possibility, however, is that the dispute occurs because one of the parties is welching on the deal. If we knew which party was behaving strategically, we might well be tempted to label this latter behavior as opportunism. Indeed, Ken Ayotte, Ezra Friedman, and Henry Smith have recently argued that the risk of opportunistic breach is sufficiently acute that courts should zealously police against opportunism by

28. For discussion see Robert E. Scott & George G. Triantis, *Embedded Options and the Case Against Compensation in Contract Law*, 104 COLUM. L. REV. 1428 (2004).

29. The theory of efficient breach has stimulated a veritable cottage industry of scholarly articles over the ensuing years. For a review of the literature, as well as an argument that the choice between performance and the payment of compensatory damages is not properly characterized as a choice whether to breach efficiently but rather should be understood as a choice between alternative ways to perform the contract, see Daniel Markovits & Alan Schwartz, *The Myth of Efficient Breach: New Defenses of the Expectation Interest*, 97 VA. L. REV. 1939 (2011).

deploying their traditional equity powers to punish an opportunistic party even in the face of a fully integrated and unambiguous written contract.³⁰ They contend that this heightened risk of opportunism undermines any argument that sophisticated parties are better equipped to deal with the risk of opportunism in advance through rational contract design. Contrary to the views of these scholars, however, I am going to defend the view that reliance on contract design is, in fact, a better approach. My claim is that what the proponents of a return to traditional equity believe can be done as a matter of theory, generalist courts, in fact, cannot do (at least not reliably).

Let's begin with the concept of opportunism. Oliver Williamson famously defined opportunism as "self-interest seeking with guile."³¹ But that characterization isn't quite right here: As it appears initially to the court, both of the contracting parties are guileless. Thus, we need to sort the behavior of the honest but mistaken breacher (who is not an opportunist to be sanctioned by a court using its equity powers) from behavior that is, in fact, self-interested but appears completely guileless. So, let's call the latter behavior that I am describing "shading," as in shading the truth. My hypothesis is that both the parties and the courts face a fundamental dilemma: First, that shading behavior is ubiquitous, and second, that it is nearly impossible for a court to sort out who is the doofus and who is the shader. In the following parts of the Article, I try to defend both of these propositions.

III. WHY IS SHADING PERVASIVE AND UNDETECTABLE?

Why is it that shading is so pervasive? There are several reasons, but most important is the fact that all contracts—even those carefully drafted in every detail—must be interpreted. Even if the interpretation is by a formalist court that relies on the parol evidence and plain meaning rules to limit its inquiry to the text of the agreement and its plain language, the court is still required to harmonize and make coherent a contract with over one hundred individual provisions, each of which may be unambiguous when viewed in isolation but subject to interpretation when taken together. This means that all contracts depend on courts to implement correctly the *ex ante* instructions the parties have embedded in their agreement.³² Those instructions can be framed either as "hard"

30. Ayotte, Friedman & Smith, *supra* note 21.

31. Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J. L. & ECON. 233, 234 (1979).

32. The state's general rules of contract provide a set of standard gap-filling assumptions

terms (precise, bright-line rules) or as “soft” terms (broad standards) or, more often, as combinations of the two. But whether hard or soft, one party or the other will obtain a significant *ex post* advantage whenever there is a substantial exogenous shock between the time of contracting and the time of performance.³³ Thus, if the contract terms are hard, the party with the apparent benefit of a bright-line rule, anticipating an interpretation in its favor, can extort rents in return for agreeing to adjust its behavior in ways that would reduce the *ex post* losses of the counterparty. (Let’s call this Type I shading.) In light of the problem that hard terms can work an injustice to the party who has been disadvantaged by fate, many scholars have argued that courts should imply broad standards of reasonableness or good-faith adjustment to moderate the effects of the bright-line obligation that subsequently proves so vexing.³⁴ But this strategy merely shifts the advantage to the counterparty. Substituting a soft standard—such as good-faith adjustment—for the hard rule merely creates a moral hazard risk on the other side, inviting a losing party to exploit the court’s discretion by persuading it to reallocate losses that were in fact allocated to the losing party by the contract (call this Type II shading).³⁵

Shading is not only pervasive but it is also difficult to detect. Often the shader is entirely sincere in her belief that she has complied with the contract and that it is the counterparty who is the breacher. There are two related but distinct phenomena here. The first is the “noisy prisoner’s dilemma” problem: It is very difficult for parties engaged in iterative acts of performance to interpret correctly the behaviors of their counterparty. A cooperative action can often be misinterpreted as a defection and vice

or default rules. But every contract requires the parties to provide some additional individualized content. These combinations of express terms and default terms operate on two distinct levels. On one level, they serve as an attempted interparty communication of the risks and entitlements being exchanged. On another level, these terms, in combination, communicate evidence of the contractual understanding to the state. Thus, they are signals of the legal relationship between the parties. Unfortunately, these signals are inherently error-prone. For discussion, see Charles J. Goetz & Robert E. Scott, *The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms*, 73 CALIF. L. REV. 261 (1985).

33. See Goetz & Scott, *supra* note 22, at 977–81.

34. E.g., Robert A. Hillman, *Court Adjustment of Long-Term Contracts: An Analysis Under Modern Contract Law*, 1987 DUKE L.J. 1; Richard E. Speidel, *The New Spirit of Contract*, 2 J.L. & COM. 193 (1982) Richard E. Speidel, *Court-Imposed Price Adjustments Under Long-Term Supply Contracts*, 76 NW. U.L. REV. 369 (1981).

35. Soft terms such as “good faith adjustment” remain as intractably ambiguous to judges as to the parties themselves, especially since the promisor can act strategically in establishing the facts and in persuading the court what “good faith” should entail.

versa. This can lead to sincere but mistaken retaliation against a perceived breach of trust.³⁶ Second, there is a phenomenon that every good commercial lawyer understands: The behavioral reality is that agreeing before the fact to bear a low-probability, long-tail risk is quite a different matter from being willing to absorb the entire cost of the event once the risk materializes. The prospect of suffering large *ex post* losses can produce a form of cognitive amnesia in which both parties are convinced that their behavior is perfectly consistent with their contractual obligations. To be sure, a party's claim of compliance may be blatantly strategic, in which case the court will be confronted with a self-conscious opportunist in shadher's clothing. But in any event, there is no "breach" in any meaningful sense of the word unless and until a court—acting as a referee—assesses the evidence and makes a call.

One might be tempted at this juncture to turn to relational contract theory and ask whether norms of trust, reciprocity, and the desire to preserve one's reputation will deter shading on the margin and avoid the problem altogether.³⁷ But relationships built on trust alone are little help in this situation. Contract disputes of this sort present an end game, "bet the ranch" situation in which the relationship will come to an end one way or the other, so the shadher has little to lose. Moreover, even if contracting parties are willing to punish selfish or unfair actions by their counterparty, as the behavioral research suggests,³⁸ this won't deter shading either. As

36. Robert E. Scott, *Conflict and Cooperation in Long-Term Contracts*, 75 CALIF. L. REV. 2005, 2031 (1987).

37. When parties choose formal contract, they enlist the state through the judicial system to assess the performance of their specified rights and obligations and impose remedies in the event of breach. Alternatively, parties can enforce the agreement informally by their actions alone without judicial intervention. In this case, performance is encouraged and breach penalized by the cancellation of expected future dealings with the counterparty, by the loss of reputation (with the resulting reduction in future business with other potential counterparties in the relevant economic and social communities), or by an individual taste for reciprocity that rewards cooperation and punishes defection. See, e.g., Benjamin Klein, *Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships*, 34 ECON. INQUIRY 444, 449–50 (1996); Janet T. Landa, *A Theory of the Ethnically Homogenous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. LEGAL STUD. 349 (1981). An excellent survey of early informal enforcement mechanisms is Avner Greif, *Informal Contract Enforcement: Lessons from Medieval Trade*, in 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 287 (Peter Newman ed., 1998). For discussion of how iterative interactions between parties to long-term contracts can create a stable equilibrium of enforceable obligations in the absence of a substantial exogenous shock, see Scott, *supra* note 36, at 2027–30.

