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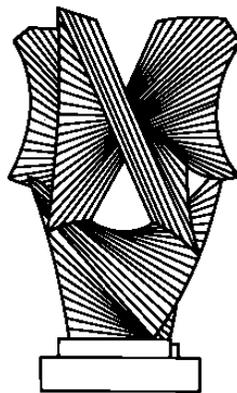
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The Law and Economics of Contract Interpretation

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THE LAW AND ECONOMICS OF CONTRACT INTERPRETATION

RICHARD A. POSNER¹

Abstract

Contract interpretation is an understudied topic in the economic analysis of contract law. This paper combines simple formal analysis of the tradeoffs involved in interpretation with applications to the principal doctrines of contract interpretation, including the “four corners” rule, mutual mistake, *contra proferentum*, and what I call the (informal but very important) rule of “extrinsic nonevidence.” Gap filling is distinguished, and the relativity of interpretive doctrine to the interpretive medium—jurors, arbitrators, and judges in different kinds of judicial system—is emphasized.

I. INTRODUCTION

There is now a large economic literature on contracts and contract law, but the *interpretation* of contracts, as distinct from issues involving formation, defenses, validity, and remedies, has been rather neglected. Not entirely so;² but the economic literature on contract interpretation has an abstract cast, evincing only limited interest in the relevant legal doctrines.³

¹ Judge, U.S. Court of Appeals for the Seventh Circuit, and senior lecturer, the University of Chicago Law School. I thank Lindsey Briggs, Rob Kenedy, and Paul Ma for their excellent research assistance and Douglas Baird, Lucian Bebchuk, Elizabeth Chorvat, Mitu Gulati, Claire Hill, William Landes, John Langbein, Jeffrey Lipshaw, Richard Porter, Eric Posner, Alan Schwartz, and participants in the Georgetown and Harvard law and economics workshops for very stimulating comments.

² See, for notable recent examples with many references to the previous literature, Steven Shavell, “On the Writing and Interpretation of Contracts” (National Bureau of Economic Research working Paper 10094, <http://www.nber.org/papers/10094>, Nov. 2003); Pierpaolo Battigalli and Giovanni Maggi, “Rigidity, Discretion, and the Costs of Writing Contracts,” 92 *American Economic Review* 798 (2002).

³ Among the principal exceptions are Avery Wiener Katz, “Form and Substantive in Contract Interpretation,” 104 *Columbia Law Review* 496 (2004); Alan Schwartz and Robert E. Scott, “Contract Theory and the Limits of Contract Law,” 113 *Yale Law Journal* 541, 568–594 (2003); George M. Cohen, “Implied Terms and Interpretation in Contract Law,” *Encyclopedia of Law and Economics*, vol. 3, p. 78 (Boudewijn Bouckaert and Gerrit de Geest eds. 2000); Omri Ben-Shahar, “The Tentative Case against Flexibility in Commercial Law,” 66 *University of Chicago Law Review* 781 (1999); Eric Posner, “The Parol Evidence Rule, the Plain Meaning Rule, and the Principles of Contractual Interpretation,” 146 *University of Pennsylvania Law Review* 533 (1998); Gillian K. Hadfield, “Judicial Competence and the Interpretation of Incomplete Contracts,” 23 *Journal of Legal Studies* 159 (1994); Charles J. Goetz and Robert E. Scott, “Principles of Relational Contracts,” 67 *Virginia Law Review* 1089 (1981).

Interpretation might seem an activity remote from economics—might seem a subject for cognitive psychologists, epistemologists, students of linguistics, legal doctrinalists, perhaps even literary critics—but I shall try to show that economics can be of considerable help in understanding the problems involved in interpreting contracts.

Contract interpretation is the undertaking by a judge or jury (or an arbitrator—more on arbitration later) to figure out what the terms of a contract are, or should be understood to be.⁴ Interpretation should be distinguished from (simple) enforcement. The most important function of contract law is to provide a legal remedy for breach in order to enhance the utility of contracting as a method of organizing economic activity,⁵ and that function is independent of whether there is any uncertainty about the terms. The defendant may challenge the plaintiff's interpretation of the contract rather than acknowledge the breach, but unless there is a real uncertainty about the meaning of the contract no interesting question of interpretation is presented.

Still, significant interpretive questions often arise in contract litigation. The obvious although not only reason, besides clumsiness in the use of words, against which the legal linguists warn us,⁶ is that contractual performance generally occurs over time rather than being complete the instant the contract is signed. This is a central rather than accidental feature of the institution of contract (as of property). If exchange were simultaneous and limited to goods the quality of which was obvious on inspection (so that there was no danger of unwanted surprises down the road), there would be little

⁴ The standard treatise discussion is E. Allan Farnsworth, *Farnsworth on Contracts*, vol. 2, ch. 7 (3d ed. 2004).

⁵ See, for example, Thomas Cooley, Ramon Marimon, and Vincenzo Quadrini, "Aggregate Consequences of Limited Contract Enforceability," 112 *Journal of Political Economy* 817 (2004). This is not to deny the importance of reputation, reciprocity, and other factors in inducing compliance with contractual undertakings. I discuss the significance of reputation for interpretation later in the paper.

⁶ See, for example, Carl Felsenfeld and Alan Siegel, *Writing Contracts in Plain English* (1981).

need either for contracts or for legal remedies for breach of contracts. The main purpose of contracts is to enable performance to unfold over time without placing either party at the mercy of the other, as would be the case if for example a buyer could refuse to pay for a custom-built house for which there were no alternative buyers at the agreed price. So contracts regulate the future and interpretive problems are bound to arise simply because the future is inherently unpredictable.⁷ Stated otherwise, perfect foresight is infinitely costly, and, therefore, as the economic literature on contractual interpretation emphasizes, the costs of foreseeing and providing for every possible contingency that may affect the costs of performance to either party over the life of the contract are prohibitive.⁸

Even in a setting of perfect foresight an interpretive problem may arise. Parties may rationally decide not to provide for a contingency, preferring to economize on negotiation costs by delegating completion of the contract, should the contingency materialize, to the courts. This is especially likely if they think that the likelihood that the contingency will materialize is slight. But even if they think the likelihood is significant they may prefer to leave the contingency unprovided for. Deliberate ambiguity may be a necessary condition of making the contract; the parties may be unable to agree on certain points yet be content to take their chances on being able to resolve them, with or without judicial intervention, should the need arise. It is a form of compromise, like “agreeing to disagree.”

The goal of a system, methodology, or doctrine for contractual interpretation is to minimize contractual transaction costs, broadly understood as obstacles to efforts voluntarily to shift resources to their most valuable use. Those costs can be very great when by inducing parties not to

⁷ Hence contracts tend to be more detailed the longer their duration. Karen Eggleston, Eric A. Posner, and Richard Zeckhauser, “The Design and Interpretation of Contracts: Why Complexity Matters,” 95 *Northwestern University Law Review* 91, 126 n. 101 (2000).

⁸ See, for example, Richard A. Posner, *Economic Analysis of Law* 96 (6th ed. 2003); Jean Tirole, “Incomplete Contracts: Where Do We Stand?” 67 *Econometrica* 741, 772 (1999).

contract they prevent resources from being allocated efficiently. Because methods of reducing contractual transaction costs, such as litigation, are themselves costly, careful tradeoffs are required. But it would be a serious mistake for courts to take the position that any ambiguity in a contract must be the product of a culpable mistake by one or both of the parties; that the judicial function in contract law is to punish parties who do not make their agreement clear. Sometimes it is (I'll give an example later), but more often it is not.

Contract interpretation is, of course, a judicial staple, so I have a professional as well as an academic interest in the subject. I want the paper to be helpful to judges and practicing lawyers as well as to academics, so I postpone most of my formal analysis to the last part of the paper. But the following very simple equation may help to set the stage for some readers. If C is the transaction cost (broadly defined) of a contract, then

$$C = x + p(x)[y + z + e(x, y, z)], \quad (1)$$

where x is negotiation and drafting cost, p the probability of litigation, y the the parties' litigation costs, z the cost of litigation to the judiciary, and e error costs. The first term on the right-hand side, x , represents the first stage in determining the meaning of the contract, the stage at which the parties decide what the contract shall say. The second term represents the second stage, where in the event of a legal dispute over meaning the matter is submitted to adjudication. The costs thereby incurred include expenditures by the parties and the courts, plus an expected cost resulting from the possibility that the court will misinterpret the contract. This possibility is influenced by the parties' and the court's investment in the litigation but also by the parties' investment in making the contract as clear as possible, thus facilitating an accurate decision should a dispute over the contract's meaning arise and be brought to court. All the costs in the second stage must be

discounted by the probability of a legal dispute, which lower the more the parties invested at the first stage in making the contract as clear as possible.

The equation thus identifies the essential tradeoffs in analyzing the interpretation problem: the more the parties invest at the first stage, the lower the expected costs at the second stage. The object of the legal enforcement of contracts is to minimize the sum of these costs—rather than, for example, as might seem tempting, to insist that parties do whatever is necessary at the first stage to minimize the likelihood of litigation. The “do whatever is necessary” position is the effect and perhaps purpose of formalist interpretation, the tendency of which is to increase x by reducing p without understanding that an increase in x is a real cost and one that may outweigh the savings in expected litigation costs from the reduction in the probability of litigation.

II. GAP FILLING VERSUS DISAMBIGUATING

Persons contemplating a transaction can reduce the potential error costs arising from imperfect foresight by shortening the duration of their contract (consider employment at will, or spot markets), since the near future is more predictable than the distant future. Another alternative (“agreeing to agree”), which is similar, is to agree on just a few things and reserve the rest for a future negotiation. Still another is the substitution of vertical integration for contracting—a producer might choose for example to make rather than buy an input. (Actually, this is the substitution of one type of contract for another—a contract of employment for a contract to purchase a good.) All are actually or potentially costly methods of avoiding contractual transaction costs.