38. See, e.g., Ernst Fehr, Alexander Klein & Klaus M. Schmidt, *Fairness and Contract Design*, 75 ECONOMETRICA 121 (2007); Ernst Fehr & Klaus M. Schmidt, *Adding a Stick to the Carrot? The Interaction of Bonuses and Fines*, 97 AM. ECON. REV. 177 (2007); Ernst Fehr, Georg Kirchsteiger & Arno Riedl, *Gift Exchange and Reciprocity in Competitive Experimental Markets*, 42 EUR. ECON. REV. 1 (1998).

I have suggested, both parties see themselves as behaving fairly under the circumstances and, therefore, feel that their actions are fully justified.

So what is a court supposed to do? As I mentioned earlier, several scholars have recently argued for a return to traditional equity. On this view, courts would make a Solomonic determination of who is the likely opportunistic party and impose sanctions independently of what the contract appears to require.³⁹ But before we endorse that approach, we must first answer a key empirical question: Can generalist courts find the shaders among the doofuses? To begin to answer that question, I assembled a data set of seventy-five randomly selected contract disputes where the issue before the court was “who breached the contract”? I tested two hypotheses. First, that disputes in which a party could plausibly be guilty of either Type I or Type II shading are common. Second, that courts in such cases would not (or could not) reliably identify behavior as opportunistic. The hypothesis that shading disputes are frequent is a function of the fact that disputes of this sort often require a third party to resolve. The second hypothesis rests on the claim that generalist courts lack the resources required to understand the underlying context of the transaction and uncover subtle forms of aberrant behavior.

Conceding that there is a considerable amount of judgment involved in my coding of the cases, the tentative findings are consistent with both hypotheses. Of the sixty-six unique cases, fifty-four plausibly contained either Type I or Type II shading. Of these fifty-four cases, self-interested behavior was alleged in twenty cases. Of these twenty cases, the deciding court found one party to be behaving opportunistically in only two instances.⁴⁰ To be sure, these results are only suggestive. These courts

39. See Ayotte, Friedman & Smith, *supra* note 21.

40. The empirical exercise examined a sample of cases for consistency with the two hypotheses. Searches for “Contract Breach Ambiguity,” “Contract Breach Mistake,” and “Contract Breach Plain Meaning” from “All State” and “All Federal” cases on Westlaw produced a population of over ten thousand cases. A random sample of seventy-five cases was selected from this population. The cases produced by each search term were first sorted by relevance. Starting with the first case from each list, every fourth case was selected for the sample for a total of twenty-five of the one hundred most relevant cases (i.e., cases one, five, nine . . . ninety-seven). Conducting this procedure for each of the three search terms produced a sample of seventy-five cases. Of these seventy-five cases, there were sixty-six unique cases. The sixty-six cases were coded for (1) if Type I or Type II shading was a plausibly component of the suit, (2) express or inferred claims by one party that the counterparty was behaving strategically, and (3) if the court found that one party was indeed acting opportunistically. Each case was then categorized as Category One (shading is plausible), Category Two (shading is plausible and strategic behavior was alleged), or Category Three (shading is plausible, strategic behavior was alleged, and the court found opportunistic behavior). See cases cited in Appendix.

could be resolving the doofus/shader determination *sub rosa* but are declining to identify it explicitly. Moreover, in six of the cases where self-interested behavior was alleged, the courts were just deciding appeals from summary judgment or motions to dismiss and did not address the issue of opportunistic behavior. But for those who hope that generalist courts can deter opportunistic behavior in litigation, the judicial silence gives us, at best, a very noisy signal.

There are other data that support the hypothesis that generalist courts are poor candidates for using their equity powers to reduce the incidences of opportunism. One line of analysis shows the difficulty of measuring allegedly opportunistic behavior against the norms and customs of the relevant trading community. Recent research on the medieval law merchant by Emily Kadens and Lisa Bernstein's extensive research on 20th century trade associations have shown that ongoing, "traditional" dealings never crystalize into well-defined, customary usages of trade at all.⁴¹ This evidence suggests that many courts, when asked to identify a trade usage, rely exclusively on interested party testimony rather than on a careful evaluation of complex evidentiary submissions. For example, evidence of a usage of trade as to the reasonable time for delivery of the contract product may turn on the testimony of the plaintiff's warehouse manager that shipments usually arrive within three days. In short, there is virtually no evidence that courts undertake the kind of empirical investigations needed to find a relevant custom and then use the resulting norm to identify opportunistic behavior—and even less reason to imagine that they could succeed if they did.⁴² Long-term, reciprocal relations

41. See Emily Kadens, *The Myth of the Customary Law Merchant*, 90 TEX. L. REV. 1153, 1176–77 (2012); Lisa Bernstein, *Trade Usage in the Courts: The Flawed Conceptual and Evidentiary Basis of Article 2's Incorporation Strategy* 18–21 (Coase-Sandor Inst. for Law & Econ., Working Paper No. 669, 2014) [hereinafter Bernstein, *Trade Usage in the Courts*], <http://ssrn.com/abstract=2366533> [<http://perma.cc/Z4JM-49VK>] (analyzing empirical evidence showing courts typically rely on unreliable evidence to establish usages); Lisa Bernstein, *Merchant Law in a Modern Economy* 9–12 (Coase-Sandor Inst. for Law & Econ., Working Paper No. 639, 2013) [hereinafter Bernstein, *Merchant Law in a Modern Economy*], <http://ssrn.com/abstract=2242490> [<http://perma.cc/JB6T-TJVN>].

42. As a number of scholars have noted, the "incorporation mechanism" introduced into the UCC by Karl Llewellyn has not functioned as he intended. See, e.g., James Whitman, *Commercial Law and the American Volk: A Note on Llewellyn's German Sources for the Uniform Commercial Code*, 97 YALE L.J. 156, 174–75 (1987). Llewellyn believed that customary practice had only an epistemological and not also a normative relevance. His reservations about generalist courts were similar to those advanced here, and he was thus unwilling to rely solely on judicial intuitions to undertake what was essentially an empirical inquiry. As a consequence, he proposed a mechanism by which these local norms could be identified by courts: The merchant tribunal was a panel of experts that would find specific facts—such as whether the behavior of a contracting party was "commercially reasonable" in

always reflect the idiosyncrasies of the histories of each party with the others in the trading community, and these idiosyncrasies prevent the community's practice from settling into a determinate custom or practice. Thus, even if generalist courts were better equipped for empirical investigation than they normally are, there would typically be no custom-based, context-embedded usage or practice for them to discover and use in evaluating a litigating party's actions.⁴³

Here, then, is the dilemma: enforcing contracts requires interpretation, which means the courts are asked to first identify and then to police shading behavior, but attempting to perform these tasks often leads to errors because the courts are asked to do more than they are able to do.⁴⁴ Left to their own devices, courts either will intervene too much or too little. So, what is the alternative? How do we get just the right amount of judicial policing of contracts? My argument is that sophisticated contracting parties and their lawyers can, and in fact do, design their contracts in ways that invite a court to perform this policing function only when the court is likely to get the question right.

IV. POLICING SHADING AT COMMON LAW

But before we look at the ways contemporary commercial parties design contracts that minimize the shading problem, we should remember that the problem was not always this severe. At early common law, the shading problem was contained by virtue of the historic division of roles between law and equity.⁴⁵ Historically, the English common law applied two different sets of doctrines to interpret a disputed contract. The first consisted of rules—such as the parol evidence and plain meaning rules—that were cast in objective terms that minimized the need for subjective judgment in their application. They were administered strictly,

the context of the particular dispute. But the abandonment of the merchant tribunal in the face of opposition by members of the bar doomed this effort from the start. Imad D. Abyad, Note, *Commercial Reasonableness in Karl Llewellyn's Uniform Commercial Code Jurisprudence*, 83 VA. L. REV. 429, 452 (1997) ("The courts in effect are abrogating the responsibility that the Code drafters assigned to them by treating commercial reasonableness as garden-variety reasonableness, left for the lay juries to decide on a case-by-case basis with no systematic structure resulting from their decisions."); Bernstein, *Trade Usage in the Courts*, *supra* note 41, at 20–21 (empirical evidence shows courts typically rely on unreliable evidence to establish usages).

43. See Richard Craswell, *Do Trade Customs Exist?*, in *THE JURISPRUDENTIAL FOUNDATIONS OF CORPORATE AND COMMERCIAL LAW* 118 (Jody S. Kraus & Steven D. Walt eds., 2000).

44. See Goetz & Scott, *supra* note 32, at 271–72.

45. The discussion in this part draws on Kraus & Scott, *supra* note 12, at 1035–45.

without exceptions for cases in which the application of a rule appeared to defeat its purpose. These doctrines originated in the first seven centuries of adjudication in King's Bench and Common Pleas, the English courts that produced the corpus of the common law from the twelfth to the nineteenth centuries.⁴⁶ The second set of doctrines consisted largely of equitable principles originating in the English Court of Chancery, which, by the end of the fourteenth century, began to exercise overlapping jurisdiction with the common law courts and to hear cases that in "the ordinary course of law failed to provide justice."⁴⁷ These doctrines were framed as broad principles administered loosely and were designed to provide exceptions to the common law interpretive rules. They were generally cast in subjective terms and, therefore, required judges to exercise judgment by evaluating the fairness or the "equities" of the particular transaction.

The Chancery's willingness to provide an independent and alternative forum stemmed from the perception that the common law courts were incapable of policing opportunism because of the strict, rule-bound inclination of common law judges to apply the common law rigorously without reference to the context of the case at hand.⁴⁸ The Chancery's sole focus in contrast was with the equities of the case at bar. Indeed, for many years the Chancery's decrees had no formal precedential effect, which initially freed the Chancery from any concern that its context-specific rulings could undermine the consistency and predictability of contracting.⁴⁹ And, important for our purposes, there was one key

46. J. H. BAKER, AN INTRODUCTION TO ENGLISH LEGAL HISTORY 12–14 (4th ed. 2007).

47. *Id.* at 117. If parties had complaints that did not fit within the confines of existing forms of action, they could petition the King. Even though the King's Bench and Common Pleas courts were created by statute, the King retained authority to hear cases in which he believed the common law was "deficient." In exceptional cases, the King took action by granting a remedy as of grace. As these "exceptional" private suits became more common, they were referred to the King's council. Later, parties addressed their bills directly to the Chancellor, who, under the authority of the council, took responsibility for assigning them to appropriate courts for resolution. *Id.* at 117.

48. *Id.* at 104. In its earliest incarnation, the procedure in Chancery was the antithesis of the procedure in common law courts: no writ was necessary, multiple issues could be joined, evidence was taken free of formal rules, decisions were made by chancellor rather than a jury, the court was always open, and trials could take place anywhere (including the Chancellor's home). *Id.* at 103–04.

49. "In Chancery each case turned on its own facts, and the chancellor did not interfere with the general rules observed in courts of law. The decrees operated *in personam*; they were binding on the parties in the cause, but were not judgments of record binding anyone else." *Id.* at 104. "So long as chancellors were seen as providing ad hoc remedies in individual cases, there was no question of their jurisdiction bringing about legal change or making law." *Id.* at 202.

additional factor: In pre-industrial England, the Chancery was more intimately familiar with the contextual environment of typical party disputes and could fairly sort relevant from irrelevant facts. Thus even though the Chancery reversed or avoided outcomes dictated by the interpretive rules, these actions could be seen as necessary in order to vindicate, rather than undermine, the common law.

Fundamentally, however, the institutions of the common law and the Chancery were at cross-purposes. The result was two competing systems, often with incompatible procedural and substantive doctrines yet overlapping in jurisdiction.⁵⁰ The ultimate result of the merger of law and equity meant that the institutional framework of the state could no longer by itself solve the shading problem. In consequence, commercial parties today are likely to be poorly served if they choose to rely on subjective, equitable review by contemporary courts. Lacking the requisite specialization, courts today are relatively ineffective at uncovering the underlying context that is essential if they are to police opportunism effectively. In contrast to early courts of equity, when the courts were close to the actors in a largely homogenous economy, generalist courts today are removed from the enormously varied, commercial-contracting context in modern economies and, therefore, are critically impaired in their ability to divine how and when parties might seek to exploit the uncertainties of *ex post* interpretation.

So, let's abandon the *ex post* question that asks what contract doctrines best help courts determine when to intervene to deter opportunism. Rather, let's ask the question from the *ex ante* perspective: How can we design a contract that appropriately limits the risk of opportunism and thus properly confines the court's role in supervising the contracting process?

V. POLICING SHADING THROUGH CONTRACT DESIGN

We return to the questions with which we began: How do sophisticated parties and their skilled transactional lawyers—the contract designers of this world—address the shading problem? Is it possible to design a contract in which the court plays a superintending role that is sensitive to the context the parties have created? Unfortunately, we have

50. Ironically, by the nineteenth century the Chancery had developed a set of procedures more arcane and burdensome than the common law procedures it originally sought to mitigate. The resulting administrative delay, combined with corruption born of the Chancery's practice of paying clerks on a fee basis rather than salary, ultimately led to the Chancery's demise. *Id.* at 111–12. Soon thereafter law and equity were merged. *Id.* at 114.

only preliminary data to answer these questions because, as noted above, contract design remains something of a mystery largely neglected by both legal and economics scholars. Indeed, there is a large and growing literature that demonstrates the resistance of contracts to change even in the face of a significant exogenous shock. We know that boilerplate terms in corporate indentures, sovereign bonds, and other standard form contracts resist improvements that would appear to enhance contractual efficiency.⁵¹ Even customized, bespoke contracting emerges from law firm precedents that are tightly protected and resistant to amendment. Yet despite these impediments, contracts do change in many different ways, and the changes appear to be the product of intelligent design, perhaps aided by a quasi-Darwinian evolutionary process of trial and error. Studies of contemporary commercial practices that my colleagues, Ron Gilson and Chuck Sabel, and I have undertaken over the past four years show that sophisticated parties choose several different means of anticipating and deterring shading behavior in the design of their contractual regimes.⁵²

To understand how contracts have evolved to address the shading problem (even as exogenous shocks alter the business environment in unpredictable ways), we should first begin by distinguishing two fundamental design categories. The first and most common is customization or “tailoring” of familiar contractual formulations. This involves changes in the terms within a particular instrument so as to better address particular uncertainties with future states. Thus, for example, in the past fifty years, parties have increasingly inserted vague terms such as “best efforts,” “reasonable best efforts,” or “commercially reasonable efforts” as modifiers that are combined with specific or precise performance obligations under the contract.⁵³ Another example of

51. See MITU GULATI & ROBERT E. SCOTT, *THE THREE AND A HALF MINUTE TRANSACTION: BOILERPLATE AND THE LIMITS OF CONTRACT DESIGN* (2013); see also Omri Ben-Shahar & John A.E. Pottow, *On the Stickiness of Default Rules*, 33 FLA. ST. U. L. REV. 651 (2006); Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (or “The Economics of Boilerplate”)*, 83 VA. L. REV. 713 (1997).