A fourth alternative, which will often be cheaper and which brings us close to the central concerns of this paper, is to have a court or an arbitrator fill any gap in the contract when and if it emerges in the course of a dispute between the parties. For example, a contract that gives the dealer an

exclusive right to distribute the supplier's product (as by granting him an exclusive territory) is presumed to require the dealer to devote his "best efforts" to promoting the supplier's product,⁹ on the theory that otherwise the supplier would have delivered itself into the dealer's power. So if a dispute arises as to the dealer's obligations under the contract, the court will interpolate a best-efforts clause unless the parties specified in the contract that the dealer would not have a best-efforts obligation. Similarly, although it is common for contracts to contain a *force majeure* clause, a court will in any event, in the name of impossibility, impracticability, or frustration, read into a contract an implied excuse based on these common law doctrines, which the parties however can agree to negate: a promise to perform even if performance proves impossible for reasons wholly beyond the promisor's control is not a contradiction in terms, but merely an undertaking that contains an insurance component.

Judicial or arbitral gap filling is similar to the use of form contracts to economize on contracting costs. The forms contain standard clauses designed to resolve contingencies that may arise in the course of performance. The difference is that form contracts used in transactions with consumers tend to be one-sided because they are drafted by firms, trade associations, or professional associations, which naturally want their contracts to be slanted in their favor (though this is not a problem for disputes between members of the association). Standard clauses that evolve in litigation or arbitration, and thus are created or approved by an impartial third party, are more likely to be neutral.

To my suggestion that form contracts used in consumer transactions tend to be one-sided it may be objected that competition can be relied upon to yield the optimal form. But that is doubtful. Hidden traps in the language of a contract are sprung only on the rare occasion in which there is a legal dispute. The expected benefit of a "good" form to the consumer is therefore

⁹ Wood v. Lucy, Lady Duff-Gordon, 118 N.E. 214 (N.Y. 1917).

slight and so is unlikely to figure in his decision to buy the seller's product, while the seller, having much better knowledge of the likelihood and consequences of such a dispute, will anticipate a small gain from imposing a "bad" form on his customers. In principle, other sellers could outcompete him by offering better forms to consumers, but it will be difficult to profit by this route. The benefits to the consumer are unlikely to be great enough to make the "good" form a selling point. More important, being reminded of the possibility of litigation is a downer for the prospective consumer. ("Don't worry; if I sue you, the contract will protect you.") The seller who reminds consumers of possible legal grief down the road is fouling his own nest.

There is a further point.¹⁰ So far as holding a contract party to his contractual undertaking is concerned, there is an asymmetry between seller and buyer in cases in which the latter is a consumer rather than another business. The seller is constrained from breaking the contract both by considerations of reputation and by the threat of being sued; the consumer is subject, as a practical matter, to neither constraint, since he does not have a commercial reputation to lose and is unlikely to be able to pay a damages judgment. Slanting the terms of the contract in favor of the seller is a way of redressing the balance. In addition, it is possible that one reason sellers will not negotiate with consumers over changes to a form contract, besides the cost of the negotiation relative to the small stakes in an individual consumer sale, is that the consumer who asks to negotiate signals to the seller that he may be litigious, or otherwise a troublemaker.

Form contracts, for example in the insurance industry, are common even between businesses, as distinct from consumer transactions. This may reflect in part simply a reluctance to alter terms that may have acquired a settled meaning through litigation. More on this point later when I discuss issues of interpretation, as opposed to gap filling.

¹⁰ Which I owe to Lucien Bebchuk.

Another method of gap filling, found in “code” nations such as Germany and other nations of Continental Europe, is for the legislature to enact a detailed code of contractual obligations, constituting implied terms that the parties can, however, negate. Contracts are shorter and interpretive issues lessened because the code provisions presumably will have been clearly drafted and received a uniform interpretation.¹¹

Filling potential gaps in contracts, whether by means of form contracts or otherwise, should be distinguished from disambiguating specific terms, which is the heart of the problem of contract interpretation. A contract might contain an explicit best-efforts clause, yet the wording of the clause might leave a doubt as to what exactly the clause required of the dealer. Gap filling and disambiguating are both, however, “interpretive” in the sense that they are efforts to determine how the parties would have resolved the issue that has arisen had they foreseen it when they negotiated their contract.

I noted in reference to “code” nations that gap filling reduces interpretive uncertainty to the extent that the interpolated clauses will have acquired a settled, uniform meaning as a result of having been interpreted in cases. This is one reason for insurance companies’ well-known reluctance to alter policy language once it has been interpreted by a court. But the other side of this coin is that the incorporation of “boilerplate” from earlier contracts in a new one may generate its own interpretive problems. A clause transposed to a new context may make an imperfect fit with the other clauses in the contract, generating ambiguity. (So litigation over the meaning of insurance contracts is quite common.) The fit can be improved by modifying the clause, but then the benefit of using language that has been given a settled meaning by judicial interpretation is lost.

The tradeoff between “off the rack” and “custom-designed” contractual language resembles that between legal rules and standards. A rule is clear by

¹¹ For evidence, see Claire A. Hill and Christopher King, “How Do German Contracts Do as Much with Fewer Words?” 69 *Chicago-Kent Law Review* 889, 912–915 (2004).

virtue of being exact. But its very exactness makes it maladapted to unforeseen situations, creating pressure for recognizing exceptions, which will often reduce clarity. A standard is flexible and therefore adaptable to a variety of contexts, but the price of flexibility is vagueness.

The relevant tradeoffs in deciding whether to create a gap filler have been recognized for a long time.¹² The benefits of a gap filler are the savings in contractual transaction costs. Instead of parties to dealership contracts having to insert a best-efforts clause in every contract, the court interpolates such a clause in just the tiny fraction of contracts that are drawn into litigation in which an issue concerning the adequacy of the dealer's efforts arises. The costs of judicial gap filling are the error and administrative costs of judicial intervention. Those costs can be prohibitive, and then the court refuses to fill the gap, as in the common law's refusal to enforce a contract that doesn't contain a price or quantity term.¹³ The alternative of interpolating a "reasonable price" or "reasonable quantity" clause is rejected because it would be too burdensome (costly in a broad sense) for a court to figure out what price or quantity the parties would have chosen had they negotiated the term. Not only would the court have to conduct an elaborate inquiry (administrative cost), but no matter how elaborate the inquiry a substantial probability of error would remain and an erroneous

¹² See, for example, Richard A. Posner, *Economic Analysis of Law* 44 (1973).

¹³ See, for example, *Echols v. Pelullo*, 377 F.3d 272, 276 (3d Cir. 2004); *Tranzact Technologies, Ltd. v. Evergreen Partners, Ltd.*, 366 F.3d 542, 546 (7th Cir. 2004); *Cloud Corp. v. Hasbro, Inc.*, 314 F.3d 289, 292 (7th Cir. 2002); *Interstate Litho Corp. v. Brown*, 255 F.3d 19, 27 (1st Cir. 2001). It is true that under the Uniform Commercial Code, as distinct from the common law, contracts for the sale of goods are enforceable even when they fail to specify a price; courts are to fill the gap by inserting a reasonable market price. UCC § 2-305; *Lickley v. Max Herbold, Inc.*, 984 P.2d 697 (Idaho 1999); *Koch Hydrocarbon Co. v. MDU Resources Group*, 988 F.2d 1529, 1534 (8th Cir. 1993). Since there is usually a readily ascertainable market price for goods, the administrative and error costs that courts incur in filling in the price are generally manageable. Note too that when a contract is held to be unenforceable for want of an adequate specification of price, but the performing party has performed in good faith, he will usually be allowed to claim the market value of his performance in a suit for restitution; in such a case the court is, in effect, "pricing" the contract. See, for example, *Farash v. Sykes Datatronics, Inc.*, 452 N.E.2d 1245, 1248 (N.Y. 1983).

interpretation undermines the utility of contracting as a method of organizing economic activity (error cost).

Nor would the cost savings at the contract-negotiation stage from judicial interpolation of the price or quantity term be significant. Normally it is only through inadvertence that the parties will have failed to negotiate price or quantity, and in those cases judicial interpolation of the missing term would not economize on overall contractual transaction costs. It would increase them because the costs of judicial gap filling in such a case would exceed the costs to the parties of filling the gap at the contract-negotiation stage; that's implicit in the parties' having inadvertently omitted the term. Moreover, the absence of such a term is often compelling evidence that the parties' negotiations hadn't reached the stage of actual agreement, and in that event judicial interpolation of terms would amount to the court's making a contract for the parties rather than enforcing something that could properly be regarded as the deal they had struck.

It might seem that the courts would never have good information for deciding what gap-filling rules would be optimal. But there are three reasons to think this view too pessimistic. The first is that even if for philosophical, political, or other reasons the goal of contract law is taken to be the enforcement of the parties' intended transaction whether or not it is a value-maximizing one, the norm of economic efficiency provides a guide to deciding what transaction was, in all likelihood, intended. Each party wants to maximize his gain from the transaction, and that is usually best done by agreeing to terms that maximize the surplus created by the transaction—the excess of benefits over costs, the excess being divided between the parties. Of course each party will be concerned not with the total surplus as such but only with the absolute size of his share of it, but he will be more likely to maximize his share if there is enough surplus for the other party to do well also. Hence gap-filling rules based on notions of efficiency will tend to mimic the terms that the parties would have incorporated into their contract

explicitly had they foreseen the gap and been unwilling to rely on the courts to fill it sensibly.

The second reason not to worry too much about courts' adopting inefficient gap-filling rules is that they can obtain those rules from the practices of the industry or trade in which the contract was made; they don't have to reason to them from first principles. Historically, Anglo-American contract law derived from the law merchant, the set of customary norms created by businessmen; such norms would carry a presumption of efficiency. And third, since the judicial gap-filling contract rules are *only* gap fillers, the parties can negate such a rule by expressly rejecting it in their contract. In other words, unlike many other legal rules, gap-filling rules for contract cases are subject to the discipline of the market. The argument one hears occasionally that parties to dealership agreements might not want a best-efforts obligation to be read into their agreement because the possibility of having to litigate over its meaning might exceed the benefits is thus superficial. They can exclude the judicial interpolation of such an obligation just by stating in the contract that the dealer is not legally obligated to use his best efforts to promote the supplier's product.