52. See Gilson, Sabel & Scott, *supra* note 3; Gilson, Sabel & Scott, *supra* note 16; Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and Doctrine*, 110 COLUM. L. REV. 1377 (2010); Gilson, Sabel & Scott, *supra* note 17.

53. At the time of contract formation, the parties have a comparative advantage over courts because the parties share the benefits of efficient contracting. At the time of subsequent litigation, however, the court will have the benefit of hindsight. Uncertainty has been resolved, and the court sees realized facts rather than probability distributions. Because the parties cannot foresee all contingencies, they can delegate to the court the task of completing the contract *ex post* by considering relevant context. They indicate this intention by adopting a

customization occurs in thick contractual markets where trade associations or other collective bodies use an updating mechanism external to the parties to propose changes in particular terms that will ultimately be adopted by most, if not all, members of the collective body.⁵⁴

A quite different design challenge has emerged, however, as a product of the enhanced uncertainty triggered by the “information revolution.” The changes in contract design that respond to the challenge of heightened uncertainty are innovative in a much more fundamental way: They involve mutations in the very form of a contractual agreement. In this latter category we see radically incomplete contracts being used to create binding preliminary commitments,⁵⁵ manage supply chains, structure complex platform production relationships, and build pharmaceutical alliances.⁵⁶ Parties in this environment of enhanced uncertainty are doing something different, and we might surmise what they are doing is an effort to solve the shading problem in novel ways.

The starting point for understanding these novel forms of contracting is to focus on two critical characteristics of any particular contracting environment.⁵⁷ The first is the level of uncertainty—are commercial practices stable and predictable, or are they disrupted by unforeseeable changes in technical possibilities and market conditions? All else equal, the higher the level of uncertainty, the more difficult it is for parties to write, and courts to interpret, completely specified and fully integrated contracts. Rather, when the level of uncertainty is high, sophisticated parties develop agreements grounded in the commitment to a regular exchange of private information but with no commitment as to the product that this agreement will produce.⁵⁸ The second characteristic is

general contract term—a standard such as “best efforts”—that directs the court to recover that context evidence relevant to the particular obligation embedded in the contractually specified term. With the aid of interpretation maxims, parties can design combinations of specific and vague terms that more precisely define the “space” within which the court has discretion. Scott & Triantis, *supra* note 3.

54. See Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 MICH. L. REV. 1724, 1745–54 (2001) [hereinafter Bernstein, *Private Commercial Law in the Cotton Industry*]; Lisa Bernstein, *Merchant Law in a Merchant Court: Rethinking the Code’s Search for Immanent Business Norms*, 144 U. PA. L. REV. 1765, 1771–77 (1996) [hereinafter Bernstein, *Merchant Law*]; Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEG. STUD. 115, 119–30 (1992) [hereinafter Bernstein, *Opting Out*].

55. See Alan Schwartz & Robert E. Scott, *Precontractual Liability and Preliminary Agreements*, 120 HARV. L. REV. 661 (2007).

56. Gilson, Sabel & Scott, *supra* note 17, at 438–41.

57. The discussion in this part draws on Gilson, Sabel & Scott, *supra* note 3.

58. My colleagues and I have previously described the character of the contracting

the scope or thickness of the market—whether there are many traders, or only a few, engaged in a particular class of transaction using similar contracting strategies.⁵⁹ All else equal, the greater the number of traders engaged in a transaction, the more likely that the contract terms and the rules for their interpretation—as well as a mechanism for adjusting terms as needs change—will be provided by a collective entity, such as a trade association, that can then provide a court the necessary context for interpretation. The interplay of these two forces—uncertainty and scale—points to the new forms of contracting among sophisticated parties and, at the same time, helps clarify the (often-overwhelming) institutional demands facing a generalist court asked to resolve competing claims by parties to these agreements.

A. When Uncertainty is Low and the Market is Thin: The Case of the (Relatively) Complete Contingent Contract

Uncertainty and scale together determine whether and how the contract in question deals successfully with the shading problem. Begin with the case of thin markets where the key variable is the level of uncertainty: For example, think about the battle for evolving technology in the market for electronics. Here the principal actors are few and scattered. Thus, unlike, say, the grain industry, these parties cannot rely on a trade association to institutionalize their design solutions because

problem facing parties in rapidly innovating industries with high levels of uncertainty:

[T]he transactions governed by these contracts share a number of characteristics. First, the primary output is an innovative “product,” one whose characteristics, costs, and manufacture, because of uncertainty, cannot be specified *ex ante*. Second, neither party alone has the capacity to specify and develop the product’s characteristics, costs, and methods of manufacture; hence, there must be collaboration among companies with different capabilities. Third, the process of specification and development will be iterative: Individual design elements will depend on the recurrent input from those working upstream or downstream and from those working on other design elements. Thus, central to these transactions are communication and cooperation across the two (or more) firms—the design, specification, and determination of manufacturing characteristics will be the result of repeated interactive collaborative efforts by employees of separate firms with distinct capabilities.

Gilson, Sabel & Scott, *supra* note 17, at 451 (footnote omitted).

59. A thick market is one in which many commercial actors are exchanging goods or services by using the same or similar contracting behaviors and strategies. In this respect, similarity should be understood as a continuum. Broadly similar transactions may still have significant idiosyncrasies, which will influence how a multilateral regime addresses markets that are thick at a general level and thinner with respect to particular transactions. The polar opposite—a thin market—exists when each contracting party must negotiate a bespoke agreement with its counterparty. Here contracting is bilateral.

the market is too thin. In these circumstances, contract design occurs primarily in bilateral relationships, and here the level of uncertainty will determine how the parties respond to the problem of shading.

When uncertainty is low—say, for example, a one-year license of patented electronic software—sophisticated parties can turn to customized, completely specified contracting.⁶⁰ By incorporating any context thought to be relevant as part of the “terms” of a complete, formal agreement, they can specify precisely the evidentiary base that will be made available to a court while still preserving the court’s historic role in policing opportunism. For example, the contract can provide clear directions to a court of the context within which the specified uses of the licensed intellectual property are to be interpreted. This might include (a) a “whereas” or “purpose” clause that describes the parties’ business plans;⁶¹ (b) a series of definition clauses that ascribe particular meanings

60. The ideal for parties in this setting is to write a complete, state-contingent contract. Such a contract specifies *ex ante* the parties’ obligations in each possible *ex post* state of the world and is enforceable according to its terms, thereby assuring that performance occurs when, but only when, it is efficient. But while complete, state-contingent contracts theoretically can address the tension between efficient *ex ante* investment and efficient *ex post* performance, the transaction costs of contracting frustrate this happy outcome. Of particular importance are the information barriers that prevent parties from controlling moral hazard when the future states of the world depend on their own actions. As a result, when the level of uncertainty is high, contracts will be incomplete because it simply costs too much (or may be impossible) for contracting parties to foresee and then describe appropriately the contractual outcomes for all (or even most) of the possible future states of the world that might materialize. Not only is it costly to specify what should happen in different future states, but it is costly to prove what actually did happen. Thus, both *ex ante* and *ex post* contracting costs prevent parties from writing complete, state-contingent contracts. For discussion, see Gilson, Sable & Scott, *supra* note 17, at 452–53.