But how will courts discover that a particular gap-filling rule is being negated in a large percentage of the contracts to which it applies? The contracts that are drawn into litigation do not necessarily constitute a representative sample of all contracts; nor is an individual judge likely to have had enough contract cases to be able to make an estimate of the percentage of a given class of contracts that rejects a particular gap filler—especially since a negated gap filler is unlikely to figure in litigation.

However, this is not a decisive objection to judicial reconsideration of gap-filling rules. Academics can conduct the necessary inquiry into the negation rate, and a litigant who failed to negate such a rule in his contract, is being sued over it, and must now ask the court to abrogate it can inform the court

of the results of the inquiry. (Depending on the results, it may be that it is the opponent who has the incentive to inform the court of them.)

III. METHODS OF DISAMBIGUATING CONTRACTS

Turning to the question of the proper judicial role in disambiguating a specific contractual term, we are not concerned with gaps in the sense that the parties failed to provide for some class of contingencies, such as the dealer's not using his best efforts to promote his supplier's product. The problem instead is that it isn't clear what the term the parties used to plug the gap means. These cases could be turned into "gap" cases by redefining "gap" to mean not just the omission of a term but a gap in meaning because the term the party included is unclear with reference to the particular contingency that has materialized. The parties may have specified that the goods subject to the contract be transported on the ship *Peerless*, but it turns out that there are two ships by that name to which the contract might refer.¹⁴ Or the contract might state in one place that the option created by it must be exercised "prior to April 5" and in another that the option is void "after April 5."¹⁵ What is important is not whether these are called "gap" cases but that they call for a different analysis from gap-filling rules. In the case of ambiguity the court cannot just lift a ready-made clause off the shelf and plug it into the case to decide the interpretive question, reasonably confident that if the rule didn't fit the parties would have excluded it from their contract.

There are four ways in which the court might proceed:

¹⁴ *Raffles v. Wichelhaus*, 2 H. & C. 906, 159 Eng. Rep. 375 (Ex. 1864), discussed in Posner, note 8 above, at 104. The contract was for the sale of cotton at a fixed price, and the two ships sailed at different times. Because the price of cotton was volatile, the value of the contract to the purchaser would depend on the date on which he received the cotton and could resell it. That date would depend in turn on when the ship sailed. For a comprehensive analysis of the case in its historical context, see A. W. Brian Simpson, *Leading Cases in the Common Law*, ch. 6 (1995).

¹⁵ *Swiss Bank Corp. v. Dresser Industries, Inc.*, 141 F.3d 689 (7th Cir. 1998).

1. Try to determine what the parties really meant; that is, assume they resolved the interpretive issue in their negotiations but just didn't express their resolution clearly.
2. Pick the economically efficient solution, on the assumption that that is probably what the parties intended, or would have intended had they thought about the issue.
3. Treat the case as a toss-up, and apply some rule for breaking ties, such as that ambiguities are resolved against the party trying to enforce the contract (which is what the court did in *Raffles v. Wichelhaus*), or against the party that drafted the contract (if it is a written contract). The second of these tie-breaking rules is conventionally defended on the ground that the drafting party may be able to pull a fast one on the other party, a defense that fails when the other party is commercially sophisticated.¹⁶ But it still may be a serviceable tie-breaker when all interpretive measures fail; and later I'll propose a rationale for the measure that is distinct though related to the "pull a fast one" rationale and may (no stronger word is possible, however) retain force even in cases in which the nondrafting party is commercially sophisticated.
4. Combine 1 and 3 by pretending that a written contract always embodies the complete agreement of the parties and that no other evidence of the contract's meaning, besides the text itself, is to be considered. This is the method of literalist or formalist interpretation.

Each approach involves different benefits and costs. The first confers the greatest benefits but also the highest costs. It might seem that the second would confer the greatest benefits because it would produce the most efficient interpretation. But that is incorrect. If the parties are better judges of their

¹⁶ *Beanstalk Group, Inc. v. AM General Corp.*, 283 F.3d 856, 858–859 (7th Cir. 2002); *Missouri Pacific R.R. v. Kansas Gas & Electric Co.*, 862 F.2d 796, 800 (10th Cir. 1988); *First State Underwriters Agency of New England Reinsurance Corp. v. Travelers Ins. Co.*, 803 F.2d 1308, 1311–1312 (3d Cir. 1986).

self-interest than a court—surely the correct assumption, since the parties both have a greater stake and know more about their own circumstances than a court could know—then their intentions will provide a better guide to what the efficient terms would be than a court’s attempt to determine them directly. Resolving an ambiguity by guessing what interpretation would be efficient is a second-best method of interpretation; the best, when it can be done at reasonable cost, is determining the contractual meaning that the parties intended.

But determining the parties’ actual intentions will often require a costly and uncertain evidentiary inquiry. (I said that approach number 1 was the high-cost as well as the high-benefit alternative.) That inquiry is avoided when the court simply makes a best guess as to the interpretation that would have maximized the joint surplus of the contract had the parties been guided by that interpretation in drafting and performing the contract. (I elaborate on the “best guess” approach later in the paper.) Approach number 2 yields lower costs than 1 but also lower benefits, as when the court truncates its inquiry by pretending that contractual interpretation is purely semantic (approach number 4).

The third approach (use of a tie breaker) is the cheapest, but also yields the fewest benefits in most cases. Indeed, the benefits are often negative, because the approach increases contractual transaction costs—the prospect of an arbitrary judicial resolution of a contractual dispute will induce parties to expend greater resources on careful drafting. The benefits of the first two approaches derive from the fact that by interpreting the contract the court reduces the amount of care that the parties have to use in negotiating and drafting. Approach number 4 also induces expenditures on greater care in negotiation and drafting.

In some cases, however, the information required by the first or second approach is not obtainable at reasonable cost, just as in the case in which the contract omits the price or quantity term. There was no way in *Raffles v.*

Wichelhaus to determine either which ship the parties would have picked had they known there were more than one or which pick would have been the more efficient. When neither party is blamable,¹⁷ or both parties are equally blamable,¹⁸ for an incurable uncertainty in their contract, it makes economic sense to allow the contract to be rescinded.¹⁹ For in such a case there is no presumption that one party was trying to repudiate a value-maximizing transaction. But the qualification in “equally blamable” is important, because one function of contract enforcement, as we’ll see, is to penalize a party who negligently creates interpretive uncertainty.

The fourth, or formalist, approach, traditionally associated with Williston’s contract treatise and contrasted with the “realist” approach of Corbin’s treatise, has been making a comeback in the academic literature.²⁰ This may be due in part to the fact that fewer and fewer legal academics have significant experience in the “real world” of contract drafting or business litigation. With academics as with (as we’ll see) judges, the less one knows about the real-world setting of a contract, the less comfortable one is apt to be with an interpretive approach that emphasizes the contract’s real-world context; one will prefer to remain on the semantic surface.

IV. THE INTERPRETIVE MEDIUM: JUDGES, JURORS, AND ARBITRATORS

¹⁷ *Oswald v. Allen*, 417 F.2d 43, 45 (2d Cir. 1969)

¹⁸ *Balistreri v. Nevada Livestock Production Credit Association*, 262 Cal. Rptr. 862 (App. 1989).

¹⁹ *Colfax Envelope Corp. v. Local No. 458-3M, Chicago Graphic Communications International Union, AFL-CIO*, 20 F.3d 750, 753 (7th Cir. 1994).

²⁰ See, for example, *Symposium: Formalism Revisited*, 66 *University of Chicago Law Review* 527 (1999). For rebuttal, see, for example, David V. Snyder, “Language and Formalities in Commercial Contracts: A Defense of Custom and Conduct,” 54 *SMU Law Review* 617 (2001); and for a good discussion of the opposing camps, see Clayton P. Gillette, “The Law Merchant in the Modern Age: Institutional Design and International Usages under the CISG” (Working Paper No. 04–005, N.Y.U. Law and Economics Research Paper Series, Jan. 2004). Most of the criticism of “realist” interpretation of contracts has focused on the Uniform Commercial Code rather than the common law. See, for example, Lisa Bernstein, “Merchant Law in a Merchant Court: Rethinking the Code’s Search for Immanent Business Norms,” 144 *University of Pennsylvania Law Review* 1765 (1996); Ben-Shahar, note 3 above. My focus in this paper is on common law contract interpretation.

Since the first interpretive approach that I—an effort to reconstruct the parties' actual intentions with respect to the issue on which the contract is ambiguous—yields the greatest benefits, we should consider carefully how its costs might be reduced without an equal reduction in benefits. In conducting this inquiry we must bear in mind that the costs include error costs as well as the legal and other costs (including judicial resources) that are directly incurred in litigating a contract case. There are two general ways of reducing the costs of determining the parties' intentions. One has to do with the interpreter, the other with the scope of allowable evidence; and they are related. I begin with the interpreter.

At one extreme, imagine that a fully professionalized, competent, and honest judiciary is assigned to determine the meaning of a contract. (Later I consider the choice between a lateral-entry judiciary, drawing judges from a legal practice in which they may have acquired some commercial know-how, and a career judiciary.) Error costs would be minimized. Governmental costs might be high because of the salary and other expenses of a high-quality tribunal. Yet equally they might be low if the high quality of the court's decisions resulted in a lower litigation rate because parties to contracts had less incentive to raise spurious interpretive issues; for then the judiciary would be smaller and so its expense would be lower.

But there are complications. Although the greater investment of governmental resources per case might be offset by lower costs of litigation to the parties, because the judges would need less help from the lawyers to reach a correct result, the reduction in the private costs of litigation might lead to an increase in the litigation rate. The high quality of the judiciary would also attract dispute-resolution business from arbitration and might even increase the number of contracts that are made, some fraction of which would give rise to litigated disputes. Remember that there are substitutes for contracts, and the substitutes become less attractive the lower contractual transaction costs are. And contracts would be shorter the more competent the

judges were, because lawyers wouldn't worry that they had to spell everything out for a dim interpreter.²¹ So contractual transaction costs would be reduced—but this might result in more contracts, and so in more litigation even if the rate of contract litigation fell. However, the net social benefits of the additional contracts would presumably exceed the costs of litigating the small percentage of those contracts that would give rise to litigation; for it seems implausible that the modest judicial subsidy of contracts, arising from the fact that parties to lawsuits do not bear the expenses incurred by the judiciary in enforcing contracts, results in inefficient contracts.

At the other extreme, consider a judiciary that is incompetent or corrupt, or more likely both. The costs of using such a judiciary either to ascertain the parties' intentions or to make a best guess concerning the most efficient resolution of the interpretive question would probably be prohibitive. In these circumstances the third or fourth approach (the use of tie breakers, and literalist or formalist interpretation) would probably be best. Either one would increase the parties' costs of negotiation and drafting, but the total costs would probably be lower than if the judiciary tried to resolve ambiguities. An incompetent judiciary could not perform the task satisfactorily, and uncertainty in interpretation would make it difficult to determine whether decisions were corrupt. It is easier to detect judicial corruption when the judicial function is cut and dried. If the only thing a judge is permitted to look at in interpreting a contract is the (written) contract, a public document, incompetent or corrupt contract decisions—decisions that cannot be taken seriously as products of reasonable interpretation—will be easily detected.

Two intermediate interpretive institutions should be mentioned. One is the lay jury, which plays a significant role in the American system of contract adjudication, though in few, maybe no, others. The other is arbitration, which

²¹ John H. Langbein, "Comparative Civil Procedure and the Style of Complex Contracts," 35 *American Journal of Comparative Law* 381, 385–387 (1987); Hill and King, note 11 above, at 904–906.

in the case of contract arbitration (most arbitration is pursuant to arbitration clauses in contracts) is usually done by lay persons, but lay persons who unlike jurors have commercial experience and usually some expertise in interpreting the type of contract at issue. Parties are free to opt out of contract adjudication by including an arbitration clause in their contract, and this is frequently done. One motivation is to avoid the vagaries of determinations made by jurors (and judges!—in short, by triers of fact generally). Jurors rarely have commercial experience, and are generally and I think correctly considered unreliable judges of contract issues. And to the extent that arbitrators are considered more reliable interpreters than judges and juries, we can expect contracts containing arbitration clauses to be (other things equal) shorter than contracts that do not contain arbitration clauses. This is a testable proposition, but testing it would be complicated by the fact that the complexity and hence length of a contract might be a reason for distrusting a jury's ability to interpret it and therefore a spur to the inclusion of an arbitration clause.

Distrust of conventional triers of fact is not the only motive for the inclusion of an arbitration clause in a contract; it may not even be the main motive, considering how often arbitration is chosen in legal systems that do not use juries in civil cases. Other motives are privacy (judicial records are, with rare exceptions, public documents), the desire of the parties to have their disputes resolved on the basis of commercial custom rather than the formal law of a particular jurisdiction, a belief that arbitrators are less subject to various cognitive illusions (such as hindsight bias) than jurors,²² and, because arbitrators are believed to tend toward middle-of-the-road

²² Christopher H. Drahozal, "A Behavioral Analysis of Private Judging," *Law and Contemporary Problems*, Winter/Spring 2004, p. 105. But again I remind that arbitration is often selected when the alternative is a judge, not a jury, trial.

results (as otherwise they are unlikely to be selected for future arbitrations), risk aversion.²³

Another motive for including an arbitration clause in a contract is that the party that expects to be sued, rather than suing, in the event of a breakdown of the contractual relationship will want such a clause because the “middle of the road” propensity of arbitrators will reduce the party’s expected liability. A brokerage firm, for example, will want to have an arbitration clause because it is much more likely to be sued by a customer than to sue a customer. Now one might think that if including an arbitration clause would favor one party over the other, the other party would object, or would demand compensation. But it might not bother to do so because the expected cost to it would be difficult to estimate and probably slight when discounted by the probability of a breach of contract that would lead to an actual suit. The explanation is parallel to why one-sided form contracts in consumer transactions might be a competitive equilibrium.

Of course if “middle of the road” were too literally, potential defendants would derive no benefit. Suppose half the plaintiffs in some class of cases have meritless suits and therefore ought to receive zero damages, and half have meritorious cases and damages of \$10,000. The defendant is no better off if arbitrators award \$5,000 in all the cases. But if as is likely most suits are clearly without merit, so that the arbitrators feel comfortable in awarding zero relief in those cases, their middle-of-the-road propensity will operate only in the meritorious cases, and the effect will be to truncate the defendant’s liability.

Mistrust of jurors as contract interpreters is further indicated by the growing practice of including a jury waiver in contracts.²⁴ If the only motive

²³ Bruce L. Benson, “Arbitration,” *Encyclopedia of Law and Economics*, note 3 above, vol. 5, p. 159; Jane Spencer, “Waiving Your Right to a Jury Trial,” *Wall Street Journal*, Aug. 17, 2004, p. D1. Although the belief is widespread, it has yet to be empirically verified. Drahozal, note 22 above, at 114–118.

²⁴ Spencer, note 23 above.

for arbitration is to avoid a jury, such a waiver is an attractive alternative to an arbitration clause, especially for a party that does not anticipate an advantage from middle of the road judging. Most courts will enforce contractual jury waivers,²⁵ though some will not²⁶ and a number invoke “a presumption against denying a jury trial based on waiver,” with the result that such “waivers must be strictly construed.”²⁷ The refusal to enforce such clauses, and even the presumption, make no sense.²⁸ The usual reason given for it is that because the right to a jury trial is “highly favored, a waiver will be strictly construed.”²⁹ “Favoring” juries to resolve commercial disputes is either silly sentimentalism or a yielding to the trial lawyers’ lobby. But a more important point is that these same courts enforce arbitration clauses, which involve a waiver not only of a jury but of a judge, as a matter of course. It would be interesting to see whether, as my analysis implies, arbitration clauses are more common in contracts governed by the law of states that refuse to enforce jury waivers.

The relativity of legal doctrine to the character and quality of the adjudicative system is well recognized in the area of evidence law. The rules of evidence are generally regarded as primarily devices for jury control; the rules exist in severely attenuated form (if at all) in legal systems that do not use juries. What is less well recognized is that the same is true with respect to the substantive law of contracts, and doubtless of other fields as well.

²⁵ See, for example, *Medical Air Technology Corp. v. Marwan Investment, Inc.*, 303 F.3d 11, 18–19 (1st Cir. 2002); *Seaboard Lumber Co. v. United States*, 903 F.2d 1560, 1563 (Fed. Cir. 1990); *Malan Realty Investors, Inc. v. Harris*, 953 S.W.2d 624 (Mo. 1997); *Uribe v. Merchants Bank*, 642 N.Y.S.2d 23 (App. Div. 1996); *City of Emerald v. Peel*, 920 S.W.2d 398 (Tex. Civ. App. 1996); *Gelco Corp. v. Campanile Motor Service, Inc.*, 677 So. 2d 952 (Fla. App. 1996).

²⁶ *Bank S., N.A. v. Howard*, 444 S.E.2d 799 (Ga. 1994); *Grafton Partners LP v. Superior Court*, 9 Cal. Rptr. 511 (App. 2004).

²⁷ *Medical Air Technology Corp. v. Marwan Investment, Inc.*, note 25 above, 303 F.3d at 18.

²⁸ The issue is helpfully discussed in Stephen J. Ware, “Arbitration Clauses, Jury-Waiver Clauses and other Contractual Waivers of Constitutional Rights” (forthcoming in *Law and Contemporary Problems*).

²⁹ *Gaylord Department Stores, Inc. v. Stephens*, 404 So. 2d 586, 588 (Ala. 1981); see also, for example, *North Charleston Joint Venture v. Kitchens of Island Fudge Shoppe*, 416 S.E.2d 637 (S.C. 1992).

V. INTERPRETIVE DOCTRINES

My discussion of the doctrines of contract interpretation will be selective. I will not discuss the kind of interpretive rules one finds in manuals of contract drafting, such rules as “between repugnant clauses, a possible interpretation which removes the conflict will be adopted,” or “a contract susceptible of two meanings will be given the meaning which will render it valid.”³⁰ I can’t make much sense of these. If two clauses are “repugnant,” it is entirely possible that they are so because the parties goofed; and why suppose that a meaning that will make a contract valid is superior to one that invalidates it, if the former would result in a transaction to which the parties would have been highly unlikely to agree? In my judicial experience these rules are rarely invoked in litigation, unlike the ones that I shall be discussing.