61. For example, see the following “purpose” clause from the *Fountain Manufacturing Agreement between Apple Computer, Inc. and SCI Systems, Inc.*:

PURPOSE

Apple and SCI entered into a Stock Purchase Agreement on April 4, 1996 (the “Stock Purchase Agreement”) pursuant to which SCI will purchase Apple’s manufacturing facility located at 702 Bandle Drive, Fountain, Colorado (“Fountain”) and certain related assets.

The parties desire that Apple engage SCI to assemble, test and package certain Products, Service Units and Spare Parts, as defined below, on a turnkey basis at Fountain on the terms and conditions of this Agreement.

This Agreement defines the general terms and conditions governing all transactions between them for Products, Service Units and Spare Parts manufactured at Fountain. Individual “Product Plans” attached as Addenda to this Agreement, and incorporated herein by reference, define the specific terms and conditions for each Product, Service Unit and/or Spare Part. The initial Product Plans are attached to Exhibit A and numbered A-1 through A-11. Additional Products and Product Plans

to words and terms that may vary from their plain or ordinary meaning;⁶² and (c) appendices that provide illustrations or examples of the permissible uses of the licensed intellectual property as well as any memoranda the parties want a court to consider in interpreting the contract's text.⁶³ Alternatively, the parties can specify in the agreement that the meaning of terms should be interpreted according to the customs and norms of a particular industry or commercial community. This additional context can supplement precise specifications of outcomes while still constraining a future court's discretion to range more widely than the parties want *ex ante*.

The point here is simply that low uncertainty permits parties to design a contract that dramatically reduces (if not eliminates) the need for courts to inquire into any evidence extrinsic to the written agreement.⁶⁴ By reducing the burden on a court to characterize *ex post* shading behavior accurately, a (relatively) complete contingent contract also reduces the likelihood of a court's making a mistake in interpreting the contract's terms. Correspondingly, it reduces the incentive for the party disfavored by subsequent events (who, after all, is the likely shader) to engage in opportunistic litigation in the first place. In the setting of a completely specified contract, therefore, courts are less mistake prone and parties less likely to encourage mistakes, resulting in less risk of judicial error.

B. *Bilateral Contracting Under Moderate Uncertainty: The Case of Rules and Standards*

Now suppose the contracting parties confront moderate levels of

may be added to this Agreement by addenda to Exhibit A signed by both parties. Such addenda will be numbered sequentially, A-12, A-13 and so on.

In consideration of the above and the mutual promises contained herein, Apple and SCI agree as follows . . .

Fountain Manufacturing Agreement Between Apple Computer Inc., and SCI Systems, Inc. (May 31, 1996) [hereinafter Fountain Manufacturing Agreement], <http://contracts.onecle.com/apple/scis.mfg.1996.05.31.shtml> [<http://perma.cc/YD36-B6BS>].

62. *See, e.g.*, Data Management Outsourcing Agreement Between Allstate Insurance Company and Axiom Corporation, (March 19, 1999) [hereinafter Data Management Outsourcing Agreement], <http://contracts.onecle.com/acxiom/allstate.outsource.1999.03.19.shtml> [<http://perma.cc/NAZ6-LDEA>] (defining thirty-four technical or non-standard meanings, including specialized meanings of "Agreement," "Confidential Information," "Data Integrity," "Current Projects," "Affiliate," "End-User," "Material Default," "Party," "Person," "Problem," "Term," "Work Order," and "Work Product").

63. *See, e.g.*, Fountain Manufacturing Agreement, *supra* note 61, at art. 22 (providing a list of "General Terms" ranging from the relationship of the parties to complete agreement).

64. For discussion, see Schwartz & Scott, *supra* note 12, at 952-55.

uncertainty in the sense that they can identify what should happen in some, but not every, future states of the world. One clear example is the decision to hire a sales representative to market the firm's electronic products following their manufacture. The parties can specify what they want the agent to accomplish as matters stand at the time of drafting the contract: They can identify the potential customer base, or geographic region, and they can specify sales goals. But they cannot detail how the agent will try to market the products, how the agent will allocate her time across different products, or what adjustments the agent should make if market conditions change or competitors alter their strategies. Similarly, what if the product is a new drug and the contract contemplates a license between the owner of the intellectual property and an agent who agrees to secure regulatory approval and commercialize the product. Contracts such as these exemplars will typically charge the agent/licensee with using "commercially reasonable" or "best" efforts to accomplish the specified tasks, reflecting the fact that the appropriate strategy is dependent on the outcome of uncertain events, such as the market demand and competitive conditions for the product in the first example and the results of clinical tests and the course of the regulatory process in the second.⁶⁵ The reason to use standards is clear: Courts assess performance with respect to standards only after the relevant future events have occurred. In this way, parties can obtain the advantage of hindsight: The court has information once the dispute arises that the parties lacked at the time of drafting the contract.

Both of these examples illustrate the design challenge of granting the agent some—but not too much—discretion in choosing the strategies that best meet the parties *ex ante* expectations for performance. In this intermediate range of uncertainty, sophisticated parties use design strategies to constrain the discretion of a court later asked to assess the agent's behavior under the applicable standard. What we see is that parties (or more accurately their transactional lawyers) combine precise or specific obligations with the broad contractual standards.⁶⁶ For example, the contract may provide a list of specific actions the agent is required to undertake as exemplars of behavior that meets the best efforts standard. The specific obligations are directions about the context through which the standard should be applied. By combining specific terms with generalized obligations, the parties can add context evidence

65. For discussion, see Charles J. Goetz & Robert E. Scott, *Principles of Relational Contracts*, 67 VA. L. REV. 1089, 1092–95 (1981).

66. Scott & Triantis, *supra* note 3.

that is revealed over the course of contract performance to the original text of the agreement.⁶⁷ The more effectively this context evidence can be harnessed so as to limit the court's discretion in applying the relevant standard, the more attractive is the use of standards that take advantage of the court's hindsight advantage. In this way, the parties design a contract to answer two key questions: *When* will the court look to context, and *who* decides what context matters?⁶⁸

When and to the extent parties design a regime that deploys these broad standards thus depends on how effectively context can be specified in ways that reduce the risk that a court can be persuaded by a shader to misunderstand or misapply the standard.⁶⁹ To reduce this risk, parties can describe in the contract the context that will be relevant—what industry, what kind of products, and, when possible, the evidence the court should use to measure performance under the standard. In this way, the contractually specified standard directs the court to make use of context

67. The listing of specific actions followed by the general standard of best efforts allows the parties to harness the contract maxim *eiusdem generis* to delimit the set of conditions under which the best efforts standard would apply. Under this maxim, when a list of specific obligations precede a general standard, the specific words restrict the meaning of the general, limiting it to action of the same general type. Scott & Triantis, *supra* note 3, at 848–51.