A. *The “Four Corners” Rule*

Well before arbitration became a widely used or fully accepted method for resolving contract disputes, U.S. courts were, by limiting the jury’s interpretive role, providing protection to contracting parties who didn’t want to take a chance with a jury’s resolving interpretive disputes. The courts did (and do) this in two interlocking ways—by limiting the jury’s role and by limiting the scope of allowable evidence. Both are illustrated by the “four corners” rule, a basic rule of contract interpretation in American law. The rule bars the parties to a written contract that is “clear on its face”—meaning that a reader who is competent in English but unaware of the agreement’s context would think that the writing admitted of only one meaning—from presenting evidence bearing on interpretation, which is to say “extrinsic”

³⁰ Scott J. Burnham, *The Contract Drafting Guidebook: A Guide to the Practical Application of the Principles of Contract Law* § 7.1, p. 90 (3d ed. 2003), quoting an earlier treatise. I do not mean to denigrate the value of handbooks of contract drafting. For good examples, see Robert A. Feldman and Raymont T. Nimmer, *Drafting Effective Contracts: A Practitioner’s Guide* (2d ed. 2004); Justin Sweet, “The Lawyer’s Role in Contract Drafting,” 43 *State Bar of California Journal* 362 (1968).

evidence—evidence outside the “four corners” of the written contract itself. And the judge alone determines what the contract means when no extrinsic evidence is presented, the theory being that he is a more competent interpreter of a document than a jury is.³¹

But is this really a rule of “interpretation”? If the contract is clear, there is no need to interpret it. If it is unclear, the rule provides no guidance for extracting its meaning. The real significance of the rule, therefore, is in preventing juries from disregarding the clear meaning of a contract, as they might be inclined to do either because they were sympathetic to one side of the dispute or because they were credulous about testimony by one of the contracting parties that they meant something different from what the contract states. The rule is based, in other words, on the idea that “parties to a contract prefer, *ex ante* (that is, when negotiating the contract, and therefore before an interpretive dispute has arisen), to avoid the expense and uncertainty of having a jury resolve an interpretive dispute between them, even at the cost of some inflexibility in interpretation.”³² The added expense arises mainly from the fact that jury trials are on average longer than bench trials,³³ because of the time required for the jury voir dire and jury instructions and deliberations, because things have to be explained to juries at greater length than to a judge, and because more attention is paid to making and ruling on objections to the admission of evidence in a jury trial than in a bench trial.

It would be better to say, however, that parties “sometimes” prefer *ex ante* to avoid a jury, because, as I noted earlier in explaining interpretive approach number 4, of which the “four corners” rule might be thought an

³¹ Notice that “extrinsic” is redundant, since the written contract itself is not evidence, that is, it is not submitted to a jury, or to the judge in his capacity as a trier of fact.

³² *FDIC v. W.R. Grace & Co.*, 877 F.2d 614, 621 (7th Cir. 1989). On the problems involved in submitting contract disputes to resolution by juries, see, for example, *Proteus Books Ltd. v. Cherry Lane Music Co.*, 873 F.2d 502 (2d Cir. 1989).

³³ In the federal courts, more than twice as long. Richard A. Posner, *The Federal Courts: Challenge and Reform* 193 n. 1 (1996).

instance, to trigger the rule the parties have to invest resources in making their written contract clear on its face. Thus, while this rule, like the rule that makes arbitration clauses binding and enforceable, enables contracting parties to protect themselves from the vagaries and additional expense of jury trials, it does so at some expense to them in added costs of negotiation and drafting. In the case of the arbitration case there is an added expense in the form of the arbitrators' fees, which the parties, not the taxpayer, pay.

As critics of the four-corners rule like to point out, one can never be completely confident of being able to determine the meaning of a document from the document alone. “[C]larity in a contract is a property of the correspondence between the contract and the things or activities that it regulates, and not just of the semantic surface.”³⁴ The contract’s words point out to the real world, and the real world may contain features that make seemingly clear words, sentences, and even entire documents ambiguous. *Raffles v. Wichelhaus*, the case about the multiple ships *Peerless*, is a case in point. No one just reading the contract with no background knowledge would have thought there was an ambiguity as to which ship the cotton was supposed to be shipped on; the ambiguity was “extrinsic” but none the less real. In such a case the four-corners rule yields no result; either reading of the contract in *Raffles v. Wichelhaus*—one in which the cotton was to be shipped by the *Peerless* that was sailing earlier, the other in which it was to be shipped by the later-sailing *Peerless*—was equally consistent with the words of the contract.

What is important is that the four-corners rule not be permitted to unravel completely, as it would be if a party to a contract were permitted to testify that although the contract seems clear, really the parties were using words in a special way. Critics regularly denounce the rule as philosophically unsound because it assumes that meaning does not reside in a document but

³⁴ *AM International, Inc. v. Graphic Management Associates, Inc.*, 44 F.3d 572, 575 (7th Cir. 1995). See also, for example, *Mar Oil, S.A. v. Morrissey*, 982 F.2d 830, 840 (2d Cir. 1993).

rather is extracted or, perhaps better, imparted by a reader equipped with the requisite linguistic and cultural competence. In a section of Wigmore's famous treatise on evidence, captioned "General Principle: All Extrinsic Circumstances May be Considered," we read: "Once freed from the primitive formalism which views the document as a self-contained and self-operative formula, we can fully appreciate the modern principle that the words of a document are never anything but indices to extrinsic things, and that therefore *all the circumstances must be considered which go to make clear the sense of the words*—that is, their associations with things."³⁵ The key mistake is in the word "therefore." From the undeniable fact that contractual interpretation requires that the interpreter know the language in which the contract is written, the meaning of a contractual commitment, and much else besides, it doesn't follow that "all" the circumstances relating to making sense of the contract should be matters for inquiry at trial. The critics have missed the point. The four-corners rule merely bespeaks skepticism that taking evidence is always the best way to resolve a legal dispute over a contract's meaning.

There is a happy medium, and that is to allow an extrinsic ambiguity to be shown only by *objective* evidence.³⁶ By "objective" I mean to exclude a party's self-serving testimony that cannot be verified because it concerns his state of mind or a conversation to which the only witness was the other party to the contract. That there were two ships *Peerless* which could have transported the cotton that was the subject of the contract was a readily verifiable fact, in contrast to the unverifiable assertion of an interested party,

³⁵ John Henry Wigmore, *A Treatise on the Anglo-American System of Evidence in Trials at Common Law*, vol. 9, § 2470, pp. 224, 227 (3d ed. 1940).

³⁶ *Matthews v. Sears Pension Plan*, 144 F.3d 461, 467 (7th Cir. 1998); *Cole Taylor Bank v. Truck Ins. Exchange*, 51 F.3d 731, 737–38 (7th Cir. 1995); *AM International, Inc. v. Graphic Management Associates, Inc.*, 44 F.3d 572 (7th Cir. 1995); *Kerin v. United States Postal Service*, 116 F.3d 988, 992 n. 2 (2d Cir. 1997); *Duquesne Light Co. v. Westinghouse Electric Corp.*, 66 F.3d 604, 614 (3d Cir. 1995); *Carey Canada, Inc. v. Columbia Casualty Co.*, 940 F.2d 1548, 1557–1558 (D.C. Cir. 1991); *Mellon Bank, N.A. v. Aetna Business Credit, Inc.*, 619 F.2d 1001, 1009–1013 (3rd Cir. 1980). .

Similarly, dictionaries, articles, treatises, and evidence of custom or trade usage that gives special meaning to words that a reader of the contract ignorant of the trade might suppose were being used in their everyday sense are objective sources of facts because they are not within the parties' control. Such evidence much harder to fake³⁷ than parties' testimony concerning their intentions and understandings and unrecorded, unwitnessed conversations.³⁸ The parties' behavior as distinct from their assertions, at least when it predates the beginning of the controversy and so is not plausible regarded as strategic,³⁹ is also objective in my sense of the term.⁴⁰

An alternative to the position that only objective evidence may be used to demonstrate that seemingly clear contractual language is ambiguous is to have the judge screen evidence offered to demonstrate ambiguity; only if he thinks it really does demonstrate ambiguity does he allow the jury to use it to determine the contract's true meaning. This is the approach of the much-criticized but also widely followed⁴¹ *Pacific Gas & Electric* case,⁴² but the difference between it and the "objective evidence" approach that I champion seems small; and notice their common roots in concern with allowing jurors to be swayed by spurious but perhaps plausible testimony.

³⁷ In re Envirodyne Industries, Inc., 29 F.3d 301, 305 (7th Cir. 1994). I am aware of criticisms that evidence of trade usage can be misleading too. See, for a balanced practitioner-oriented discussion, Feldman and Nimmer, note 30 above, § 5.03.

³⁸ *Bristow v. Drake Street Inc.*, 41 F.3d 345, 352 (7th Cir. 1994); *International Union, United Automobile, Aerospace & Agricultural Implement Workers of America v. Skinner Engine Co.*, 188 F.3d 130, 145 (3d Cir. 1999); *Garza v. Marine Transport Lines, Inc.*, 861 F.2d 23, 26 (2d Cir. 1988).

³⁹ *Smart v. Gillette Company Long-Term Disability Plan*, 70 F.3d 173, 180 (1st Cir. 1995).

⁴⁰ *Mathews v. Sears Pension Plan*, 144 F.3d 461, 469 (7th Cir. 1998).

⁴¹ See, for example, *Taylor v. State Farm Mutual Automobile Ins. Co.*, 854 P.2d 1134, 1140 (Ariz., 1993).

⁴² *Pacific Gas & Electric Co. v. G.W. Thomas Drayage & Rigging Co.*, 442 P.2d 641 (Cal. 1968); see E. Allen Farnsworth, *Contracts* § 7.12, pp. 479–480 (1999). For criticism, which may however reflect a misunderstanding of the scope of the decision, see *Trident Center v. Connecticut General Life Ins. Co.*, 847 F.2d 564, 569 (9th Cir. 1988): "it matters not," Judge Kozinski said, "how clearly a contract is written, nor how completely it is integrated, nor how carefully it is negotiated, nor how squarely it addresses the issue before the court: the contract cannot be rendered impervious to attack by parol evidence." *Id.* at 569. But as my court explained in *Cole Taylor Bank v. Truck Ins. Exchange*, note 36 above, 51 F.3d at 738, "California decisions since *Trident* have declined to endorse that decision's interpretation of California law."

Contract parties who don't want the court to stray even this far from the written word can provide in their contract that the court is to base its interpretation solely on the words of the contract, although I haven't found a case in which such a provision was mentioned. Maybe this is because the parol evidence rule, discussed in the next section, bars the introduction of the most questionable form of extrinsic evidence—self-serving testimony by one of the parties as to what the parties *really* agreed to in the negotiations leading up to the signing of the contract.⁴³ Contracts do, however, sometimes contain disclaimers of the use of trade usage as an aid in interpretation,⁴⁴ or other disclaimers of conventional interpretive rules.⁴⁵

The incorporation of trade usage into contracts is closely related to judicial gap-filling through interpolation of best-efforts, good-faith, and other implied (“default”) terms, and can be defended on similar grounds.⁴⁶ Were evidence of trade usage barred in contract litigation, parties to contracts would be driven to include additional detail in their contracts, for example definitions of terms that might be taken in the wrong sense by a court ignorant of how the terms were used in the industry to which the contract pertained. The need to add this detail would increase the costs of negotiation

⁴³ “A merger clause attempts to restrict an adjudicator’s interpretive base to the written words” of the contract. Alan Schwartz and Joel Watson, “The Law and Economics of Costly Contracting,” 20 *Journal of Law, Economics and Organization* 2, 22 (2004). A merger clause, as we are about to see, is the standard method of invoking the parol evidence rule.

⁴⁴ Feldman and Nimmer, note 30 above, § 5.03[A][3].

⁴⁵ For example, disclaimer of *contra proferentum*: “The canon of contract interpretation that ambiguities, if any, in a writing be construed against the drafter shall not apply to this Agreement.” *Rowan Companies, Inc., Asset purchase sale agreement, April 1, 1996*. This is one of the tens of thousands of contracts contained (and searchable electronically) in the very valuable and underused Contracts Database maintained by the Contracting and Organizations Research Institute (CORI) at the University of Missouri and available for search at <http://cori.missouri.edu>. On CORI’s contract and other projects, see Michael E. Sykuta, *Empirical Research on the Economics of Organization and the Role of the Contracting and Organizations Research Institute (CORI)* (Contracting and Organizations Research Institute, University of Missouri-Columbia, Dec 19, 2001).

⁴⁶ As in Jody S. Kraus and Steven D. Walt, “In Defense of the Incorporation Strategy,” in *The Jurisprudential Foundations of Corporate and Commercial Law* 193 (Kraus and Walt eds. 2000).

and drafting, while the benefits would be realized only in the small minority of cases that gave rise to a legal dispute.

Cases like *Raffles* in which trade usage or other objective evidence cannot be used to disambiguate a contract are often classified as “mutual mistake” cases. That is a misleading usage. It implies that if one party to a contract testifies that “we thought we were agreeing to X, even though the contract says Y,” he has created a triable issue. That would be destabilizing. What the cases that allow rescission on the ground of “mutual mistake” are really about is a demonstrable real-world fact that makes a semantically unproblematic contract either insolubly ambiguous or nonsensical. It is an example of the dependence of meaning on context.

Rescission is the usual result when mutual mistake is found, but sometimes the result is the reformation of the contract. An interesting, though questionable, example is *Aluminum Co. of America v. Essex Group, Inc.*⁴⁷ Alcoa signed a contract with Essex in 1967 to convert Essex’s alumina into aluminum. Because the contract had a long term (21 years, at Essex’s option), the parties included a price escalator clause based in part on the wholesale price index for industrial commodities. Energy is a small component of the index but the major input into the manufacture of aluminum. As a result of the steep increase in the price of oil and therefore the cost of electricity (many electric plants run on oil) in 1973 and 1974, Alcoa’s cost of contractual performance rose much faster than the WPI, precipitating its suit for reformation. The court ruled in Alcoa’s favor, holding that the parties had intended the price escalator clause to reflect the real increase in Alcoa’s costs over the life of the contract.

I am unconvinced. Alcoa is a highly sophisticated company with long experience in contracting, and in designing the price escalator clause had consulted no less a figure than Alan Greenspan, at the time a leading economic consultant. As between Alcoa and Essex, it would seem that the

⁴⁷ 499 F. Supp. 53 (W.D. Pa. 1980).

former was the superior bearer of the risk of an unexpected increase in cost, and that might seem to argue for resolving doubts about the meaning of the clause against Alcoa; but I am dubious of that rationale, for a reason I'll explain when I discuss the doctrine of *contra proferentum*.

The reason why Alcoa should have lost lies elsewhere. The greater the value of a contract, the higher the socially cost-justified expenditure of the parties on making the contract complete at the drafting stage. This opens up the possibility that Alcoa may not have invested enough care in drafting the price escalator clause. Immediately one is put in mind of the possibility of borrowing from the economics of torts and asking who the “cheapest cost avoider” in the case was—that is, who could have minimized at least cost the transaction costs (broadly defined, as throughout this paper, to include dispute-resolution and error costs) that ensued from the mismatch between the price escalator clause and the actual cost conditions of contract performance that gave rise to the litigation. In some cases it will be the court because the costs of drafting to avoid the mistake that later gave rise to the litigation (but perhaps there was only a slight probability that it would do so) would have exceeded the expected benefits and if so it would probably be better (cheaper) to allow the court to complete the contract if and when a dispute arises. But it seems pretty clear that Alcoa was the cheaper cost avoider; its mistake was careless in the economic (which is also the legal) sense of a large gap between the (lower) costs of error avoidance and the (higher) costs of error. Rescission on grounds of mutual mistake should be reserved for cases in which neither party is the cheaper cost avoider. This is another reason for thinking the term “mutual mistake” unhelpful; it does not point to the operative consideration, which is whether either party was at (greater) fault in failing to anticipate and provide for the contingency that has given rise to the legal dispute. Although the court in *Alcoa* discussed the issue of the price escalator clause in terms of mutual mistake, impossibility, and frustration, the issue was at bottom an interpretive one.

Alcoa exposes the following paradox. Because the probability it might experience significant cost increases over the life of the contract was significant and the potential consequences substantial, *Alcoa* could reasonably have been adjudged to have failed to invest sufficiently in making the contract clear at the outset. The less probable a contingency is to materialize, the less likely it is that an investment in careful drafting would be cost-justified; better to let the court complete the contract in the few cases in which the contingency does materialize. Yet the lower that probability, the lower the expected benefits of judicial intervention. So maybe courts should refuse to decide cases in which a contract is upended by a low-probability event! But that would be an error of disaggregation. The probability of a particular contingency's materializing may be slight; but the probability that *some* contingency in what may be a very extensive array of low-probability events will materialize may be great. If 10 independent events each has a probability of occurring of 1 percent, the probability that at least one of them will occur is only a shade under 10 percent. In such a case it may be more economical for the court to stand ready to interpret the contract with regard to *any* contingency that may arise than for the parties to try to anticipate and provide specifically for *each* possible contingency. This point is obscured by the fact that in *Alcoa* the single contingency of a steep increase in the cost of performing the contract was foreseeable in the conventional legal sense of being sufficiently probable to make the parties' providing for it in the contract cost-justified.

B. The Parol Evidence Rule

Another important limitation on the jury's role in contract interpretation and, concomitantly, on the breadth of the permitted evidentiary inquiry, is the parol-evidence rule. If the parties have a written contract that looks complete ("integrated," in the jargon of contract law—and so parties wanting the protection of the parol evidence rule will usually include a clause in the

contract, called a “merger clause,” stating that the contract is indeed integrated), evidence concerning the negotiations leading up to the execution of the contract will be inadmissible to contradict its terms—to create, that is, an interpretive issue for a jury to chew over. So just as the parties choose whether to have a written contract and whether to include an arbitration clause, they also choose whether to state that their contract is integrated and by so doing to limit further the role of the jury (and of the judge as a trier of fact) and the expense of litigating a suit should their contractual relationship break down.

The parol-evidence rule overlaps the four-corners rule but is not identical because it forbids only the use of evidence of the precontractual negotiations to contradict the written contract. The four-corners rule goes further by excluding the use of extrinsic evidence to supplement rather than only to contradict the written contract.

C. Extrinsic Nonevidence, or the “Best Guess” Rule

Probably more important than either the four-corners rule or the parol-evidence rule in limiting the scope of the jury and (what is not quite the same thing, since the right to a jury trial is often waived) the frequency of trials in contract cases is the tendency of courts—a proclivity, a preference, rather than the dictate of a rule—to resolve contractual ambiguities without recourse to extrinsic evidence and thus without a trial; to resolve them, in short, by making a “best guess.” I am using “evidence” here in the standard legal sense of materials that create a contestable issue that requires a trial to resolve. If a contract is not clear on its face, but instead is vague or ambiguous,⁴⁸ the judge will have to go outside the contract to decide what it means. But he can go outside it without getting entangled in the sort of factual disagreements that require a trial to untangle. He can, in other

⁴⁸ Though often used as synonyms, purists distinguish them, defining “vague” as indefinite in extension and “ambiguous” as having two or more possible meanings. I don’t understand the relevance of the distinction to the interpretation of contracts.

words, go outside it without taking evidence. He can for example use common sense, which “is as much a part of contract interpretation as is the dictionary or the arsenal of canons.”⁴⁹ Because the simplest, most intuitive economic thinking is close to being common sense, we can begin to sense the importance of interpretive approach number 2, the use of an efficiency norm to interpret ambiguous contractual terms. Generally speaking, contracts seek (1) to assign the risk of some adverse event that would frustrate performance either to the party that can prevent the event at least cost or, if the event is not preventable at reasonable cost, to the party that is the superior risk bearer, and (2) to prevent either party from taking advantage of vulnerabilities created by nonsimultaneity of performance.⁵⁰ Judges can understand this without formal training in economics (though it helps if they have had some practical experience with contracts) and frequently they can determine which party is the superior risk avoider or risk bearer without taking evidence.

Suppose the litigants in a breach of contract case present rival interpretations of their contract to the judge, and it is apparent, without need for a trial to resolve a factual disagreement, that one of these interpretations would make the contract extremely one-sided. That would be a reason—call it common sense or, if some explicit economic reasoning is employed, the promotion of efficiency—for the judge to choose the other interpretation: “Since most though of course not all contracts involve the exchange of things of commensurate value, an interpretation that makes a contract grossly one-sided is suspect.”⁵¹ “People usually don’t pay a price for a good or service that

⁴⁹ Fishman v. LaSalle National Bank, 247 F.3d 300, 302 (1st Cir. 2001).