68. My colleagues and I have elaborated:

Under [these] conditions of [moderate] uncertainty, . . . parties predictably seek to optimize total contracting costs by trading off the respective benefits and costs of commitment and flexibility. They can do this by shifting costs between the front and back end—the two stages—of the contracting process. . . . When the parties agree, for instance, to use their best efforts or to behave in a commercially reasonable manner, the subsequent adjudication of contractual disputes concerning their efforts or behavior requires a court to give precise meaning to those vague phrases. Thus, by using [standards such as these], parties delegate the specification of performance requirements to a court at the back end of the contracting process. The parties must bear the expected costs of litigation (including the costs of [shading] in their conduct). But because a court has the benefit of some information unavailable to the parties at the time of formation, adjudication potentially allows them to benefit from more efficient performance standards than they could have specified *ex ante*. . . . The parties thus tradeoff the benefits of *ex ante* precision (with resulting *ex post* inefficiency) against the hindsight advantage of the court in later litigation tempered by the moral hazard costs inherent in the process.

Gilson, Sabel & Scott, *supra* note 17, at 454–55.

69. The inability of the party seeking enforcement of the contract's terms to observe the counterparty's costs (or to use any reliable proxy to check claimed increases) gives the putative shader an even greater incentive to claim hardship under the contract terms, even when there was none, to capture more of the contractual surplus. Thus, a contract that uses broad standards but does not attempt to constrain the court's discretion is inefficient: The enforcing party will then anticipate the subsequent bad-faith claim for good-faith adjustment and take precautions (such as entering into contingent contracts with other suppliers) that are costly in themselves and produce suboptimal investment in specific assets.

in addition to text, but limits the court's inquiry to only that context evidence that is relevant to the particular obligation embedded in the standard.⁷⁰ Thus even where the level of uncertainty calls for the use of standards, it is the parties and not the courts that choose the balance between text and context that best suits the level and kind of uncertainty the transaction protects.

C. Bilateral Contracting with High Uncertainty: The Case of Collaborative Agreements

A central design question remains: Can parties still solve the shading problem when even greater uncertainties challenge the skills of contract designers? As the level of uncertainty rises even higher, commercial parties (and their lawyers) can no longer rely on the traditional forms of contracting. Over the past fifteen years, the challenges of the information revolution have led to increasing levels of uncertainty and motivated parties in affected industries (and their lawyers) to innovate by designing entirely new and radical forms of contracting.⁷¹ Electronics is a good example of such an affected industry: Electronics firms compete with each other to anticipate and design the next breakthrough in technology—for example, the smart phone platform displaces the PC only to find itself displaced by whatever comes next.⁷²

This high-uncertainty environment, where an entirely new technology can disrupt the status quo, has triggered a revolution in the basic form of

70. With the aid of interpretation maxims, parties can design combinations of precise and vague terms that define more exactly the “space” within which a court has discretion in interpreting the contract. The parties thus might use a precise term requiring adjustment of the contract price together with a vague standard that catches the residual factors that are not covered by the precise term alone. In enforcing this vague term, therefore, the court—aided by the interpretation maxim of *ejusdem generis* (the general is limited by the specific)—will only choose verifiable factors that are similar in kind or related to the precise terms. See Scott & Triantis, *supra* note 3, at 848–51.

71. For discussion see Gilson, Sabel & Scott, *supra* note 17, at 442–48.

72. Beginning roughly in the 1980s and continuing to today, the profusion of new technological possibilities associated with what is loosely called the information revolution operated to intensify the systemic uncertainty arising faced by producers of electronics. Innovations cascaded, often leading to improvement cycles that became self-perpetuating and ultimately transforming the possibilities for new applications. The computer itself is a prime example: Increases in computational power led to improved tools for the design of microprocessors, more-sophisticated materials and more-exacting manufacturing techniques for realizing the new designs. These improvements then led to further increases in the power of computers, and the cycle then replayed. This increasing unpredictability is manifest as the pervasive fear of what Clayton Christensen calls “disruptive” technologies. CLAYTON M. CHRISTENSEN, *THE INNOVATOR’S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* (1997).

the contract. Lawyers for these parties have innovated by designing novel collaborative agreements that only obligate the parties to explore possibilities together without committing them to execute any specific project. Even though there is a formal and very detailed contract of many terms and pages, the contract regulates only the commitment to collaborate, and not the course or the outcome of the collaboration, which is left entirely unspecified. That means any effort to enforce this agreement in court is limited to protecting each party's promised investment in the collaborative process rather than directing a division of any surplus that might result if the collaboration were to succeed.⁷³ Rather than relying primarily on the threat of legal enforcement, this collaboration rests on a governance structure that, over time, creates confidence in the capabilities and trust in the character of the counterparty. Trust and confidence are extremely valuable commodities: Not only do they motivate each party to invest in the relationship but they also make the prospect of abandoning the relationship in order to collaborate with others much less attractive.⁷⁴

The governance of these commercial collaborations shares several common elements. The first element is a commitment to an ongoing, mutual exchange of private information designed to determine if a project is feasible, and if so, how best to implement the parties' joint objectives.⁷⁵ The second element is a procedure for resolving disputes. Its key feature is a requirement that the collaborators reach unanimous agreement on crucial decisions, with persistent disagreement resolved by unanimous agreement at higher levels of management from each firm.⁷⁶ Together these two mechanisms make each party's character traits and substantive capabilities observable and forestall misunderstandings. Working under conditions of uncertainty, the parties can expect to encounter unanticipated problems that can only be solved jointly and that may generate occasions of disagreement. Their increasing knowledge of each other's capacities and willingness to share private information in service of their collective goals facilitates the resolution of problems and constrains opportunistic behavior.⁷⁷

73. *See, e.g.,* *Eli Lilly & Co. v. Emisphere Techs. Inc.*, 408 F. Supp. 2d 668, 696–97 (S.D. Ind. 2006) (holding that the contractual remedy for breach of a collaborative agreement is limited to the right to terminate and retain accrued scientific information).

74. Gilson, Sabel & Scott, *supra* note 52, at 1405–10.

75. Gilson, Sabel & Scott, *supra* note 17, at 476–79.

76. *Id.* at 479–81.

77. *Id.* A non-exhaustive and non-random sample of collaborative contracts that combine formal and informal elements in the manner described in the text can be found at

The limited legal commitment contemplated by collaborative contracting means that there is a significant constraint on the potential role of a court charged with policing shading. Any resulting agreement to produce a specified product or to purchase a key input to production (the usual stuff of contracts) is not part of the formal contract at all. Rather the substantive outputs of the collaboration develop only from the informal relationship of mutual trust that is the result of the collaboration process itself. In effect, collaborative contracting endogenizes trust by formalizing a process that builds parties' confidence in one another and thereafter supports investments in their joint objectives based on the trust created. It follows that a reviewing court's primary focus will be limited to questions of character rather than capability: Has one party cheated, say by using information gained during the collaboration for its own private purposes? Giving generalist courts the single responsibility of rooting out "red-faced" cheating reduces any instinct the court may have

onecle.com, <http://www.onecle.com>, and the Contracting and Organizations Research Institute, <http://cori.missouri.edu> [<http://perma.cc/X8DW-92NB>]. See, e.g., Agreement between Phoenix Technologies Ltd. and Intel Corporation (December 1995), <http://contracts.onecle.com/phoenix-tech/intel.supply.1995.12.18.shtml> [<http://perma.cc/8YQE-6TZM>] (supply contract for Phoenix to be a principal supplier of system-level software to Intel); Airbus A320 Purchase Agreement between AVSA S.A.R.L. and New Air Corporation (Apr. 20, 1999), <http://contracts.onecle.com/jetblue/airbus.a320.1999.04.20.shtml> [<http://perma.cc/ZF2E-HT4U>] (JetBlue and Airbus purchasing agreement); Component Supply Agreement between American Axle & Manufacturing, Inc. and General Motors Corporation (February 18, 1994) (on file with author) (requirements contract for motor vehicle components to be supplied by AAM to GMM); Data Management Outsourcing Agreement, *supra* note 62 (contract for Axiom to develop a data acquisition system to support Allstate's underwriting of new business in auto and property insurance); Development Agreement between Nanosys, Inc. and Matsushita Electric Works, Ltd. (Nov. 18, 2002), <http://contracts.onecle.com/nanosys/matsushita.rd.2002.11.18.shtml> [<http://perma.cc/X8DW-92NB>] (collaboration agreement to develop photovoltaic devices with nano components in Asia); Fountain Manufacturing Agreement, *supra* note 61 (a contract manufacturing agreement for SCI to produce designated products at the Fountain, Colo., plant); General Terms Agreement between the Boeing Company and Spirit Aerosystems Inc. (June 30, 2006) (general terms agreement covering purchase orders by Boeing for particular product to be supplied by Spirit); Long Term Agreement between John Deere & Company and Stanadyne Corporation (five-year supply contract for the purchase of fuel filtration systems, injection nozzles, and related products by Deere from Stanadyne); Research, Development and License Agreement between Warner-Lambert Company and Ligand Pharmaceuticals Inc. (Sept. 1, 1999), <http://contracts.onecle.com/ligand/warner.rd.1999.09.01.shtml> [<http://perma.cc/L3JB-XG4E>] (pharmaceutical research and development collaboration between "big pharma" and "little pharma"). See also examples of collaborative contracts cited in George S. Geis, *The Space Between Markets and Hierarchies*, 95 VA. L. REV. 99 (2009).

to roam farther into the commercial context in an attempt to find the parties “true” intentions.⁷⁸

D. Thick Markets and Low Uncertainty: The Case of Trade Associations

Let’s turn now and see how scale—the thickness of the market—changes the landscape of contract design. All else equal, the greater the number of traders engaged in the same kind of a transaction, the more likely that the contracting infrastructure—terms adapted to current need in the form of standard contracts and industry codes—will be provided jointly as an industry-specific public good by a trade association. I have just discussed how shocks in the economic environment produce innovations in contractual form in bilateral relationships. Similarly, exogenous factors can stimulate the creation of innovative contractual forms in multilateral contexts. In such a case, the contract designs are institutionalized outside the participating firms and arise when markets are thick—many contracting parties are affected by the same exogenous event or, even in the absence of such an event, many parties are acting in the same commercial environment.

Consider, for example, the market for key commodities—grain, cotton, and the like. Here we encounter a thick market where many parties engage in the same or similar forms of contracting. When markets

78. *Eli Lilly*, 408 F. Supp. 2d 668, is an example of a court that was able to solve the shading problem by focusing solely on the opportunistic behavior of the shader. The parties to this pharma/biotech collaboration had entered into a form of agreement that committed each party to share private information in the hopes of a collective scientific breakthrough. Lilly subsequently undertook secret research projects using information that had been jointly developed. Holding that Lilly had breached the contract and therefore forfeited its investment in the joint project, the court concluded:

Lilly and Emisphere entered into a close, collaborative research relationship that required trust and good faith on both sides. After several years of joint research, Lilly decided it really did not need Emisphere any further, so it decided to pursue a secret research strategy in breach of its contractual obligations to Emisphere. The parties in this case are both highly sophisticated and well-counseled businesses that have the right to try to exercise their full legal rights under the relevant contracts. Lilly has asserted theories to justify its actions under the contracts, but those theories are not supported by the evidence or the law.

Id. at 697. By sanctioning only “red faced” violations of the collaborative agreement, such as the secret research group formed by Lilly outside the informal exchanges created by the agreement itself, the court did not attempt to regulate the nature or course of the collaborative interactions. Thus, the maintenance of the collaboration protocols established by the parties, and of the resulting specific investments in information exchange, was left entirely within the province of the internally generated, informal enforcement mechanism. The formal enforcement only excluded a (secret) alternative process that undermined the trust that was in fact generated through collaboration.

are thick, the costs of design can be spread in the sense that many actors face similar risks and stand to benefit from concerted responses to them. In this environment, the affected parties often institutionalize their contract design through the collective action of industry associations. Once again, the design challenge will vary according to the level of uncertainty faced by the actors, but scaling the contractual product permits novel solutions to the shading problem.

Notice how scale changes the parties' design responses even in low uncertainty settings. Let's assume that commercial practices in a particular industry are stable and well understood by a substantial community of traders. Nevertheless, a generalist judge cannot be expected to have knowledge of such embedded trade practices or be able to conveniently obtain the information needed to make an accurate determination of which party is the shader.⁷⁹ So the trade association has to cope with the adverse consequences of judicial ignorance while, at the same time, creating a framework to reduce the risk of shading. This challenge motivates the trade association to engage in innovative design. What is the result? Many of these trade groups have chosen to rely on expert arbitrators to strictly enforce industry-approved, standardized contract terms. They regularly update the terms to keep them current with practice as it evolves. In this way, the trade group enlists a third party with a limited charge: Just monitor the shading risk by holding parties to the strict terms of the contract.⁸⁰ But what about context—the party-to-party adjustments that are always necessary as changed conditions affect performance? That is left entirely to relational norms of reciprocity (tit for tat) and the discipline of repeated dealings.⁸¹ As a consequence, the risk of parties' making strategic arguments about the "true agreement" is eliminated. This is a solution that cabins the court's

79. The problem here is that a generalist court is (and will remain) largely ignorant of the common knowledge of the trade. The goal of the collective regime that emerges is to design contracts in ways that (a) "render[s] insider understanding in terms that can be incorporated into everyday contracting," (b) "establish[es] methods for the expeditious resolution of disputes arising under these agreements," and (c) "institutionalize[s] a process for keeping terms and forms of dispute resolution abreast of developments in the economic environment." Gilson, Sabel & Scott, *supra* note 16, at 200–02.

80. The contracting regime in the U.S. cotton industry that originated in the mid-nineteenth century and took on its modern form in the 1920s is a prominent example of this cluster of functions. Bernstein, *Private Commercial Law in the Cotton Industry*, *supra* note 54, at 1724, 1745–54. For discussion of analogous multilateral regimes, see Bernstein, *Opting Out*, *supra* note 54; Bernstein, *Merchant Law*, *supra* note 54, at 1765, 1771–77.