⁵⁰ Posner, note 8 above, at § 4, pp. 91–96; for judicial illustrations, see Bidlack v. Wheelabrator Corp., 993 F.2d 603, 607 (7th Cir. 1992) (en banc); Market Street Associates Limited Partnership v. Frey, 941 F.2d 588, 594–96 (7th Cir. 1991); Argonaut Insurance Co. v. Town of Cloverdale, 699 F.2d 417, 420 (7th Cir. 1983). And recall my discussion of the *Alcoa* case.

⁵¹ United States v. National Steel Corp., 75 F.3d 1146, 1151 (7th Cir. 1996); see also Rhone-Poulenc Inc. v. International Insurance Co., 71 F.3d 1299, 1303 (7th Cir. 1995); *In re Kazmierczak*, 24 F.3d 1020, 1021 (7th Cir. 1994); *Kaiser-Francis Oil Co. v. Producer’s Gas*

is wildly in excess of its market value or sell a good or service...for a price hugely less than its market value.”⁵² More broadly, “An interpretation which sacrifices a major interest of one of the parties while furthering only a marginal interest of the other should be rejected in favor of an interpretation which sacrifices marginal interests of both parties in order to protect their major concerns.”⁵³

A closely related principle is that if it’s apparent, again without having to conduct a trial to resolve factual disagreements, that one of the rival interpretations proposed makes commercial nonsense, the interpretation will be rejected because it probably does not jibe with what the parties understood when they signed the contract.⁵⁴ “A contract will not be interpreted literally if doing so would produce absurd results, in the sense of results that the parties, presumed to be rational persons pursuing rational ends, are very unlikely to have agreed to seek.”⁵⁵

Notice how three of the four interpretive methods that I introduced in Part III—trying to determine the parties’ actual intentions, trying to figure out the efficient resolution of their dispute, and trying to confine interpretation to the words of the contract rather than dumping the interpretive issue in the lap of a jury—tend to merge in practice. It would be one thing to impose the efficient solution in the teeth of the parties’ agreement. That would be not only paternalistic, but reckless, because it would be rare that a judge or jury had a better sense of the conditions for an

Co., 870 F.2d 563, 566 (10th Cir. 1989); *Martin v. Vector Co.*, 498 F.2d 16, 25 (1st Cir. 1974).

⁵² *Hartford Fire Ins. Co. v. St. Paul Surplus Lines Insurance Co.*, 280 F.3d 744, 747 (7th Cir. 2002).

⁵³ *Sharon Steel Corp. v. Chase Manhattan Bank*, 691 F.2d 1039, 1051 (2d Cir. 1982). See also *Frigalment Importing Co. v. B.N.S. International Sales Corp.*, 190 F. Supp. 116 (S.D.N.Y. 1960) (Friendly, J.), and other cases cited in Farnsworth, note 4 above, vol. 2, § 7.11, p. 300 n. 23.

⁵⁴ *Dispatch Automation, Inc. v. Richards*, 280 F.3d 1116, 1119 (7th Cir. 2002); *Rhode Island Charities Trust v. Engelhard Corp.*, 267 F.3d 3, 7 (1st Cir. 2001).

⁵⁵ *Beanstalk Group, Inc. v. AM General Corp.*, 283 F.3d 856, 860 (7th Cir. 2002); see also *Nelson v. Schellpfeffer*, 656 N.W.2d 740, 743 (S. Dak. 2003); *Bohler-Uddeholm America, Inc. v. Ellwood Group, Inc.*, 247 F.3d 79, 96 (3d Cir. 2001).

efficient transaction than the parties themselves had. But often, when the parties' intentions are not readily inferable from the written contract, the best, the most cost-efficient, way to resolve their dispute is not to take testimony and conduct a trial but simply to use commercial or economic common sense to figure out how, in all likelihood, the parties would have provided for the contingency that has arisen had they foreseen it. It is a step beyond literalism but a small one that preserves many of the advantages of interpretive approach number 4.

An implication of this discussion is that the more the judge knows about the commercial context of a contract, the easier it will be for him to interpret it accurately without having to conduct a trial. (This implication might be testable empirically by comparing the time from filing to disposition of contract cases decided by judges who came to judging from a career in civil litigation compared to judges who had come to judging from a career in prosecution.) The experienced judge's expertise is a substitute for the evidence that would be necessary to bring an inexperienced judge up to the same level of knowledge.⁵⁶ This is a conventional argument for the superiority of commercial arbitrators to judges or jurors—that they are more knowledgeable about business and therefore more likely to interpret ambiguous contractual language correctly and (the point I am stressing) without having to put the parties to the expense of presenting testimonial and documentary evidence (other than the contract itself). There is some evidence that arbitration clauses are indeed more likely the less explicit the terms of a contract are,⁵⁷ though there is again a problem of the direction of causation—the terms may be less explicit because the parties have faith in the interpretive acumen of arbitrators.

Although I began this section of the paper by offering the “rule” of “extrinsic nonevidence” as a method of jury control, it is also a way of

⁵⁶ Katz, note 3 above, at 526.

⁵⁷ Christopher R. Drahozal and Keith N. Hylton, “The Economics of Litigation and Arbitration: An Application to Franchise Contracts,” 32 *Journal of Legal Studies* 549 (2003).

reducing legal error. Not that judges can't make mistakes in their appeal to common sense and simple economic principles; but if they refuse to look beyond the text, they are certain to make many errors. Because contracts can never be complete (I once had a case in which the contract was 2000 pages long—but did not cover the issue that the parties were litigating⁵⁸), there is always a possibility that the words chosen by the parties to describe their deal will make a mismatch with an unforeseen contingency that has arisen. What I am describing as the “rule” of extrinsic nonevidence, or the “best guess” approach, allows the judge to complete the contract in such a situation without subjecting the parties to the vagaries of trial by jury.

All this assumes that the judges have some minimum competence in understanding commercial dealings, and the assumption is not always justified; when it is not, literalism may be a superior approach after all. Williston and Corbin may not be inconsistent; they may simply have different domains. Formalism may be the correct approach not only when the judges are of dubious competence or honesty, as I suggested earlier, but also when, as in the European judiciaries (and those of most other countries as well, such as Japan), they are career judges with, therefore, less real-world experience than English and American judges, who generally become judges only after a career in practice. Judges in career judiciaries tend to be specialists—and their specialty may be contract law or even a subset of contract disputes, such as disputes arising from construction contracts—but it is an unanswered question how far specialization within a judicial career can substitute for experience as a practitioner.

A neglected point against formalism in legal systems in which the judges have some feel for commercial realities is that businessmen are not literalists. They do not have the lawyer's exaggerated respect for the written word and thus do not expect bizarre consequences to follow from mistakes in drafting. There is frequent conflict between lawyer and client over how

⁵⁸ S.A. Healy Co. v. Milwaukee Metropolitan Sewerage District, 50 F.3d 476 (7th Cir. 1995).

detailed a contract should be, the former pushing for the inclusion of endless protective clauses and the latter worrying that pressing for such clauses will not only protract negotiations and increase legal fees but also make him seem a sharpie and kill the deal. Better that the contract should be kept reasonably short and that if an unforeseen contingency arises it should be resolved in a commonsensical fashion. It is rather reassuring than otherwise to think that if one's contract should come to grief the court will straighten matters out in a "reasonable" way rather than by recourse to legal technicalities.⁵⁹ Businessman would, I am speculating, like judges to resolve interpretive issues the way a reasonable businessman would.

This is a conventional though, I have argued, probably a subordinate reason for the inclusion of arbitration clauses in many contracts. I have not heard it argued that a reason against including an arbitration clause is that judges are literalists. Arbitration can be resisted because of arbitrators' fees or their propensity to split the difference, but not I think because they are less literal-minded than some judges.

A related point is that most contracts are enforced not by threat of legal action but by the parties' concern for their commercial reputations. A person or firm that acquires a reputation for not honoring its contracts will find it difficult to find others willing to contract with it on favorable terms. If pragmatic judicial interpretation enables contracts to be short and simple, lay monitoring of compliance will be easier and therefore more effective.

D. Contra Proferentem

This is the traditional name of the doctrine that in cases of doubt an ambiguity in a contract should be resolved against the drafter of the contract. The doctrine is applied with particular vehemence in the case of insurance contracts, and I have defended this result on the ground that the insurance company is the superior bearer of the risk of noncoverage due to interpretive

⁵⁹ Benjamin N. Cardozo, *The Nature of the Judicial Process* 142–143 (1921).

uncertainty.⁶⁰ The problem with this defense, I now see, is that the risk in question cannot be quantified; and if an insurance company cannot attach a probability to a risk, it cannot calculate the correct premium to charge for bearing the risk.

The doctrine of *contra proferentem* may still be a sensible tie-breaker, on the ground that the party who drafted the contract was probably in the better position to avoid ambiguities, though this is not necessarily the case, since the other party might have more information concerning the particular contingency that gave rise to the legal dispute. But I no longer think that there is a satisfactory reason for applying the doctrine differently in insurance cases than in other contract cases.

VI. THE ANALYSIS FORMALIZED

Here I elaborate the simple formal model presented at the outset of this paper.

If x is the cost of writing and negotiation, p the probability of a legal dispute over the meaning of the contract, y the cost of litigation to the parties and z the cost to the judiciary, r the probability of erroneous judicial interpretation and e the social cost of an erroneous interpretation, then C , the cost of contracting, is given by

$$C = x(z) + \{p(x(z)) [y(x(z),z) + z(x(z),y) + r(x(z),y,z)e]\}. \quad (2)$$

The cost of negotiation and drafting, x , is incurred with probability 1; the remaining costs are incurred only if there is litigation, which has a probability of p . That probability is lower, the higher x is—the parties spend more time negotiating and drafting the contract, and the result should be a lower probability that a dispute over meaning will arise. The cost of the litigation itself (the expression in brackets) consists of the litigation costs incurred by the parties, y , which presumably is less the greater x and z are

⁶⁰ Posner, note 8 above, at 108.