81. See Bernstein, *Private Commercial Law in the Cotton Industry*, *supra* note 54, at 1743–44 (describing the informal flexibility of transactors and the importance of adjudicative unwillingness to transform this flexibility into an obligation).

enforcement role much more successfully than in the parallel case of the bilateral standardized agreement—the paradigmatic exchange of purchase order and acknowledgment forms—that is governed by the context-friendly UCC.⁸²

E. Thick Markets and Higher Uncertainty: The Case of Expert Courts

What happens in thick markets when uncertainty increases and, as in the case of bilateral contracting, the parties need to rely on standards so as to harness the hindsight advantage of a court?⁸³ Consider the setting where there are a large number of highly complex transactions that share general features but where each transaction has significant idiosyncrasies and the common background conditions shift rapidly. This is the setting in which, for example, the legal rules governing the obligations of boards of directors in corporate acquisitions are applied. One way to understand why a majority of U.S. public corporations choose Delaware as an incorporation state is that it serves to allocate to the Delaware Court of Chancery jurisdiction to resolve fiduciary duty issues. Delaware corporate law gives corporations wide latitude to adopt specific rules governing their behavior, but, in fact, Delaware corporations appear to have limited their *ex ante* contracting in the articles of incorporation and bylaws to formal issues such as meeting dates. The reason is uncertainty: A corporation's circumstances and the evolution of the market for corporate control are too uncertain to specify *ex ante* conduct rules that will govern all of the corporation's activities in the future.⁸⁴ Formal compliance with *ex ante* rules thus remains subject to *ex post* court review

82. The problem with sales law contracts governed by the UCC is that the number of parties, their relatively small size, and the idiosyncrasies of their dealings make the development of an interpretive community, such as in the cotton market, infeasible. The heightened risk of error by a generalist court seeking to police shading is a function of two core problems. The first is the growing evidence that, even in a stable world, custom and practice do not tend towards the kind of equilibria that can be captured in a rule, and that in a world of uncertainty even such jittery constancy as exists in commercial practice in quiet environments is constantly changing in response to exogenous and endogenous factors. *See id.* at 1743–44, 1775–76 (discussing the interaction of exogenous factors and endogenous shading responses by the parties). In short, there may not be any stable custom or usage for the court to find as a fact, as the legal doctrine currently assumes can be done. Second, and perhaps for the foregoing reasons, there is growing evidence that generalist courts do not even try to find the relevant custom and usages. This evidence suggests that many courts, lacking expertise, rely on interested party testimony and unsupported assumptions of reasonable commercial behavior rather than a careful evaluation of complex evidentiary submissions. Bernstein, *Trade Usage in the Courts*, *supra* note 41, at 14–18.

83. This section draws on Gilson, Sable & Scott, *supra* note 3, at 92–95.

84. *See* Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value?: Antitakeover Protection in IPOs*, 17 J. L. ECON. & ORG. 83, 87 (2001).

through a standard—the director and officer’s overriding obligation of fiduciary duty.⁸⁵ Just as contracting parties operating under increasing uncertainty rely on standards to harness a court’s hindsight advantage, *ex post* gaps in a corporation’s articles of incorporation and bylaws are similarly filled by a standard. But the thick market enables a corporation to mitigate the shading problem by incorporating in a jurisdiction that has sufficient scale of incorporations that its judges develop the necessary experience and expertise.⁸⁶ In this respect, a modern court of equity resembles the early English courts of equity—the Delaware Chancery Court has deep knowledge of the community whose disputes it resolves, as did the early courts of equity with respect to the homogenous economy in which its litigants operated.

In this case, the uncertainty stems from the strategic interaction of the various corporate actors intent on manipulating open-ended rules in volatile environments to advance their private interests. On the one hand, the parties know the general rules that apply, but they also know that the counterparty will seek to exploit those rules to its advantage. To the extent that actors in such an environment take collective actions to reduce the very uncertainty to which they have contributed, with the complementary aim of reducing the chance of judicial error in *ex post* application of standards such as fiduciary duty, they are able to rely on expert judges with significant experience in the field—to rely, that is, on a specialized court of equity. The specialization of the court and its equitable powers assure parties that, despite the impossibility of codifying decision rules, judicial decisions will be taken with the fullest possible awareness of current understandings of good practice; that is, the court can with reasonable accuracy assess the context because it is part of it.

There are other examples of courts that have the favorable attributes I have ascribed to early courts of equity. This expertise results often from geographical concentration of industry and therefore cases.⁸⁷ The Santa Clara County Superior Court, which is the California trial court for much

85. See, e.g., Leo E. Strine, Jr., *If Corporate Action is Lawful, Presumably There Are Circumstances in Which It Is Equitable to Take That Action: The Implicit Corollary to the Rule of Schnell v. Chris-Craft*, 60 BUS. LAW. 877, 882 (2005) (describing Delaware’s judiciary as being known for its “use of [the equitable principles of fiduciary duty] to restrain otherwise lawful conduct”). Those familiar with the common structure of Chancery Court opinions will recall that there is uniformly a lengthy and very detailed account of the facts—who negotiated with whom, what did they say, etc.—in cases that apply a fiduciary standard.

86. See Henry Hansmann, *Corporation and Contract*, 8 AM. L. & ECON. REV. 1, 14–17 (2006); Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 845–47 (1995).

87. See *supra* note 86 and accompanying text.

of Silicon Valley, is generalist in terms of jurisdiction but is specialized as a result of geographic industrial concentration (rather than the virtual concentration observed in Delaware).⁸⁸ Such a match between local courts and local industry provides an effective legal infrastructure for an industrial district;⁸⁹ the generalist court acquires the expertise to well serve its litigants—in this regard, it becomes a specialist.

Under certain conditions, therefore, parties use their scale to invest a particular court with expertise in discovering the relevant context. Courts in these areas of geographic concentration of similar contracting parties can over time develop both judicial expertise in the subject matter and a body of precedents that can parallel the private interpretive regimes created by trade associations. In effect, in instances such as the Delaware Court of Chancery and the Santa Clara County Superior Court, we see a contracting regime that reflects both the constraints imposed by the problems of uncertainty and scale and the potential that generalist courts may become specialist courts through repeated exposure to the particular industry. Under these circumstances, a generalist court can serve a geographic concentration of similar contracting parties by engaging in contextualist interpretation in careful and skillful ways that help parties in their quest to solve the shading problem.

VI. CONCLUSION

The preceding discussion is only illustrative of the many variations in contract design where commercial parties have sought to mark out the courts' role in the interpretive process. The central idea is that the level of uncertainty and the thickness of the relevant market will determine the range of design strategies that are found in contemporary commercial transactions. In each of these cases, my analysis suggests that a primary objective is to design a contract that meshes with the relational or informal enforcement that the context provides and thereby serves to cabin the role of the decision maker tasked with policing difficult-to-verify shading behavior.

Contracting parties must be able to count on the state's enforcement monopoly if they are confidently to rely on the novel forms of agreement

88. See John Armour, Bernard Black & Brian Cheffins, *Delaware's Balancing Act*, 87 IND. L.J. 1345, 1397 (2012) (describing how “many corporate suits are brought in . . . the Santa Clara County Superior Court . . . [which] has correspondingly developed considerable familiarity with corporate cases”).

89. See Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. REV. 575, 578 (1999) (role of law in supporting industrial districts).

afforded by the relevant design space. Ideally, generalist courts should respond to novel contract designs by enforcing the chosen methods of mutual cooperation on terms consistent with the arrangements themselves. A court's ability to achieve this consistency will depend very generally on (a) its expertise in the domain of the contract, (b) the conspicuousness of the particular contractual regime (i.e., the salience of the industry codes or other markers that indicate to outsiders that insiders have given distinctive meaning and effect to strategies for coping with shading), and (c) the extent to which the court respects the purposes and values to which the regime is dedicated.

The role of generalist courts will differ across the various dimensions I have outlined, but in all events it will be more restricted than the standard account under which the court is supposed to fit quite different forms of contracting into the traditional doctrinal categories of common law contract. If a central goal of contract adjudication is to enforce the contract that the parties have provided, then the courts need to accept the role that the parties have given them. To do that, both judges and contract theorists must attend to the unique characteristics of the contracts currently being designed by sophisticated parties. Here courts must practice the passive virtues because it is the parties, and not the courts, that reduce the risks of opportunism in contract adjudication.

APPENDIX

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