(the contract will be clearer, and the court will wield the laboring oar); the cost to the judiciary of resolving the dispute, z , which presumably is smaller the higher x and y are (the more resources the parties devote both to making the contract clearer and to presenting evidence in support of their respective interpretations, the less burdensome the decision of the case will be for the court—maybe; I will question this assumption shortly); and the error cost, e , discounted by the probability (r) that it will be incurred.

Let me pause on error for a moment. It is important to distinguish between the distributive and the allocative aspect of a judicial error in interpreting a contract. Suppose that A sues B for breach of contract, and there really was a breach and A should have been awarded damages of \$1 million, but the court, incorrectly interpreting the contract, rules that there was no breach, and so A gets nothing. A has lost \$1 million, but B has gained the identical amount, so what is the *net* error cost? Is it anything more than the parties' litigation expenses? I think it is, even if neither party is risk averse (but of course one or both may be). For one thing, the possible outcomes may not be symmetrical; the judgment may impose greater costs on one party than the benefits conferred on the other, though in that event we would expect a corrective transaction—but it wouldn't be costless. For another thing, the more error-prone the courts are, the more each party will spend on x , in an effort to increase the probability that any error will be in its favor; so total expenditures at the first, the negotiation and drafting, stage of the transaction will rise. Or potential contracting parties may be driven to substitute another, less efficient method of regulating their relationship than contract. There may also be external costs if the institution of contracting is made more costly, since contracts affect other people and firms besides the parties to them.

The probability of error is lower the greater x , y , and z are—all are inputs into clarifying the true meaning of the contract. For simplicity, I assume that only the probability of an erroneous decision varies with these inputs. But the

size, and thus cost, of the error is likely to vary also. Expenditures on careful drafting and on litigating will not avert all errors but will probably avert the grossest ones, measured by consequences. If the true damages suffered by the victim of an alleged breach are \$1 million, the standard deviation is likely to be narrower the greater the investment in negotiating and drafting the contract and in litigating the legal dispute over its meaning. This point may help to explain the “middle of the road” propensity of arbitrators. Because they are not bound by the rules for interpreting contracts or subject to appellate review (there are no appellate arbitrators and judicial review of arbitration decisions is extremely limited), and therefore are operating with fewer constraints than courts, there is a potential risk of a high degree of unpredictability in arbitral decisions; that risk (the variance dimension, not the probability) is reduced if arbitral awards are truncated.

Even with this truncation, arbitration would be unlikely to be a popular method of resolving contract disputes if arbitrators were substantially more error prone than courts. Its popularity implies a substitution effect between legal rules and commercial knowledge. Judges in interpreting contracts are guided by rules, arbitrators by their knowledge of the commercial context. Perhaps, then, judges who know something about commercial matters commit the fewest errors in interpreting contracts. An interesting question to investigate empirically is whether lawyer arbitrators tend to have relevant commercial knowledge; if so this would support the suggestion that a combination of legal and commercial expertise is optimal for resolving a dispute over the meaning of a contract.

The probability of litigation, p , is critical to an understanding of why it is optimal for parties to allow ambiguities to remain in their contract. It might seem that the lower p was, the lower would be the expected cost of an adverse outcome to a lawsuit, and so the smaller would be the expected benefit of eliminating the need for such a suit by resolving the ambiguity in the contract itself. (This is related to but distinct from the earlier point about the

fallacy of disaggregation.) But this depends on *why* p is lower. If p is lower simply because a dispute over the particular contract term is unlikely (maybe the likelihood that the term will come into play during the life of the contract is slight), there is no problem. But if p is lower because x is higher, and the higher x has resulted in a reduction in z (the court is investing less care in litigation because the parties are drafting their contracts more carefully), then expected litigation costs, py , may rise. This seems unlikely, however, since y will fall as x increases, so the net effect of a simultaneous increase in x and decrease in z (which will cause an increase in y —the less the court invests in dispute resolution the more the parties will) is unlikely to be significant. In a commercial setting in which suits are rare, maybe because the existence of ongoing relationships among contracting parties both reduces the likelihood of disputes (the parties have a lot of information) and facilitates informal settlement of those disputes that do arise, we can expect contracts to be short, lack detail, and contain gaps and ambiguities.⁶¹

If p is exogenously high, the parties may be led to reduce the duration of their contract or defer providing for particular contingencies by “agreeing to agree” to resolve those contingencies in good faith if and when they arise.⁶²

Consider now the effect of raising z , that is, of a greater judicial investment in interpreting contracts to fulfill the parties’ expectations. The parties will be less careful in negotiating and drafting their contracts, so x will fall, resulting in a cost savings. At the same time, the probability of litigation, and hence the expected costs of litigation, will rise. The effect may be buffered by the fact that an increase in z will reduce y . But probably on balance litigation costs will rise, because any contract litigation will be more difficult to resolve, implying that the increase in z will not be fully offset by a

⁶¹ Other economic motives for leaving contracts vague, besides economizing on costs of negotiation and drafting, are discussed in George G. Triantis, “The Efficiency of Vague Contract Terms: A Response to the Schwartz-Scott Theory of U.C.C. Article 2,” 62 *Louisiana Law Review* 1066 (2002).

⁶² Oliver Hart and John Moore, “Agreeing Now to Agree Later: Contracts That Rule Out But Do Not Rule In” (Harvard University and Edinburgh University, May 2004).

reduction in y , the parties' expenditures on litigation, which is a substitute for z . Will the expected error costs of litigation be greater? Not necessarily, because more is being spent on each suit, so why should an error be more likely?

This tradeoff may seem to imply an aggressive role for the court as contract interpreter, as that would lower the cost of all contracts while probably increasing only slightly a litigation rate that is likely to be quite low. But this depends not only on the assumption that increasing z will not increase average litigation costs, but also on the existence of a competent and honest judiciary. The more competent and honest it is (and competence may be inverse to the use of lay juries), the less detail we can expect in contracts. John Langbein attributes the greater brevity of European compared to American contracts largely to the fact that contract cases in Europe are "decided by a trustworthy career judiciary whose members have been selected and promoted on criteria of ability, learning, and diligence."⁶³ Against this, however, is the concern one sometimes hears expressed by European lawyers that European judges, because as I pointed out earlier they do not come from practice as most U.S. judges do, lack a feel for commercial issues and in particular for the importance of prompt judicial resolution of contract cases.

While it seems highly likely that an increase in z will lead to a reduction in y (this is apparent from the fact that in the European legal systems the ratio of judges to lawyers is much higher than it is in Anglo-American legal systems), it is less clear that an increase in y will lead to a reduction in z . If the lawyers invest more effort in litigation, this may serve to clarify the issues but it may also multiply them and increase the number of witnesses and the amount of documentary evidence and lengthen the litigation—and by doing these things put more work on the judges. That is, y and z are likely to be complements as well as substitutes in systems such as that of the United States in which the control of the pace and scope of litigation is largely in the

⁶³ Langbein, note 21 above, at 386.

hands of the parties rather than the judges, and it is unclear which effect predominates in such a system. Increase in party litigation expenditures may thus increase the costs of resolving contract disputes indirectly by its effect on judicial effort as well as directly. But there should be at least some offset from the tendency of greater expenditures on litigation to reduce expected error costs.

A factor that influences several of the variables in the model is the dollar value of the transaction.⁶⁴ The greater that value, the likelier is litigation,⁶⁵ and also the greater the expenditures that the parties are likely to make in litigating. Those expenditures will tend to reduce the expected error costs of the litigation. But probably on balance the total expected litigation costs will be higher and this will increase the optimal expenditure of the parties on negotiation and drafting, resulting in longer, more carefully drafted contracts. As a result, there may be no net tendency for large contractual transactions to be more likely to be litigated than small ones. This is a counterintuitive implication of the analysis.

Let us consider the choice of x by the parties, for whom z is fixed. They wish to choose the level of care in negotiating and drafting their contract that will minimize the sum of their contractual drafting and negotiation costs $a(x)$, their litigation costs, $b(x)$, and their error costs (e); as before, I'll assume that error costs are unaffected by the level of care. Total costs are therefore

$$C = a(x) + p(x)[b(x) + e], \quad (3)$$

where $p(x)$ is again the probability of litigation, and is lower the greater the investment in care (x). Differentiating C with respect to x yields

$$dC/dx = da/dx + (dp/dx)[b(x) + e] + p(x)(db/dx). \quad (4)$$

⁶⁴ See the brief discussion in Battigalli and Maggi, note 2 above, at 808–809.

⁶⁵ This is a general implication of economic models of litigation. Posner, note 8 above, at 569.

Thus an increase in x increases the costs of negotiating and drafting the contract (the first expression on the right-hand side of equation (4)) but reduces the probability of litigation because the more carefully a contract is drafted, the less likely it is to give rise to a lawsuit. An increase in x reduces average litigation costs as well because db/dx in the third expression is negative (an increase in x reduces litigation costs because the contract is more carefully drafted) and because the middle expression is also smaller since dp/dx is negative.

Let me note finally an oversimplification that slants the analysis a bit too much toward an aggressive judicial role in contract interpretation. I have assumed that costs (transaction costs in a broad sense) are incurred at only two stages: the negotiation and drafting of the contract, and the legal dispute that propels the interpretive issue into court (or arbitration). But actually there is an intermediate stage. When a dispute over the contract's meaning arises, the parties will first try to resolve it themselves. They will do this not only because of the costs of litigation, but also because of the reputation factor that I discussed earlier: the party demonstrably in the wrong on the interpretive issue will hesitate to force the issue to litigation; he is likely to lose but in any event may acquire a reputation as someone who doesn't honor his commitments. The more carefully drafted the contract is, the easier it will be for the parties to resolve a dispute over its meaning when the dispute first arises, in other words at the prelitigation stage.

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